CATALOGUE

Flexible cable protection

Metallic & non-metallic systems for safeguarding electrical wiring in critical environments

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ABB Adaptaflex is a market-leading brand that can be found all over the world, offering flexible conduit systems. Over the last half a century, Adaptaflex has combined innovative design with dedicated manufacture, to offer customers one of the world's broadest ranges of cable protection solutions. With over 6000 products, including specialist metallic and non-metallic flexible conduit systems for the professional protection of cables, Adaptaflex can be used in critical power applications, data centers, equipment, buildings and infrastructures.

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Introduction
Company overview

Adaptaflex flexible conduit systems are used to protect critical power and data cabling. Established in 1972, Adaptaflex has developed into a leading player within the flexible conduit market.

Adaptaflex is a market-leading flexible conduit system brand that can be found all over the world. Combining innovative design with dedicated manufacture it offers customers one of the world's broadest ranges of cable protection products and solutions. With a choice of over 6000 products the range covers metallic and non-metallic flexible conduit systems for the protection of critical power and data cable.

The system solutions from Adaptaflex need to perform in a wide variety of environments, from high temperature to freezing conditions. The products are designed and tested to withstand constant vibrations, water ingress and offer corrosion and chemical resistance. Products are available in many different materials, including halogen free, low smoke and low toxicity materials. An extensive range of engineered solutions are designed to withstand the rigours of some of the most technically-demanding markets. So whatever your project involves, our experience will provide the answer, helping you to specify the correct flexible conduit system.

Markets and industries
Adaptaflex flexible conduit systems are used to protect critical power and data cabling throughout a wide range of markets including:

- Commercial contracting
- Machinery
- Rail/Infrastructure
- Marine
- Mechanical
- Security/CCTV
- Data cabling
- Critical power

Our products are designed and engineered to meet a variety of market application requirements, providing product innovation that saves installation and component costs, improves quality and delivers integrity in the end product.

Introduction
Quality approvals & third party testing

Quality approvals

The company's commitment to independent testing across a wide range of applications has led to an impressive range of certifications and quality approvals:

- BSI Kitemark
- BS EN ISO14001 Environmental standard
- IEC 61386 Conduit standard covering the performance characteristics of flexible conduits
- ISO 60529 IP69 Rated, standard with its Adaptalok range of non metallic fittings
- Offer non-metallic conduit that is fully compliant to the new dual listed UL 1696 standard. Required for any equipment destined for export to the USA and Canada
- The Hi-Spec PEEK range, designed for the most demanding electrical applications in rail infrastructure, underground and public buildings, is the only non-metallic flexible conduit system fully compliant with both BS 6853 Class 1A requirement and LUL engineering standard 1-085

Industry standards
As one of the world's leading flexible conduit system manufacturers, Adaptaflex has achieved many international approvals, for our manufacturing as well as our product ranges.

Adaptaflex are able to use our experience and knowledge to ensure safety and quality levels are maintained now and in the future.

Third party testing & approvals

IEC61386 Performance classification standard
Adaptaflex has achieved third party accreditation to the IEC61386 Standard from the British Standards Institution (BSI). IEC61386 conformance guarantees that products meet performance specifications for fatigue life, operating temperature, non-flame propagation, IP ratings amongst other criteria.

BSI Kitemark
Adaptaflex manufacture to third party accreditation through the BSI Kitemark scheme. The Kitemark is one of the world's premier symbols of trust, integrity and quality. Manufacturers with the Kitemark are an elite club of some of the world's best companies being annually tested to ensure continued compliance. Having the Kitemark associated with our products illustrates that we have satisfied the most rigorous of quality processes.

ISO9001 Quality standard
Adaptaflex conform to ISO 9001:2000, the internationally recognised standard for Quality Management Systems. This standard reflects the procedures and management processes throughout the whole of the company.

ISO14001 and ISO45001 Environmental standard
Adaptaflex solutions are designed with consideration for future recyclability and disposal with minimum impact on the environment at the end of product lifecycle. At present materials currently used for most of our conduits, fittings and accessories are recyclable if disposed of in line with current regulations, keeping the materials separate. Standard packaging materials are fully recyclable.

Customer support
All our products are backed up by a full technical support team, sales teams, customer care team and in-house marketing specialists. All dedicated teams working together to ensure that you have the best support in the market place.

Flexible metallic conduit systems
Introduction

Adaptaflex have a wide selection of metallic conduit systems manufactured either in galvanized or stainless steel.

A wide range of different types of conduit systems, offered in nominal conduit size from 3mm for CCTV/roller shutter doors and for protecting fiber optics cables, right up to 75mm for larger cable carrying capacity. Larger sizes are available on demand.

1. Liquidtight flexible metallic conduit systems
Covered by a liquidtight thermoplastic coating, with associated couplings, connectors and fittings for the installation of electric conductors. The right solution for especially demanding environments in terms of Ingress Protection rating. ABB Adaptaflex can boast the highest IP rated LFMC Systems in the market: IP66, IP67, IP68 (10 bar, 30 min), IP69.

2. Liquid-resistant flexible metallic conduit systems
Galvanised steel core, square-locked with thin wall convoluted thermoplastic cover. The solution for liquid resistant specifications. ABB Adaptaflex Liquid-resistant FMC Systems can assure Ingress Protection between IP54 and IP65.

3. Superflexible metallic conduit systems
Made by the helical coiling of a self-interlocked ribbed strip of galvanized steel or stainless steel, they're used primarily in dry areas where metallic strength to protect conductors is required; they can freely and highly flex, not maintaining any permanent bend.

4. Overbraided flexible metallic conduits systems
Stainless steel and galvanized steel overbraid give enhanced protection against abrasion, as well as offering additional mechanical protection against impact and compression. Suitable for applications calling for enhanced low fire hazard properties. High specification tinned copper over-braided solution are available for greater EMI screening protection levels.

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01 SPL Fitting
M Type (modular)
—
02 Single Piece
Fitting SAM Type

Conduit Fittings: our pride and joy!
Specifically designed to maintain high standard of system integrity: IP66, IP67, IP68 (10 bar, 30min), IP69. straight and 90° or 45° elbows, fixed and swivel fittings; a host of accessories includes locknuts, enlargers, reducers and converters. Available in nickel plated brass and stainless steel, for the higher level of protection against corrosion.

Locknut. Nickel plated brass or stainless steel. Hexagonal to allow correct torque application. Also available with NPT thread version.

Insulated Throat. It provides excellent wire protection and easier guide of conductors through and out of the fitting.

Body. Manufactured in machined nickel plated brass or 316 stainless steel. Available in Metric, NPT and PG threads. Hexagonal form allows controlled tightening, torque and effective attachment.

Insert. Manufactured in nickel plated brass. Easy and safe to assemble, ensuring full earth continuity. Insert allows swivel within the body to find the right positioning of the conduit system before tightening the nut onto the body. It can be used stand alone if any connection to panels or cabinets is required and a neat termination is preferred.

Seal. Made of TPV Elastomer, this material provides superior long term sealing performance at extremes of temperature, assuring the highest ingress protection ratings.

Nut. Manufactured in nickel plated brass or stainless steel for better corrosion protection. hexagonal form allows controlled tightening, torque and effective attachment.

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01

Single piece, liquidtight, high temperature, 316 stainless steel fitting suitable for food zone non-contact areas IP65, IP68 (10 bar, 30 min), IP69 protection multiple thread type Metric/NPT.

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02

Flexible non-metallic conduit systems Introduction

Adaptaflex have more than 20 different types of non-metallic conduit systems, all providing different technical properties for your cable management applications.

The popular and easy-to-fit Adaptalok system delivers a range of conduits and fittings, specifically designed to maintain system integrity. Fitting types are available in straight, 90°, 45°, with metric, PG, PF, & NPT threads.

We are proud of our best-in-class Adaptalok ATS™ fitting, a unique and innovative solution in flexible conduit systems.

Advantages of non-metallic:

- No corrosion
- Wide variety of fittings - much larger solution choice
- Quicker to install (cut & assemble fittings)
- Lighter in weight compared with metallics
- Better fatigue life
- No memory in case of impact (return to shape)

Most of our conduit systems have industry recognised approvals including British Kitemark, CE Approval, UL 1696, NF, LUL and DIN amongst others.

Flexible non-metallic conduit systems
Introduction to Adaptalok ATS™

Adaptalok ATS™ represents a unique and innovative solution in flexible conduit systems. Until now, manufacturers have produced fittings and seals separately, and assembled them together, or had the customer assemble them. This increases assembly time and introduces the possibility for errors.

Adaptalok ATS™ uses a sophisticated moulding process to mould an internal conduit seal and a face seal washer. This makes installation times very fast, and extremely reliable, because the seals cannot be left out. The conduit system also benefits from the highest IP rating possible.

Additional key features:
- Nylon 66 body
- Lighter in weight
- Quicker to install (cut & assemble fittings)
- Wide variety of fittings - much larger solution choice
- Better fatigue life
- Return to shape

Integral face seal washer
Guaranteed fit, cannot be lost or fitted incorrectly. No assembly.

High visibility elastomer
3 visible confirmation points.

Internal elastomer conduit seal
Guaranteed fit, cannot be lost or fitted incorrectly. No assembly & protects cables.

Visual fitting guides – Highly visible elastomer markings on lugs, aids correct fitment.

Conduit data – Conduit size clearly indicated on fitting.

Thread data – Thread size clearly indicated on fitting thread

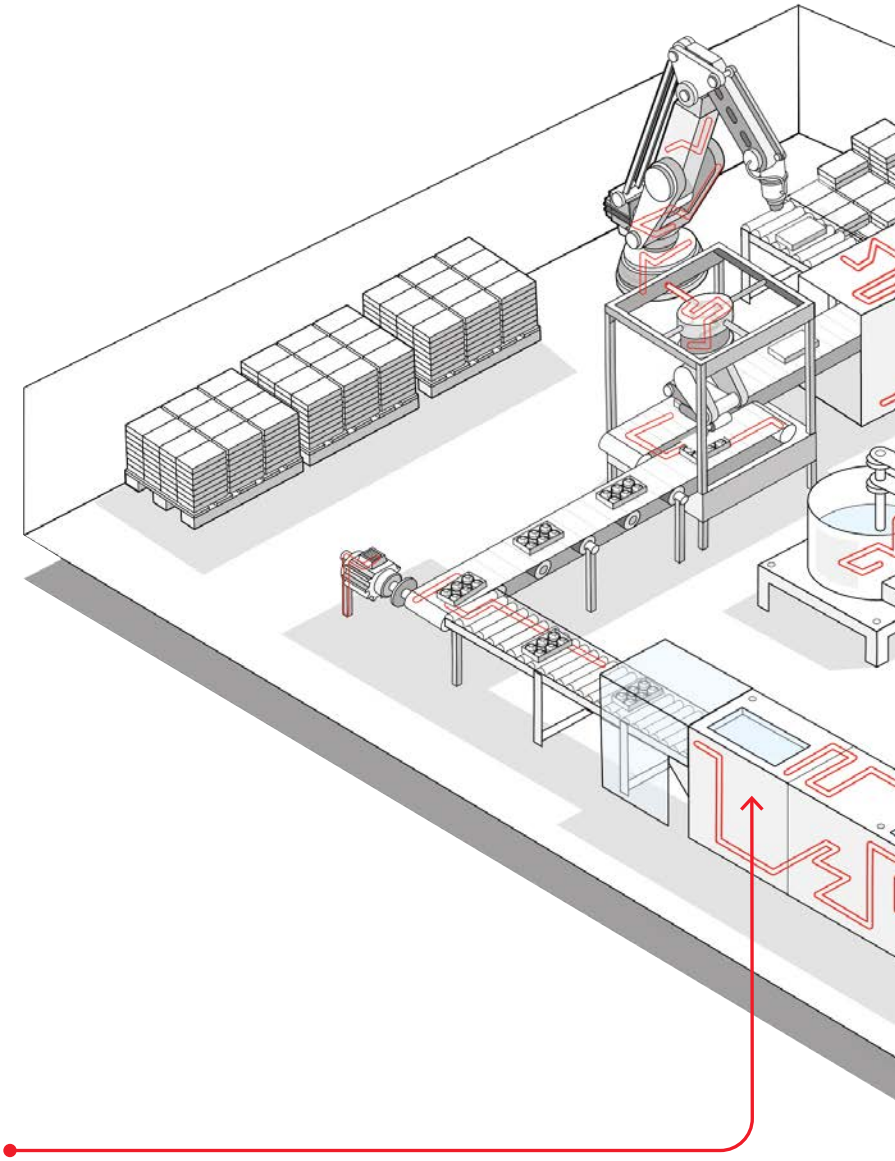
Proven clip design – Pitch independent, ensures secure fitment to coarse & fine pitch conduits.

Markets
Food, pharma and chemical

ABB Anti-microbial conduit systems are designed to protect complex processing equipment with sensitive electrical wiring systems, controls and automation. These solutions enable processors to increase revenue, plant sustainability, safety and brand equity.

Given the volume of mechanical process equipment involved in the food, pharma and chemical industries, combined with the shift towards increased automation through conveyor and feeder systems, there are often thousands of power and data cables that need to be protected. However, cable protection systems like conduits and fittings, can in themselves become a home for bacteria and pose a potential threat to safe processing.

The solution created with technology partner BioCote, is to integrate anti-microbial protection in to a new generation of liquidtight conduit. Featuring a smooth, FDA, EC and FSA compliant DuPont Hytrel® thermoplastic jacket, the conduit is complimented by an industry first, single piece liquidtight 316 stainless steel fitting. The new system poses a viable alternative to other types of conduit systems and is perfectly suited for the protection of processing equipment and surrounding process areas.



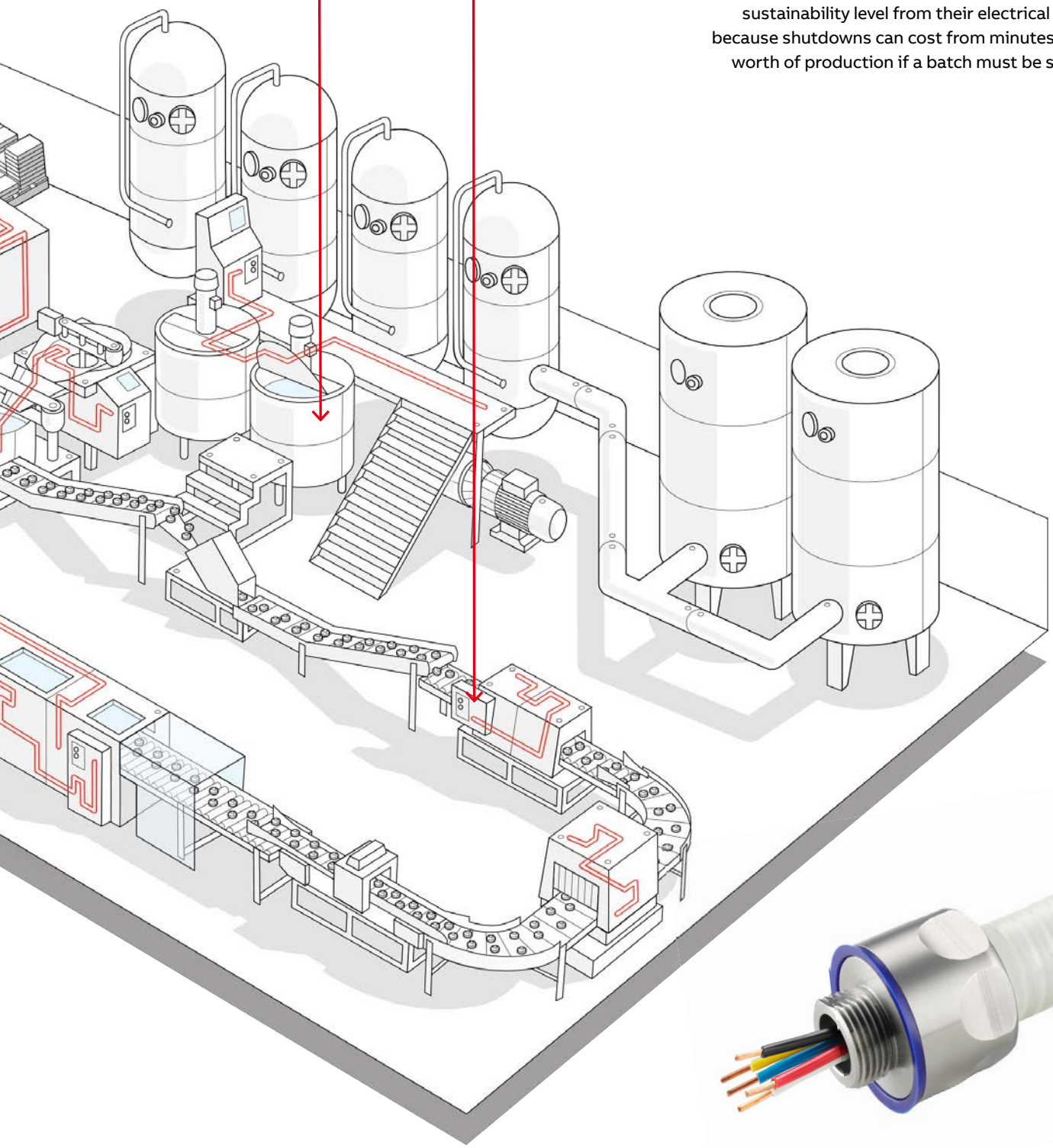
Internal wiring networks
The liquidtight nature of the system - up to IP69 - steel core, anti-microbial protection and new single piece stainless steel fitting, combine to protect power and data cables from within, allowing machinery to operate efficiently, safely, and hygienically, without compromising production and systems.

Corrosion resistant material

Food and beverage facility cleaning and sanitation crews often use high-pressure wash down cleaning equipment with high-temperature chemical solutions, with these processes in mind, ABB developed their food and beverage system using chemically resistant materials in their construction.

Control panels

Food and beverage processing plants require a high sustainability level from their electrical systems, because shutdowns can cost from minutes' to days' worth of production if a batch must be scrapped.



Markets
Construction and telecommunications

Overview
In these environments there are ever increasing demands not only for quicker and easier to install solutions, but also for increased safety and technical performances to meet the specific needs of municipal buildings. The ability to offer product ranges with enhanced low fire hazard properties for safety, or overbraiding for security and EMI shielding. Where exposed interiors call for design consideration, there is also a choice of conduit in different colours such as white, or different materials such as stainless steel to complement interior styling – Adaptaflex have a range to suit.

Typical applications:
- Office buildings
- Schools
- Hospitals (EMC)
- Retail developments
- Leisure complexes / Sports stadiums

Standards, approvals and certifications
Adaptaflex products are approved by a range of recognised industry standards including:
- BSI Kitemark to IEC61386
- CE marked to the Low Voltage Directive
- Fully compliant to BS7671 Wiring Regulations code of practice

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LOW VOLTAGE DIRECTIVE

Markets

Transport and rail infrastructure

Overview
For more than 30 years we have worked with the foremost manufacturers and suppliers of public transportation systems throughout the world. We understand not just the standards that you need to work to, but also the industry issues that you face including your customer service delivery expectations.

Our systems need to perform in a wide variety of environments - from extreme high temperatures to freezing subzero conditions. Our products can withstand constant vibrations, water ingress, offer corrosion resistance and are available in halogen free, low smoke and low toxicity materials. If your project involves rail stations, infrastructure, signalling, tunnels, surveillance or data and information systems our experience will provide the answer helping you to specify the correct flexible conduit system.

Typical applications:
- Infrastructure projects – stations, tunnels, signalling
- Low fire hazard systems
- Exposed locations
- High impact resistance, low temperature flexing
- EMC Protection for safety critical systems
- OEM packages

Standards, approvals and certifications
Adaptaflex products are approved by a range of recognised industry standards including:
- LUL 1-085
- NF F 16-101/102
- NFPA130
- Deutsche Bahn (DIN 5510)
- BS6853
- Siemens Transportation
- BSI Kitemark to IEC61386
- CE marked to the Low Voltage Directive
- EN 45545-2

Markets

Machine building OEMs and factory automation

Overview
This market is driven by the needs to meet the best in lean manufacturing. To achieve this every piece of equipment in this sector is pushed for greater efficiency by working more intensely and faster. As a result any conduit installed in these applications will need to provide excellent mechanical strength, flexibility and abrasion resistance, in order to supply the best possible solution to provide protection along the entire length of all the moving parts.

In this hardworking environment of both dynamic and static applications, it is essential that any cable management products continue to deliver performance in areas where resistance to oils and chemicals is paramount. Any downtime in manufacturing can be very costly so products that can offer high ingress protection are fundamental - Adaptaflex can offer a wide range of solutions to meet all of these needs.

Typical applications:
- Metal cutting and fabrication
- Milling machines
- Hoists
- Cranes
- Lifts
- Escalators

Standards, approvals and certifications
Adaptaflex products are approved by a range of recognised industry standards including:
- BSI Kitemark to IEC61386
- CE marked to the Low Voltage Directive
- Fully compliant to BS7671 Wiring Regulations code of practice
- UL/UR
- CSA

Markets

Power, energy and renewables

Overview
Adaptaflex offers a range of products suited for this market, providing abrasion, impact and corrosion resistance and ingress protection. Additionally, Adaptaflex offers a range of high specification systems, including braided EMI screen options.

Adaptaflex Applications Engineers offer a breadth of experience gained internationally across all different market sectors. A bespoke design service and expert technical knowledge guarantees that Adaptaflex will find the perfect product solution for your application.

Standards, approvals and certifications
Adaptaflex products are approved by a range of recognised industry standards including:

- BSI Kitemark to IEC61386
- CE marked to the Low Voltage Directive
- Fully compliant to BS7671 Wiring Regulations code of practice
- UL/CSA
- UR

Markets
Marine industry

Overview
Safety and reliability are vital considerations within one of the harshest operational environments to be found. Products specified and installed within this sector have to face the particularly damaging effects from the wind, wave and salt spray conditions in exposed areas. Whilst this demands for the most robust of products, it also calls for solutions where vibration and temperature extremes add to the challenge.

Adaptaflex offer a broad range of solutions to suit this sector, with system properties that include resistance to abrasion, impact, corrosion and chemicals, as well as long service life and low fire hazard properties. Utilising Adaptalok sealing systems also offers ingress protection, particularly valuable in pressure washing applications, with our specialist insert seal raising the IP66 to IP67/68/69.

Typical applications:
- Ship/Boat engine rooms
- Ship and dock yards
- Leisure boats and cruisers
- Marina developments
- Ocean-going craft

Standards, approvals and certifications
Adaptaflex products are approved by a range of recognised industry standards including:
- UR
- BSI Kitemark to IEC61386
- CE marked to the Low Voltage Directive

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LOW VOLTAGE DIRECTIVE

Adaptaflex flexible metallic conduit systems

Systems part number codes structure

For part number explanation only, not to be used as a configuration tool.

SPL **32** / **BL** / **25** **M**

Series name
(e.g.: SPL)

Colors

Black	**BL**
Orange	**OR**
Gray	**GR**
Blue	**BU**

Coil length

Unit of measure Code

Meters	**M**
Feet	**FT**

Nominal conduit sizes

NC	BS EN	UL	CSA
10	10mm	¼"	–
12	12mm	3/16"	–
16	16mm	⅜"	12mm
20	20mm	½"	16mm
25	25mm	¾"	21mm
32	32mm	1"	27mm
40	40mm	1 ¼"	35mm
50	50mm	1 ½"	41mm
63	63mm	2"	53mm
70	70mm	2 ½"	63mm
80	80mm	3"	78mm
100	100mm	4"	103mm

Adaptaflex flexible non-metallic conduits

Systems part number codes structure

For part number explanation only, not to be used as a configuration tool.

PKFS **21** / **BL** / **25** **M**

Series name
(e.g.: PAFS, PKFS, PRCS)

Colors

Black	**BL**
Orange	**OR**
Gray	**GR**
Blue	**BU**

Coil length*

Unit of measure Code

Meters	**M**
Feet	

Nominal conduit sizes

NC (mm)	**NW corresponding sizes (mm)**
10	7.5
13	10
16	13
21	17
28	23
28	23
34	29
34	29
42	36
54	48
80	70
106	95

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Products variations are available on request, subject to MOQ .

Liquidtight flexible metallic conduit systems

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32 Extreme Temperature Liquidtight flexible metallic conduit systems

34 Oil Resistant Liquidtight flexible metallic conduit systems

36 UL and CSA Listed liquidtight conduit systems

44 Braided liquidtight flexible metallic conduit systems

Liquidtight flexible metallic conduit systems

Quick selection guide

Quick selection guide

Conduit type	Type SSAMHL	Type SAMHURL	Type SAMHL	Type SPL-EF	Type LFH-SPL
Part number	**SSAMHL**	**SAMHURL**	**SAMHL**	**SPL-EF**	**LFH-SPL**
Conduit material	Stainless steel	Galvanised steel	Galvanised steel	Galvanised steel	Galvanised steel
Covering/overbraid	Thermoplastic jacket	Thermoplastic jacket	Thermoplastic jacket	Low fire hazard jacket	Low fire hazard jacket
	Anti-microbial and Hygienic			Low Smoke and Zero Halogen	
				New EMI Screen version available pages 24 & 25	
Conduit colour					
Black (BL)	–	–	–	■	■
Grey (GR)	–	–	–	–	–
White (W)	■	■	■	–	–
IP rating (with appropriate fitting)					
IP40	–	–	–	–	–
IP54	–	■	■	■	■
IP65	■	■	■	■	■
IP66	■	■	■	■	■
IP67	■	■	■	■	■
IP68	■	■	■	■	■
IP69	■	■	■	■	■

Characteristics

Temperature range					
Static applications (°C)	-50 to +130	-50 to +130	-50 to +130	-40 to +105	-20 to +90
Moving applications (°C)	-5 to +150	-5 to +150	-5 to +150	-30 to +105	-5 to +105
UV resistance	–	–	–	Very high	High
Flexibility	High	High	High	Very high	Medium
Fatigue life	High	High	High	High	Medium
Low fire hazard	–	–	–	Enhanced	Enhanced
Halogen free	–	–	–	■	■
Self extinguishing	–	–	–	■	■
EMI screen	–	–	–	–	–
High mechanical strength	–	–	–	■	■
High abrasion resistance	–	–	–	–	–
Approvals					
BSI Kitemark	■	■	■	■	■
CE	■	■	■	■	■
UL / CSA	–	–	–	–	–
UR	–	■	–	–	–
DIN 5510-2	–	–	–	–	–
NF F	–	–	–	–	■
LUL 1-085	–	–	–	–	■
UNI CEI 11170	–	–	–	–	–
EN45545-2 to HL3	–	–	–	■	■
Page No.	24	26	25	30	31

Type SSPLHC	Type SPLHC	Type SPUL	Type SSPL	Type SPL	Type SPLHCB
SSPLHC	**SPLHC**	**SPUL**	**SSPL**	**SPL**	**SPLHCB**
Stainless steel	Galvanised steel	Galvanised steel	Stainless steel	Galvanised steel	Galvanised steel
Thermoplastic rubber	Thermoplastic rubber	PVC	PVC	PVC	Thermoplastic rubber & stainless steel
Extreme High and Low Temperature		UL listed	Oil and Chemical Resistant		EMI Screen
■	■	–	■	■	–
–	–	■	■	■	–
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	–
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■
-65 to +135	-65 to +135	-20 to +75	-20 to +105	-20 to +105	-65 to +135
-45 to +150	-45 to +150	-5 to +105	-5 to +105	-5 to +105	-45 to +150
Very high	Very high	High	Very high	Very high	Very high
Very high	Very high	Medium	Medium	Medium	High
High	High	Medium	Medium	Medium	Medium
–	–	–	–	–	–
■	■	–	–	–	■
■	■	■	■	■	■
–	–	–	–	–	Standard
■	■	■	■	■	■
–	–	–	–	–	■
■	■	■	■	■	–
■	■	■	■	■	■
–	–	■	–	–	–
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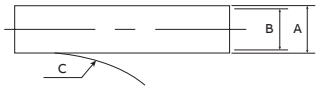
–	–	–	–	–	–
32	33	36	34	35	44

Anti-microbial liquidtight conduit systems

Type SSAMHL conduit

Type SSAMHL

Anti-microbial liquidtight, high temperature, flexible conduit /
Materials: Stainless steel, FDA, EC and FSA compliant DuPont Hytrel® thermoplastic jacket



Part no.	Metric conduit size (mm)	US conduit size (Trade size)	Outside diameter A (mm)	Inside diameter B (mm)	Bend radius C (mm)	Reel length (m)
SSAMHL16/25M	16	⅜”	17.8	12.5	50	25
SSAMHL20/25M	20	½”	21.1	15.9	80	25
SSAMHL25/25M	25	¾”	26.4	21.0	110	25
SSAMHL32/25M	32	1”	33.1	26.4	144	25
SSAMHL40/10M	40	1 ¼”	41.8	35.3	180	10
SSAMHL50/10M	50	1 ½”	47.7	40.4	240	10
SSAMHL63/10M	63	2”	60.0	51.6	345	10

Part number example: SSAMHL20/25M, blue version SSAMHL20/BU/25M. For conduit support use part number example SSPC20
High corrosion & chemical resistance. Suitable for food zone non-contact areas
Note[1]: Conduit is fully cleanable and will maintain full ingress protection under normal wet cleaning conditions with associated fittings
Note[2]: The anti-microbial additive containing inert ionic silver provides protection to the conduit against bacteria and other microbes

Approvals

KM35161

NSF 14159-1-2014
NSF 169-2009

IP rating	Appropriate fitting
For use with: Type SPL, SSPL and SAM	
IP66	Type M, C45 & C90
IP67	Type A, B, M, C45 & C90
IP68	Type M, C45 & C90 (10 bar 30mins)
IP69	Type M, C45 & C90

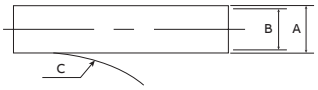
Temperature range	UV resistance
Static applications: -50°C to +130°C	–
Moving applications: -5°C to +150°C	

Anti-microbial liquidtight conduit systems

Type SAMHL conduit

Type SAMHL

Anti-microbial liquidtight, high temperature, flexible conduit /
Materials: Galvanised steel, FDA, EC and FSA compliant DuPont Hytrel® thermoplastic jacket



Part no.	Metric conduit size (mm)	US conduit size (Trade size)	Outside diameter A (mm)	Inside diameter B (mm)	Bend radius C (mm)	Reel length (m)
SAMHL16/25M	16	⅜”	17.8	12.5	50	25
SAMHL20/25M	20	½”	21.1	15.9	80	25
SAMHL25/25M	25	¾”	26.4	21.0	110	25
SAMHL32/25M	32	1”	33.1	26.4	144	25
SAMHL40/25M	40	1 ¼”	41.8	35.3	180	25
SAMHL50/25M	50	1 ½”	47.7	40.4	240	25
SAMHL63/25M	63	2”	60.0	51.6	345	25

Part number example: SAMHL20/50M, blue version SAMHL20/BU/50M. For conduit support use part number example SSPC20
High corrosion & chemical resistance. Suitable for food zone non-contact areas
Note[1]: Conduit is fully cleanable and will maintain full ingress protection under normal wet cleaning conditions with associated fittings
Note[2]: The anti-microbial additive containing inert ionic silver provides protection to the conduit against bacteria and other microbes

Approvals

KM35161 LOW VOLTAGE DIRECTIVE NSF COMPLIANT

NSF 14159-1-2014
NSF 169-2009

IP rating	Appropriate fitting
For use with: Type SPL, SSPL and SAM	
IP66	Type M, C45 & C90
IP67	Type A, B, M, C45 & C90
IP68	Type M, C45 & C90 (10 bar 30mins)
IP69	Type M, C45 & C90

Temperature range
Static applications: -50°C to +130°C
Moving applications: -5°C to +150°C
Flexibility & fatigue life
High flexibility - High fatigue life
Fire Performance & EMI Screen
Self extinguishing

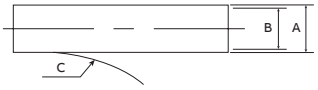
UV resistance
–

Anti-microbial liquidtight conduit systems

Type SAMHURL conduit

Type SAMHURL

Anti-microbial liquidtight, high temperature, flexible conduit /
Materials: Galvanised steel, FDA, EC and FSA compliant DuPont Hytrel® thermoplastic jacket



Part no.	Metric conduit size (mm)	US conduit size (Trade size)	Outside diameter A (mm)	Inside diameter B (mm)	Bend radius C (mm)	Reel length (feet)
SAMHURL16/100FT	16	⅜”	17.8	12.5	50	100
SAMHURL20/100FT	20	½”	21.1	15.9	80	100
SAMHURL25/100FT	25	¾”	26.4	21.0	110	100
SAMHURL32/100FT	32	1”	33.1	26.4	144	100
SAMHURL40/50FT	40	1 ¼”	41.8	35.3	180	50
SAMHURL50/50FT	50	1 ½”	47.7	40.4	240	50
SAMHURL63/50FT	63	2”	60.0	51.6	345	50

Part number example: SAMHURL20/50FT, blue version SAMHURL20/BU/50FT. For conduit support use part number example SSPC20
High corrosion & chemical resistance. Suitable for food zone non-contact areas
Note[1]: Conduit is fully cleanable and will maintain full ingress protection under normal wet cleaning conditions with associated fittings
Note[2]: The anti-microbial additive containing inert ionic silver provides protection to the conduit against bacteria and other microbes

Approvals

KM35161

NSF 14159-1-2014
NSF 169-2009

UR File No. E135398

IP rating	Appropriate fitting
For use with: Type SPL, SSPL and SAM	
IP66	Type M, C45 & C90
IP67	Type A, B, M, C45 & C90
IP68	Type M, C45 & C90 (10 bar 30mins)
IP69	Type M, C45 & C90

Temperature range
Static applications: -50°C to +130°C
Moving applications: -5°C to +150°C
Flexibility & fatigue life
High flexibility - High fatigue life
Fire Performance & EMI Screen
Self extinguishing

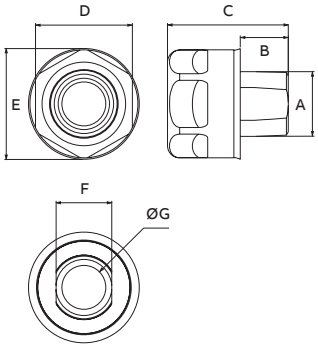
UV resistance
–

Single piece stainless steel liquidtight fitting

Type SAM fitting

Type SAM

Single piece, liquidtight, high temperature fitting / Materials: Stainless steel



		Conduit size (A)					Nominal dimensions (mm)	
	Part no.	Metric (mm)	US (Trade size)	B	C	D	E	F	G
	Metric								
	SPL16/M16/SAM	16	⅜”	12.0	32.8	30.0	31.9	14.0	10.5
	SPL20/M20/SAM	20	½”	12.0	35.6	32.0	35.0	18.0	14.5
	SPL25/M25/SAM	25	¾”	12.0	43.0	38.0	41.0	23.0	18.3
	SPL32/M32/SAM	32	1”	12.0	51.5	45.0	49.0	30.0	24.1
	SPL40/M40/SAM	40	1 ¼”	12.0	53.3	57.0	61.5	38.0	32.7
	SPL50/M50/SAM	50	1 ½”	12.0	60.2	64.0	69.0	48.0	37.7
	SPL63/M63/SAM*	63	2”	12.0	71.4	80.0	87.0	61.0	49.0
	NPT								
	SPL16/038/SAM	16	⅜”	9.9	36.9	30.0	33.2	14.0	10.5
	SPL20/050/SAM	20	½”	13.1	40.3	32.0	36.3	19.0	14.5
	SPL25/075/SAM	25	¾”	13.6	43.5	38.0	45.7	23.0	18.3
	SPL32/100/SAM	32	1”	16.6	53.7	45.0	50.3	30.0	24.1
	SPL40/125/SAM	40	1 ¼”	17.3	55.9	57.0	63.4	39.0	32.7
	SPL50/150/SAM	50	1 ½”	17.7	60.4	64.0	70.9	45.5	37.7
	SPL63/200/SAM*	63	2”	18.5	68.6	80.0	88.9	57.0	49.0

* : Currently does not conform to UL514b
Note[1]: A flat surface greater than diameter “E” is required around the knockout on the box or enclosure for the face seal of the NPT fitting to create a liquidtight seal. (The NPT threads alone will not provide a liquidtight seal when installed in a female NPT hub)
Note[2]: Parts are maintenance free, face seal can be replaced if damaged
Note[3]: Parts are fully cleanable and will maintain full ingress protection under normal wet cleaning conditions
Very high corrosion resistance, chemical resistance and fatigue life

Approvals

KM35161 TO BS EN 61386
LOW VOLTAGE DIRECTIVE
NSF 14159-1-2014
NSF 169-2009

UL514b
File No. E60625

IP rating

For use with: All liquidtight conduit

IP66	Yes
IP68	Yes (10 bar 30mins)
IP69	Yes

Temperature range

Static applications: -50°C to +130°C

Moving applications: -5°C to +150°C

Flexibility & fatigue life

High flexibility - High fatigue life

Fire Performance & EMI Screen

Self extinguishing

UV resistance

–

Enhanced fire performance EMI/EMC Screen liquidtight conduit systems

Type EMIEF-SPL conduit

The EMIEF-SPL conduit systems are Enhanced Fire Performance rated, highly flexible, liquidtight with a wide temperature operating range. Designed to meet the demand for 'interoperability' and compliance with stringent local and European fire safety requirements in the rail infrastructure market, the EMIEF-SPL system, is accredited with the EN45545-2 standard achieving the highest HL3 fire performance rating for both interior and exterior locations.

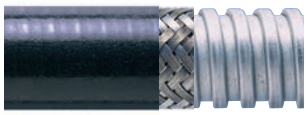
The system provides higher performance levels of flexibility, impact and abrasion resistance, combined with enhanced chemical resistances especially to oils and greases, with a much higher and lower temperature rating (-40°C to +105°C), than any other metallic conduit system with a EN45545-2 HL3 rating. Providing outstanding performance for Surface Flammability, Smoke Generation Rate and Toxic Gas Generation, according to ASTM E 162, ASTM E 662 and Bombardier SMP 800-C testing procedures, covering fire safety requirements worldwide. Plus, thanks to its internal braiding, it is the outstanding solution where low smoke and toxicity are of concern and EMI/EMC screening is required.

Advantages include:

- EN45545-2 and BS EN 61386-1 & 23 accreditation
- HL3 - R22 & R23 rating
- Up to IP69 rating
- High flexibility
- Oil and hydrocarbons resistant
- Suitable for any buildings & infrastructure where low smoke, low toxicity and EMI screening is required, wide use underground and in any part of train vehicles and infrastructure
- EMI/EMC screening

Type EMIEF-SPL

Enhanced fire performance, under-braided, covered steel flexible conduit /Materials: Galvanised steel core, string packing up to 32mm, interlocked core 40mm and above with galvanised steel overbraid; Low fire hazard jacket



Part no.	Nominal conduit size (mm)	Outside diameter (mm)	US conduit size (in)	Outside diameter (mm)	Inside diameter (mm)	Coil length (m)
EMIEF-SPL16/25M	16	12	⅜	17.9	12.3	100
EMIEF-SPL20/25M	20	16	½	21.3	15.8	120
EMIEF-SPL25/25M	25	21	¾	26.5	20.8	140
EMIEF-SPL32/25M	32	27	1	33.2	26.5	180
EMIEF-SPL40/10M	40	35	1 ¼	42.0	35.0	230
EMIEF-SPL50/10M	50	41	1 ½	48.0	40.0	260
EMIEF-SPL63/10M	63	53	2	60.5	51.3	330

Part number example: To order quote part number, colour & conduit coil length, e.g. EMIEF-SPL16/BL/25m.

Approvals

KM35161 CE LOW VOLTAGE DIRECTIVE NF NFPA

EN45545-2 HL3 - R22 & R23
ASTM E 162
ASTM E 662
Bombardier SMP 800-C

IP rating	Appropriate fitting
For use with: Type SPL, SSPL	
IP66	Type M, C45 & C90
IP67	Type A, B, M, C45 & C90
IP68	Type M, C45 & C90 (10 bar 30mins)
IP69	Type M, C45 & C90

Temperature range

Static applications: -40°C to +105°C
Moving applications: -30°C to +105°C

Flexibility & fatigue life

Very high flexibility – High fatigue life

Fire performance & EMI screen

Self extinguishing
Halogen free

UV resistance

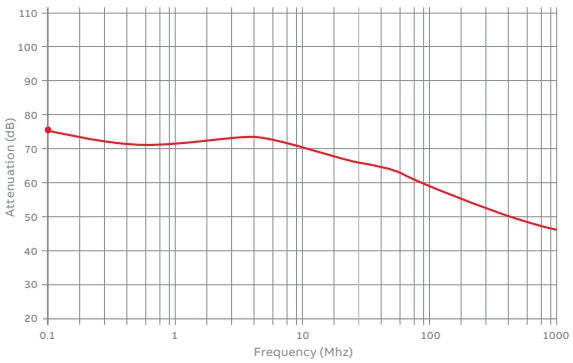
Very high

The graph shows the results of EMIEF-SPL screened conduit, with its appropriate fittings.

The conduit is tested by ERA technology, to IEC 1196-1 Transfer Impedance.

Tests measured attenuation in decibels (dB) over the frequency range covered by the EMC directive, 100 kHz to 1 GHz.

Transfer Impedance was extrapolated to per metre transfer impedance and converted to give a shielding effectiveness, demonstrated by the graph.



Low Fire Hazard EMI/EMC Screen liquidtight conduit systems

Type EMILFH-SPL conduit

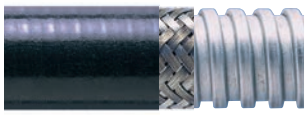
The EMILFH-SPL conduit systems are a Low Fire Hazard Performance rated, flexible, liquidtight range. Designed to meet the demand for 'interoperability' and compliance with stringent local and European fire safety requirements in the rail infrastructure market, the EMILFH-SPL system, is accredited with the EN45545-2 standard achieving the highest HL3 fire performance rating for both interior and exterior locations. The system provides high performance levels of UV resistance working in a temperature range of (-20°C to +90°C). Providing outstanding performance for Surface Flammability, Smoke Generation Rate and Toxic Gas Generation, according to ASTM E 162, ASTM E 662 and Bombardier SMP 800-C testing procedures, covering fire safety requirements worldwide, thanks to its internal braiding, it is a very good solution where low smoke and toxicity are of concern and EMI/EMC screening is required.

Advantages include:

- EN45545-2 and BS EN 61386-1 & 23 accreditation
- HL3 - R22 & R23 rating
- Up to IP69 rating
- Medium flexibility
- Suitable for Any buildings & infrastructure where low smoke, low toxicity and EMI screening is required, wide use underground and in any part of train vehicles and infrastructure
- EMI/EMC screening

Type EMILFH-SPL

Low fire hazard performance, under-braided, covered steel flexible conduit /Materials: Galvanised steel core, string packing up to 32mm, Interlocked core 40mm and above with galvanised steel overbraid; Low fire hazard jacket



Part no.	Nominal conduit size (mm)	Outside diameter (mm)	US conduit size (in)	Outside diameter (mm)	Inside diameter (mm)	Coil length (m)
EMILFH-SPL16/25M	16	12	⅜	17.9	12.3	110
EMILFH-SPL20/25M	20	16	½	21.3	15.8	130
EMILFH-SPL25/25M	25	21	¾	26.5	20.8	160
EMILFH-SPL32/25M	32	27	1	33.2	26.5	200
EMILFH-SPL40/10M	40	35	1 ¼	42.0	35.0	250
EMILFH-SPL50/10M	50	41	1 ½	48.0	40.0	290
EMILFH-SPL63/10M	63	53	2	60.5	51.3	360

Part number example: To order quote part number, colour & conduit coil length, e.g. EMIEF-SPL16/BL/25m.

Approvals

KM35161

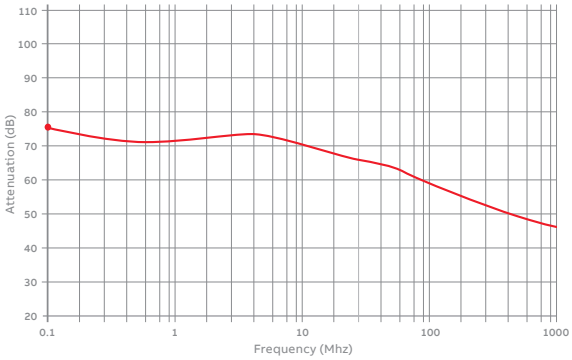
EN45545-2 HL3 - R22 & R23
ASTM E 162
ASTM E 662
Bombardier SMP 800-C

IP rating	Appropriate fitting
For use with: Type SPL, SSPL and SAM	
IP66	Type M, C45 & C90
IP67	Type A, B, M, C45 & C90
IP68	Type M, C45 & C90 (10 bar 30mins)
IP69	Type M, C45 & C90

Temperature range
Static applications: -20oC to +90oC
Moving applications: --5oC to +105oC
Flexibility & fatigue life
Medium flexibility – Medium fatigue life
Fire performance & EMI screen
Self extinguishing
Halogen free

UV resistance
High

—
The graph shows the results of EMILFH-SPL screened conduit, with its appropriate fittings.
—
The conduit is testedby ERA technology, to IEC 1196-1 Transfer Impedance.
—
Tests measured attenuation in decibels (dB) over the frequency range covered by the EMC directive, 100 kHz to 1 GHz.
—
Transfer Impedance was extrapolated to per metre transfer impedance and converted to give a shielding effectiveness, demonstrated by the graph.

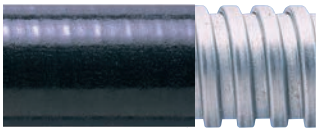


Enhanced Fire Performance liquidtight conduit systems

Type SPL-EF conduit

Type SPL-EF

Enhanced fire performance covered steel flexible conduit / Materials: Low fire hazard jacket covered galvanised steel / Colour: Black (BL) only



Part no.	Nominal conduit size (mm)	Outside diameter (mm)	US conduit size (in)	Inside diameter (mm)	Min. bend radius (mm)	Coil length (m)
SPL-EF12/10M	12	14.2	5/16	10.0	45	10
SPL-EF16/10M	16	17.8	3/8	12.5	50	10
SPL-EF20/25M	20	21.1	1/2	15.9	80	25
SPL-EF25/25M	25	26.4	3/4	21.0	110	25
SPL-EF32/25M	32	33.1	1	26.4	145	25
SPL-EF40/10M	40	41.8	1 1/4	35.3	180	10
SPL-EF50/10M	50	47.7	1 1/2	40.4	240	10

If interested in different coil lengths, do not hesitate to inquire

Approvals

KM35161

EN45545-2 HL3 - R22 & R23
ASTM E 162
ASTM E 662
Bombardier SMP 800-C

IP rating	Appropriate fitting
For use with: Type SPL, SSPL and SAM	
IP66	Type M, C45 & C90
IP67	Type A, B, M, C45 & C90
IP68	Type M, C45 & C90 (10 bar 30mins)
IP69	Type M, C45 & C90

Temperature range

Static applications: -40°C to +105°C
Moving applications: -30°C to +105°C

Flexibility & fatigue life

Very high flexibility – High fatigue life

Fire performance & EMI screen

Self extinguishing
Halogen free

UV resistance

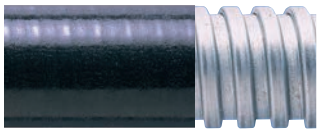
Very high

Low Fire Hazard liquidtight conduit systems

Type LFH-SPL conduit

Type LFH-SPL

Low fire hazard performance covered steel flexible conduit / Materials: Low fire hazard jacket covered galvanised steel / Colour: Black (BL) only



Part no.	Nominal conduit size (mm)	Outside diameter (mm)	US conduit size (in)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
LFH-SPL16/10M	16	17.8	⅜	12.5	50	10
LFH-SPL20/25M	20	21.1	½	16.0	80	25
LFH-SPL25/25M	25	26.4	¾	21.0	110	25
LFH-SPL32/25M	32	33.1	1	26.4	145	25
LFH-SPL40/10M	40	41.8	1 ¼	35.3	180	10
LFH-SPL50/10M	50	47.7	1 ½	40.4	240	10
LFH-SPL63/10M	63	60.0	2	51.6	345	10

If interested in different coil lengths, do not hesitate to inquire

Approvals

NSF 14159-1-2014
NSF 169-2009

EN45545-2 HL3 - R22 & R23
ASTM E 162
ASTM E 662
Bombardier SMP 800-C

IP rating	Appropriate fitting
For use with: Type SPL, SSPL and SAM	
IP66	Type M, C45 & C90
IP67	Type A, B, M, C45 & C90
IP68	Type M, C45 & C90 (10 bar 30mins)
IP69	Type M, C45 & C90

Temperature range
Static applications: -20°C to +90°C
Moving applications: -5°C to +105°C
Flexibility & fatigue life
Medium flexibility – Medium fatigue life
Fire performance & EMI screen
Self extinguishing
Halogen free

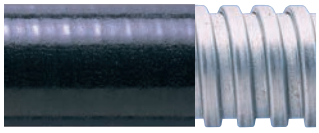
UV resistance
High

Extreme Temperature 316SS liquidtight conduit systems

Type SSPLHC conduit

Type SSPLHC

Liquidtight extreme temperature covered 316 stainless steel flexible conduit / Materials: Thermoplastic rubber covered 316 stainless steel / Colour: Black (BL) only



Part no.	Nominal conduit size (mm)	Outside diameter (mm)	US conduit size (in)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
SSPLHC16/25M	16	17.8	⅜	12.5	50	25
SSPLHC20/25M	20	21.1	½	15.9	80	25
SSPLHC25/25M	25	26.4	¾	21.0	110	25
SSPLHC32/25M	32	33.1	1	26.7	145	25
SSPLHC40/25M	40	41.8	1 ¼	35.3	180	25
SSPLHC50/10M	50	47.7	1 ½	40.4	240	10
SSPLHC63/10M	63	59.5	2	51.3	345	10

If interested in different coil lengths, do not hesitate to inquire

Approvals

KM35161

IP rating	Appropriate fitting
For use with: Type SPL, SSPL and SAM	
IP66	Type M, C45 & C90
IP67	Type A, B, M, C45 & C90
IP68	Type M, C45 & C90 (10 bar 30mins)
IP69	Type M, C45 & C90

Temperature range
Static applications: -65°C to +135°C
Moving applications: -45°C to +150°C
Flexibility & fatigue life
Very high flexibility – High fatigue life
Fire performance & EMI screen
Self extinguishing
Halogen free

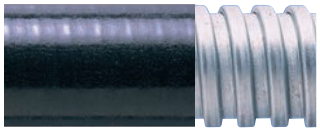
UV resistance
Very high

Extreme Temperature liquidtight conduit systems

Type SPLHC conduit

Type SPLHC

Liquidtight extreme temperature covered steel flexible conduit / Materials: Thermoplastic rubber covered galvanised steel / Colour: Black (BL) only



Part no.	Nominal conduit size (mm)	Outside diameter (mm)	US conduit size (in)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
SPLHC10/25M	10	11.8	¼	7.0	40	25
SPLHC12/25M	12	14.2	5/16	10.0	40	25
SPLHC16/25M	16	17.8	⅜	12.5	50	25
SPLHC20/25M	20	21.1	½	15.9	80	25
SPLHC25/25M	25	26.4	¾	21.0	110	25
SPLHC32/25M	32	33.1	1	26.7	145	25
SPLHC40/25M	40	41.7	1 ¼	35.0	180	25
SPLHC50/25M	50	47.9	1 ½	40.4	240	25
SPLHC63/25M	63	59.7	2	51.6	345	25

If interested in different coil lengths, do not hesitate to inquire

Approvals

KM35161

File No. E135398

NSF 14159-1-2014
NSF 169-2009

IP rating	Appropriate fitting
For use with: Type SPL, SSPL and SAM	
IP66	Type M, C45 & C90
IP67	Type A, B, M, C45 & C90
IP68	Type M, C45 & C90 (10 bar 30mins)
IP69	Type M, C45 & C90

Temperature range
Static applications: -65°C to +135°C
Moving applications: -45°C to +150°C
Flexibility & fatigue life
Very high flexibility – High fatigue life
Fire performance & EMI screen
Self extinguishing
Halogen free

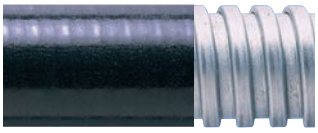
UV resistance
Very high

Oil Resistant 316SS liquidtight conduit systems

Type SSPL conduit

Type SSPL

Liquidtight oil resistant covered 316 stainless steel flexible conduit / Materials: PVC covered 316 stainless steel / Colour: Black (BL), Grey (GR), Orange (OR)



Part no.	Nominal conduit size (mm)	Outside diameter (mm)	US conduit size (in)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
SSPL16/25M	16	17.8	⅜	12.5	50	25
SSPL20/25M	20	21.1	½	15.9	80	25
SSPL25/25M	25	26.4	¾	21.0	110	25
SSPL32/25M	32	33.1	1	26.7	145	25
SSPL40/25M	40	41.8	1 ¼	35.3	180	25
SSPL50/10M	50	47.8	1 ½	40.4	240	25
SSPL63/10M	63	60.0	2	51.6	345	25

Grey (GR), Orange (OR) version available

Approvals

KM35161

IP rating	Appropriate fitting
For use with: Type SPL, SSPL and SAM	
IP66	Type M, C45 & C90
IP67	Type A, B, M, C45 & C90
IP68	Type M, C45 & C90 (10 bar 30mins)
IP69	Type M, C45 & C90

Temperature range
Static applications: -20°C to +105°C
Moving applications: -5°C to +105°C
Flexibility & fatigue life
Medium flexibility – Medium fatigue life
Fire performance & EMI screen
Self extinguishing

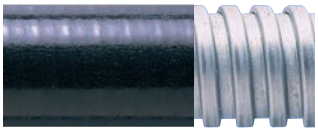
UV resistance
Very high

Oil Resistant liquidtight conduit systems

Type SPL conduit

Type SPL

Liquidtight oil resistant covered steel flexible conduit / Materials: PVC covered galvanised steel / Colour: Black (BL), Grey (GR), Orange (OR)



Part no.	Nominal conduit size (mm)	Outside diameter (mm)	US conduit size (in)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
SPL10/50M	10	11.8	¼	7.0	40	50
SPL12/50M	12	14.2	5/16	10.0	45	50
SPL16/25M	16	17.8	⅜	12.5	50	25
SPL20/25M	20	21.1	½	15.9	80	25
SPL25/25M	25	26.4	¾	21.0	110	25
SPL32/25M	32	33.1	1	26.7	145	25
SPL40/25M	40	41.8	1 ¼	35.3	180	25
SPL50/25M	50	47.8	1 ½	40.4	240	25
SPL63/25M	63	60.0	2	51.6	345	25

If interested in different coil lengths, do not hesitate to inquire

Approvals

KM35161

File No. E135398

NSF 14159-1-2014
NSF 169-2009

IP rating	Appropriate fitting
For use with: Type SPL, SSPL and SAM	
IP66	Type M, C45 & C90
IP67	Type A, B, M, C45 & C90
IP68	Type M, C45 & C90 (10 bar 30mins)
IP69	Type M, C45 & C90

Temperature range
Static applications: -20°C to +105°C
Moving applications: -5°C to +105°C
Flexibility & fatigue life
Medium flexibility – Medium fatigue life
Fire performance & EMI screen
Self extinguishing

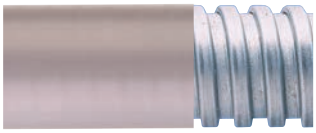
UV resistance
Very high

UL and CSA Listed liquidtight conduit systems

Type SPUL conduit

Type SPUL

Liquidtight UL listed & CSA approved covered steel flexible conduit / Materials: PVC covered galvanised steel with copper packing / Colour: Black (BL), Grey (GR)



Part no.	Nominal conduit size (mm)	Outside diameter (mm)	US conduit size (in)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
SPUL16/50M	16	17.8	⅜	12.5	50	50
SPUL20/50M	20	21.1	½	15.9	80	50
SPUL25/25M	25	26.4	¾	21.0	110	25
SPUL32/25M	32	33.1	1	26.7	145	25
SPUL40/25M	40	41.8	1 ¼	35.4	180	25
SPUL50/25M	50	47.9	1 ½	40.4	240	25

If interested in different coil lengths, do not hesitate to inquire

Approvals

File No. E76358

IP rating	Appropriate fitting
For use with: Type SPL, SSPL and SAM	
IP66	Type M, C45 & C90
IP67	Type A, B, M, C45 & C90
IP68	Type M, C45 & C90 (10 bar 30mins)
IP69	Type M, C45 & C90

Temperature range
Static applications: -20°C to +90°C
Moving applications: -5°C to +105°C
Flexibility & fatigue life
Medium flexibility – Medium fatigue life
Fire performance & EMI screen
Self extinguishing

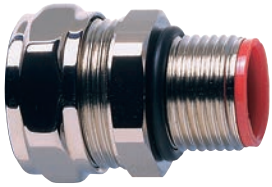
UV resistance
High

Liquidtight flexible metallic conduit systems

SSPL 316SS Type M fitting

SSPL Type M fitting

Straight fitting – Fixed external male thread / Materials: 316 stainless steel



Part no.	Nominal conduit size (mm)	US conduit size (in)	Thread
Metric thread			
SSPL10/M12/M	10	¼	M12
SSPL16/M16/M	16	⅜	M16
SSPL20/M20/M	20	½	M20
SSPL25/M25/M	25	¾	M25
SSPL32/M32/M	32	1	M32
SSPL40/M40/M	40	1 ¼	M40
SSPL50/M50/M	50	1 ½	M50
SSPL63/M63/M	63	2	M63

Approvals

KM35161

UL514B
File No. E60625

IP rating

For use with: All liquidtight conduit

IP66	Yes
IP67	Yes
IP68	Yes (10 bar 30 mins)
IP69	Yes

Temperature range

Static applications: -65°C to +150°C

Moving applications: -45°C to +150°C

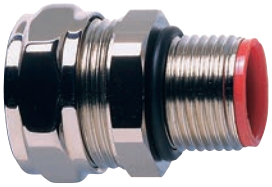
Fitting characteristics

Liquidtight flexible metallic conduit systems

SPL Type M fitting

SPL Type M fitting

Straight fitting – Fixed external male thread / Materials: Nickel plated brass



Part no.	Nominal conduit size (mm)	US conduit size (in)	Thread
Metric thread			
SPL10/M12/M	10	¼	M12
SPL10/M16/M	10	¼	M16
SPL12/M16/M	12	5/16	M16
SPL16/M16/M	16	⅜	M16
SPL16/M20/M	16	⅜	M20
SPL20/M20/M	20	½	M20
SPL25/M25/M	25	¾	M25
SPL32/M32/M	32	1	M32
SPL40/M40/M	40	1 ¼	M40
SPL50/M50/M	50	1 ½	M50
SPL63/M63/M	63	2	M63
PG thread			
SPL10/PG7/M	10	¼	PG7
SPL12/PG9/M	12	5/16	PG9
SPL16/PG11/M	16	⅜	PG11
SPL16/PG13/M	16	⅜	PG13,5
SPL20/PG16/M	20	½	PG16
SPL25/PG21/M	25	¾	PG21
SPL32/PG29/M	32	1	PG29
SPL40/PG36/M	40	1 ¼	PG36
SPL50/PG42/M	50	1 ½	PG42
SPL63/PG48/M	63	2	PG48
NPT thread			
SPL16/038/M	16	⅜	⅜
SPL20/050/M	20	½	½
SPL25/075/M	25	¾	¾
SPL32/100/M	32	1	1
SPL40/125/M	40	1 ¼	1 ¼
SPL50/150/M	50	1 ½	1 ½
SPL63/200/M	63	2	2

For insertion into threaded entries & knockouts using a locknut (order locknut separately)

Approvals

KM35161

UL514B
File No. E60625

IP rating

For use with: All liquidtight conduit

IP66	Yes
IP67	Yes
IP68	Yes (10 bar 30 mins)
IP69	Yes

Temperature range

Static applications: -65°C to +150°C

Moving applications: -45°C to +150°C

Fitting characteristics

Liquidtight flexible metallic conduit systems

SPL Type U coupler & SPL Type E terminator

SPL Type U coupler

Coupler / Materials: Nickel plated brass, co-polyester seals

Part no.	Nominal conduit size (mm)	US conduit size (in)	Bore (mm)
SPL16/U/M	16	⅜	10.3
SPL20/U/M	20	½	14.3
SPL25/U/M	25	¾	17.6
SPL32/U/M	32	1	24.0
SPL40/U/M	40	1 ¼	33.0
SPL50/U/M	50	1 ½	38.5
SPL63/U/M	63	2	50.0

For coupling separate lengths of liquidtight conduit

Approvals

KM35161

IP rating

For use with: All liquidtight conduit

IP66	Yes
IP67	Yes
IP68	Yes (10 bar 30 mins)
IP69	Yes

Temperature range

Static applications: -65°C to +150°C

Moving applications: -45°C to +150°C

Fitting characteristics

SPL Type E terminator

Conduit terminator / Materials: Nickel plated brass

Part no.	Nominal conduit size (mm)	US conduit size (in)
SPL10/E	10	¼
SPL12/E	12	5/16
SPL16/E	16	⅜
SPL20/E	20	½
SPL25/E	25	¾
SPL32/E	32	1
SPL40/E	40	1 ¼
SPL50/E	50	1 ½
SPL63/E	63	2

Cable protection at exit point

Approvals

KM35161

IP rating

For use with: All liquidtight conduit

IP54	Yes

Temperature range

Static applications: -65°C to +300°C

Moving applications: -45°C to +250°C

Liquidtight flexible metallic conduit systems

SPL Type C90 fitting

SPL Type C90 fitting

90° Combined fitting & elbow - Fixed external male thread / Materials: Nickel plated brass

Part no.	Nominal conduit size (mm)	US conduit size (in)	Thread
Metric thread			
SPL16/M16/C90	16	⅜	M16
SPL16/M20/C90	16	⅜	M20
SPL20/M20/C90	20	½	M20
SPL25/M25/C90	25	¾	M25
SPL32/M32/C90	32	1	M32
SPL40/M40/C90	40	1 ¼	M40
SPL50/M50/C90	50	1 ½	M50
SPL63/M63/C90	63	2	M63
NPT thread			
SPL16/038/C90	16	⅜	⅜
SPL16/050/C90	16	⅜	⅜
SPL20/050/C90	20	½	½
SPL25/075/C90	25	¾	¾
SPL32/100/C90	32	1	1
SPL40/125/C90	40	1 ¼	1 ¼
SPL50/150/C90	50	1 ½	1 ½
SPL63/200/C90	63	2	2

For insertion into threaded entries & knockouts using a locknut (order locknut separately)

Approvals

KM35161

UL514B
File No. E60625

IP rating

For use with: All liquidtight conduit

IP66	Yes
IP67	Yes
IP68	Yes (10 bar 30 mins)
IP69	Yes

Temperature range

Static applications: -65°C to +150°C

Moving applications: -45°C to +150°C

Liquidtight flexible metallic conduit systems

SPL Type C45 fitting

SPL Type C45 fitting

45° Elbow - Fixed external male thread / Materials: Nickel plated brass

Part no.	Nominal conduit size (mm)	US conduit size (in)	Thread
Metric thread			
SPL16/M16/C45	16	⅜	M16
SPL16/M20/C45	16	⅜	M20
SPL20/M20/C45	20	½	M20
SPL25/M25/C45	25	¾	M25
SPL32/M32/C45	32	1	M32
SPL40/M40/C45	40	1 ¼	M40
SPL50/M50/C45	50	1 ½	M50
SPL63/M63/C45	63	2	M63
NPT thread			
SPL16/038/C45	16	⅜	⅜
SPL16/050/C45	16	⅜	⅜
SPL20/050/C45	20	½	½
SPL25/075/C45	25	¾	¾
SPL32/100/C45	32	1	1
SPL40/125/C45	40	1 ¼	1 ¼
SPL50/150/C45	50	1 ½	1 ½
SPL63/200/C45	63	2	2

For insertion into threaded entries & knockouts using a locknut (order locknut separately)

Approvals

KM35161

UL514B
File No. E60625

IP rating	Appropriate conduit
For use with: All liquidtight conduit	
IP66	Yes
IP67	Yes
IP68	Yes (10 bar 30 mins)
IP69	Yes

Temperature range
Static applications: -65°C to +150°C
Moving applications: -45°C to +150°C

Liquidtight flexible metallic conduit systems

SPL Type MF female, internal thread fitting

SPL Type MF fitting

Straight female internal thread fitting / Materials: Nickel plated brass

Part no.	Conduit	Thread size	A	B	C	D	E	Approx. weight (g)
			Nominal dimensions					
SPL16/M16/MF	16	M16x1.5	18.0	24.0	25.0	NC16	24.0	45
SPL20/M20/MF	20	M20x1.5	22.0	25.4	25.6	NC20	28.6	52
SPL25/M25/MF	25	M25x1.5	27.6	32.0	27.6	NC25	35.0	97
SPL32/M32/MF	32	M32x1.5	34.5	38.1	38.0	NC32	42.0	145
SPL40/M40/MF	40	M40x1.5	42.5	50.0	34.5	NC40	52.0	205
SPL50/M50/MF	50	M50x1.5	52.0	60.0	37.3	NC50	60.0	350

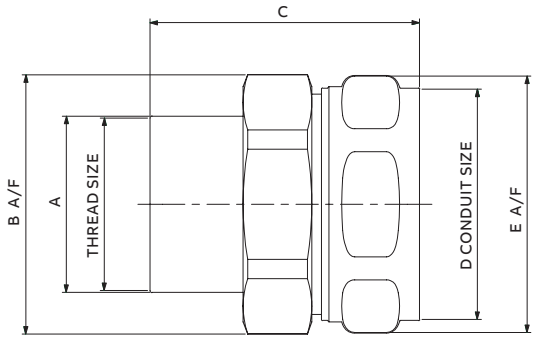
Approvals

KM35161

LOW VOLTAGE DIRECTIVE

IP rating	
For use with: All liquidtight conduit	
IP66	Yes
IP67	Yes
IP68	Yes (10 bar 30 mins)
IP69	Yes

Temperature range
Static applications: -65°C to +150°C
Moving applications: -45°C to +150°C

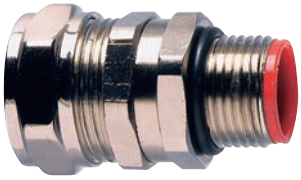


Liquidtight flexible metallic conduit systems

SPL Type B swivel external male thread fitting

SPL Type B fitting

Straight fitting - swivel external male thread / Materials: Nickel plated brass



Part no.	Nominal conduit size (mm)	US conduit size (in)	Metric thread
SPL16/M16/B	16	⅜	M16
SPL16/M20/B	16	⅜	M20
SPL20/M20/B	20	½	M20
SPL25/M25/B	25	¾	M25
SPL32/M32/B	32	1	M32

For insertion into threaded entries & knockouts using a locknut (order locknut separately)

Approvals

KM35161

IP rating

For use with: All liquidtight conduit

IP67	Yes

Temperature range

Static applications: -65°C to +105°C

Moving applications: -45°C to +150°C

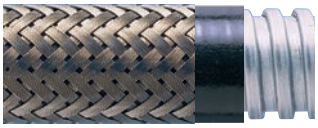
Fitting characteristics

Braided liquidtight flexible metallic conduit systems

Liquidtight, high strength Type SPLHCB conduit

Type SPLHCB

Extreme temperature, abuse resistant, overbraided, standard EMI screening, flexible conduit / Materials: Galvanised steel conduit, smooth thermoplastic rubber covering, stainless steel 316 overbraid



Part no.	Nominal conduit size (mm)	Outside diameter (mm)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
SPLHCB16/25M	16	19.8	12.5	80	25
SPLHCB20/25M	20	23.1	15.9	95	25
SPLHCB25/25M	25	28.4	21.0	115	25
SPLHCB32/10M	32	35.1	26.7	145	10
SPLHCB40/10M	40	44.0	35.4	180	10
SPLHCB50/10M	50	56.0	40.4	240	10

If interested in different coil lengths, do not hesitate to inquire

Approvals

KM35161

IP rating	Appropriate fitting
For use with: Type SPLB	
IP66	Type SPLB - Type A & B
IP67	Type SPLB - Type A & B
IP68	Type SPLB - Type A & B

Temperature range
Static applications: -65°C to +135°C
Moving applications: -54°C to +150°C
Flexibility & fatigue life
Very high flexibility - High fatigue life
Fire performance & EMI screen
Self extinguishing
Halogen Free

UV resistance
Very high

Braided liquidtight flexible metallic conduit systems

EMI screen, liquid resistant SPLB Type A & B fittings

SPLB Type A fitting

Straight fitting - Fixed external male thread / Materials: Nickel plated brass

Part no.	Nominal conduit size (mm)	Metric thread
SPLB16/M16/A	16	M16
SPLB16/M20/A	16	M20
SPLB20/M20/A	20	M20
SPLB25/M25/A	25	M25
SPLB32/M32/A	32	M32
SPLB40/M40/A	40	M40
SPLB50/M50/A	50	M50

For insertion into knockouts using a locknut (order locknut separately)

Approvals

KM35161

IP rating

For use with: Type SPLHCB	
IP66	Yes
IP67	Yes
IP68	Yes (10 bar 30 mins)

Temperature range

Static applications: -65°C to +135°C

Moving applications: -45°C to +150°C

SPLB Type B fitting

Straight fitting - Swivel external male thread / Materials: Nickel plated brass

Part no.	Nominal conduit size (mm)	Metric thread
SPLB16/M16/B	16	M16
SPLB16/M20/B	16	M20
SPLB20/M20/B	20	M20
SPLB25/M25/B	25	M25
SPLB32/M32/B	32	M32

For insertion into threaded entries & knockouts using a locknut (order locknut separately)

Approvals

KM35161

IP rating

For use with: Type SPLHCB	
IP66	Yes
IP67	Yes
IP68	Yes (10 bar 30 mins)

Temperature range

Static applications: -65°C to +135°C

Moving applications: -45°C to +150°C

Fitting characteristics

Liquid resistant flexible metallic conduit systems

48 Quick selection guide

49 Liquid resistant flexible metallic conduit systems

58 Braided liquid resistant metallic conduit systems

Liquid resistant flexible metallic conduit systems

Quick selection guide

Quick selection guide

Conduit type	Type LFH-SP	Type SN	Type SP	Type SPTC	Type LFH-SPSS	Type SPB
Part number	**LFH-SP**	**SN**	**SP**	**SPTC**	**LFH-SPSS**	**SPB**
Conduit material	Galvanised steel	Galvanised steel	Galvanised steel	Galvanised steel	Galvanised steel	Galvanised steel
Covering/overbraid	Polyolefin	PA (nylon)	PVC	PVC & tinned copper	Stainless steel low fire hazard jacket	PVC & galvanised steel
	Low Smoke	Zero Halogen	Oil and Chemical Resitant		EMI Screen	
Conduit colour						
Black (BL)	■	■	■	–	–	–
Grey (GR)	–	–	■	–	–	–
IP rating (with appropriate fitting)						
IP40	–	–	–	–	–	–
IP54	■	■	■	■	■	■
P65	■	■	■	–	–	–
P66	–	–	–	–	–	–
P67	–	–	–	–	–	–
P68	–	–	–	–	–	–
P69	–	–	–	–	–	–

Characteristics

Temperature range						
Static applications (°C)	-20 to +90	-40 to +120	-25 to +70	-15 to +70	-20 to +90	-15 to +70
Moving applications (°C)	-5 to +105	-25 to +150	-5 to +90	-5 to +90	-5 to +105	-5 to +90
UV resistance	High	High	Very high	Very high	Very high	Very high
Flexibility	High	Medium	High	High	Medium	High
Fatigue life	Medium	Medium	Medium	Medium	Medium	Medium
Low fire hazard	Enhanced	–	–	–	Enhanced	–
Halogen free	■	■	–	–	–	–
Self extinguishing	■	■	■	■	■	■
EMI screen	–	–	–	High	Standard	Enhanced
High mechanical strength	■	■	■	■	■	■
High abrasion resistance	–	–	–	■	■	■
Approvals						
BSI Kitemark	■	■	■	■	■	■
CE	■	■	■	■	■	■
UL / CSA	–	–	–	–	–	–
UR	–	–	–	–	–	–
DIN 5510-2	–	–	–	–	–	–
NF F	■	–	–	–	■	–
LUL 1-085	■	–	–	–	■	–
UNI CEI 11170	–	–	–	–	–	–
EN45545-2 to HL3	–	–	–	–	–	–
Page No.	49	50	51	59	58	60

Liquid resistant flexible metallic conduit systems

Type LFH-SP conduit

Type LFH-SP

Liquid resistant enhanced low fire hazard covered steel flexible conduit / Materials: Polyolefin covered galvanised steel / Colour: Black (BL) only

Part no.	Nominal conduit size (mm)	Outside diameter (mm)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
LFH-SP12/50M	12	13.8	10.3	30	50
LFH-SP16/50M	16	17.3	13.0	35	50
LFH-SP20/25M	20	21.5	16.9	45	25
LFH-SP25/50M	25	26.0	21.4	55	50
LFH-SP32/25M	32	33.5	28.1	60	25
LFH-SP40/25M	40	44.5	37.7	80	25
LFH-SP50/25M	50	54.9	48.2	90	25
LFH-SP63/10M	63	64.3	57.5	115	10
LFH-SP75/10M	75	79.0	70.0	150	10

If interested in different coil lengths, do not hesitate to inquire

Approvals

KM35161

EN45545-2 HL3 - R22 & R23

IP rating	Appropriate fitting
For use with: Type SP	
IP54	Type SP - Type A, B, C, E & F
IP65	Type SP - Type M & C90

Temperature range

Static applications: -25°C to +90°C

Moving applications: -5°C to +105°C

Flexibility & fatigue life

High flexibility - Medium fatigue life

Fire Performance & EMI Screen

Self extinguishing

Halogen Free

UV resistance

High

Liquid resistant flexible metallic conduit systems

Type SN conduit

Type SN

Liquid resistant general purpose covered steel flexible conduit / Materials: PVC covered galvanised steel / Colour: Black (BL), Grey (GR), Orange (OR)

Part no.	Nominal conduit size (mm)	Outside diameter (mm)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
SN12/BL/50M	12	14.0	10.3	30	50
SN16/BL/50M	16	17.0	13.0	35	50
SN20/BL/50M	20	21.5	16.9	45	50
SN25/BL/25M	25	26.0	21.4	55	25
SN32/BL/25M	32	34.0	28.1	60	25

If interested in different coil lengths, do not hesitate to inquire

Approvals

KM35161

IP rating	Appropriate fitting
For use with: Type SP	
IP54	Type SP - Type A, B, C, E & F
IP65	Type SP - Type M & C90

Temperature range
Static applications: -40°C to +120°C
Moving applications: -25°C to +150°C
Flexibility & fatigue life
Medium flexibility - Medium fatigue life
Fire Performance & EMI Screen
Self extinguishing
Halogen free

UV resistance
High

Liquid resistant flexible metallic conduit systems

Type SP conduit

Type SP

Liquid resistant general purpose covered steel flexible conduit / Materials: PVC covered galvanised steel / Colour: Black (BL), Grey (GR), Orange (OR)

Part no.	Nominal conduit size (mm)	Outside diameter (mm)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
SP10/BL/50M	10	10.1	7.0	25	50
SP12/BL/50M	12	13.8	10.3	30	50
SP16/BL/25M	16	17.2	13.0	35	25
SP20/BL/25M	20	21.5	16.9	45	25
SP25/BL/25M	25	26.0	21.4	55	25
SP32/BL/25M	32	33.5	28.1	60	25
SP40/BL/25M	40	44.5	37.7	80	25
SP50/BL/25M	50	54.9	48.2	90	25
SP63/BL/10M	63	64.3	57.5	115	10
SP75/BL/10M	75	79.0	70.0	150	10

If interested in different coil lengths, do not hesitate to inquire

Approvals

KM35161

IP rating	Appropriate fitting
For use with: Type SP	
IP54	Type SP - Type A, B, C, E & F
IP65	Type SP - Type M & C90

Temperature range
Static applications: -25°C to +70°C
Moving applications: -5°C to +90°C
Flexibility & fatigue life
High flexibility - Medium fatigue life
Fire Performance & EMI Screen
Self extinguishing

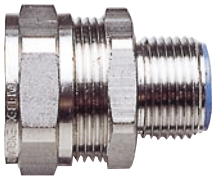
UV resistance
Very high

Liquid resistant flexible metallic conduit systems

SP Type M fitting

SP Type M fitting

Straight swivel fitting - External male thread / Materials: Nickel plated brass



Part no.	Nominal conduit size (mm)	Thread
Metric thread		
SP12/M16/M	12	M16
SP16/M16/M	16	M16
SP16/M20/M	16	M20
SP20/M20/M	20	M20
SP25/M25/M	25	M25
SP32/M32/M	32	M32
SP40/M40/M	40	M40
SP50/M50/M	50	M50
PG thread		
SP12/PG9/M	12	PG9
SP16/PG11/M	16	PG11
SP16/PG13/M	16	PG13,5
SP20/PG16/M	20	PG16
SP25/PG21/M	25	PG21
SP32/PG29/M	32	PG29
NPT thread		
SP16/038/M	16	⅜”
SP20/050/M	20	½”
SP25/075/M	25	¾”
SP32/100/M	32	1”

For insertion into threaded entries & knockouts using a locknut (order locknut separately)

Approvals

KM35161

IP rating

For use with: All liquid resistant conduit

IP65	Yes

Temperature range

Static applications: -50°C to +300°C

Moving applications: -45°C to +250°C

Fitting characteristics

Liquid resistant flexible metallic conduit systems

SP Type C90 fitting

SP Type C90 fitting

90° Combined fitting & elbow / Materials: Nickel plated brass

Part no.	Nominal conduit size (mm)	Metric thread
SP16/M16/C90	16	M16
SP16/M20/C90	16	M20
SP20/M20/C90	20	M20
SP25/M25/C90	25	M25
SP32/M32/C90	32	M32

For insertion into threaded entries & knockouts using a locknut (order locknut separately)

Approvals

KM35161

IP rating

For use with: Type S / SS

IP65 Yes

Temperature range

Static applications: -50°C to +300°C

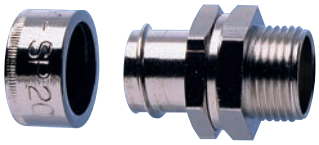
Fitting characteristics

Liquid resistant flexible metallic conduit systems

SP Type B fitting

SP Type B fitting

Swivel external thread / Materials: Nickel plated brass



Part no.	Nominal conduit size (mm)	Thread
Metric thread		
SP10/M12/B	10	M12
SP12/M16/B	12	M16
SP16/M16/B	16	M16
SP16/M20/B	16	M20
SP20/M20/B	20	M20
SP25/M25/B	25	M25
SP32/M32/B	32	M32
SP40/M40/B	40	M40
SP50/M50/B	50	M50
PG thread		
SP10/PG7/B	10	PG7
SP12/PG9/B	12	PG9
SP16/PG11/B	16	PG11
SP20/PG16/B	20	PG16
SP25/PG21/B	25	PG21
SP32/PG29/B	32	PG29
SP40/PG36/B	40	PG36
SP50/PG42/B	50	PG42

For insertion into threaded entries & knockouts using a locknut (order locknut separately)

Approvals

KM35161

IP rating

For use with: All liquid resistant conduit

IP54 Yes

Temperature range

Static applications: -50°C to +350°C

Moving applications: -45°C to +250°C

Fitting characteristics

Liquid resistant flexible metallic conduit systems

SP Type A fitting

SP Type A fitting

Straight fitting - Fixed external male thread / Materials: Nickel plated brass

Part no.	Nominal conduit size (mm)	Thread
Metric thread		
SP10/M12/A	10	M12
SP12/M16/A	12	M16
SP16/M16/A	16	M16
SP16/M20/A	16	M20
SP20/M20/A	20	M20
SP25/M25/A	25	M25
SP32/M32/A	32	M32
SP40/M40/A	40	M40
SP50/M50/A	50	M50
SP63/M63/A	63	M63
SP75/M75/A	75	M75
PG thread		
SP10/PG7/A	10	PG7
SP12/PG9/A	12	PG9
SP16/PG11/A	16	PG11
SP20/PG16/A	20	PG16
SP25/PG21/A	25	PG21
SP32/PG29/A	32	PG29
SP40/PG36/A	40	PG36
SP50/PG42/A	50	PG42

For insertion into knockouts using a locknut (order locknut separately)

Approvals	IP rating		Temperature range
KM35161	**For use with:** All liquid resistant conduit		Static applications: -50°C to +300°C
	IP54	Yes	Moving applications: -45°C to +250°C

Liquid resistant flexible metallic conduit systems

SP Type C & F fittings

SP Type C fitting

Smooth entry bush / Materials: Nickel plated brass

Part no.	Nominal conduit size (mm)	Hole size (mm)
SP10/9/C	10	9
SP12/12/C	12	12
SP16/16/C	16	16
SP20/20/C	20	20
SP25/25/C	25	25
SP32/32/C	32	32
SP40/40/C	40	40
SP50/51/C	50	51
SP63/61/C	63	61
SP75/75/C	75	75

For locking conduit into plain holes in enclosures

Approvals	IP rating		Temperature range
KM35161 LOW VOLTAGE DIRECTIVE	**For use with:** All liquid resistant conduit		Static applications: -50°C to +300°C
	IP54	Yes	Moving applications: -45°C to +250°C

SP Type F fitting

Straight fitting - Fixed internal female thread / Materials: Nickel plated brass

Part no.	Nominal conduit size (mm)	Metric thread
SP20/M20/F	20	M20
SP25/M25/F	25	M25
SP32/M32/F	32	M32

For external threads and other fittings

Approvals	IP rating		Temperature range
KM35161 LOW VOLTAGE DIRECTIVE	**For use with:** All liquid resistant conduit		Static applications: -50°C to +300°C
	IP54	Yes	Moving applications: -45°C to +250°C

Liquid resistant flexible metallic conduit systems

SP Type E terminator

SP Type E terminator

Conduit terminator / Materials: Nickel plated brass

Part no.	Nominal conduit size (mm)
SP12/E	12
SP16/E	16
SP20/E	20
SP25/E	25
SP32/E	32
SP40/E	40
SP50/E	50

Cable protection at exit point

Approvals	IP rating		Temperature range
KM35161	**For use with:** All liquid resistant conduit		Static applications: -50°C to +300°C
	IP54	Yes	Moving applications: -45°C to +250°C

Braided liquid resistant metallic conduit systems

EMI screen, liquid resistant Type LFH-SPSS conduit

—
Type LFH-SPSS

Overbraided, enhanced EMI screening, flexible conduit /
Materials: Galvanised steel conduit with low fire hazard jacket, stainless steel overbraid

Part no.	Nominal conduit size (mm)	Outside diameter (mm)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
LFH-SPSS16/25M	16	18.0	13.0	35	25
LFH-SPSS20/25M	20	22.5	16.9	45	25
LFH-SPSS25/25M	25	27.0	21.4	55	25
LFH-SPSS40/10M	40	45.5	37.7	80	10
LFH-SPSS50/10M	50	56.0	48.4	90	10

If interested in different coil lengths, do not hesitate to inquire

Approvals	IP rating	Appropriate fitting	Temperature range	UV resistance
KM35161 CE LOW VOLTAGE DIRECTIVE NF UNDERGROUND	**For use with:** Type SPB		Static applications: -20°C to +90°C	Very high
	IP54	Type SB - Type A & B	Moving applications: -5°C to +105°C	
			Flexibility & fatigue life	
			Medium flexibility – Medium fatigue life	
			Fire performance & EMI screen	
			Halogen free	STANDARD EMI SCREEN · ENHANCED ELFH LOW FIRE HAZARD

Braided liquid resistant metallic conduit systems

EMI screen, liquid resistant Type SPTC conduit

Type SPTC

Overbraided tinned copper, high EMI screening, flexible conduit / Materials: Galvanised steel conduit, galvanised steel overbraid

Part no.	Nominal conduit size (mm)	Outside diameter (mm)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
SPTC10/25M	10	11.5	7.0	25	25
SPTC12/25M	12	15.5	10.3	30	25
SPTC16/25M	16	18.5	13.0	35	25
SPTC20/25M	20	23.0	16.9	45	25
SPTC25/25M	25	27.5	21.4	55	25
SPTC32/10M	32	35.5	28.1	60	10
SPTC40/10M	40	45.1	37.7	80	10
SPTC50/10M	50	57.5	48.2	90	10

If interested in different coil lengths, do not hesitate to inquire

Approvals

KM35161

IP rating — **Appropriate fitting**

For use with: Type SB

IP54 — Type SB - Type A & B

Temperature range

Static applications: -15°C to +70°C

Moving applications: -5°C to +90°C

Flexibility & fatigue life

High flexibility – Medium fatigue life

Fire performance & EMI screen

Self extinguishing

UV resistance

Very high

Braided liquid resistant metallic conduit systems

EMI screen, liquid resistant Type SPB conduit

Type SPB

Overbraided, enhanced EMI screening, flexible conduit /
Materials: Galvanised steel conduit with PVC covering, galvanised steel overbraid

Part no.	Nominal conduit size (mm)	Outside diameter (mm)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
SPB10/25M	10	11.5	6.8	25	25
SPB12/25M	12	15.5	10.3	30	25
SPB16/25M	16	18.5	13.0	35	25
SPB20/25M	20	23.0	16.9	45	25
SPB25/25M	25	27.5	21.4	55	25
SPB32/10M	32	35.5	28.1	60	10
SPB40/10M	40	45.1	37.7	80	10
SPB50/10M	50	57.5	48.4	90	10

If interested in different coil lengths, do not hesitate to inquire

Approvals

KM35161

IP rating	Appropriate fitting
For use with: Type SPB	
IP54	Type SB - Type A & B

Temperature range
Static applications: -15°C to +70°C
Moving applications: -5°C to +90°C
Flexibility & fatigue life
High flexibility – Medium fatigue life
Fire performance & EMI screen
Self extinguishing

UV resistance

Very high

Braided liquid resistant metallic conduit systems

EMI screen, liquid resistant SPB Type A fitting

SPB Type A fitting

Straight fitting - Fixed external male thread / Materials: Nickel plated brass

Part no.	Nominal conduit size (mm)	Metric thread
SPB10/M12/A	10	M12
SPB12/M16/A	12	M16
SPB16/M16/A	16	M16
SPB20/M20/A	20	M20
SPB25/M25/A	25	M25
SPB32/M32/A	32	M32
SPB40/M40/A	40	M40
SPB50/M50/A	50	M50

For insertion into knockouts using a locknut (order locknut separately)

Approvals	IP rating		Temperature range
KM35161 LOW VOLTAGE DIRECTIVE	**For use with:** Type SPB / SPTC		Static applications: -50°C to +300°C
	IP54	Yes	Moving applications: -45°C to +250°C

Braided liquid resistant metallic conduit systems

EMI screen, liquid resistant SPB Type B fitting

SPB Type B fitting

Straight fitting - Swivel external male thread / Materials: Nickel plated brass

Part no.	Nominal conduit size (mm)	Metric thread
SPB10/M12/B	10	M12
SPB12/M16/B	12	M16
SPB16/M16/B	16	M16
SPB20/M20/B	20	M20
SPB25/M25/B	25	M25
SPB32/M32/B	32	M32
SPB40/M40/B	40	M40
SPB50/M50/B	50	M50

For insertion into threaded entries & knockouts using a locknut (order locknut separately)

Approvals

KM35161

IP rating

For use with: Type SPB / SPTC

IP54	Yes

Temperature range

Static applications: -50°C to +300°C

Moving applications: -45°C to +250°C

Fitting characteristics

Superflexible metal conduit systems

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Superflexible metallic conduit systems

Quick selection guide

Quick selection guide

Conduit type	Type SS	Type S	Type SSB	Type STC	Type SB
Part number	**SS**	**S**	**SSB**	**STC**	**SB**
Conduit material	Galvanised steel	Galvanised steel	Galvanised steel	Galvanised steel	Galvanised steel
Covering/overbraid	–	–	Stainless steel	Tinned copper	Galvanised steel
	High Corrosion	Corrosion	EMI Screen		
Conduit colour					
Black (BL)	–	–	–	–	–
Grey (GR)	–	–	–	–	–
IP rating (with appropriate fitting)					
IP40	■	■	■	■	■
IP54	–	–	–	–	–
P65	–	–	–	–	–
P66	–	–	–	–	–
P67	–	–	–	–	–
P68	–	–	–	–	–
P69	–	–	–	–	–

Characteristics

Temperature range					
Static applications (°C)	-50 to +350	-50 to +300	-50 to +300	-50 to +300	-50 to +300
Moving applications (°C)	-45 to +250	-45 to +250	-45 to +250	-45 to +250	-45 to +250
UV resistance	Very high	Very high	Very high	Very high	Very high
Flexibility	High	High	High	High	High
Fatigue life	High	High	High	High	High
Low fire hazard	Inherent	Inherent	Inherent	Inherent	Inherent
Halogen free	■	■	■	■	■
Self extinguishing	–	–	–	–	–
EMI screen	–	–	Standard	High	Enhanced
High mechanical strength	■	■	■	■	■
High abrasion resistance	–	–	■	■	■
Approvals					
BSI Kitemark	■	■	■	■	■
CE	■	■	■	■	■
UL / CSA	–	–	–	–	–
UR	–	–	–	–	–
DIN 5510-2	–	–	–	–	–
NF F	–	–	–	–	–
LUL 1-085	–	–	–	–	–
UNI CEI 11170	–	–	–	–	–
EN45545-2 to HL3	–	–	–	–	–
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Superflexible metallic conduit systems

Type SS conduit

Type SS

Inherent low fire hazard steel conduit / Materials: Stainless steel - general purpose

Part no.	Nominal conduit size (mm)	Outside diameter (mm)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
SS10/50M	10	9.0	7.1	25	50
SS12/25M	12	13.0	10.3	30	25
SS16/25M	16	16.5	13.0	35	25
SS20/25M	20	20.5	16.9	45	25
SS25/25M	25	25.0	21.4	55	25
SS32/25M	32	32.1	28.1	60	25

If interested in different coil lengths, do not hesitate to inquire

Approvals	IP rating	Appropriate fitting	Temperature range	UV resistance
KM35161 CE LOW VOLTAGE DIRECTIVE	**For use with:** Type S		Static applications: -50°C to +350°C	Very high
	IP40	Type S - Type A, B, F & C	Moving applications: -45°C to +250°C	
			Flexibility & fatigue life	
			High flexibility - High fatigue life	
			Fire Performance & EMI Screen	

Superflexible metallic conduit systems

Type S conduit

Type S

Inherent low fire hazard steel conduit / Materials: Galvanised steel - general purpose

Part no.	Nominal conduit size (mm)	Outside diameter (mm)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
S10/50M	10	9.2	7.1	25	50
S12/50M	12	13.0	10.3	30	50
S16/50M	16	16.5	13.0	35	50
S20/50M	20	20.5	16.9	45	50
S25/50M	25	25.0	21.4	55	50
S32/25M	32	32.0	28.1	60	25
S40/25M	40	42.5	37.7	80	25
S50/25M	50	53.0	48.4	90	25
S63/10M	63	62.5	57.5	115	10
S75/10M	75	77.0	70.0	150	10

If interested in different coil lengths, do not hesitate to inquire

Approvals

KM35161

LOW VOLTAGE DIRECTIVE

IP rating	Appropriate fitting
For use with: Type S	
IP40	Type S - Type A, B, F & C

Temperature range
Static applications: -50°C to +300°C
Moving applications: -45°C to +250°C
Flexibility & fatigue life
High flexibility - High fatigue life
Fire Performance & EMI Screen

UV resistance
Very high

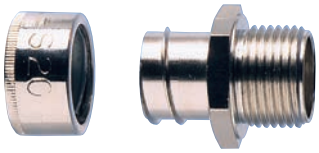
INHERENT LOW FIRE HAZARD ILFH

Superflexible metallic conduit systems

S Type A fitting

S Type A fitting

Straight fitting - Fixed external male thread / Materials: Nickel plated brass



Part no.	Nominal conduit size (mm)	Thread
Metric thread		
S10/M12/A	10	M12
S12/M16/A	12	M16
S16/M16/A	16	M16
S16/M20/A	16	M20
S20/M20/A	20	M20
S25/M25/A	25	M25
S32/M32/A	32	M32
S40/M40/A	40	M40
S50/M50/A	50	M50
S63/M63/A	63	M63
S75/M75/A	75	M75
PG thread		
S10/PG7/A	10	PG7
S12/PG9/A	12	PG9
S16/PG11/A	16	PG11
S20/PG16/A	20	PG16
S25/PG21/A	25	PG21
S32/PG29/A	32	PG29
S40/PG36/A	40	PG36
S50/PG42/A	50	PG42
S63/PG48/A	63	PG48

For insertion into knockouts using a locknut (order locknut separately)

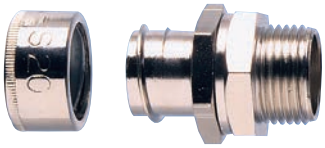
Approvals	IP rating		Temperature range
KM35161 CE LOW VOLTAGE DIRECTIVE	**For use with:** Type S / SS		Static applications: -50°C to +300°C
	IP40	Yes	Moving applications: -45°C to +250°C

Superflexible metallic conduit systems

S Type B fitting

S Type B fitting

Straight fitting - Swivel external male thread / Materials: Nickel plated brass



Part no.	Nominal conduit size (mm)	Thread
Metric thread		
S10/M12/B	10	M12
S12/M16/B	12	M16
S16/M16/B	16	M16
S16/M20/B	16	M20
S20/M20/B	20	M20
S25/M25/B	25	M25
S32/M32/B	32	M32
S40/M40/B	40	M40
S50/M50/B	50	M50
PG thread		
S10/PG7/B	10	PG7
S12/PG9/B	12	PG9
S16/PG11/B	16	PG11
S20/PG16/B	20	PG16
S25/PG21/B	25	PG21
S32/PG29/B	32	PG29
S40/PG36/B	40	PG36
S50/PG42/B	50	PG42

For insertion into threaded entries & knockouts using a locknut (order locknut separately)

Approvals

KM35161

IP rating

For use with: Type S / SS

IP40 Yes

Temperature range

Static applications: -50°C to +350°C

Moving applications: -45°C to +250°C

Fitting characteristics

Superflexible metallic conduit systems

S Type C & F fittings

S Type C fitting

Smooth entry bush / Materials: Nickel plated brass

Part no.	Nominal conduit size (mm)	Hole size (mm)
S10/9/C	10	9
S12/12/C	12	12
S16/16/C	16	16
S20/20/C	20	20
S25/25/C	25	25
S32/32/C	32	32
S40/40/C	40	40
S50/51/C	50	51
S63/61/C	63	61
S75/75/C	75	75

For locking conduit into plain holes in enclosures

Approvals	IP rating		Temperature range
	For use with: Type S / SS		Static applications: -50°C to +300°C
	IP40	Yes	Moving applications: -45°C to +250°C

S Type F fitting

Straight fitting - Fixed internal female thread / Materials: Nickel plated brass

Part no.	Nominal conduit size (mm)	Metric thread
S20/M20/F	20	M20
S25/M25/F	25	M25
S32/M32/F	32	M32

For attaching to external threads & other fittings

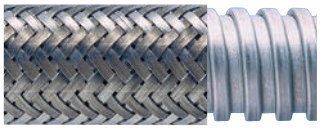
Approvals	IP rating		Temperature range
	For use with: Type S / SS		Static applications: -50°C to +300°C
	IP40	Yes	Moving applications: -45°C to +250°C

Braided superflexible metallic conduit systems

EMI screen Type STC conduit

Type STC

Galvanised steel, overbraided tinned copper, high EMI screening, flexible conduit / Materials: Galvanised steel conduit, tinned copper overbraid



Part no.	Nominal conduit size (mm)	Outside diameter (mm)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
STC10/25M	10	12.0	7.1	25	25
STC12/25M	12	14.0	10.3	30	25
STC16/25M	16	17.5	13.0	35	25
STC20/25M	20	21.5	16.9	45	25
STC25/25M	25	26.0	21.4	55	25
STC32/25M	32	34.0	28.1	60	10
STC40/10M	40	43.6	37.7	80	10
STC50/10M	50	56.0	48.4	90	10

If interested in different coil lengths, do not hesitate to inquire

Approvals

KM35161

LOW VOLTAGE DIRECTIVE

IP rating	Appropriate fitting
For use with: Type SB	
IP40	Type SB - Type A & B

Temperature range
Static applications: -50°C to +300°C
Moving applications: -45°C to +250°C
Flexibility & fatigue life
High flexibility – High fatigue life
Fire performance & EMI screen

UV resistance

Very high

HIGH EMI SCREEN · EMI SCREEN · EMI SCREEN

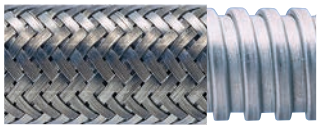
INHERENT LOW FIRE HAZARD ILFH

Braided superflexible metallic conduit systems

EMI screen Type SB conduit

—
Type SB

Galvanised steel, overbraided steel, enhanced EMI screening, flexible conduit /
Materials: Galvanised steel conduit, galvanised steel overbraid



Part no.	Nominal conduit size (mm)	Outside diameter (mm)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
SB10/25M	10	12.0	7.1	25	25
SB12/25M	12	14.0	10.3	30	25
SB16/25M	16	17.5	13.0	35	25
SB20/25M	20	21.5	16.9	45	25
SB25/25M	25	26.0	21.4	55	25
SB32/10M	32	34.0	28.1	60	10
SB40/10M	40	43.6	37.7	80	10
SB50/10M	50	56.0	48.4	90	10
SB63/10M	63	65.0	57.5	115	10
SB75/10M	75	80.0	70.0	150	10

If interested in different coil lengths, do not hesitate to inquire

Approvals

KM35161

IP rating — **Appropriate fitting**

For use with: Type SB

IP40 — Type SB - Type A & B

Temperature range

Static applications: -50°C to +300°C

Moving applications: -45°C to +250°C

Flexibility & fatigue life

High flexibility – High fatigue life

Fire performance & EMI screen

UV resistance

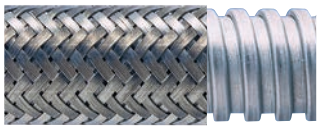
Very high

Braided superflexible metallic conduit systems

EMI screen Type SSB conduit

—
Type SSB

Overbraided, standard EMI screening, flexible conduit /
Materials: Stainless steel conduit, stainless steel overbraid



Part no.	Nominal conduit size (mm)	Outside diameter (mm)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
SSB12/25M	12	14.0	10.3	30	25
SSB16/25M	16	17.5	13.0	35	25
SSB20/25M	20	21.5	16.9	45	25
SSB25/25M	25	26.0	21.4	55	25
SSB32/10M	32	34.0	28.1	60	10

If interested in different coil lengths, do not hesitate to inquire

Approvals	IP rating	Appropriate fitting	Temperature range	UV resistance
KM35161 CE LOW VOLTAGE DIRECTIVE	**For use with:** Type SB		Static applications: -50°C to +300°C	Very high
	IP40	Type SB - Type A & B	Moving applications: -45°C to +250°C	
			Flexibility & fatigue life	
			High flexibility – High fatigue life	
			Fire performance & EMI screen	

Braided superflexible metallic conduit systems

EMI screen SB Type A & B fittings

SB Type A fitting

Straight fitting - Fixed external male thread / Materials: Nickel plated brass

Part no.	Nominal conduit size (mm)	Metric thread
SB10/M12/A	10	M12
SB12/M16/A	12	M16
SB16/M16/A	16	M16
SB20/M20/A	20	M20
SB25/M25/A	25	M25
SB32/M32/A	32	M32
SB40/M40/A	40	M40
SB50/M50/A	50	M50
SB63/M63/A	63	M63
SB75/M75/A	75	M75

For insertion into knockouts using a locknut (order locknuts separately)

Approvals	IP rating		Temperature range
KM35161 CE LOW VOLTAGE DIRECTIVE	**For use with:** All superflexible conduit		Static applications: -50°C to +300°C
	IP40	Yes	Moving applications: -45°C to +250°C

SB Type B fitting

Straight fitting - Swivel external male thread / Materials: Nickel plated brass

Part no.	Nominal conduit size (mm)	Metric thread
SB10/M12/B	10	M12
SB12/M16/B	12	M16
SB16/M16/B	16	M16
SB20/M20/B	20	M20
SB25/M25/B	25	M25
SB32/M32/B	32	M32
SB40/M40/B	40	M40
SB50/M50/B	50	M50

For insertion into threaded entries & knockouts using a locknut (order locknut separately)

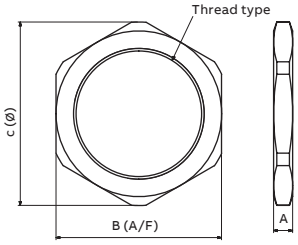
Approvals	IP rating		Temperature range
KM35161 CE LOW VOLTAGE DIRECTIVE	**For use with:** All superflexible conduit		Static applications: -50°C to +300°C
	IP40	Yes	Moving applications: -45°C to +250°C
			Fitting characteristics

Flexible metallic conduit systems

Accessories - Locknuts

Stainless steel locknut

Female threaded locknut / Materials: 316 stainless steel



Part no.	Thread size	Nominal dimensions (mm) A	B	C
Metric				
LNSS/M16	M16 x 1.5	3.0	20.0	21.1
LNSS/M20	M20 x 1.5	3.5	24.0	26.6
LNSS/M25	M25 x 1.5	4.0	30.0	33.2
LNSS/M32	M32 x 1.5	5.0	36.0	39.9
LNSS/M40	M40 x 1.5	5.0	47.2	52.3
LNSS/M50	M50 x 1.5	5.0	60.3	66.5
LNSS/M63	M63 x 1.5	6.0	69.8	77.6
NPSL				
LNSS/038	⅜”	3.0	20.0	21.1
LNSS/050	½”	3.0	27.0	30.0
LNSS/075	¾”	3.5	30.0	33.2
LNSS/100	1”	5.0	38.0	42.0
LNSS/125	1 ¼”	5.5	52.0	57.5
LNSS/150	1 ½”	6.0	60.0	66.5
LNSS/200	2”	7.0	69.8	77.0

LNB / LNS locknut

Metallic locknuts / Materials: Nickel plated brass, galvanised steel

Type LNB metallic locknuts

LNS locknut

Thread	Part no. Nickel plated brass	Galvanised steel
Metric	**Nickel plated brass**	**Galvanised steel**
M10 x 1.0	LNB/M10 (under request)	–
M12 x 1.5	LNB/M12 (under request)	–
M16	LNB/M16	LNS/M16
M20	LNB/M20	LNS/M20
M25	LNB/M25	LNS/M25
M32	LNB/M32	LNS/M32
M40	LNB/M40	
M50	LNB/M50	
M63	LNB/M63	
M75	LNB/M75	
PG	**Nickel plated brass**	
PG7	LNB/PG7	
PG9	LNB/PG9	
PG11	LNB/PG11	
PG13,5	LNB/PG13	
PG16	LNB/PG16	
PG21	LNB/PG21	
PG29	LNB/PG29	
PG36	LNB/PG36	
PG42	LNB/PG42	
PG48	LNB/PG48	
NPT	**Steel**	
⅜”	LNS/038	
½”	LNS/050	
¾”	LNS/075	
1”	LNS/100	
1 ¼”	LNS/125	
1 ½”	LNS/150	
2”	LNS/200	

Approvals

KM35161

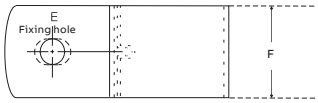
LOW VOLTAGE DIRECTIVE

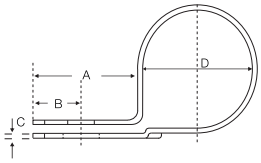
Flexible metallic conduit systems

Accessories - Clips

Stainless steel clip

Stainless steel clip / Materials: 316 stainless steel





Part no.	Metric conduit size (mm)	US conduit size (Trade size)	Nominal dimensions (mm) A	B	C	D	E	F
SSPC16	16	⅜”	19.0	9.0	0.7	16	6.0	12.7
SSPC20	20	½”	19.0	9.0	0.7	20	6.0	12.7
SSPC25	25	¾”	19.0	9.0	0.7	25	6.0	12.7
SSPC32	32	1”	19.0	9.0	0.7	32	6.0	12.7
SSPC40	40	1 ¼”	19.0	9.0	0.9	40	6.0	12.7
SSPC50	50	1 ½”	19.0	9.0	0.9	50	6.0	12.7
SSPC63	63	2”	19.0	9.0	0.9	63	6.0	12.7

Approvals

KM35161

Very high corrosion resistance, chemical resistance and fatigue life
Static applications: -50°C to +130°C
Moving applications: -5°C to +150°C

P-Clip

P-Clip Conduit Support / Materials: Plated steel or stainless steel construction with PVC insert

Plated steel part no.	Stainless steel part no.	Nominal conduit size (mm)
PCLIP/10	–	10
PCLIP/12	–	12
PCLIP/16	PCLIP/16SS	16
PCLIP/20	PCLIP/20SS	20
PCLIP/25	PCLIP/25SS	25
PCLIP/32	PCLIP/32SS	32
PCLIP/40	–	40
PCLIP/50	–	50
PCLIP/63	–	63
PCLIP/75	–	75

Approvals

KM35161

Flexible metallic conduit systems

Accessories - Elbows adapters Type 90/45 & thread converters

Type 90/45 elbow adapter

Brass elbows / Materials: Nickel plated brass

Type 90 brass elbow

Type 45 brass elbow

Metric external male thread	Metric internal female thread	Part no. Type 90°	Part no. Type 45°
M16	M16	B/M16/90	–
M16	M20	–	B/M16/45
M20	M20	B/M20/90	B/M20/45
M25	M25	B/M25/90	B/M25/45
M32	M32	B/M32/90	B/M32/45

PG external male thread	Metric internal female thread	Part no. Type 90°
PG9	M16	B/PG9/90
PG11	M16	B/PG11/90
PG13,5	M20	B/PG13/90
PG16	M20	B/PG16/90
PG21	M25	B/PG21/90

NPT external male thread	Metric internal female thread	Part no. Type 90°	Part no. Type 45°
½”	M20	B/050/90	B/050/45
¾”	M25	B/075/90	B/075/45

Approvals

KM35161

UNEF thread converter

UNEF thread converter with two internal female threads / Materials: Nickel plated brass

Internal thread	To M16 internal thread	To M20 internal thread	To M25 internal thread	To M32 internal thread
⅝” UNEF	B/063U-M16/TC	–	–	–
¾” UNEF	B/075U-M16/TC	B/075U-M20/TC	–	–
⅞” UNEF	–	B/088U-M20/TC	–	–
1” UNEF	–	B/100U-M20/TC	B/100U-M25/TC	–
1 3/16” UNEF	–	B/119U-M20/TC	B/119U-M25/TC	–
1 5/16” UNEF	–	B/131U-M20/TC	–	–
1 7/16” UNEF	–		B/144U-M25/TC	B/144U-M32/TC

Approvals

KM35161

For insertion into threaded entries & knockouts using a locknut (order locknut separately)

Flexible metallic conduit systems

Accessories - Female couplers & PSA coupler for proximity switches

Female coupler

Brass internal female coupler / Materials: Nickel plated brass

Approvals

KM35161

Part no.	Metric thread
B/M16/C	M16
B/M20/C	M20
B/M25/C	M25
B/M32/C	M32
B/M40/C	M40
B/M50/C	M50
B/M63/C	M63
B/M75/C	M75

PSA coupler

Proximity switch connectors / Materials: Nickel plated brass

Approvals

KM35161

	Part no.	
Internal thread	To M16 internal thread	To PG9 internal thread
M12 x 1.0	PSA16/M12	
M18 x 1.0	PSA16/M18	PSA9/M18
M30	PSA16/M30	PSA9/M30

Metallic conduit systems

Accessories - Type E enlargers, Type R reducers & Type TC converters

Type E / R / TC

Metallic locknuts / Materials: Nickel plated brass, galvanised steel

Type E, R & TC
Enlargers, reducers & converters

External thread	To PG7 internal thread	To PG9 internal thread	To PG11 internal thread	To PG13,5 internal thread
M16	B/M16-PG7/TC	B/M16-PG9/TC	B/M16-PG11/TC	–
M20	B/M20-PG7/TC	B/M20-PG9/TC	B/M20-PG11/TC	B/M20-PG13/TC
M25	–	–	–	–
M32	–	–	–	–
M40	–	–	–	–
M50	–	–	–	–
PG7	–	B/PG7-PG9/E	–	–
PG9	B/PG9-PG7/R	–	B/PG9-PG11/E	B/PG9-PG13/E
PG11	B/PG11-PG7/R	B/PG11-PG9/R	–	B/PG11-PG13/E
PG13,5	–	B/PG13-PG9/R	B/PG13-PG11/R	–
PG16	–	–	B/PG16-PG11/R	B/PG16-PG13/R
PG21	–	–	B/PG21-PG11/R	–
PG29	–	–	–	–
PG36	–	–	–	–
PG42	–	–	–	–
PG48	–	–	–	–

External thread	To M10 internal thread	To M12 internal thread	To M16 internal thread	To M20 internal thread
M16	–	B/M16-M12/R	–	B/M16-M20/E
M20	B/M20-M10/R	B/M20-M12/R	B/M20-M16/R	-
M25	–	–	–	B/M25-M20/R
M32	–	–	–	–
M40	–	–	–	–
M50	–	–	–	–
PG7	–	–	B/PG7-M16/TC	B/PG7-M20/TC
PG9	–	–	B/PG9-M16/TC	B/PG9-M20/TC
PG11	–	–	B/PG11-M16/TC	B/PG11-M20/TC
PG13,5	–	–	B/PG13-M16/TC	B/PG13-M20/TC
PG16	–	–	B/PG16-M16/TC	B/PG16-M20/TC
PG21	–	–	B/PG21-M16/TC	B/PG21-M20/TC
PG29	–	–	–	B/PG29-M20/TC
PG36	–	–	–	–
PG42	–	–	–	–
PG48	–	–	–	–
½" NPT	–	–	B/050-M16/TC	B/050-M20/TC

Approvals

KM35161 CE LOW VOLTAGE DIRECTIVE

To PG16 internal thread	To PG21 internal thread	To PG29 internal thread	To PG36 internal thread
–	–	–	–
B/M20-PG16/TC	B/M20-PG21/TC	–	–
–	–	–	–
–	–	B/M32-PG29/TC	–
–	–	–	–
–	–	–	–
–	–	–	–
–	–	–	–
B/PG11-PG16/E	–	–	–
B/PG13-PG16/E	B/PG13-PG21/E	–	–
–	B/PG16-PG21/E	–	–
B/PG21-PG16/R	–	B/PG21-PG29/E	–
B/PG29-PG16/R	B/PG29-PG21/R	–	B/PG29-PG36/E
–	B/PG36-PG21/R	B/PG36-PG29/R	–
–	–	B/PG42-PG29/R	–
–	–	–	B/PG48-PG36/R

To M25 internal thread	To M32 internal thread	To M40 internal thread	To ½” NPT internal thread
–	–	–	-
B/M20-M25/E	–	–	B/M20-050/TC
–	B/M25-M32/E	–	–
B/M32-M25/R	–	–	–
–	B/M40-M32/R	–	–
–	–	B/M50-M40/R	–
–	–	–	–
–	–	–	–
–	–	–	B/PG11-050/TC
–	–	–	–
B/PG16-M25/TC	-	–	–
B/PG21-M25/TC	B/PG21-M32/TC	–	–
B/PG29-M25/TC	B/PG29-M32/TC	B/PG29-M40/TC	–
-	B/PG36-M32/TC	B/PG36-M40/TC	-
–	–	–	–
–	–	–	–
–	–	–	–

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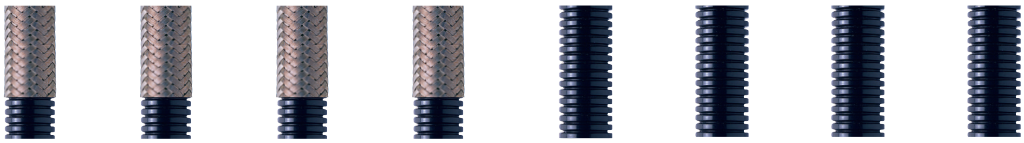
BUS COUPLER

Flexible non-metallic conduit systems

82	**Quick selection guide**
84	**Flexible non-metallic conduits** Hi-Spec Overbraided High Performance PEEK Polypropilene Polyamide PA12 Polyester Polyamide PA6
96	**Corrosion resistant composite PC fittings**
100	**Adaptalok ATS IP69 fittings**
118	**Adaptalok AL IP66 fittings**
130	**Adaptaseal fittings**
134	**Adaptaring fittings**
136	**PVCu conduit systems**
144	**Accessories**

Non-metallic conduit systems

Quick selection guide



Product selection guide

Type	Pitch	Type PKTC	Type PKSS	Type PRTC	Type PRSS	Type PK	Type PP	Type PF	Type PF
Part number	Fine	PKFSTC	PKFSSS	PRFSTC	PRFSSS	PKFS	PPFM	PFFH	PFFS
	Coarse	PKCSTC	PKCSSS	PRCSTC	PRCSSS	PKCS		PFCH	PFCS
Conduit weight		Standard weight	Standard weight	Standard weight	Standard weight	Standard weight	Medium weight	Heavy weight	Standard weight
Conduit material		PK	PK	PA6	PA6	PK	PP	PA12	PA12
Covering/overbraid		Tinned copper	Stainless steel	Tinned copper	Stainless steel	–	–	–	–
		EMI Screen				Extreme Temp Radiation Res	Chemical Resistant	Low Smoke and High Fire Performance	
Conduit colour									
Black (BL)		–	–	–	–	■	■	■	■
Grey (GR)		–	–	–	–	–	–	–	–
White (W)		–	–	–	–	–	–	–	–
IP rating (with appropriate fitting)									
IP40		–	–	–	–	–	■	–	–
IP65		–	–	–	–	–	–	–	–
IP66		■	■	■	■	■	■	■	■
IP67		■	■	■	■	■	■	■	■
P68		–	–	–	–	–	■	■	■
P69		–	–	–	–	–	–	■	■

Characteristics

Temperature range								
Static applications (°C)	-60 to +260	-60 to +260	-40 to +120	-40 to +120	-60 to +260	-20 to +90	-50 to +110	-50 to +110
Moving applications (°C)	-45 to +260	-45 to +260	-5 to +120	-5 to +120	-45 to +260	-5 to +105	-45 to +120	-45 to +120
UV resistance	Very high	Very high	Very high	Very high	Very high	Medium	Very high	Very high
Flexibility	High	High	High	High	High	High	High	Very high
Fatigue life	High	High	Medium	Medium	High	Medium	High	Very high
Low fire hazard	Super	Super	Enhanced	Enhanced	Super	–	Standard	Standard
Halogen free	■	■	■	■	■	■	■	■
Self extinguishing	■	■	■	■	■	–	■	■
EMI screen	High	Standard	High	Standard	–	–	–	–
High mechanical strength	■	■	■	■	–	–	–	–
High abrasion resistance	■	■	■	■	■	–	■	■
Approvals								
BSI Kitemark	■	■	■	■	■	–	■	■
CE	■	■	■	■	■	■	■	■
UL / CSA	–	–	–	–	–	–	■	■
DIN 5510-2	■	■	■	■	■	–	■	■
NF F	■	■	■	■	■	–	■	■
LUL 1-085	■	■	■	■	■	–	–	–
UNI CEI 11170	–	–	–	–	–	–	■	■
EN45545-2 to HL2	–	–	–	–	–	–	■	■
EN45545-2 to HL3	–	–	–	–	–	–	–	–
Page No.	85	85	86	86	88	89	90	90

Type PR	**Type CP**	**Type PA**	**Type PA**	**Type PAL**	**Type PA**	**Type KF**	**Type KF**	**Type KF**	**Type RF**	**Type XF**
PRFS	CPFM	PAFH	PAFS	PAFL	PAFL-S	KFM	KFS	KFL	RF	XF
PRCS	CPCM	PACH	PACS	PACL	PACL-S					
Standard weight	Medium weight	Heavy weight	Standard weight	Light weight	Light weight slit	Medium weight	Standard weight	Light weight	Standard weight	Standard weight
PA6	CPe	PA6	PA6	PA6	PA6	PVCu	PVCu	PVCu	PVC	PVC
–	–	–	–	–	–	–	–	–	Plasticised PVC	Plasticised PVC
	High and Low Temp	General purpose		Easy maintenance		Self Estinguishing				
■	■	■	■	■	■	■	–	–	■	■
–	–	■	■	■	–	–	–	■	■	–
–	–	–	–	–	–	–	■	–	–	–
■	■	■	■	■	–	■	■	■	–	–
–	■	–	–	–	–	■	■	■	–	■
■	■	■	■	■	–	–	–	–	–	–
■	■	■	■	■	–	–	–	–	■	-
■	■	■	■	■	–	–	–	–	–	–
■	■	–	■	–	–	–	–	–	–	–
-40 to +120	-50 to +135	-40 to +120	-40 to +120	-40 to +120	-40 to +120	-5 to +60	-5 to +60	-5 to +60	-5 to +60	-20 to +60
-5 to +120	-25 to +150	-25 to +150	-25 to +150	-5 to +120	-5 to +120	-5 to +60	-5 to +60	-5 to +60	-5 to +60	-5 to +60
Very high	Very high	Very high	Very high	Very high	Very high	High	High	High	High	High
High	Very high	Medium	High	High	High	Pliable	Pliable	Pliable	Medium	Medium
Medium	Very high	Medium	High	High	High	Low	Low	Low	Medium	Medium
Enhanced	Standard	Standard	Standard	Standard	–	–	–	–	–	–
■	■	■	■	■	■	–	–	–	–	–
■	■	■	■	■	■	■	■	■	■	■
–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–
■	–	■	■	–	–	–	–	–	–	–
■	■	■	■	■	■	■	■	■	–	–
■	■	■	■	■	■	■	■	■	–	–
–	–	■	■	–	–	–	–	–	–	–
■	–	■	■	–	■	–	–	–	–	–
■	■	■	■	–	–	–	–	–	–	–
■	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–
■	–	–	–	–	–	–	–	–	–	–
■	–	–	–	–	–	–	–	–	–	–
91	91	92	93	94	94	137	137	137	142	140

PEEK hi-spec flexible conduit system
Type “PK”

A unique new range of very high performance non-metallic flexible conduits, providing excellent chemical resistance and superior mechanical properties, often under extreme temperatures.

—
01 PK Tyoe A fitting fitting – fixed external male thread / Polyetherketone Type PK conduit

For over 40 years Adaptaflex has been manufacturing flexible conduit systems in the UK, and is now a market-leading supplier in its field. This new product range demonstrates the continuing market-led development policy.

Application
PK conduits are manufactured from the specialist polymer PEEK, which can be used in the most demanding applications, where excellent mechanical, thermal and chemical properties are required, often in extreme temperatures. PEEK conduits are ideal for applications such as offshore oil & gas, nuclear, marine, military, petrochemical, heat treatment, aerospace and railways.

PEEK conduits are used with Type PK or Type PBF brass nickel plated fittings.

Features
- Manufactured from PEEK specialist polymer
- Extreme temperature range -60°C to +260°C
- Lowest smoke and toxicity of any thermoplastic
- UL94 V0 flammability rating
- Superior mechanical strength allied to light weight
- London Underground (LUL) approved
- Material is FDA approved
- Uncovered and braided versions
- EMI screening in braided versions

Benefits
- Excellent chemical, thermal and mechanical properties
- Radiation resistant (2000 Mrads)
- Zero halogen, nitrogen, sulphur and phosphorus
- Ideal for applications where weight is a consideration
- Abrasion resistance
- Very low heat release

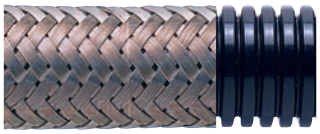
—
01

Abrasion Resistant and EMI screening non-metallic conduit systems

Type PKTC & PKSS - Hi-Spec conduits

Type PKTC - Hi-Spec

High specification, high EMI screening conduit / Materials: Polyetherketone conduit, tinned copper overbraid



Part no.	Nominal conduit size (mm)	NW conduit size (mm)	Conduit pitch	Outside diameter (mm)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
PKFSTC13/BL/25M	13	10	Fine	14.1	10.0	35	25
PKFSTC16/BL/25M	16	13	Fine	17.2	11.7	45	25
PKFSTC21/BL/25M	21	17	Fine	23.6	16.6	60	25
PKCSTC28/BL/25M	28	23	Coarse	30.0	21.7	65	25
PKCSTC34/BL/25M	34	29	Coarse	36.0	27.7	80	25

If interested in different coil lengths, do not hesitate to inquire

Approvals

IP rating — **Appropriate fitting**

For use with: Hi-Spec Type A & B

IP66	Hi-Spec Type A & B
IP67	Hi-Spec Type A & B

Temperature range

Static applications: -60°C to +260°C

Moving applications: -45°C to +260°C

Flexibility & fatigue life

High flexibility – High fatigue life

Fire performance & EMI screen

Self extinguishing

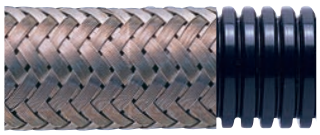
Halogen free

UV resistance

Very high

Type PKSS - Hi-Spec

High specification, standard EMI screening conduit / Materials: Polyetherketone conduit, stainless steel overbraid



Part no.	Nominal conduit size (mm)	NW conduit size (mm)	Conduit pitch	Outside diameter (mm)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
PKFSSS13/BL/25M	13	10	Fine	14.1	10.0	45	25
PKFSSS16/BL/50M	16	13	Fine	17.2	11.7	55	50
PKFSSS21/BL/50M	21	17	Fine	23.6	16.6	70	50
PKCSSS28/BL/50M	28	23	Coarse	30.0	21.7	85	50
PKCSSS34/BL/25M	34	29	Coarse	36.0	27.7	100	25

If interested in different coil lengths, do not hesitate to inquire

Approvals

IP rating — **Appropriate fitting**

For use with: Hi-Spec Type A & B

IP66	Hi-Spec Type A & B
IP67	Hi-Spec Type A & B

Temperature range

Static applications: -60°C to +260°C

Moving applications: -45°C to +260°C

Flexibility & fatigue life

High flexibility – High fatigue life

Fire performance & EMI screen

Self extinguishing

Halogen free

UV resistance

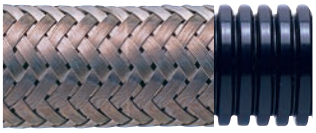
Very high

Abrasion Resistant and EMI screening non-metallic conduit systems

Type PRTC & PRSS - Hi-Spec conduits

Type PRTC - Hi-Spec

High specification, high EMI screening conduit / Materials: Polyetherketone conduit, tinned copper overbraid



Part no.	Nominal conduit size (mm)	NW conduit size (mm)	Conduit pitch	Outside diameter (mm)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
PRFSTC16/BL/50M	16	13	Fine	17.2	11.7	35	50
PRFSTC21/BL/50M	21	17	Fine	23.6	16.6	45	50
PRCSTC28/BL/50M	28	23	Coarse	30.0	21.7	50	50
PRCSTC34/BL/50M	34	29	Coarse	36.0	27.7	60	50
PRCSTC42/BL/25M	42	36	Coarse	43.5	35.1	65	25
PRCSTC54/BL/25M	54	48	Coarse	56.5	46.6	75	25

If interested in different coil lengths, do not hesitate to inquire

Approvals

IP rating — **Appropriate fitting**

For use with: Hi-Spec Type A & B

IP66	Hi-Spec Type A & B
IP67	Hi-Spec Type A & B

Temperature range

Static applications: -40°C to +120°C

Moving applications: -5°C to +120°C

Flexibility & fatigue life

High flexibility – Medium fatigue life

Fire performance & EMI screen

Self extinguishing

UV resistance

Very high

Type PRSS - Hi-Spec

High specification, standard EMI screening conduit / Materials: Polyetherketone conduit, stainless steel overbraid

Part no.	Nominal conduit size (mm)	NW conduit size (mm)	Conduit pitch	Outside diameter (mm)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
PRFSSS16/BL/50M	16	13	Fine	17.2	11.7	35	50
PRFSSS21/BL/50M	21	17	Fine	23.6	16.6	45	50
PRCSSS28/BL/50M	28	23	Coarse	30.0	21.7	55	50
PRCSSS34/BL/50M	34	29	Coarse	36.0	27.7	70	50
PRCSSS42/25M	42	36	Coarse	43.5	35.1	85	25
PRCSSS54/25M	54	48	Coarse	56.5	46.6	110	25

If interested in different coil lengths, do not hesitate to inquire

Approvals

IP rating — **Appropriate fitting**

For use with: Hi-Spec Type A & B

IP66	Hi-Spec Type A & B
IP67	Hi-Spec Type A & B

Temperature range

Static applications: -40°C to +120°C

Moving applications: -5°C to +120°C

Flexibility & fatigue life

High flexibility – Medium fatigue life

Fire performance & EMI screen

Self extinguishing

UV resistance

Very high

Non-metallic conduit systems

Hi-Spec Fittings for overbraided PKTC, PKSS, PRTC & PRSS solutions

PB Type A - Hi-Spec fitting

Straight fitting - Fixed external male thread / Materials: Nickel plated brass

Part no.	Nominal conduit size (mm)	Metric thread
PBF13/M16/A	13	M16
PBF16/M16/A	16	M16
PBF21/M20/A	21	M20
PBC28/M25/A	28	M25
PBC34/M32/A	34	M32
PBC42/M40/A	42	M40

For insertion into knockouts using a locknut

Approvals

IP rating	Appropriate fitting
For use with: Hi-Spec Type PKTC / PKSS / PRTC / PRSS	
IP66	Yes
IP67	Yes

Temperature range
Static applications: -60°C to +260°C
Moving applications: -45°C to +250°C

Fire performance & EMI screen

PB Type B - Hi-Spec fitting

Straight fitting - Swivel external male thread / Materials: Nickel plated brass

Part no.	Nominal conduit size (mm)	Nominal dimensions (mm) Outer Ø	Nominal dimensions (mm) Length	Metric thread
PBF13/M16/B	13	30.5	50.0	M16
PBF16/M16/B	16	33.0	57.1	M16
PBF21/M20/B	21	39.0	59.1	M20
PBC28/M25/B	28	49.0	70.0	M25
PBC34/M32/B	34	55.0	75.0	M32
PBC42/M40/B	42	77.0	90.0	M40
PBC54/M50/B	54	90.0	92.0	M50

For insertion into threaded entries & knockouts

Approvals

IP rating	Appropriate fitting
For use with: Hi-Spec Type PKTC / PKSS / PRTC / PRSS	
IP66	Yes
IP67	Yes

Temperature range
Static applications: -60°C to +260°C
Moving applications: -45°C to +260°C

Fire performance & EMI screen

PEEK hi-spec non-metallic conduit systems

Type PK conduits and fittings

Polyetherketone Type PK conduit

High specification conduit / Materials: Polyetherketone / Colour: Black (BL) only

Part no.	Nominal conduit size (mm)	NW conduit size (mm)	Conduit pitch	Outside diameter (mm)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
PKFS13/BL/50M	13	10	Fine	13.2	10.0	35	50
PKFS16/BL/50M	16	13	Fine	16.3	11.7	45	50
PKFS21/BL/50M	21	17	Fine	21.2	16.6	60	50
PKCS28/BL/50M	28	23	Coarse	28.4	21.7	65	50
PKCS34/BL/50M	34	29	Coarse	34.3	27.7	80	50

If interested in different coil lengths, do not hesitate to inquire

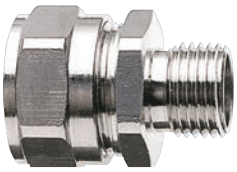
Approvals

IP rating	Appropriate fitting
For use with: Peek Type A	
IP66	Peek Type A; ATS fittings can be used to ATS operating temperature
IP67	Peek Type A; ATS fittings can be used to ATS operating temperatures
IP68	ATS fittings can be used to ATS operating temperatures
IP69	ATS fittings can be used to ATS operating temperatures

Temperature range	UV resistance
Static applications: -60°C to +260°C	Very high
Moving applications: -45°C to +260°C	
Flexibility & fatigue life	
Medium flexibility – Medium fatigue life	
Fire performance & EMI screen	
Self extinguishing	
Halogen free	

PK Type A fitting

Straight fitting - Fixed external male thread / Materials: Nickel plated brass & silicone



Part no.	Nominal conduit size (mm)	Metric thread
PK13/M16/A	13	M16
PK16/M16/A	16	M16
PK21/M20/A	21	M20
PK28/M25/A	28	M25
PK34/M32/A	34	M32

For insertion into knockouts using a locknut. Locknut supplied separately

Approvals

IP rating	Appropriate fitting
For use with: Peek Type PK	
IP66	Peek Type A
IP67	Peek Type A

Temperature range	UV resistance
Static applications: -60°C to +260°C	Very high
Moving applications: -45°C to +260°C	
Fire performance & EMI screen	

Polypropylene non-metallic conduit systems

Type PP & conduit & Type PPA fitting

The efficient non-metallic flexible conduits, manufactured from Polypropylene, providing excellent weather and chemical resistance, being the solution against inorganic acids, polyhydric alcohols, neutral and basic salts.

Polypropylene Type PP conduit

Medium weight conduit / Materials: Polypropylene / Colour: Black (BL) only

Part no.	Nominal conduit size (mm)	NW conduit size (mm)	Outside diameter (mm)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
PPFM13/BL/50M	13	10	13.0	9.8	25	50
PPFM16/BL/50M	16	13	15.8	12.1	35	50
PPFM21/BL/50M	21	17	21.2	16.8	40	50
PPFM28/BL/50M	28	23	28.5	23.1	60	50
PPFM34/BL/25M	34	29	34.5	29.1	50	25

If interested in different coil lengths, do not hesitate to inquire

Approvals	IP rating	Appropriate fitting	Temperature range	UV resistance
	For use with: Polypropylene Type PPA		Static applications: -20°C to +90°C	Medium
	IP66	Polypropylene Type PPA	Moving applications: -5°C to +105°C	
			Flexibility & fatigue life	
			High flexibility - Medium fatigue life	

Polypropylene Type PPA fitting

Straight fitting - Fixed external male thread / Materials: Polypropylene / Colour: Black (BL) only

Part no.	Nominal conduit size (mm)	Metric thread
AL13/M16/PPA/BL	13	M16
AL16/M16/PPA/BL	16	M16
AL21/M20/PPA/BL	21	M20
AL28/M25/PPA/BL	28	M25
AL34/M32/PPA/BL	34	M32

For insertion into knockouts using locknuts. Locknuts supplied
To order quote part number & body colour, e.g. AL21/M20/PPA/BL

Approvals	IP rating	Appropriate conduit	Temperature range	
	For use with: Polypropylene Type PP		Static applications: -20°C to +90°C	
	IP66	Yes	Moving applications: -5°C to +105°C	
			Fitting characteristics	

Modified Polyamide 12 non-metallic conduit systems

Type PF conduits

Manufactured from the PA12, PF conduit system provides low fire hazard performance offering a solution for Construction, Transport and Rail infrastructures and Automation.

Type PF - H

Heavyweight conduit / Materials: Modified polyamide 12 / Colour: Black (BL) only

Part no.	Nominal conduit size (mm)	NW conduit size	Conduit pitch	Outside diameter (mm)	Inside diameter (mm)	Minimum bend radius (mm)	Reel length (m)
PFFH13/BL/50M*	13	10	Fine	13.0	9.7	40	50
PFFH16/BL/50M	16	13	Fine	15.8	11.5	45	50
PFCH21/BL/50M	21	17	Coarse	21.2	15.3	50	50
PFCH28/BL/50M	28	23	Coarse	28.5	21.5	60	50
PFCH34/BL/50M	34	29	Coarse	34.5	27.5	70	25
PFCH42/BL/25M	42	36	Coarse	42.5	35.3	75	25
PFCH54/BL/25M	54	48	Coarse	54.5	46.4	85	25

If interested in different coil lengths, do not hesitate to inquire
*These parts are not covered by the UR certification

Approvals

EN45545-2 HL2 - R22 & R23

IP rating	Appropriate fitting
For use with: PC / ATS / Adaptalok AL / Adaptaseal / Adaptaring	
IP40	Adaptaring
IP66	PC, ATS, Adaptalok AL, Adaptaseal
IP67	PC, ATS, Adaptalok AL + ALS Seal, Adaptaseal
IP68	PC, ATS, Adaptalok AL + ALS Seal, Adaptaseal
IP69	PC, ATS, Adaptalok AL + ALS Seal, Adaptaseal

Temperature range
Static applications: -50°C to +110°C
Moving applications: -45°C to +120°C
Flexibility & fatigue life
High flexibility – High fatigue life
Fire performance & EMI screen
Self extinguishing
Halogen free

UV resistance
Very high

Type PF - S

Standard weight conduit / Materials: Modified polyamide 12 / Colour: Black (BL) only

Part no.	Nominal conduit size (mm)	NW conduit size	Conduit pitch	Outside diameter (mm)	Inside diameter (mm)	Minimum bend radius (mm)	Reel length (m)
PFFS10/BL/50M*	10	7.5	Fine	10.0	6.2	20	50
PFFS13/BL/50M*	13	10	Fine	13.1	9.8	30	50
PFFS16/BL/50M	16	13	Fine	15.9	11.5	35	50
PFFS21/BL/50M	21	17	Fine	21.2	16.6	40	50
PFCS28/BL/50M	28	23	Coarse	28.4	21.7	50	50
PFCS34/BL/50M	34	29	Coarse	34.5	27.5	60	50
PFCS42/BL/25M	42	36	Coarse	42.7	35.5	65	25
PFCS54/BL/25M	54	48	Coarse	54.3	46.2	75	25

If interested in different coil lengths, do not hesitate to inquire
*These parts are not covered by the UR certification

Approvals

EN45545-2 HL2 - R22 & R23

IP rating	Appropriate fitting
For use with: PC / ATS / Adaptalok AL / Adaptaseal / Adaptaring	
IP40	Adaptaring
IP66	PC, ATS, Adaptalok AL, Adaptaseal
IP67	PC, ATS, Adaptalok AL + ALS Seal, Adaptaseal
IP68	PC, ATS, Adaptalok AL + ALS Seal, Adaptaseal
IP69	PC, ATS, Adaptalok AL + ALS Seal, Adaptaseal

Temperature range
Static applications: -50°C to +110°C
Moving applications: -45°C to +120°C
Flexibility & fatigue life
Very high flexibility - Very high fatigue life
Fire performance & EMI screen
Self extinguishing
Halogen free

UV resistance
Very high

Modified Polyamide 6 and Polyester non-metallic conduit systems

Type PR & CP conduits

PR conduit systems provide enhanced fire performance, making a suitable solution for Construction, Transport and Rail Infrastructures. CP conduit systems can work at extreme temperature yet assuring a high flexibility.

Type PR

Standard weight conduit / Materials: Modified polyamide (nylon) 6 / Colour: Black (BL) only

Part no.	Nominal conduit size (mm)	NW conduit size (mm)	Conduit pitch	Outside diameter (mm)	Inside diameter (mm)	Minimum bend radius (mm)	Reel length (m)
PRFS13/BL/50M	10	7.5	Fine	10.0	6.2	20	50
PRFS16/BL/50M	13	10	Fine	13.0	9.9	30	50
PRFS21/BL/50M	16	13	Fine	15.8	11.7	35	50
PRCS21/BL/50M	21	17	Fine	21.2	16.6	40	50
PRCS28/BL/50M	28	23	Coarse	28.5	21.7	50	50
PRCS34/BL/50M	34	29	Coarse	34.5	27.7	60	50
PRCS42/BL/25M	42	36	Coarse	42.5	35.5	65	25
PRCS54/BL/25M	54	48	Coarse	54.5	46.6	75	25

If interested in different coil lengths, do not hesitate to inquire

Approvals

EN45545-2 HL3 - R22 & R23

IP rating	Appropriate fitting
For use with: PC / ATS / Adaptalok AL / Adaptaseal / Adaptaring	
IP40	Adaptaring
IP66	PC, ATS, Adaptalok AL, Adaptaseal
IP67	PC, ATS, Adaptalok AL + ALS Seal, Adaptaseal
IP68	PC, ATS, Adaptalok AL + ALS Seal, Adaptaseal
IP69	PC, ATS, Adaptalok AL + ALS Seal, Adaptaseal

Temperature range
Static applications: -40°C to +120°C
Moving applications: -5°C to +120°C
Flexibility & fatigue life
High flexibility - Medium fatigue life
Fire performance & EMI screen
Self extinguishing
Halogen free

UV resistance
Very high

Type CP

Medium weight conduit / Materials: Polyester / Colour: Black (BL) only

Part no.	Nominal conduit size (mm)	NW conduit size (mm)	Conduit pitch	Outside diameter (mm)	Inside diameter (mm)	Minimum bend radius (mm)	Reel length (m)
CPFM13/BL/50M	13	10	Fine	13.0	9.5	25	50
CPFM16/BL/50M	16	13	Fine	15.8	11.3	30	50
CPFM21/BL/50M	21	17	Fine	21.2	16.0	35	50
CPCM28/BL/50M	28	23	Coarse	28.5	21.3	45	50
CPCM34/BL/50M	34	29	Coarse	34.5	27.2	55	50
CPCM42/BL/25M	42	36	Coarse	42.5	34.2	60	25
CPCM54/BL/25M	54	48	Coarse	54.5	46.0	70	25

If interested in different coil lengths, do not hesitate to inquire

Approvals

EN45545-2 HL2 - R22 & R23

IP rating	Appropriate fitting
For use with: PC / ATS / Adaptalok AL / Adaptaseal	
IP66	PC, Adaptalok AL, Adaptaseal
IP67	PC, Adaptalok AL + ALS Seal, Adaptaseal
IP68	PC, Adaptalok AL + ALS Seal, Adaptaseal
IP69	PC, Adaptalok AL + ALS Seal, Adaptaseal

Temperature range
Static applications: -50°C to +135°C
Moving applications: -25°C to +150°C
Flexibility & fatigue life
Very high flexibility – Very high fatigue life
Fire performance & EMI screen
Self extinguishing
Halogen free

UV resistance
Very high

Polyamide 6 Heavyweight non-metallic conduit systems

Type PA - H conduit

PA conduit systems, manufactured from the versatile PA6, provide an efficient solution to applications where flexibility and durability is required, together with the tough property of the polyamide. Ideal for general purpose applications: lighting systems / industrial commercial wiring, public buildings, machine tools and marine.

Type PA - H

Heavyweight conduit / Materials: Polyamide (nylon) 6 / Colour: Black (BL), Grey (GR)

Part no.	Nominal conduit size (mm)	NW conduit size	Conduit pitch	Outside diameter (mm)	Inside diameter (mm)	Minimum bend radius (mm)	Reel length (m)
PAFH13/BL/50M*	13	10	Fine	13.0	9.0	35	50
PAFH16/BL/50M	16	13	Fine	15.8	11.3	45	50
PACH21/BL/50M	21	17	Coarse	21.2	14.5	60	50
PACH28/BL/50M	28	23	Coarse	28.5	21.3	70	50
PACH34/BL/25M	34	29	Coarse	34.5	26.8	75	50
PACH42/BL/25M	42	36	Coarse	42.5	34.6	90	25
PACH54/BL/25M	54	48	Coarse	54.5	46.0	95	25

For grey color version state "GR" instead of "BL" in Part no. If interested in different coil lengths, do not hesitate to inquire
*These parts are not covered by the UR certification

Approvals

KM35161

IP rating — **Appropriate fitting**

For use with: PC / ATS / Adaptalok AL / Adaptaseal / Adaptaring

IP40	Adaptaring
IP66	PC, ATS, Adaptalok AL, Adaptaseal
IP67	PC, ATS, Adaptalok AL + ALS Seal, Adaptaseal
IP68	PC, ATS, Adaptalok AL + ALS Seal, Adaptaseal

Temperature range

Static applications: -40°C to +120°C

Moving applications: -5°C to +120°C

Flexibility & fatigue life

High flexibility – High fatigue life

Fire performance & EMI screen

Self extinguishing

Halogen free

UV resistance

Very high

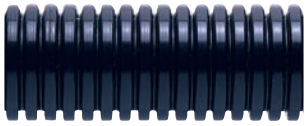
Polyamide 6 Standard Weight non-metallic conduit systems

Type PA - S conduit

PA conduit systems, manufactured from the versatile PA6, provide an efficient solution to applications where flexibility and durability is required, together with the tough property of the polyamide. Ideal for general purpose applications: lighting systems / industrial commercial wiring, public buildings, machine tools and marine.

Type PA - S

Standard weight conduit / Materials: Polyamide (nylon) 6 / Colour: Black (BL), Grey (GR)



Part no.	Nominal conduit size (mm)	NW conduit size	Conduit pitch	Outside diameter (mm)	Inside diameter (mm)	Minimum bend radius (mm)	Reel length (m)
PAFS10/BL/50M*	10	7.5	Fine	10.0	6.5	15	50
PAFS13/BL/50M*	13	10	Fine	13.0	9.6	25	50
PAFS16/BL/50M	16	13	Fine	15.8	11.8	35	50
PAFS21/BL/50M	21	17	Fine	21.2	16.5	45	50
PAFS28/BL/50M	28	23	Fine	28.5	22.6	50	50
PACS28/BL/50M	28	23	Coarse	28.5	21.7	50	50
PAFS34/BL/50M	34	29	Fine	34.5	28.8	60	50
PACS34/BL/50M	34	29	Coarse	34.5	27.7	60	50
PACS42/BL/25M	42	36	Coarse	42.5	35.2	65	25
PACS48/BL/25M	48	42	Coarse	48.2	40.9	70	25
PACS54/BL/25M	54	48	Coarse	54.5	46.5	75	25
PACS80/BL/10M	80	70	Coarse	79.3	67.0	160	10
PACS106/BL/10M	106	95	Coarse	106.0	91.5	210	10

Approvals

KM35161

IP rating	Appropriate fitting
For use with: PC / ATS / Adaptalok AL / Adaptaseal / Adaptaring	
IP40	Adaptaring & Jumbo
IP65	Adaptalok AL Jumbo + SK Seal
IP66	PC, ATS, Adaptalok AL, Adaptaseal
IP67	PC, ATS, Adaptalok AL + ALS Seal, Adaptaseal
IP68	PC, ATS, Adaptalok AL + ALS Seal, Adaptaseal
IP69	PC, ATS, Adaptalok AL + ALS Seal, Adaptaseal

Temperature range
Static applications: -40°C to +120°C
Moving applications: -25°C to +150°C
Flexibility & fatigue life
High flexibility – High fatigue life
Fire performance & EMI screen
Self extinguishing
Halogen free

UV resistance
Very high

Polyamide 6 Slit non-metallic conduit systems

Type PAL & PA-Slit conduits

Type PAL conduit

Lightweight conduit / Materials: Polyamide (nylon) 6 / Colour: Black (BL), Grey (GR)

Part no.	Nominal conduit size (mm)	NW conduit size (mm)	Conduit pitch	Outside diameter (mm)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
PAFL13/BL/50M	13	10	Fine	13.0	10.0	25	50
PAFL16/BL/50M	16	13	Fine	15.8	11.9	35	50
PAFL21/BL/50M	21	17	Fine	21.2	16.8	45	50
PACL28/BL/50M	28	23	Coarse	28.5	22.2	50	50
PACL34/BL/50M	34	29	Coarse	34.5	27.9	60	50
PACL42/BL/50M	42	36	Coarse	42.5	35.2	65	50
PACL54 /BL/50M	54	48	Coarse	54.5	46.9	75	50

To order quote part number, colour & reel length, e.g. PAFL10/BL/50M
For grey color version state "GR" instead of "BL" in Part no.

Approvals

KM35161

IP rating / **Appropriate fitting**

For use with: ATS / Adaptalok AL / Adaptaseal / Adaptaring

IP40	Adaptaring & Jumbo
IP66	ATS, Adaptalok AL, Adaptaseal
IP67	ATS, Adaptalok AL + ALS Seal, Adaptaseal
IP68	ATS, Adaptalok AL + ALS Seal, Adaptaseal

Temperature range

Static applications: -40°C to +120°C

Moving applications: -5°C to +120°C

Flexibility & fatigue life

High flexibility – High fatigue life

Fire performance & EMI screen

Self extinguishing

Halogen free

UV resistance

Very high

Type PA-Slit

Slit conduit / Materials: Polyamide (nylon) 6 / Colour: Black (BL) only

Part no.	Nominal conduit size (mm)	NW conduit size	Conduit pitch	Outside diameter (mm)	Inside diameter (mm)	Minimum bend radius (mm)	Reel length (m)
PAFL13-S/BL/50M	13	10	Fine	13.0	10.0	25	50
PAFL16-S/BL/50M	16	13	Fine	15.8	11.9	35	50
PAFL21-S/BL/50M	21	17	Fine	21.2	16.8	45	50
PACL28-S/BL/50M	28	23	Coarse	28.5	22.2	50	50
PACL34-S/BL/50M	34	29	Coarse	34.5	27.9	60	50
PACL42-S/BL/25M	42	36	Coarse	42.5	35.2	65	25
PACL54-S/BL/25M	54	48	Coarse	54.5	46.9	75	25

If interested in different coil lengths, do not hesitate to inquire

Approvals

KM35161

IP rating / **Appropriate fitting**

N/A

Temperature range

Static applications: -40°C to +120°C

Moving applications: -5°C to +120°C

Flexibility & fatigue life

High flexibility – High fatigue life

Fire performance & EMI screen

Self extinguishing

Halogen free

UV resistance

Very high

2L/78

Corrosion-resistant composite PC fittings
Introduction

Range overview – Corrosion-resistant composite fittings for light rail and applications in exposed areas.

—
01 Type PCC/PCF – CS90 – 90° elbow fitting – swivel external male thread
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02 Type PCC/PCF – S45 – composite 45° elbow fitting – swivel external male thread

Offering reduced weight, enhanced strength and providing a smooth, unrestricted internal bore in demanding applications.

Typical applications:
- Areas of potential high impact
- Train bogies
- Areas where additional mechanical need to protect against damage
- Rail infrastructure
- Trackside
- Machinery and equipment

Features:
- PCC – Coarse pitch conduit
- PCF – Fine pitch conduit
- Smooth through bore
- High strength and high impact resistance
- Full swivel function on elbow fittings
- Lightweight
- For insertion into threaded entries and knockouts using a locknut. Locknut supplied separately

LOW VOLTAGE DIRECTIVE

KM35161

Many of our conduit systems have industry recognised approvals including British Kitemark, CE Approval & UL amongst others.

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01

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02

Non-metallic conduit systems

PC - Type A fittings

PC Type A fitting

Straight fitting - Fixed external male thread / Materials: Nickel plated brass, neoprene seals

Part no.	Nominal conduit size (mm)	Nominal dimensions (mm) Outer Ø	Length	Metric thread
Standard thread length (12mm)				
PCF13/M16/A*	13	22.0	35.5	M16
PCF16/M16/A	16	25.4	37.5	M16
PCF21/M20/A	21	30.0	37.5	M20
PCC28/M25/A	28	38.0	45.5	M25
PCC34/M32/A	34	44.5	48.0	M32
PCC42/M40/A	42	57.0	48.0	M40
PCC54/M50/A	54	70.0	50.0	M50
Short thread length (8mm)				
PCF13/M16S/A*	13	22.0	35.5	M16S
PCF16/M16S/A	16	25.4	37.5	M16S
PCF21/M20S/A	21	30.0	37.5	M20S
PCC28/M25S/A	28	38.0	45.5	M25S
PCC34/M32S/A	34	44.5	48.0	M32S
PCC42/M40S/A	42	57.0	48.0	M40S
PCC54/M50S/A	54	70.0	50.0	M50S

For insertion into threaded entries and knockouts using a locknut. Locknut supplied separately
*These parts are not covered by the UR certification

Approvals

KM35161

IP rating	Appropriate conduit
For use with: Type PA / CP / PR / PF	
IP66	Yes
IP67	Yes
IP68	Yes (4 bar 30mins)
IP69	Yes

Temperature range

Static applications: -50°C to +120°C

Moving applications: -45°C to +120°C

Non-metallic conduit systems

PC - Type CS90 fittings

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Type PC fitting

90° Elbow fitting - Swivel external male thread / Materials: Polyamide (nylon) 66, nickel plated brass, neoprene seals / Colour: Black (BL) only

Part no.	Nominal conduit size (mm)	Metric thread
Standard thread length (12mm)		
PCF13/M16/CS90	13	M16
PCF16/M16/CS90	16	M16
PCF21/M20/CS90	21	M20
PCC28/M25/CS90	28	M25
PCC34/M32/CS90	34	M32
PCC42/M40/CS90	42	M40
PCC54/M50/CS90	54	M50
Short thread length (9mm)		
PCF13/M16S/CS90	13	M16S
PCF16/M16S/CS90	16	M16S
PCF21/M20S/CS90	21	M20S
PCC28/M25S/CS90	28	M25S
PCC34/M32S/CS90	34	M32S
PCC42/M40S/CS90	42	M40S
PCC54/M50S/CS90	54	M50S

For insertion into threaded entries and knockouts using a locknut. Locknut supplied separately

Approvals

KM35161

IP rating	Appropriate conduit
For use with: Type PA / CP / PR / PF	
IP66	Yes
IP67	Yes
IP68	Yes (4 bar 30mins)
IP69	Yes

Temperature range
Static applications: -50°C to +120°C
Moving applications: -45°C to +120°C

Fitting characteristics

Non-metallic conduit systems

PC - Type S45 fittings

Type PC fitting

Composite 45° elbow fitting - Swivel external male thread / Materials: Polyamide (nylon) 66, nickel plated brass, neoprene seals / Colour: Black (BL) only

Part no.	Nominal conduit size (mm)	Metric thread
Standard thread length (12mm)		
PCF13/M16/S45*	13	M16
PCF16/M16/S45	16	M16
PCF21/M20/S45	21	M20
PCC28/M25/S45	28	M25
PCC34/M32/S45	34	M32
PCC42/M40/S45	42	M40
PCC54/M50/S45	54	M50
Short thread length (9mm)		
PCF13/M16S/S45*	13	M16S
PCF16/M16S/S45	16	M16S
PCF21/M20S/S45	21	M20S
PCC28/M25S/S45	28	M25S
PCC34/M32S/S45	34	M32S
PCC42/M40S/S45	42	M40S
PCC54/M50S/S45	54	M50S

For insertion into threaded entries and knockouts using a locknut. Locknut supplied separately
*These parts are not covered by the UR certification

Approvals

IP rating	Appropriate conduit
For use with: Type PA / CP / PR / PF	
IP66	Yes
IP67	Yes
IP68	Yes (4 bar 30mins)
IP69	Yes

Temperature range
Static applications: -50°C to +120°C
Moving applications: -45°C to +120°C

Fitting characteristics

Non-metallic conduit systems
Introduction to Adaptalok ATS™

Adaptalok ATS™ represents a unique and innovative solution in flexible conduit systems. Until now, manufacturers have produced fittings and seals separately, and assembled them together, or had the customer assemble them. This increases assembly time and introduces the possibility for errors.

Adaptalok ATS™ uses a sophisticated moulding process to mould an internal conduit seal and a face seal washer. This makes installation times very fast, and extremely reliable, because the seals cannot be left out. The conduit system also benefits from the highest IP rating possible.

- Additional key features:
- Nylon 66 body
- Lighter in weight
- Quicker to install (cut & assemble fittings)
- Wide variety of fittings - much larger solution choice
- Better fatigue life
- Return to shape

Integral face seal washer
Guaranteed fit, cannot be lost or fitted incorrectly. No assembly.

High visibility elastomer
3 visible confirmation points.

Internal elastomer conduit seal
Guaranteed fit, cannot be lost or fitted incorrectly. No assembly & protects cables.

Visual fitting guides – Highly visible elastomer markings on lugs, aids correct fitment.

Conduit data – Conduit size clearly indicated on fitting.

Thread data – Thread size clearly indicated on fitting thread

Proven clip design – Pitch independent, ensures secure fitment to coarse & fine pitch conduits.

Non-metallic conduit systems

Manifold box

Type MB

Multiway adapters / Materials: Polyamide (nylon) 66/TPE / Colour: Black (BL) only / Yellow (Y) Elastomer

Part no.	External dimensions lid dia. X height (mm)	External dimensions fixing lugs (mm)	Max threaded entry per face
MB21/BLY	100 x 40	120	M20
MB34/BLY	136 x 55	155	M32

Non metallic enclosure which can be machined to take up to eight Adaptalok ATS™ fittings (or other devices) in a variety of configurations and sizes, e.g. 'Y', 'T', 'X', 'V' etc.
Each box has a removable cover for ease of access. The box seal is moulded, so remains captive. Each manifold is provided with eight blank sides which require drilling/machining to suit the application. Manifolds can be supplied ready drilled to order, subject to minimum order quantities. Threaded fittings with locknuts can be used in each entry.

Approvals	IP rating	Appropriate conduit	Temperature range	UV resistance
	For use with: All threaded fittings in this catalogue		Static applications: -50°C to +120°C	Very high
			Moving applications: -45°C to +120°C	
	IP68	Yes (2 bar 30mins)		

Non-metallic conduit systems

ATS™ Type A fittings (yellow elastomer)

Type A fitting - yellow elastomer

Straight fitting - Fixed external male thread / Materials: Polyamide (nylon) 66/TPE / Colour: Black (BL) / Yellow (Y) Elastomer

Part no.	Nominal conduit size (mm)	Metric thread	Part no.	Nominal conduit size (mm)	PF thread (in)	Part no.	Nominal conduit size (mm)	NPT thread (in)
AT13/M16/A/BLY	13	M16	AT13/PF038/A/BLY	13	⅜	AT13/038/A/BLY	13	⅜
AT16/M16/A/BLY	16	M16	AT16/PF038/A/BLY	16	⅜	AT16/038/A/BLY	16	⅜
AT16/M20/A/BLY	16	M20	AT16/PF050/A/BLY	16	½	AT16/050/A/BLY	16	½
AT21/M20/A/BLY	21	M20	AT21/PF050/A/BLY	21	½	AT21/050/A/BLY	21	½
AT21/M25/A/BLY	21	M25	–	–	–	–	–	–
AT28/M25/A/BLY	28	M25	AT28/PF075/A/BLY	28	¾	AT28/075/A/BLY	28	¾
AT28/M32/A/BLY	28	M32	–	–	–	–	–	–
AT34/M32/A/BLY	34	M32	AT34/PF100/A/BLY	34	1	AT34/100/A/BLY	34	1
AT34/M40/A/BLY	34	M40	–	–	–	–	–	–
AT42/M40/A/BLY	42	M40	AT42/PF125/A/BLY	42	1 ¼	AT42/125/A/BLY	42	1 ¼
AT54/M50/A/BLY	54	M50	–	–	–	–	–	–
AT54/M63/A/BLY	54	M63	AT54/PF200/A/BLY	48	2	AT54/200/A/BLY	54	2

For insertion into knockouts using a locknut. Locknut supplied with METRIC thread

Approvals	IP rating	Appropriate conduit	Temperature range
	For use with: Type PA / PR / PF		Static applications: -50°C to +120°C
	IP40	Yes	Moving applications: -45°C to +120°C
	IP65	Yes	
	IP68	Yes 4 bar 30mins with Heavy Weight Conduits 2 bar 30mins with Standard Weight Conduits	
	IP69	Yes	

Non-metallic conduit systems

ATS™ Type A fittings (blue elastomer)

Type A fitting - blue elastomer

Straight fitting - Fixed external male thread / Materials: Polyamide (nylon) 66/TPE / Colour: Black (BL) / Blue (B) Elastomer

Part no.	Nominal conduit size (mm)	Metric thread	Part no.	Nominal conduit size (mm)	NPT thread (in)
AT13/M16/A/BLB	13	M16	AT13/038/A/BLB	13	⅜
AT16/M16/A/BLB	16	M16	AT16/038/A/BLB	16	⅜
AT16/M20/A/BLB	16	M20	AT16/050/A/BLB	16	½
AT21/M20/A/BLB	21	M20	AT21/050/A/BLB	21	½
AT21/M25/A/BLB	21	M25	–	–	–
AT28/M25/A/BLB	28	M25	AT28/075/A/BLB	28	¾
AT34/M32/A/BLB	34	M32	AT34/100/A/BLB	34	1
AT34/M40/A/BLB	34	M40	–	–	–
AT42/M40/A/BLB	42	M40	AT42/125/A/BLB	42	1 ¼
–	–	–	AT48/150/A/BLB	48	1 ½
AT54/M50/A/BLB	54	M50	–	–	–
AT54/M63/A/BLB	54	M63	AT54/200/A/BLB	54	2

For insertion into knockouts using a locknut. Locknut supplied with METRIC thread

Approvals

IP rating	Appropriate conduit
For use with: Type PA / PR / PF	
IP40	Yes
IP65	Yes
IP68	Yes 4 bar 30mins with Heavy Weight Conduits 2 bar 30mins with Standard Weight Conduits
IP69	Yes

Temperature range

Static applications: -50°C to +120°C

Moving applications: -45°C to +120°C

Non-metallic conduit systems

ATS™ Type C90 fittings

Type C90 - yellow elastomer

90° Elbow fitting - Fixed external male thread / Materials: Polyamide (nylon) 66/TPE / Colour: Black (BL) / Yellow (Y) Elastomer

Part no.	Nominal conduit size (mm)	Metric thread	Part no.	Nominal conduit size (mm)	PF thread (in)	Part no.	Nominal conduit size (mm)	NPT thread (in)
AT13/M16/C90/BLY	13	M16	AT13/PF038/C90/BLY	13	⅜	AT13/038/C90/BLY	13	⅜
AT16/M16/C90/BLY	16	M16	AT16/PF038/C90/BLY	16	⅜	AT16/038/C90/BLY	16	⅜
AT16/M20/C90/BLY	16	M20	AT16/PF050/C90/BLY	16	½	AT16/050/C90/BLY	16	½
AT21/M20/C90/BLY	21	M20	AT21/PF050/C90/BLY	21	½	AT21/050/C90/BLY	21	½
AT28/M25/C90/BLY	28	M25	AT28/PF075/C90/BLY	28	¾	AT28/075/C90/BLY	28	¾
AT34/M32/C90/BLY	34	M32	AT34/PF100/C90/BLY	34	1	AT34/100/C90/BLY	34	1
AT42/M40/C90/BLY	42	M40	AT42/PF125/C90/BLY	42	1 ¼	AT42/125/C90/BLY	42	1 ¼
AT54/M50/C90/BLY	54	M50	AT54/PF150/C90/BLY	54	1 ½	AT54/150/C90/BLY	54	1 ½
AT54/M63/C90/BLY	54	M63	AT54/PF200/C90/BLY	54	2	AT54/200/C90/BLY	54	2

For insertion into knockouts using a locknut. Locknut supplied with METRIC thread

Approvals	IP rating	Appropriate conduit	Temperature range
	For use with: Type PA / PR / PF		Static applications: -50°C to +120°C
	IP40	Yes	Moving applications: -45°C to +120°C
	IP65	Yes	
	IP68	Yes 4 bar 30mins with Heavy Weight Conduits 2 bar 30mins with Standard Weight Conduits	
	IP69	Yes	

Type C90 - blue elastomer

90° Elbow fitting - Fixed external male thread / Materials: Polyamide (nylon) 66/TPE / Colour: Black (BL) / Blue (B) Elastomer

Part no.	Nominal conduit size (mm)	Metric thread	Part no.	Nominal conduit size (mm)	PF thread (in)
AT13/M16/C90/BLB	13	M16	AT13/PF038/C90/BLB	13	⅜
AT16/M16/C90/BLB	16	M16	AT16/PF038/C90/BLB	16	⅜
AT16/M20/C90/BLB	16	M20	AT16/PF050/C90/BLB	16	½
AT21/M20/C90/BLB	21	M20	AT21/PF050/C90/BLB	21	½
AT28/M25/C90/BLB	28	M25	AT28/PF075/C90/BLB	28	¾
AT34/M32/C90/BLB	34	M32	AT34/PF100/C90/BLB	34	1
AT42/M40/C90/BLB	42	M40	AT42/PF125/C90/BLB	42	1 ¼
AT54/M50/C90/BLB	54	M50	AT54/PF150/C90/BLB	54	1 ½
AT54/M63/C90/BLB	54	M63	AT54/PF200/C90/BLB	54	2

For insertion into knockouts using a locknut. Locknut supplied with METRIC thread

Approvals	IP rating	Appropriate conduit	Temperature range
	For use with: Type PA / PR / PF		Static applications: -50°C to +120°C
	IP40	Yes	Moving applications: -45°C to +120°C
	IP65	Yes	
	IP68	Yes 4 bar 30mins with Heavy Weight Conduits 2 bar 30mins with Standard Weight Conduits	
	IP69	Yes	

Non-metallic conduit systems

ATS™ Type 45 fittings

Type 45 - yellow elastomer

45° Elbow fitting - Fixed external male thread / Materials: Polyamide (nylon) 66/TPE / Colour: Black (BL) / Yellow (Y) Elastomer

Part no.	Nominal conduit size (mm)	Metric thread	Part no.	Nominal conduit size (mm)	PF thread (in)	Part no.	Nominal conduit size (mm)	NPT thread (in)
AT13/M16/45/BLY	13	M16	AT13/PF038/45/BLY	13	⅜	AT13/038/45/BLY	13	⅜
AT16/M16/45/BLY	16	M16	AT16/PF038/45/BLY	16	⅜	AT16/038/45/BLY	16	⅜
AT16/M20/45/BLY	16	M20	AT16/PF050/45/BLY	16	½	AT16/050/45/BLY	16	½
AT21/M20/45/BLY	21	M20	AT21/PF050/45/BLY	21	½	AT21/050/45/BLY	21	½
AT28/M25/45/BLY	28	M25	AT28/PF075/45/BLY	28	¾	AT28/075/45/BLY	28	¾
AT34/M32/45/BLY	34	M32	AT34/PF100/45/BLY	34	1	AT34/100/45/BLY	34	1
AT42/M40/45/BLY	42	M40	AT42/PF125/45/BLY	42	1 ¼	AT42/125/45/BLY	42	1 ¼
–	–	–	AT48/PF150/45/BLY	48	1 ½	AT48/150/45/BLY	48	1 ½
AT54/M50/45/BLY	54	M50	–	–	–	–	–	–

For insertion into knockouts using a locknut. Locknut supplied with METRIC thread

Approvals	IP rating	Appropriate conduit	Temperature range
	For use with: Type PA / PR / PF		Static applications: -50°C to +120°C
	IP40	Yes	Moving applications: -45°C to +120°C
	IP65	Yes	
	IP68	Yes 4 bar 30mins with Heavy Weight Conduits 2 bar 30mins with Standard Weight Conduits	
	IP69	Yes	

Type 45 - blue elastomer

45° Elbow fitting - Fixed external male thread / Materials: Polyamide (nylon) 66/TPE / Colour: Black (BL) / Blue (B) Elastomer

Part no.	Nominal conduit size (mm)	Metric thread	Part no.	Nominal conduit size (mm)	PF thread (in)
AT13/M16/45/BLB	13	M16	AT13/PF038/45/BLB	13	⅜
AT16/M16/45/BLB	16	M16	AT16/PF038/45/BLB	16	⅜
AT16/M20/45/BLB	16	M20	AT16/PF050/45/BLB	16	½
AT21/M20/45/BLB	21	M20	AT21/PF050/45/BLB	21	½
AT28/M25/45/BLB	28	M25	AT28/PF075/45/BLB	28	¾
AT34/M32/45/BLB	34	M32	AT34/PF100/45/BLB	34	1
AT42/M40/45/BLB	42	M40	AT42/PF125/45/BLB	42	1 ¼
–	–	–	AT48/PF150/45/BLB	48	1 ½
AT54/M50/45/BLB	54	M50	–	–	–

For insertion into knockouts using a locknut. Locknut supplied with METRIC thread

Approvals	IP rating	Appropriate conduit	Temperature range
	For use with: Type PA / PR / PF		Static applications: -50°C to +120°C
	IP40	Yes	Moving applications: -45°C to +120°C
	IP65	Yes	
	IP68	Yes 4 bar 30mins with Heavy Weight Conduits 2 bar 30mins with Standard Weight Conduits	
	IP69	Yes	

Non-metallic conduit systems

ATS™ Type SA & Type CS90 fittings

Type SA

Straight fitting - Metal swivel external male thread / Materials: Polyamide (nylon) 66, nickel plated brass thread/TPE / Colour: Black (BL) / Yellow (Y), Blue (B) Elastomer

Part no.	Nominal conduit size (mm)	Metric thread	Part no.	Nominal conduit size (mm)	NPT thread (in)	Part no.	Nominal conduit size (mm)	PG thread
AT13/M16/SA/BL*	13	M16	AT13/038/SA/BL*	13	⅜	AT13/PG9/SA/BL*	13	PG9
AT16/M16/SA/BL*	16	M16	AT16/038/SA/BL*	16	⅜	AT16/PG11/SA/BL*	16	PG11
AT21/M20/SA/BL*	21	M20	AT21/050/SA/BL*	21	½	AT21/PG16/SA/BL*	21	PG16
AT28/M25/SA/BL*	28	M25	AT28/075/SA/BL*	28	¾	AT28/PG21/SA/BL*	28	PG21
AT34/M32/SA/BL*	34	M32	AT34/100/SA/BL*	34	1	AT34/PG29/SA/BL*	34	PG29
AT42/M40/SA/BL*	42	M40	AT42/125/SA/BL*	42	1 ¼	AT42/PG36/SA/BL*	42	PG36
–	–	–	AT48/150/SA/BL*	48	1 ½	–	–	–
AT54/M50/SA/BL*	54	M50	AT54/150/SA/BL*	54	1 ½	AT54/PG48/SA/BL*	54	PG48
AT54/M63/SA/BL*	54	M63	AT54/200/SA/BL*	54	2	–	–	–

For insertion into threaded entries & knockouts. Order locknuts separately
* = Y (yellow elastomer); B (blue elastomer)

Approvals	Blue Elastomer version only	IP rating	Appropriate conduit	Temperature range
		For use with: Type PA / PR / PF		Static applications: -50°C to +120°C
		IP40	Yes	Moving applications: -45°C to +120°C
		IP65	Yes	**Fitting characteristics**
		IP68	Yes 4 bar 30mins with Heavy Weight Conduits 2 bar 30mins with Standard Weight Conduits	
		IP69	Yes	

Type CS90

90° Elbow fitting - Swivel external male thread / Materials: Polyamide (nylon) 66, nickel plated brass thread/TPE / Colour: Black (BL) / Yellow (Y), Blue (B) Elastomer

Part no.	Nominal conduit size (mm)	Metric thread	Part no.	Nominal conduit size (mm)	NPT thread (in)
AT13/M16/CS90/BL*	13	M16	AT13/038/CS90/BL*	13	⅜
AT16/M16/CS90/BL*	16	M16	AT16/038/CS90/BL*	16	⅜
AT21/M20/CS90/BL*	21	M20	AT21/050/CS90/BL*	21	½
AT28/M25/CS90/BL*	28	M25	AT28/075/CS90/BL*	28	¾
AT34/M32/CS90/BL*	34	M32	AT34/100/CS90/BL*	34	1
AT42/M40/CS90/BL*	42	M40	AT42/125/CS90/BL*	42	1 ¼
–	–	–	AT48/150/CS90/BL*	48	1 ½
AT54/M50/CS90/BLY	54	M50	AT54/150/CS90/BL*	54	1 ½
AT54/M63/CS90/BL*	54	M63	AT54/200/CS90/BL*	54	2

For insertion into threaded entries & knockouts. Order locknuts separately
* = Y (yellow elastomer); B (blue elastomer)

Approvals	Blue Elastomer version only	IP rating	Appropriate conduit	Temperature range
		For use with: Type PA / PR / PF		Static applications: -50°C to +120°C
		IP40	Yes	Moving applications: -45°C to +120°C
		IP65	Yes	**Fitting characteristics**
		IP68	Yes 4 bar 30mins with Heavy Weight Conduits 2 bar 30mins with Standard Weight Conduits	
		IP69	Yes	

Non-metallic conduit systems

ATS™ Type S45 & Type SFA fittings

Type S45

45° Elbow body - Swivel external male thread / Materials: Polyamide (nylon) 66, nickel plated brass thread/TPE / Colour: Black (BL) / Yellow (Y), Blue (B) Elastomer

Part no.	Nominal conduit size (mm)	Metric thread	Part no.	Nominal conduit size (mm)	NPT thread (in)
AT13/M16/S45/BL*	13	M16	AT13/038/S45/BL*	13	⅜
AT16/M16/S45/BL*	16	M16	AT16/038/S45/BL*	16	⅜
AT21/M20/S45/BL*	21	M20	AT21/050/S45/BL*	21	½
AT28/M25/S45/BL*	28	M25	AT28/075/S45/BL*	28	¾
AT34/M32/S45/BL*	34	M32	AT34/100/S45/BL*	34	1
AT42/M40/S45/BL*	42	M40	AT42/125/S45/BL*	42	1 ¼
–	–	–	AT48/150/S45/BL*	48	1 ½
AT54/M50/S45/BLY	54	M50	AT54/150/S45/BL*	54	1 ½
AT54/M63/S45/BLY	54	M63	AT54/200/S45/BL*	54	2

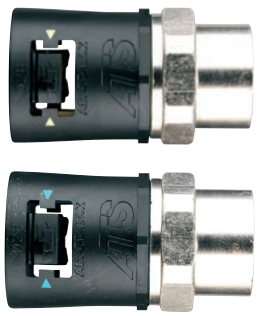
For insertion into threaded entries & knockouts. Order locknuts separately
* = Y (yellow elastomer); B (blue elastomer)

Approvals	Blue Elastomer version only	IP rating	Appropriate conduit
		For use with: Type PA / PR / PF	
		IP40	Yes
		IP65	Yes
		IP68	Yes 4 bar 30mins with Heavy Weight Conduits 2 bar 30mins with Standard Weight Conduits
		IP69	Yes

Temperature range
Static applications: -50°C to +120°C
Moving applications: -45°C to +120°C
Fitting characteristics

Type SFA

Straight fitting - Swivel internal female thread / Materials: Polyamide (nylon) 66, nickel plated brass thread/TPE / Colour: Black (BL) / Yellow (Y), Blue (B) Elastomer



Part no.	Nominal conduit size (mm)	Metric thread	Part no.	Nominal conduit size (mm)	NPT thread (in)
AT13/M16/SFA/BL*	13	M16	AT13/038/SFA/BL*	13	⅜
AT16/M16/SFA/BL*	16	M16	AT16/038/SFA/BL*	16	⅜
AT21/M20/SFA/BL*	21	M20	AT21/050/SFA/BL*	21	½
AT28/M25/SFA/BL*	28	M25	AT28/075/SFA/BL*	28	¾
AT34/M32/SFA/BL*	34	M32	AT34/100/SFA/BL*	34	1
AT42/M40/SFA/BL*	42	M40	AT42/125/SFA/BL*	42	1 ¼
–	–	–	AT48/150/SFA/BL*	48	1 ½
AT54/M50/SFA/BLY	54	M50	–	–	–
AT54/M63/SFA/BLY	54	M63	AT54/200/SFA/BL*	54	2

For attachments to external threads & other fittings
* = Y (yellow elastomer); B (blue elastomer)

Approvals	Blue Elastomer version only	IP rating	Appropriate conduit
		For use with: Type PA / PR / PF	
		IP40	Yes
		IP65	Yes
		IP68	Yes 4 bar 30mins with Heavy Weight Conduits 2 bar 30mins with Standard Weight Conduits
		IP69	Yes

Temperature range
Static applications: -50°C to +120°C
Moving applications: -45°C to +120°C
Fitting characteristics

Non-metallic conduit systems

ATS™ Type CSF90 & Type SF45 fittings

—
Type CSF90

90° Elbow body - Swivel internal female thread / Materials: Polyamide (nylon) 66, nickel plated brass thread/TPE / Colour: Black (BL) / Yellow (Y), Blue (B) Elastomer

Part no.	Nominal conduit size (mm)	Metric thread	Part no.	Nominal conduit size (mm)	NPT thread (in)
AT13/M16/CSF90/BL*	13	M16	AT13/038/CSF90/BL*	13	⅜
AT16/M16/CSF90/BL*	16	M16	AT16/038/CSF90/BL*	16	⅜
AT21/M20/CSF90/BL*	21	M20	AT21/050/CSF90/BL*	21	½
AT28/M25/CSF90/BL*	28	M25	AT28/075/CSF90/BL*	28	¾
AT34/M32/CSF90/BL*	34	M32	AT34/100/CSF90/BL*	34	1
AT42/M40/CSF90/BL*	42	M40	AT42/125/CSF90/BL*	42	1 ¼
–	–	–	AT48/150/CSF90/BL*	48	1 ½
AT54/M50/CSF90/BL*	54	M50	–	–	–
AT54/M63/CSF90/BL*	54	M63	AT54/200/CSF90/BL*	54	2

For insertion into threaded entries & knockouts. Order locknuts separately
* = Y (yellow elastomer); B (blue elastomer)

Approvals	Blue Elastomer version only	IP rating	Appropriate conduit	Temperature range
		For use with: Type PA / PR / PF		Static applications: -50°C to +120°C
		IP66	Yes	Moving applications: -45°C to +120°C
		IP67	Yes	**Fitting characteristics**
		IP68	Yes 4 bar 30mins with Heavy Weight Conduits 2 bar 30mins with Standard Weight Conduits	
		IP69	Yes	

—
Type SF45

45° Elbow body - Swivel internal female thread / Materials: Polyamide (nylon) 66, nickel plated brass thread/TPE / Colour: Black (BL) / Yellow (Y), Blue (B) Elastomer

Part no.	Nominal conduit size (mm)	Metric thread	Part no.	Nominal conduit size (mm)	NPT thread (in)
AT13/M16/SF45/BL*	13	M16	AT13/038/SF45/BL*	13	⅜
AT16/M16/SF45/BL*	16	M16	AT16/038/SF45/BL*	16	⅜
AT21/M20/SF45/BL*	21	M20	AT21/050/SF45/BL*	21	½
AT28/M25/SF45/BL*	28	M25	AT28/075/SF45/BL*	28	¾
AT34/M32/SF45/BL*	34	M32	AT34/100/SF45/BL*	34	1
AT42/M40/SF45/BL*	42	M40	AT42/125/SF45/BL*	42	1 ¼
–	–	–	AT48/150/SF45/BL*	48	1 ½
AT54/M50/SF45/BL*	54	M50	–	–	–
AT54/M63/SF45/BL*	54	M63	AT54/200/SF45/BL*	54	2

For attaching to external threads & other fittings
* = Y (yellow elastomer); B (blue elastomer)

Approvals	Blue Elastomer version only	IP rating	Appropriate conduit	Temperature range
		For use with: Type PA / PR / PF		Static applications: -50°C to +120°C
		IP66	Yes	Moving applications: -45°C to +120°C
		IP67	Yes	**Fitting characteristics**
		IP68	Yes 4 bar 30mins with Heavy Weight Conduits 2 bar 30mins with Standard Weight Conduits	
		IP69	Yes	

Non-metallic conduit systems

ATS™ Types SFAJ, CSF90J & SF45J swivel housing fittings

Type SFAJ

Straight fitting - Swivel housing / Materials: Polyamide (nylon) 66, nickel plated brass thread/TPE / Colour: Black (BL) / Yellow (Y) Elastomer

Part no.	Nominal conduit size (mm)	Metric thread
AT16/M16/SFAJ/BLY	16	M16
AT21/M20/SFAJ/BLY	21	M20
AT28/M25/SFAJ/BLY	28	M25
AT34/M32/SFAJ/BLY	34	M32
AT42/M40/SFAJ/BLY	42	M40
AT54/M50/SFAJ/BLY	54	M50
AT54/M63/SFAJ/BLY	54	M63

Swivel metal housing for use with Jacob PERFECT cable glands

Type CSF90J

90° Elbow body - Swivel Housing / Materials: Polyamide (nylon) 66, nickel plated brass thread/TPE / Colour: Black (BL) / Yellow (Y) Elastomer

Part no.	Nominal conduit size (mm)	Metric thread
AT16/M16/CSF90J/BLY	16	M16
AT21/M20/CSF90J/BLY	21	M20
AT28/M25/CSF90J/BLY	28	M25
AT34/M32/CSF90J/BLY	34	M32
AT42/M40/CSF90J/BLY	42	M40
AT54/M50/CSF90J/BLY	54	M50
AT54/M63/CSF90J/BLY	54	M63

Type SF45

45° Elbow body - Swivel housing / Materials: Polyamide (nylon) 66, nickel plated brass thread/TPE / Colour: Black (BL) / Yellow (Y) Elastomer

Part no.	Nominal conduit size (mm)	Metric thread
AT16/M16/SF45J/BLY	16	M16
AT21/M20/SF45J/BLY	21	M20
AT28/M25/SF45J/BLY	28	M25
AT34/M32/SF45J/BLY	34	M32
AT42/M40/SF45J/BLY	42	M40
AT54/M50/SF45J/BLY	54	M50
AT54/M63/SF45J/BLY	54	M63

Swivel metal housing for use with Jacob PERFECT cable glands

Approvals

IP rating	Appropriate conduit
For use with: Type PA / PR / PF	
IP40	Yes
IP65	Yes
IP68	Yes 4 bar 30mins with Heavy Weight Conduits 2 bar 30mins with Standard Weight Conduits
IP69	N/A

Temperature range

Static applications: -50°C to +120°C

Moving applications: -45°C to +120°C

Fitting characteristics

Non-metallic conduit systems

ATS™ Type SFA - UNEF fittings

Type SFA - UNEF

Straight body - Swivel internal female thread / Materials: Polyamide (nylon) 66, aluminium/TPE / Colour: Black (BL) / Yellow (Y) Elastomer

Part no.	Nominal conduit size (mm)	Connector UNEF thread	Part no.	Nominal conduit size (mm)	Connector UNEF thread
AT13/U063/SFA/BL*	13	⅝" - 24	AT21/U144/SFA/BL*	21	1 7/16" - 18
AT13/U075/SFA/BL*	13	¾" - 20	AT21/U175/SFA/BL*	21	1 ¾" - 18
AT13/U088/SFA/BL*	13	⅞" - 20	AT28/U088/SFA/BL*	28	⅞" - 20
AT16/U063/SFA/BL*	16	⅝" - 24	AT28/U094/SFA/BL*	28	15/16" - 20
AT16/U075/SFA/BL*	16	¾" - 20	AT28/U100/SFA/BL*	28	1" - 20
AT16/U081/SFA/BL*	16	13/16" - 20	AT28/U119/SFA/BL*	28	1 3/16" - 18
AT16/U088/SFA/BL*	16	⅞" - 20	AT28/U138/SFA/BL*	28	1 ⅜" - 18
AT16/U094/SFA/BL*	16	15/16" - 20	AT28/U144/SFA/BL*	28	1 7/16" - 18
AT16/U100/SFA/BL*	16	1" - 20	AT28/U175/SFA/BL*	28	1 ¾" - 18
AT16/U119/SFA/BL*	16	1 3/16" - 18	AT28/U200/SFA/BL*	28	2" - 16
AT16/U131/SFA/BL*	16	1 5/16" - 18	AT28/U225/SFA/BL*	28	2 ¼" - 16
AT21/U075/SFA/BL*	21	¾" - 20	AT34/U100/SFA/BL*	34	1" - 20
AT21/U088/SFA/BL*	21	⅞" - 20	AT34/U119/SFA/BL*	34	1 3/16" - 18
AT21/U094/SFA/BL*	21	15/16" - 20	AT34/U144/SFA/BL*	34	1 7/16" - 18
AT21/U100/SFA/BL*	21	1" - 20	AT34/U175/SFA/BL*	34	1 ¾" - 18
AT21/U113/SFA/BL*	21	1 ⅛" - 18	AT34/U200/SFA/BL*	34	2" - 16
AT21/U119/SFA/BL*	21	1 3/16" - 18	AT42/U175/SFA/BL*	42	1 ¾" - 18
AT21/U131/SFA/BL*	21	1 5/16" - 18	AT42/U200/SFA/BL*	42	2" - 16
AT21/U138/SFA/BL*	21	1 ⅜" - 18	–	–	–

For coupling to UNEF circular connectors
* = Y (yellow elastomer); B (blue elastomer)
Blue version MTO, subject to MOQ

Approvals

Blue Elastomer version only

Intertek

IP rating	Appropriate conduit
For use with: Type PA / PR / PF	
IP40	Yes
IP65	Yes
IP68	Yes 4 bar 30mins with Heavy Weight Conduits 2 bar 30mins with Standard Weight Conduits
IP69	Yes

Temperature range

Static applications: -50°C to +120°C

Moving applications: -45°C to +120°C

Fitting characteristics

Non-metallic conduit systems

ATS™ Type CSF90 - UNEF fittings

Type CSF90 - UNEF

90° Elbow body - Swivel internal female thread / Materials: Polyamide (nylon) 66, nickel plated brass thread/TPE / Colour: Black (BL) / Yellow (Y) Elastomer

Part no.	Nominal conduit size (mm)	Connector UNEF thread	Part no.	Nominal conduit size (mm)	Connector UNEF thread
AT13/U063/CSF90/BL*	13	5/8" - 24	AT21/U144/CSF90/BL*	21	1 7/16" - 18
AT13/U075/CSF90/BL*	13	3/4" - 20	AT21/U175/CSF90/BL*	21	1 3/4" - 18
AT13/U088/CSF90/BL*	13	7/8" - 20	AT28/U088/CSF90/BL*	28	7/8" - 20
AT16/U063/CSF90/BL*	16	5/8" - 24	AT28/U094/CSF90/BL*	28	15/16" - 20
AT16/U075/CSF90/BL*	16	3/4" - 20	AT28/U100/CSF90/BL*	28	1" - 20
AT16/U081/CSF90/BL*	16	13/16" - 20	AT28/U119/CSF90/BL*	28	1 3/16" - 18
AT16/U088/CSF90/BL*	16	7/8" - 20	AT28/U138/CSF90/BL*	28	1 3/8" - 18
AT16/U094/CSF90/BL*	16	15/16" - 20	AT28/U144/CSF90/BL*	28	1 7/16" - 18
AT16/U100/CSF90/BL*	16	1" - 20	AT28/U175/CSF90/BL*	28	1 3/4" - 18
AT16/U119/CSF90/BL*	16	1 3/16" - 18	AT28/U200/CSF90/BL*	28	2" - 16
AT16/U131/CSF90/BL*	16	1 5/16" - 18	AT28/U225/CSF90/BL*	28	2 1/4" - 16
AT21/U075/CSF90/BL*	21	3/4" - 20	AT34/U100/CSF90/BL*	34	1" - 20
AT21/U088/CSF90/BL*	21	7/8" - 20	AT34/U119/CSF90/BL*	34	1 3/16" - 18
AT21/U094/CSF90/BL*	21	15/16" - 20	AT34/U144/CSF90/BL*	34	1 7/16" - 18
AT21/U100/CSF90/BL*	21	1" - 20	AT34/U175/CSF90/BL*	34	1 3/4" - 18
AT21/U113/CSF90/BL*	21	1 1/8" - 18	AT34/U200/CSF90/BL*	34	2" - 16
AT21/U119/CSF90/BL*	21	1 3/16" - 18	AT42/U175/CSF90/BL*	42	1 3/4" - 18
AT21/U131/CSF90/BL*	21	1 5/16" - 18	AT42/U200/CSF90/BL*	42	2" - 16
AT21/U138/CSF90/BL*	21	1 3/8" - 18	–	–	–

For coupling to UNEF circular connectors
* = Y (yellow elastomer); B (blue elastomer)
Blue version MTO, subject to MOQ

Approvals

Blue Elastomer version only

IP rating	Appropriate conduit
For use with: Type PA / PR / PF	
IP40	Yes
IP65	Yes
IP68	Yes 4 bar 30mins with Heavy Weight Conduits 2 bar 30mins with Standard Weight Conduits
IP69	Yes

Temperature range

Static applications: -50°C to +120°C

Moving applications: -45°C to +120°C

Fitting characteristics

Non-metallic conduit systems

ATS™ Type SF45 - UNEF fittings

Type SF45 - UNEF

45° Elbow body - Swivel internal female thread / Materials: Polyamide (nylon) 66, aluminium/TPE / Colour: Black (BL) / Yellow (Y), Blue (B) Elastomer

Part no.	Nominal conduit size (mm)	Metric thread	Part no.	Nominal conduit size (mm)	NPT thread
AT13/U063/SF45/BL*	13	⅝" - 24	AT21/U144/SF45/BL*	21	1 7/16" - 18
AT13/U075/SF45/BL*	13	¾" - 20	AT21/U175/SF45/BL*	21	1 ¾" - 18
AT13/U088/SF45/BL*	13	⅞" - 20	AT28/U088/SF45/BL*	28	⅞" - 20
AT16/U063/SF45/BL*	16	⅝" - 24	AT28/U094/SF45/BL*	28	15/16" - 20
AT16/U075/SF45/BL*	16	¾" - 20	AT28/U100/SF45/BL*	28	1" - 20
AT16/U081/SF45/BL*	16	13/16" - 20	AT28/U119/SF45/BL*	28	1 3/16" - 18
AT16/U088/SF45/BL*	16	⅞" - 20	AT28/U138/SF45/BL*	28	1 ⅜" - 18
AT16/U094/SF45/BL*	16	15/16" - 20	AT28/U144/SF45/BL*	28	1 7/16" - 18
AT16/U100/SF45/BL*	16	1" - 20	AT28/U175/SF45/BL*	28	1 ¾" - 18
AT16/U119/SF45/BL*	16	1 3/16" - 18	AT28/U200/SF45/BL*	28	2" - 16
AT16/U131/SF45/BL*	16	1 5/16" - 18	AT28/U225/SF45/BL*	28	2 ¼" - 16
AT21/U075/SF45/BL*	21	¾" - 20	AT34/U100/SF45/BL*	34	1" - 20
AT21/U088/SF45/BL*	21	⅞" - 20	AT34/U119/SF45/BL*	34	1 3/16" - 18
AT21/U094/SF45/BL*	21	15/16" - 20	AT34/U144/SF45/BL*	34	1 7/16" - 18
AT21/U100/SF45/BL*	21	1" - 20	AT34/U175/SF45/BL*	34	1 ¾" - 18
AT21/U113/SF45/BL*	21	1 ⅛" - 18	AT34/U200/SF45/BL*	34	2" - 16
AT21/U119/SF45/BL*	21	1 3/16" - 18	AT42/U175/SF45/BL*	42	1 ¾" - 18
AT21/U131/SF45/BL*	21	1 5/16" - 18	AT42/U200/SF45/BL*	42	2" - 16
AT21/U138/SF45/BL*	21	1 ⅜" - 18	–	–	–

For coupling to UNEF circular connectors
* = Y (yellow elastomer); B (blue elastomer)
Blue version MTO, subject to MOQ

Approvals

Blue Elastomer version only

Intertek

IP rating	Appropriate conduit
For use with: Type PA / PR / PF	
IP40	Yes
IP65	Yes
IP68	Yes 4 bar 30mins with Heavy Weight Conduits 2 bar 30mins with Standard Weight Conduits
IP69	Yes

Temperature range

Static applications: -50°C to +120°C

Moving applications: -45°C to +120°C

Fitting characteristics

Non-metallic conduit systems

ATS™ Type U swivel couplers

Type U

Straight PA66 body - Swivel coupler / Materials: Polyamide (nylon) 66/TPE / Colour: Black (BL) / Yellow (Y), Blue (B) Elastomer

Part no.	Nominal conduit size (mm)	Nominal dimensions / Conduit size (mm) C	D	E
AT13/A/U/BL*	13	21.2	21.2	70.0
AT16/A/U/BL*	16	23.2	23.2	76.0
AT21/A/U/BL*	21	30.2	30.2	82.0
AT28/A/U/BL*	28	37.2	37.2	86.5
AT34/A/U/BL*	34	44.2	44.2	89.0
AT42/A/U/BL*	42	54.2	54.2	110.4
AT48/A/U/BL*	48	65.0	65.0	118.2
AT54/A/U/BL*	54	66.2	66.2	125.0

For coupling to corrugated flexible conduit
* = Y (yellow elastomer); B (blue elastomer)
Blue version MTO, subject to MOQ

Approvals

KM35161

Blue Elastomer version only

Intertek

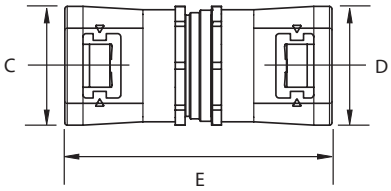
IP rating	Appropriate conduit
For use with: Type PA / PR / PF	
IP40	Yes
IP65	Yes
IP68	Yes 4 bar 30mins with Heavy Weight Conduits 2 bar 30mins with Standard Weight Conduits
IP69	Yes

Temperature range

Static applications: -50°C to +120°C

Moving applications: -45°C to +120°C

Fitting characteristics



Non-metallic conduit systems

ATS™ Type FL/A panel mounting fittings

Type FL/A

Straight panel mounting-swivel flange / Materials: Polyamide (nylon) 66/TPE / Colour: Black (BL) / Yellow (Y), Blue (B) Elastomer

Part no.	Nominal conduit size (mm)
AT16/FL/A/BL*	16
AT21/FL/A/BL*	21
AT28/FL/A/BL*	28

With integral face seal
* = Y (yellow elastomer); B (blue elastomer)
Blue version MTO, subject to MOQ

Approvals

KM35161

Blue Elastomer version only

Intertek

IP rating	Appropriate conduit
For use with: Type PA / PR / PF	
IP40	Yes
IP65	Yes
IP68	Yes 4 bar 30mins with Heavy Weight Conduits 2 bar 30mins with Standard Weight Conduits
IP69	Yes

Temperature range
Static applications: -50°C to +120°C
Moving applications: -45°C to +120°C

Fitting characteristics

Non-metallic conduit systems

ATS™ Types FL/C90 and FL/45 panel mounting fittings

Panel mounting Type FL/C90

90° Elbow body - Panel mounting swivel flange / Materials: Polyamide (nylon) 66/TPE / Colour: Black (BL) / Yellow (Y), Blue (B) Elastomer

Part no.	Nominal conduit size (mm)
AT13/FL/C90/BL*	13
AT16/FL/C90/BL*	16
AT21/FL/C90/BL*	21
AT28/FL/C90/BL*	28

For panel mounting via 2 hole fixing & integral face seal
* = Y (yellow elastomer); B (blue elastomer)
Blue version MTO, subject to MOQ

Approvals

Blue Elastomer version only

Intertek

IP rating	Appropriate conduit
For use with: Type PA / PR / PF	
IP40	Yes
IP65	Yes
IP68	Yes 4 bar 30mins with Heavy Weight Conduits 2 bar 30mins with Standard Weight Conduits
IP69	Yes

Temperature range

Static applications: -50°C to +120°C

Moving applications: -45°C to +120°C

Fitting characteristics

Panel mounting Type FL45

45° Elbow body - Panel mounting swivel flange / Materials: Polyamide (nylon) 66/TPE / Colour: Black (BL) / Yellow (W), Blue (B) Elastomer

Part no.	Nominal conduit size (mm)
AT16/FL/45/BL*	16
AT21/FL/45/BL*	21
AT28/FL/45/BL*	28

With integral face seal
* = Y (yellow elastomer); B (blue elastomer)
Blue version MTO, subject to MOQ

Approvals

Blue Elastomer version only

Intertek

IP rating	Appropriate conduit
For use with: Type PA / PR / PF	
IP40	Yes
IP65	Yes
IP68	Yes 4 bar 30mins with Heavy Weight Conduits 2 bar 30mins with Standard Weight Conduits
IP69	Yes

Temperature range

Static applications: -50°C to +120°C

Moving applications: -45°C to +120°C

Fitting characteristics

Non-metallic conduit systems

ATS™ Type T fittings

Type T

3 Way 'T' piece / Materials: Polyamide (nylon) 66 / Colour: Black (BL), Grey (GR) / Yellow (Y) Elastomer

	Part no.	Nominal dimensions / Conduit size (mm) A	B	C	D	E
21T	AT211316/T/BLY	82	129	21	16	13
	AT211321/T/BLY	82	122	21	21	13
	AT211613/T/BLY	83	129	21	13	16
	AT211616/T/BLY	83	129	21	16	16
	AT211621/T/BLY	83	122	21	21	16
	AT212113/T/BLY	75	129	21	21	13
	AT211616/T/BLY	83	129	21	16	16
	AT212121/T/BLY	75	122	21	21	21
28T	AT212821/T/BLY	82	152	21	21	28
	AT281321/T/BLY	88	141	28	21	13
	AT281328/T/BLY	88	129	28	28	13
	AT281621/T/BLY	90	141	28	21	16
	AT281628/T/BLY	90	129	28	28	16
	AT282121/T/BLY	93	141	28	21	21
	AT282128/T/BLY	93	129	28	28	21
	AT282828/T/BLY	82	129	28	28	28
34T	AT341634/T/BLY	98	139	34	34	16
	AT342128/T/BLY	104	150	34	28	21
	AT342134/T/BLY	104	139	34	34	21
	AT343434/T/BLY	91	139	34	34	34

Approvals

KM35161

IP rating — **Appropriate conduit**

For use with: Type PA / PR / PF

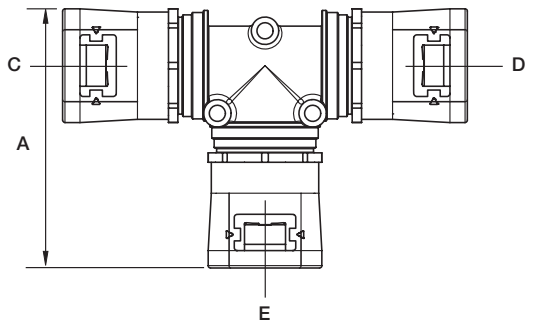
IP66	Yes
IP67	Yes
IP68	Yes 4 bar 30mins with Heavy Weight Conduits 2 bar 30mins with Standard Weight Conduits
IP69	Yes

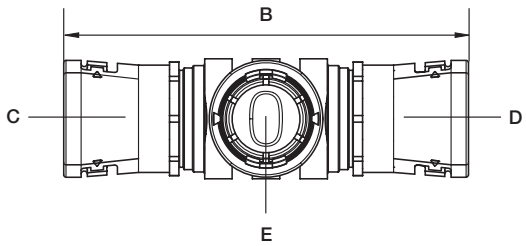
Temperature range

Static applications: -50°C to +120°C

Moving applications: -45°C to +120°C

Fitting characteristics





Non-metallic conduit systems

ATS™ Type Y fittings

Type Y

3 Way 'T' piece / Materials: Polyamide (nylon) 66, / Colour: Black (BL), Grey (GR) / Yellow (Y) Elastomer

		Nominal dimensions/conduit size (mm)				
	Part no.	A	B	C	D	E
28Y	AT282113/Y/BLY	107.1	117.8	28	21	13
	AT282116/Y/BLY	110.6	117.8	28	21	16
	AT282121/Y/BLY	116.4	129.9	28	21	21
	AT282813/Y/BLY	108.7	124.6	28	28	13
	AT282816/Y/BLY	112.2	124.6	28	28	16
	AT282821/Y/BLY	116.6	124.6	28	28	21
	AT282828/Y/BLY	165.0	119.0	28	28	28

Approvals

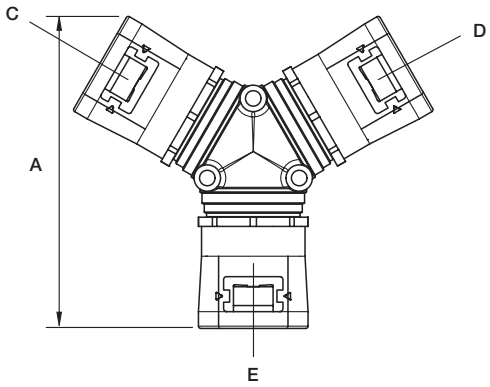
IP rating	Appropriate conduit
For use with: Type PA / PR / PF	
IP40	Yes
IP65	Yes
IP68	Yes 4 bar 30mins with Heavy Weight Conduits 2 bar 30mins with Standard Weight Conduits
IP69	Yes

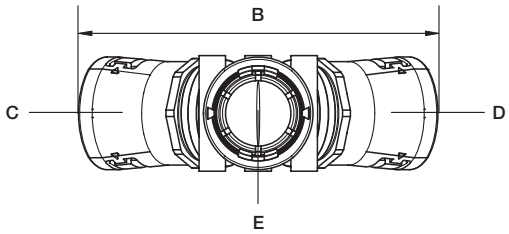
Temperature range

Static applications: -50°C to +120°C

Moving applications: -45°C to +120°C

Fitting characteristics





Non-metallic conduit systems

Adaptalok AL Type A fittings

Type A

Straight fitting - Fixed external male thread / Materials: Polyamide (nylon) 66 / Colour: Black (BL)

Part no.	Nominal conduit size (mm)	Metric thread	Part no.	Nominal conduit size (mm)	PG thread
AL10/M12/A/BL*	10	M12	AL10/PG7/A/BL*	10	PG7
–	–	–	AL10/PG9/A/BL*	10	PG9
AL13/M16/A/BL	13	M16	AL13/PG9/A/BL*	13	PG9
AL13/M20/A/BL*	13	M20	AL13/PG11/A/BL*	13	PG11
–	–	–	AL13/PG13/A/BL*	13	PG13,5
AL16/M16/A/BL	16	M16	AL16/PG9/A/BL	16	PG9
AL16/M20/A/BL	16	M20	AL16/PG11/A/BL	16	PG11
–	–	–	AL16/PG13/A/BL	16	PG13,5
–	–	–	AL16/PG16/A/BL	16	PG16
AL21/M20/A/BL	21	M20	AL21/PG11/A/BL	21	PG11
–	–	–	AL21/PG13/A/BL	21	PG13,5
AL21/M25/A/BL	21	M25	AL21/PG16/A/BL	21	PG16
AL28/M25/A/BL	28	M25	AL28/PG21/A/BL	28	PG21
AL28/M32/A/BL	28	M32	–	–	–
AL34/M32/A/BL	34	M32	AL34/PG29/A/BL	34	PG29
AL34/M40/A/BL	34	M40	–	–	–
AL42/M40/A/BL	42	M40	AL42/PG36/A/BL	42	PG36
AL42/M50/A/BL	42	M50	–	–	–
AL54/M50/A/BL	54	M50	AL54/PG48/A/BL	54	PG48
AL54/M63/A/BL	54	M63	–	–	–

Part no.	Nominal conduit size (mm)	PF thread	Part no.	Nominal conduit size (mm)	NPT thread (in)
AL10/PF025/A/BL*	10	¼”	–	–	–
AL13/PF038/A/BL*	13	⅜”	AL13/038/A/BL*	13	⅜
AL16/PF038/A/BL	16	⅜”	AL16/038/A/BL	16	⅜
AL16/PF050/A/BL	16	½”	AL16/050/A/BL	16	½
AL21/PF050/A/BL	21	½”	AL21/050/A/BL	21	½
AL28/PF075/A/BL	28	¾”	AL28/075/A/BL	28	¾
AL34/PF100/A/BL	34	1”	AL34/100/A/BL	34	1
AL42/PF125/A/BL	42	1 ¼”	AL42/125/A/BL	42	1 ¼
AL54/PF150/A/BL	54	1 ½”	AL54/150/A/BL	54	1 ½
AL54/PF200/A/BL	54	2”	–	–	–

For insertion into knockouts using a locknut. Locknut supplied with METRIC THREAD ONLY
*These parts are not covered by the UR certification

Approvals

IP rating	Appropriate conduit
For use with: Type PA / CP / PR / PF	
IP66	Yes
IP67	Yes + ALS Seal
IP68	Yes + ALS Seal
IP69	Yes + ALS Seal

Temperature range

Static applications: -50°C to +120°C

Moving applications: -45°C to +120°C

Fitting characteristics

For ALS Seal see page 79

Non-metallic conduit systems

Adaptalok AL Type C90 fittings

Type C90 **90° elbow fitting - Fixed external male thread / Materials: Polyamide (nylon) 66 / Colour: Black (BL)**

Part no.	Nominal conduit size (mm)	Metric thread	Part no.	Nominal conduit size (mm)	PG thread
AL10/M12/C90/BL*	10	M12	AL10/PG7/C90/BL*	10	PG7
AL13/M16/C90/BL*	13	M16	AL13/PG9/C90/BL*	13	PG9
AL16/M16/C90/BL	16	M16	AL16/PG9/C90/BL	16	PG9
AL16/M20/C90/BL	16	M20	AL16/PG11/C90/BL	16	PG11
–	–	–	AL16/PG13/C90/BL	16	PG13,5
AL21/M20/C90/BL	21	M20	AL21/PG13/C90/BL	21	PG31,5
–	–	–	AL21/PG16/C90/BL	21	PG16
AL28/M25/C90/BL	28	M25	AL28/PG21/C90/BL	28	PG21
AL34/M32/C90/BL	34	M32	AL34/PG29/C90/BL	34	PG29
AL42/M40/C90/BL	42	M40	AL42/PG36/C90/BL	42	PG36
AL54/M50/C90/BL	54	M50	AL54/PG48/C90/BL	54	PG48
AL54/M63/C90/BL	54	M63	–	–	–

Part no.	Nominal conduit size (mm)	PF thread (in)	Part no.	Nominal conduit size (mm)	NPT thread (in)
AL13/PFO38/C90/BL*	13	⅜	AL13/038/C90/BL*	13	⅜
AL16/PFO38/C90/BL	16	⅜	–	–	–
AL16/PFO50/C90/BL	16	½	AL16/050/C90/BL	16	½
AL21/PFO50/C90/BL	21	½	AL21/050/C90/BL	21	½
AL28/PFO75/C90/BL	28	¾	AL28/075/C90/BL	28	¾
AL34/PF100/C90/BL	34	1	AL34/100/C90/BL	34	1
AL42/PF125/C90/BL	42	1 ¼	AL42/125/C90/BL	42	1 ¼
AL54/PF150/C90/BL	54	1 ½	AL54/150/C90/BL	54	1 ½
AL54/PF200/C90/BL	54	2	AL54/200/C90/BL	54	2

For insertion into knockouts using a locknut. Locknut supplied with METRIC THREAD ONLY
*These parts are not covered by the UR certification

Approvals

IP rating	Appropriate conduit
For use with: Type PA / CP / PR / PF	
IP66	Yes
IP67	Yes + ALS Seal
IP68	Yes + ALS Seal
IP69	Yes + ALS Seal

Temperature range
Static applications: -50°C to +120°C
Moving applications: -45°C to +120°C

For ALS Seal see page 79

Non-metallic conduit systems

Adaptalok AL Type 45 and push-in fittings

Type 45

45° Elbow fitting - Fixed external male thread / Materials: Polyamide (nylon) 66 / Colour: Black (BL)

Part no.	Nominal conduit size (mm)	Metric thread	Part no.	Nominal conduit size (mm)	PG thread
AL13/M16/45/BL*	13	M16	AL13/PG9/45/BL*	13	PG9
AL16/M16/45/BL	16	M16	AL16/PG11/45/BL	16	PG11
AL16/M20/45/BL	16	M20	AL16/PG13/45/BL	16	PG13,5
AL21/M20/45/BL	21	M20	AL21/PG13/45/BL	21	PG13,5
–	–	–	AL21/PG16/45/BL	21	PG16
AL28/M25/45/BL	28	M25	AL28/PG21/45/BL	28	PG21
AL34/M32/45/BL	34	M32	AL34/PG29/45/BL	34	PG29
AL42/M50/45/BL	42	M40	AL42/PG36/45/BL	42	PG36
AL54/M50/45/BL	54	M50	AL54/PG48/45/BL	54	PG48
AL54/M63/45/BL	54	M63	–	–	–

For insertion into knockouts using a locknut. Locknut supplied with METRIC THREAD ONLY
*These parts are not covered by the UR certification

Approvals	IP rating	Appropriate conduit	Temperature range
	For use with: Type PA / CP / PR / PF		Static applications: -50°C to +120°C
	IP66	Yes	Moving applications: -45°C to +120°C
	IP67	Yes + ALS Seal	
	IP68	Yes + ALS Seal	
	IP69	Yes + ALS Seal	

Push-in

Straight fitting - Fixed external male thread / Materials: Polyamide (nylon) 66 / Colour: Black (BL)

Part no.	Nominal conduit size (mm)
AL16/KM20/A/BL	16
AL21/KM20/A/BL	21

Inserts into a 20mm knockout, panel thickness up to 4mm, no locknut required

Approvals	IP rating	Appropriate conduit	Temperature range
	For use with: Type PA / CP / PR / PF		Static applications: -50°C to +120°C
	IP40 More offered when fitted with ALS Seal	Yes	Moving applications: -45°C to +120°C

For ALS Seal see page 79

Non-metallic conduit systems

Adaptalok AL 3 way couplers and swivel couplers

3-Way Coupler

3-Way PA66 fitting / Materials: Polyamide (nylon) 66 / Colour: Black (BL)

Part no.	Nominal conduit size combination (mm)
AL131010/Y/BL	13x10x10
AL161313/Y/BL	16x13x13
AL211616/Y/BL	21x16x16
AL282121/Y/BL	28x21x21

For coupling three corrugated flexible conduits

Approvals

IP rating	Appropriate conduit
For use with: Type PA / CP / PR / PF / PK	
IP66	Yes
IP67	Yes + ALS Seal
IP68	Yes + ALS Seal
IP69	Yes + ALS Seal

Temperature range

Static applications: -50°C to +120°C

Moving applications: -45°C to +120°C

Swivel coupler

Straight PA66 body swivel coupler /Materials: Polyamide (nylon) 66 + aluminium / Colour: Black (BL)

Part no.	Nominal conduit size (mm)
AL13/A/U/BL	13
AL16/A/U/BL	16
AL21/A/U/BL	21
AL28/A/U/BL	28
AL34/A/U/BL	34
AL42/A/U/BL	42
AL54/A/U/BL	54

For coupling two corrugated flexible conduits

Approvals

IP rating	Appropriate conduit
For use with: Type PA / CP / PR / PF	
IP66	Yes
IP67	Yes + ALS Seal
IP68	Yes + ALS Seal
IP69	Yes + ALS Seal

Temperature range

Static applications: -50°C to +120°C

Moving applications: -45°C to +120°C

Fitting characteristics

For ALS Seal see page 79

Non-metallic conduit systems

Adaptalok AL Types FL/A, FL/C90 and FL/90 panel mounting fittings

Type FL/A

Straight panel mounting swivel flange / Materials: Polyamide (nylon) 66 / Colour: Black (BL)

Part no.	Nominal conduit size (mm)
AL16/FL/A/BL	16
AL21/FL/A/BL	21
AL28/FL/A/BL	28
AL54/FL/A/BL	54

With integral face seal

Approvals

KM35161 CE LOW VOLTAGE DIRECTIVE NF RoHS COMPLIANT

IP rating	Appropriate conduit
For use with: Type PA / CP / PR / PF	
IP66	Yes
IP67	Yes + ALS Seal
IP68	Yes + ALS Seal
IP69	Yes + ALS Seal

Temperature range

Static applications: -50°C to +120°C

Moving applications: -45°C to +120°C

Fitting characteristics

Type FL/C90

90° Elbow body - Panel mount swivel flange / Materials: Polyamide (nylon) 66 / Colour: Black (BL)

Part no.	Nominal conduit size (mm)
AL13/FL/C90/BL	13
AL16/FL/C90/BL	16
AL21/FL/C90/BL	21
AL28/FL/C90/BL	28

For panel mounting via 2 hole fixing & integral face seal

Type FL/90

90° Elbow body - Panel mount flange / Materials: Polyamide (nylon) 66 / Colour: Black (BL), Grey (GR)

Part no.	Nominal conduit size (mm)
AL34/FL/90/BL	34
AL42/FL/90/BL	42
AL54/FL/90/BL	54

For panel mounting via 4 hole fixing & integral face seal

Approvals

KM35161 CE LOW VOLTAGE DIRECTIVE NF RoHS COMPLIANT

IP rating	Appropriate conduit
For use with: Type PA / CP / PR / PF	
IP66	Yes
IP67	Yes + ALS Seal
IP68	Yes + ALS Seal
IP69	Yes + ALS Seal

Temperature range

Static applications: -50°C to +120°C

Moving applications: -45°C to +120°C

Fitting characteristics (FLC/90 ONLY)

For ALS Seal see page 79

Non-metallic conduit systems

Adaptalok AL Types FL/45 and jumbo panel mounting fittings

Type FL/45

45° Panel mounting swivel flange / Materials: Polyamide (nylon) 66 / Colour: Black (BL)

Part no.	Nominal conduit size (mm)
AL16/FL/45/BL	16
AL21/FL/45/BL	21
AL28/FL/45/BL	28
AL54/FL/45/BL	54

With integral face seal

Approvals

IP rating	Appropriate conduit
For use with: Type PA / CP / PR / PF	
IP66	Yes
IP67	Yes + ALS Seal
IP68	Yes + ALS Seal
IP69	Yes + ALS Seal

Temperature range

Static applications: -50°C to +120°C

Moving applications: -45°C to +120°C

Fitting characteristics

Jumbo Type FL/A

Straight panel mounting swivel flange / Materials: Polyamide (nylon) 66 / Colour: Black (BL)

Part no.	Nominal conduit size (mm)
ADC80/FL/A/BL	80
ADC106/FL/A/BL	106

For coupling to UNEF circular connectors

Approvals

IP rating	Appropriate conduit
For use with: Type PA / CP / PR / PF	
IP40	Yes
IP65	Yes + ALS Seal

Temperature range

Static applications: -50°C to +120°C

Moving applications: -45°C to +120°C

Non-metallic conduit systems

Adaptalok AL Types SA & CS90 fittings

Type SA — **Straight fitting - Swivel external male thread / Materials: Polyamide (nylon) 66, nickel plated brass thread / Colour: Black (BL)**

Part no.	Nominal conduit size (mm)	Metric thread	Part no.	Nominal conduit size (mm)	PG thread
AL13/M16/SA/BL*	13	M16	AL13/PG9/SA/BL*	13	PG9
AL16/M16/SA/BL	16	M16	AL16/PG11/SA/BL	16	PG11
AL21/M20/SA/BL	21	M20	AL21/PG13/SA/BL	21	PG13,5
–	–	–	AL21/PG16/SA/BL	21	PG16
AL28/M25/SA/BL	28	M25	AL28/PG21/SA/BL	28	PG21
AL34/M32/SA/BL	34	M32	AL34/PG29/SA/BL	34	PG29
AL42/M40/SA/BL	42	M40	AL42/PG36/SA/BL	42	PG36
AL54/M50/SA/BL	54	M50	AL54/PG48/SA/BL	54	PG48
AL54/M63/SA/BL	54	M63	–	–	–

For insertion into threaded entries & knockouts using a locknut. Order locknut separately
*These parts are not covered by the UR certification

Approvals

IP rating	Appropriate conduit
For use with: Type PA / CP / PR / PF	
IP66	Yes
IP67	Yes + ALS Seal
IP68	Yes + ALS Seal
IP69	Yes + ALS Seal

Temperature range

Static applications: -50°C to +120°C
Moving applications: -45°C to +120°C

Fitting characteristics

Type CS90 — **90° Elbow fitting - Swivel external male thread / Materials: Polyamide (nylon) 66, nickel plated brass thread / Colour: Black (BL)**

Part no.	Nominal conduit size (mm)	Metric thread	Part no.	Nominal conduit size (mm)	PG thread
AL13/M16/CS90/BL*	13	M16	AL13/PG9/CS90/BL*	13	PG9
AL16/M16/CS90/BL	16	M16	AL16/PG11/CS90/BL	16	PG11
AL21/M20/CS90/BL	21	M20	AL21/PG13/CS90/BL	21	PG13,5
–	–	–	AL21/PG16/CS90/BL	21	PG16
AL28/M25/CS90/BL	28	M25	AL28/PG21/CS90/BL	28	PG21
AL34/M32/CS90/BL	34	M32	AL34/PG29/CS90/BL	34	PG29
AL42/M40/CS90/BL	42	M40	AL42/PG36/CS90/BL	42	PG36
AL54/M50/CS90/BL	54	M50	AL54/PG48/CS90/BL	54	PG48
AL54/M63/CS90/BL	54	M63	–	–	–

For insertion into threaded entries & knockouts using a locknut. Order locknut separately
*These parts are not covered by the UR certification

Approvals

IP rating	Appropriate conduit
For use with: Type PA / CP / PR / PF	
IP66	Yes
IP67	Yes + ALS Seal
IP68	Yes + ALS Seal
IP69	Yes + ALS Seal

Temperature range

Static applications: -50°C to +120°C
Moving applications: -45°C to +120°C

Fitting characteristics

For ALS Seal see page 79

Non-metallic conduit systems

Adaptalok AL Types S45 & SFA fittings

Type S45 - Adaptalok

45° Elbow body - Swivel external male thread / Materials: Polyamide (nylon) 66, nickel plated brass thread / Colour: Black (BL)

Part no.	Nominal conduit size (mm)	Metric thread	Part no.	Nominal conduit size (mm)	PG thread
AL13/M16/S45/BL*	13	M16	AL13/PG9/S45/BL*	13	PG9
AL16/M16/S45/BL	16	M16	AL16/PG11/S45/BL	16	PG11
AL21/M20/S45/BL	21	M20	AL21/PG13/S45/BL	21	PG13,5
–	–	–	AL21/PG16/S45/BL	21	PG16
AL28/M25/S45/BL	28	M25	AL28/PG21/S45/BL	28	PG21
AL34/M32/S45/BL	34	M32	AL34/PG29/S45/BL	34	PG29
AL42/M40/S45/BL	42	M40	AL42/PG36/S45/BL	42	PG36
AL54/M50/S45/BL	54	M50	AL54/PG48/S45/BL	54	PG48
AL54/M63/S45/BL	54	M63	–	–	–

For insertion into threaded entries & knockouts using a locknut. Order locknut separately
*These parts are not covered by the UR certification

Approvals	IP rating	Appropriate conduit	Temperature range
	For use with: Type PA / CP / PR / PF		Static applications: -50°C to +120°C
	IP66	Yes	Moving applications: -45°C to +120°C
	IP67	Yes + ALS Seal	**Fitting characteristics**
	IP68	Yes + ALS Seal	
	IP69	Yes + ALS Seal	

Type SFA - Adaptalok

Straight body - Swivel internal female thread / Materials: Polyamide (nylon) 66, nickel plated brass thread / Colour: Black (BL)

Part no.	Nominal conduit size (mm)	Metric thread	Part no.	Nominal conduit size (mm)	PG thread
AL13/M16/SFA/BL	13	M16	AL13/PG9/SFA/BL	13	PG9
AL16/M16/SFA/BL	16	M16	AL16/PG11/SFA/BL	16	PG11
AL21/M20/SFA/BL	21	M20	AL21/PG13/SFA/BL	21	PG13,5
–	–	–	AL21/PG16/SFA/BL	21	PG16
AL28/M25/SFA/BL	28	M25	AL28/PG21/SFA/BL	28	PG21
AL34/M32/SFA/BL	34	M32	AL34/PG29/SFA/BL	34	PG29
AL42/M40/SFA/BL	42	M40	AL42/PG36/SFA/BL	42	PG36
AL54/M50/SFA/BL	54	M50	AL54/PG48/SFA/BL	54	PG48
AL54/M63/SFA/BL	54	M63	–	–	–

For attaching to external threads & other fittings
Swivel internal female thread Black (BL) as standard or Grey (GR) - RAL 7031

Approvals	IP rating	Appropriate conduit	Temperature range
	For use with: Type PA / CP / PR / PF		Static applications: -50°C to +120°C
	IP66	Yes	Moving applications: -45°C to +120°C
	IP67	Yes + ALS Seal	**Fitting characteristics**
	IP68	Yes + ALS Seal	
	IP69	Yes + ALS Seal	

For ALS Seal see page 79

Non-metallic conduit systems

Adaptalok AL Types CSF90 & SF45 fittings

Type CSF90

90° Elbow fitting - Swivel internal female thread / Materials: Polyamide (nylon) 66, nickel plated brass thread / Colour: Black (BL)

Part no.	Nominal conduit size (mm)	Metric thread	Part no.	Nominal conduit size (mm)	PG thread
AL13/M16/CSF90/BL	13	M16	AL13/PG9/CSF90/BL	13	PG9
AL16/M16/CSF90/BL	16	M16	AL16/PG11/CSF90/BL	16	PG11
AL21/M20/CSF90/BL	21	M20	AL21/PG13/CSF90/BL	16	PG13,5
–	–	–	AL21/PG16/CSF90/BL	21	PG16
AL28/M25/CSF90/BL	28	M25	AL28/PG21/CSF90/BL	28	PG21
AL34/M32/CSF90/BL	34	M32	AL34/PG29/CSF90/BL	34	PG29
AL42/M40/CSF90/BL	42	M40	AL42/PG36/CSF90/BL	42	PG36
AL54/M50/CSF90/BL	54	M50	AL54/PG48/CSF90/BL	54	PG48

For attachment to external threads & other fittings

Approvals

IP rating	Appropriate conduit
For use with: Type PA / CP / PR / PF	
IP66	Yes
IP67	Yes + ALS Seal
IP68	Yes + ALS Seal
IP69	Yes + ALS Seal

Temperature range

Static applications: -50°C to +120°C

Moving applications: -45°C to +120°C

Fitting characteristics

Type SF45

45° Elbow fitting - Swivel internal female thread / Materials: Polyamide (nylon) 66, nickel plated brass thread / Colour: Black (BL)

Part no.	Nominal conduit size (mm)	Metric thread	Part no.	Nominal conduit size (mm)	PG thread
AL13/M16/SF45/BL	13	M16	AL13/PG9/SF45/BL	13	PG9
AL16/M16/SF45/BL	16	M16	AL16/PG11/SF45/BL	16	PG11
AL21/M20/SF45/BL	21	M20	AL21/PG13/SF45/BL	16	PG13,5
–	–	–	AL21/PG16/SF45/BL	21	PG16
AL28/M25/SF45/BL	28	M25	AL28/PG21/SF45/BL	28	PG21
AL34/M32/SF45/BL	34	M32	AL34/PG29/SF45/BL	42	PG29
AL42/M40/SF45/BL	40	M40	AL42/PG36/SF45/BL	48	PG36
AL54/M50/SF45/BL	50	M50	AL54/PG48/SF45/BL	54	PG48
AL54/M63/SF45/BL	63	M63	–	–	–

For attachment to external threads & other fittings
*These parts are not covered by the UR certification

Approvals

IP rating	Appropriate conduit
For use with: Type PA / CP / PR / PF	
IP66	Yes
IP67	Yes + ALS Seal
IP68	Yes + ALS Seal
IP69	Yes + ALS Seal

Temperature range

Static applications: -50°C to +120°C

Moving applications: -45°C to +120°C

Fitting characteristics

For ALS Seal see page 79

Non-metallic conduit systems

Adaptalok AL Type A - UNEF fittings

Type AL

Straight body - Swivel internal female thread / Materials: Polyamide (nylon) 66 & aluminium / Colour: Black (BL) only

Part no.	Nominal conduit size (mm)	Connector UNEF thread
AL13/U063/A/000620	13	⅝" - 24
AL13/U075/A/000620	13	¾" - 20
AL13/U088/A/000620	13	⅞" - 20
AL16/U063/A/000620	16	⅝" - 24
AL16/U075/A/000620	16	¾" - 20
AL16/U081/A/000620	16	13/16" - 20
AL16/U088/A/000620	16	⅞" - 20
AL16/U094/A/000620	16	15/16" - 20
AL16/U100/A/000620	16	1" - 20
AL16/U119/A/000620	16	1 3/16" - 18
AL16/U131/A/000620	16	1 5/16" - 18
AL21/U075/A/000620	21	¾" - 20
AL21/U088/A/000620	21	⅞" - 20
AL21/U094/A/000620	21	15/16" - 20
AL21/U100/A/000620	21	1" - 20
AL21/U113/A/000620	21	1 ⅛" - 18
AL21/U119/A/000620	21	1 3/16" - 18
AL21/U131/A/000620	21	1 5/16" - 18

Part no.	Nominal conduit size (mm)	Connector UNEF thread
AL21/U144/A/000620	21	1 7/16" - 18
AL21/U175/A/000620	21	1 ¾" - 18
AL28/U094/A/000620	28	15/16" - 20
AL28/U100/A/000620	28	1" - 20
AL28/U119/A/000620	28	1 3/16" - 18
AL28/U138/A/000620	28	1 ⅜" - 18
AL28/U144/A/000620	28	1 7/16" - 18
AL28/U175/A/000620	28	1 ¾" - 18
AL34/U100/A/000620	34	1" - 20
AL34/U119/A/000620	34	1 3/16" - 18
AL34/U144/A/000620	34	1 7/16" - 18
AL34/U175/A/000620	34	1 ¾" - 18
AL34/U200/A/000620	34	2" - 16
AL42/U200/A/000620	42	2" - 16

For coupling to UNEF circular connectors

Approvals

KM35161

IP rating — **Appropriate conduit**

For use with: Type PA / CP / PR / PF

IP66	Yes
IP67	Yes + ALS Seal
IP68	Yes + ALS Seal
IP69	Yes + ALS Seal

Temperature range

Static applications: -50°C to +120°C

Moving applications: -45°C to +120°C

Fitting characteristics

For ALS Seal see page 79

Non-metallic conduit systems

Adaptalok AL Type C90 - UNEF fittings

Type AL **90° Elbow fitting - Swivel internal female thread / Materials: Polyamide (nylon) 66 & aluminium / Colour: Black (BL) only**

Part no.	Nominal conduit size (mm)	Connector UNEF thread	Part no.	Nominal conduit size (mm)	Connector UNEF thread
AL13/U063/C90/000620	13	5/8" - 24	AL21/U144/C90/000620	21	1 7/16" - 18
AL13/U075/C90/000620	13	3/4" - 20	AL21/U175/C90/000620	21	1 3/4" - 18
AL13/U088/C90/000620	16	7/8" - 20	AL28/U088/C90/000620	28	7/8" - 20
AL16/U063/C90/000620	16	5/8" - 24	AL28/U094/C90/000620	28	15/16" - 20
AL16/U075/C90/000620	16	3/4" - 20	AL28/U100/C90/000620	28	1" - 20
AL16/U081/C90/000620	16	13/16" - 20	AL28/U119/C90/000620	28	1 3/16" - 18
AL16/U088/C90/000620	16	7/8" - 20	AL28/U138/C90/000620	28	1 3/8" - 18
AL16/U094/C90/000620	16	15/16" - 20	AL28/U144/C90/000620	28	1 7/16" - 18
AL16/U100/C90/000620	16	1" - 20	AL28/U175/C90/000620	28	1 3/4" - 18
AL16/U119/C90/000620	16	1 3/16" - 18	AL28/U200/C90/000620	28	2" - 16
AL16/U131/C90/000620	16	1 5/16" - 18	AL28/U225/C90/000620	28	2 1/4" - 16
AL21/U075/C90/000620	21	3/4" - 20	AL34/U100/C90/000620	34	1" - 20
AL21/U088/C90/000620	21	7/8" - 20	AL34/U119/C90/000620	34	1 3/16" - 18
AL21/U094/C90/000620	21	15/16" - 20	AL34/U144/C90/000620	34	1 7/16" - 18
AL21/U100/C90/000620	21	1" - 20	AL34/U175/C90/000620	34	1 3/4" - 18
AL21/U113/C90/000620	21	1 1/8" - 18	AL34/U200/C90/000620	34	2" - 16
AL21/U119/C90/000620	21	1 3/16" - 18	AL42/U175/C90/000620	42	1 3/4" - 18
AL21/U131/C90/000620	21	1 5/16" - 18	AL42/U200/C90/000620	42	2" - 16
AL21/U138/C90/000620	21	1 3/8" - 18	–	–	–

For coupling to UNEF circular connectors

Approvals

KM35161

IP rating	Appropriate conduit
For use with: Type PA / CP / PR / PF	
IP66	Yes
IP67	Yes + ALS Seal
IP68	Yes + ALS Seal
IP69	Yes + ALS Seal

Temperature range

Static applications: -50°C to +120°C

Moving applications: -45°C to +120°C

Fitting characteristics

For ALS Seal see page 79

Non-metallic conduit systems

Adaptalok AL Type 45 - UNEF fittings

Type AL **45° Elbow fitting - Swivel internal female thread / Materials: Polyamide (nylon) 66 & aluminium / Colour: Black (BL) only**

Part no.	Nominal conduit size (mm)	Connector UNEF thread
AL13/U063/45/000620	13	⅝" - 24
AL13/U075/45/000620	13	¾" - 20
AL16/U081/45/000620	16	13/16" - 20
AL16/U094/45/000620	16	15/16" - 20
AL16/U131/45/000620	16	1 5/16" - 18
AL21/U100/45/000620	21	1" - 20
AL21/U119/45/000620	21	1 3/16" - 18
AL21/U138/45/000620	21	1 ⅜" - 18
AL21/U144/45/000620	21	1 7/16" - 18
AL21/U175/45/000620	21	1 ¾" - 18
AL28/U088/45/000620	28	⅞" - 20
AL28/U094/45/000620	28	15/16" - 20
AL28/U144/45/000620	28	1 7/16" - 18
AL34/U144/45/000620	34	1 7/16" - 18
AL34/U175/45/000620	34	1 ¾" - 18

For coupling to UNEF circular connectors

Approvals

KM35161

IP rating	Appropriate conduit
For use with: Type PA / CP / PR / PF	
IP66	Yes
IP67	Yes + ALS Seal
IP68	Yes + ALS Seal
IP69	Yes + ALS Seal

Temperature range
Static applications: -50°C to +120°C
Moving applications: -45°C to +120°C

Fitting characteristics

For ALS Seal see page 79

Non-metallic conduit systems

Adaptaseal Types A & C90 fittings

Type A

Straight fitting - Fixed external male thread / Materials: Polyamide (nylon) 66 / Colour: Black (BL)

Part no.	Nominal conduit size (mm)	Metric thread	Part no.	Nominal conduit size (mm)	PG thread
ASF10/M16/A/BL	10	M16	ASF10/PG9/A/BL	10	PG9
ASF13/M16/A/BL	13	M16	ASF13/PG9/A/BL	13	PG9
ASF16/M16/A/BL	16	M16	ASF16/PG11/A/BL	16	PG11
ASF16/M20/A/BL	16	M20	ASF16/PG13/A/BL	16	PG13,5
ASF21/M20/A/BL	21	M20	ASF21/PG16/A/BL	21	PG16
ASC21/M20/A/BL	21	M20	ASC21/PG16/A/BL	21	PG16
ASF28/M25/A/BL	28	M25	ASF28/PG21/A/BL	28	PG21
ASC28/M25/A/BL	28	M25	ASC28/PG21/A/BL	28	PG21
ASF34/M32/A/BL	34	M32	ASF34/PG29/A/BL	34	PG29
ASC34/M32/A/BL	34	M32	ASC34/PG29/A/BL	34	PG29
ASC42/M40/A/BL	42	M40	ASC42/PG36/A/BL	42	PG36
ASC54/M50/A/BL	54	M50	ASC54/PG48/A/BL	54	PG48

For insertion into knockouts using a locknut. Locknut supplied with METRIC THREAD ONLY
PF & NPT thread sizes available. MTO terms apply

Approvals

KM35161

IP rating	Appropriate conduit
For use with: Type PA / CP / PR / PF	
IP66	Yes
IP67	Yes
IP68	Yes (2 bar 30mins)
IP69	Yes

Temperature range
Static applications: -50°C to +120°C
Moving applications: -45°C to +120°C

Type C90

90° Elbow fitting - Fixed external male thread / Materials: Polyamide (nylon) 66 / Colour: Black (BL)

Part no.	Nominal conduit size (mm)	Metric thread	Part no.	Nominal conduit size (mm)	PG Thread
ASF10/M16/C90/BL	10	M16	ASF10/PG9/C90/BL	10	PG9
ASF13/M16/C90/BL	13	M16	ASF13/PG9/C90/BL	13	PG9
ASF16/M16/C90/BL	16	M16	ASF16/PG11/C90/BL	16	PG11
ASF16/M20/C90/BL	16	M20	ASF16/PG13/C90/BL	16	PG13,5
ASF21/M20/C90/BL	21	M20	ASF21/PG16/C90/BL	21	PG16
ASC21/M20/C90/BL	21	M20	ASC21/PG16/C90/BL	21	PG16
ASF28/M25/C90/BL	28	M25	ASF28/PG21/C90/BL	28	PG21
ASC28/M25/C90/BL	28	M25	ASC28/PG21/C90/BL	28	PG21
ASF34/M32/C90/BL	34	M32	ASF34/PG29/C90/BL	34	PG29
ASC34/M32/C90/BL	34	M32	ASC34/PG29/C90/BL	34	PG29
ASC42/M40/C90/BL	42	M40	ASC42/PG36/C90/BL	42	PG36
ASC54/M50/C90/BL	54	M50	ASC54/PG48/C90/BL	54	PG48

For insertion into knockouts using a locknut. Locknut supplied with METRIC THREAD ONLY
PF & NPT thread sizes available. MTO terms apply

Approvals

KM35161

IP rating	Appropriate conduit
For use with: Type PA / CP / PR / PF	
IP66	Yes
IP67	Yes
IP68	Yes (2 bar 30mins)
IP69	Yes

Temperature range
Static applications: -40°C to +120°C
Moving applications: -5°C to +120°C

Non-metallic conduit systems

Adaptaseal Types C90 & 90 panel mounting and type T fittings

Type FLC90/FL90

90° Elbow body - Panel mount swivel flange / Materials: Polyamide (nylon) 66/TPE / Colour: Black (BL) only

Part no.	Nominal conduit size (mm)
ASF13/FL/C90/BL	13
ASF16/FL/C90/BL	16
ASF21/FL/C90/BL	21
ASC21/FL/C90/BL	21
ASF28/FL/C90/BL	28
ASC28/FL/C90/BL	28
ASF34/FL/90/BL*	34
ASC34/FL/90/BL*	34
ASC42/FL/90/BL*	42
ASC54/FL/90/BL*	54

For panel mounting via 2/4 hole fixing & integral face seal
*These sizes are fixed panel mounting - non swivel

Approvals

KM35161

IP rating	Appropriate conduit
For use with: Type PA / CP / PR / PF	
IP66	Yes
IP67	Yes
IP68	Yes (2 bar 30mins)
IP69	Yes

Temperature range
Static applications: -40°C to +120°C
Moving applications: -5°C to +120°C

Type T

Inspection T-piece / Materials: Polyamide (nylon) 66 / Colour: Black (BL) only

Part no.	Nominal conduit size (mm)
ASF10X3/T/BL	10
ASF13X3/T/BL	13
ASF16X3/T/BL	16
ASF21X3/T/BL	21
ASC21X3/T/BL	21
ASF28X3/T/BL	28
ASC28X3/T/BL	28
ASF34X3/T/BL	34
ASC34X3/T/BL	34

For connection to corrugated flexible conduit

Approvals

KM35161

IP rating	Appropriate conduit
For use with: Type PA / CP / PR / PF	
IP66	Yes
IP67	Yes

Temperature range
Static applications: -50°C to +120°C
Moving applications: -45°C to +120°C

Non-metallic conduit systems

Adaptaseal Types RK Reducers & Type AWS anti-vibration washers

Type RK

Reducing kit / Materials: Polyamide (nylon) 66 & neoprene rubber / Colour: Black (BL) only

Nominal conduit size (mm)	Conduit pitch	Part no. Reducing to conduit size 10	Reducing to conduit size 13	Reducing to conduit size 16	Reducing to conduit size 21	Reducing to conduit size 28
10	Fine	–	–	–	–	–
13	Fine	RK13-10	–	–	–	–
16	Fine	RK16-10	RK16-13	–	–	–
21	Fine	RK21-10	RK21-13	RK21-16	–	–
21	Coarse	RK21-10	RK21-13	RK21-16	–	–
28	Fine	–	RK28-13	RK28-16	RK28-21	–
28	Coarse	–	RK28-13	RK28-16	RK28-21	–
34	Fine	–	–	–	RK34-21	RK34-28
34	Coarse	–	–	–	RK34-21	RK34-28

For connection to a reduced conduit size

Approvals

KM35161

IP rating	Appropriate conduit
For use with: Type PA / CP / PR / PF	
IP66	Yes
IP67	Yes
IP68	Yes (2 bar 30mins)
IP69	Yes

Temperature range
Static applications: -40°C to +120°C
Moving applications: -5°C to +120°C

Type AWB

Anti-vibration washer / Materials: Acetal (POM) / Colour: Black (BL) only

Part no.	Nominal conduit size (mm)
AWB13	13
AWB16	16
AWB21	21
AWB28	28
AWB34	34

Prevents fitting loosening under vibration
Also suitable for Adaptaring range

Non-metallic conduit systems

Adaptaring Types A & C90 fittings

Type A — **Straight fitting - Fixed external male thread / Materials: Polyamide (nylon) 66 & acetal (POM) / Colour: Black (BL) only**

Part no.	Nominal conduit size (mm)	Metric thread	Part no.	Nominal conduit size (mm)	PG thread
AR13/M16/A/BL	13	M16	–	–	–
AR16/M16/A/BL	16	M16	AR16/PG11/A/BL	16	PG11
AR16/M20/A/BL	16	M20	AR16/PG13/A/BL	16	PG13,5
AR21/M20/A/BL	21	M20	AR21/PG16/A/BL	21	PG16
AR28/M25/A/BL	28	M25	AR28/PG21/A/BL	28	PG21
AR34/M32/A/BL	34	M32	AR34/PG29/A/BL	34	PG29
AR42/M40/A/BL	42	M40	AR42/PG36/A/BL	42	PG36
AR54/M50/A/BL	54	M50	–	-	–

For insertion into threaded entries & knockouts. Locknut supplied with METRIC THREAD ONLY
PF & NPT thread sizes available. MTO terms apply

Approvals	IP rating	Appropriate conduit	Temperature range
	For use with: Type PA / CP / PR / PF		Static applications: -40°C to +120°C
	IP40	Yes	Moving applications: -5°C to +120°C
			Fitting characteristics

Type C90 — **90° Elbow fitting - Fixed external male thread / Materials: Polyamide (nylon) 66, nickel plated brass thread/TPE / Colour: Black (BL)**

Part no.	Nominal conduit size (mm)	Metric thread
AR13/M16/C90/BL	13	M16
AR16/M16/C90/BL	16	M16
AR16/M20/C90/BL	16	M20
AR21/M20/C90/BL	21	M20
AR28/M25/C90/BL	28	M25
AR34/M32/C90/BL	34	M32
AR42/M40/C90/BL	42	M40
AR54/M50/C90/BL	54	M50

For insertion into knockouts. Locknut supplied with METRIC THREAD ONLY
PF & NPT thread sizes available. MTO terms apply

Approvals	IP rating	Appropriate conduit	Temperature range
	For use with: Type PA / CP / PR / PF		Static applications: -50°C to +120°C
	IP40	Yes	Moving applications: -45°C to +120°C
			Fitting characteristics

Non-metallic conduit systems

Adaptaring Type T fittings

Type T

Rotational inspection T-piece / Materials: Polyamide (nylon) 66 & neoprene rubber / Colour: Black (BL) only

Part no.	Nominal conduit size (mm)
AR13X3/T/BL	13
AR16X3/T/BL	16
AR21X3/T/BL	21
AR28X3/T/BL	28
AR34X3/T/BL	34

For connection to corrugated flexible conduit

Approvals

IP rating **Appropriate conduit**

For use with: Type PA / CP / PR / PF

IP40 Yes

Temperature range

Static applications: -50°C to +120°C

Moving applications: -45°C to +120°C

Fitting characteristics

Non-metallic conduit systems

Korifit Type KF PVCu conduits

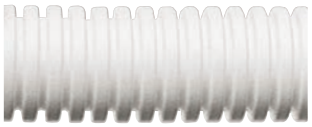
Type KF - L

Lightweight conduit / Materials: PVCu / Colour: Grey (GR) only

Part no.	Nominal conduit size (mm)	NW conduit size (mm)	Conduit pitch	Outside diameter (mm)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
KFL16/50M	16	13	Fine	15.8	12.1	25	50
KFL20/50M	20	17	Fine	19.8	14.5	30	50
KFL25/50M	25	22	Fine	24.8	19.9	40	50

Type KF - S

Standard weight conduit / Materials: PVCu / Colour: White (W) only



Part no.	Nominal conduit size (mm)	NW conduit size (mm)	Conduit pitch	Outside diameter (mm)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
KFS16/W/50M	16	13	Fine	15.8	11.9	25	50
KFS20/W/50M	20	17	Fine	19.8	14.3	30	50
KFS25/W/50M	25	22	Fine	24.8	19.7	40	50

Type KF - M

Medium weight conduit / Materials: PVCu / Colour: Black (BL) only

Part no.	Nominal conduit size (mm)	NW conduit size (mm)	Conduit pitch	Outside diameter (mm)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
KFM16/50M	16	13	Fine	15.8	11.9	25	50
KFM20/50M	20	17	Fine	19.8	14.3	30	50
KFM25/50M	25	22	Fine	24.8	19.7	40	50

Approvals

KM35161

IP rating	Appropriate fitting
For use with: Korifit KC & KF	
IP40	Korifit KC
IP65	Korifit KC

Temperature range
Static applications: -5°C to +60°C
Moving applications: -5°C to +60°C
Flexibility & fatigue life
Pliable - Low fatigue life
Fire performance & EMI screen
Self extinguishing

UV resistance
High

Non-metallic conduit systems

Korifit KC Types A & C90 fittings

Type KC/A

Straight fitting - Fixed external male thread / Materials: Polyamide (nylon) 66 / Colour: Black (BL)

Part no.	Nominal conduit size (mm)	Metric thread
KC16/M16/A/BL	16	M16
KC16/M20/A/BL	16	M20
KC20/M20/A/BL	20	M20
KC25/M25/A/BL	25	M25

For insertion into threaded entries & knockouts. Locknut supplied

Approvals	IP rating	Appropriate conduit	Temperature range
	For use with: Korifit Type KF		Static applications: -5°C to +60°C
	IP40	Yes	Moving applications: -5°C to +60°C
			Fitting characteristics

Type KC/C90

90° Elbow fitting - Fixed external male thread / Materials: Polyamide (nylon) 66 / Colour: Black (BL) only

Part no.	Nominal conduit size (mm)	Metric thread
KC16/M16/C90/BL	16	M16
KC20/M20/C90/BL	20	M20
KC25/M25/C90/BL	25	M25

For insertion into threaded entries & knockouts. Locknut supplied

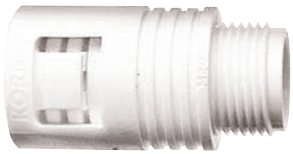
Approvals	IP rating	Appropriate conduit	Temperature range
	For use with: Korifit Type KF		Static applications: -5°C to +60°C
	IP40	Yes	Moving applications: -5°C to +60°C

Non-metallic conduit systems

Korifit KF Type A fittings & couplers

Type KF/A

Straight fitting - Fixed external male thread / Materials: Polyamide (nylon) 66 / Colour: Black (BL), White (W)



Part no.	Nominal conduit size (mm)	Metric thread
KF16/M16/A/*	16	M16
KF16/M20/A/W	16	M20
KF20/M20/A/*	20	M20
KF25/M25/A/*	25	M25

* Black (BL), White (W)
For insertion into threaded entries & knockouts. Locknut supplied
To order quote part number & body colour, e.g. KF16/M16/A/BL

Approvals	IP rating	Appropriate conduit	Temperature range
	For use with: Korifit Type KF		Static applications: -5°C to +60°C
	IP65	Yes	Moving applications: -5°C to +60°C
			Fitting characteristics

Coupler

Straight one piece coupler / Materials: Polyamide (nylon) 66 / Colour: White (W) only

Part no.	Nominal conduit size (mm)	NW conduit size (mm)
KF2020/W	20	17

For coupling two corrugated flexible conduits

Approvals	IP rating	Appropriate conduit	Temperature range
	For use with: Korifit Type KF		Static applications: -5°C to +60°C
	IP65	Yes	Moving applications: -5°C to +60°C

Non-metallic conduit systems

Xtraflex XF PVC conduits

PVC Type XF

Standard weight conduit / Materials: PVCu spiral with plasticised PVC covering / Colour: Black (BL) only

Part no.	Nominal conduit size (mm)	Outside diameter (mm)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
XF12/30M	12	14.5	10	25	30
XF16/30M	16	16.5	12	30	30
XF20/30M	20	20.5	16	35	30
XF25/30M	25	27.5	22	50	30
XF32/30M	32	33.5	28	60	30
XF40/30M	40	44.0	38	80	30
XF50/30M	50	57.5	50	105	30

Approvals	IP rating	Appropriate fitting	Temperature range	UV resistance
	For use with: Type XF		Static applications: -5°C to +60°C	High
	IP65	Type XF	Moving applications: -5°C to +60°C	
			Flexibility & fatigue life	
			Very high flexibility - Medium fatigue life	
			Fire performance & EMI screen	
			Self extinguishing	

Non-metallic conduit systems

Xtraflex XF Types D & C90 fittings

Type D

Straight fitting - Fixed external male thread / Materials: Polyamide (nylon) 66 / Colour: Black (BL) only

Part no.	Nominal conduit size (mm)	Metric thread
XF12/M16/D	12	M16
XF16/M16/D	16	M16
XF16/M20/D	16	M20
XF20/M20/D	20	M20
XF25/M25/D	25	M25
XF32/M32/D	32	M32
XF40/M40/D	40	M40
XF50/M50/D	50	M50

For insertion into threaded entries & knockouts. Locknuts supplied with METRIC THREAD ONLY

Approvals	IP rating	Appropriate conduit	Temperature range
	For use with: Xtraflex Type XF		Static applications: -5°C to +60°C
	IP65	Yes	Moving applications: -5°C to +60°C
			Fitting characteristics

Type C90

90° Elbow fitting - Fixed external male thread / Materials: Polyamide (nylon) 66 / Colour: Black (BL) only

Part no.	Nominal conduit size (mm)	Metric thread
XF16/M16/C90/BL	16	M16
XF20/M20/C90/BL	20	M20
XF25/M25/C90/BL	25	M25
XF32/M32/C90/BL	32	M32

For insertion into knockouts. Locknuts supplied with METRIC THREAD ONLY

Approvals	IP rating	Appropriate conduit	Temperature range
	For use with: Xtraflex Type XF		Static applications: -5°C to +60°C
	IP65	Yes	Moving applications: -5°C to +60°C

Non-metallic conduit systems

Rhinoflex RF PVC conduits

Type RF

Heavyweight conduit - smooth bore / Materials: PVCu spiral with plasticised PVC covering / Colour: Black (BL)

Part no.	Nominal conduit size (mm)	Outside diameter (mm)	Inside diameter (mm)	Min. bend radius (mm)	Reel length (m)
RF12/BL/30M	12	15.4	10.0	25	30
RF16/BL/30M	16	17.5	12.3	30	30
RF20/BL/30M	20	21.1	16.1	35	30
RF25/BL/30M	25	26.5	21.1	50	30
RF32/BL/30M	32	33.4	27.0	60	30

Approvals	IP rating	Appropriate fitting	Temperature range	UV resistance
	For use with: Type RF		Static applications: -5°C to +60°C	High
	IP67	Type RF	Moving applications: -5°C to +60°C	
			Flexibility & fatigue life	
			Medium flexibility - Medium fatigue life	
			Fire performance & EMI screen	
			Self extinguishing	

Non-metallic conduit systems

Rhinoflex XF Types A & C90 fittings

Type A

Straight fitting - Fixed external male thread / Materials: Polyamide (nylon) 66 / Colour: Black (BL) only

Part no.	Nominal conduit size (mm)	Metric thread
RF12/M16/A/BL	12	M16
RF16/M16/A/BL	16	M16
RF16/M20/A/BL	16	M20
RF20/M20/A/BL	20	M20
RF25/M25/A/BL	25	M25
RF32/M32/A/BL	32	M32

For insertion into threaded entries & knockouts. Locknuts supplied with METRIC THREAD ONLY

Approvals	IP rating	Appropriate conduit	Temperature range
	For use with: Xtraflex Type XF		Static applications: -5°C to +60°C
	IP67	Yes	Moving applications: -5°C to +60°C
			Fitting characteristics

Type C90

90° Elbow fitting - Fixed external male thread / Materials: Polyamide (nylon) 66 / Colour: Black (BL) only

Part no.	Nominal conduit size (mm)	Metric thread
RF16/M16/C90/BL	16	M16
RF20/M20/C90/BL	20	M20
RF25/M25/C90/BL	25	M25
RF32/M32/C90/BL	32	M32

For insertion into knockouts. Locknuts supplied with METRIC THREAD ONLY

Approvals	IP rating	Appropriate conduit	Temperature range
	For use with: Xtraflex Type RF		Static applications: -5°C to +60°C
	IP67	Yes	Moving applications: -5°C to +60°C

Non-metallic conduit systems

Accessories

Jumbo Type SK

Sealing kit / Materials: Rubber / Colour: Black (BL) only

Part no.	Nominal conduit size (mm)
SK80	80
SK106	106

For use with Jumbo fittings to achieve IP65. Consists of two sealing washers & O-ring per kit

Insert seal

IP67/68/69k Insert seal / Materials: Thermoplastic elastomer / Colour: Yellow (Y) only

Part no.	Conduit pitch	Nominal dimensions (mm) A	B	C
ALS13/F	Fine	9.0	13.0	9.0
ALS16/F	Fine	10.8	15.3	11.0
ALS21/F	Fine	11.3	21.0	15.7
ALS28/C	Coarse	16.5	27.8	20.7
ALS34/C	Coarse	17.0	34.2	26.6
ALS42/C	Coarse	19.8	42.0	33.6
ALS54/C	Coarse	19.8	54.1	44.6

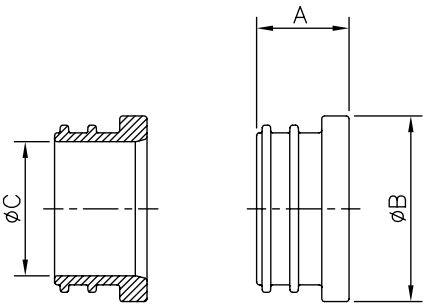
Note: Seal needs to be inserted into the appropriate conduit to upgrade fitting system

Approvals

KM35161

IP rating	Appropriate conduit
For use with: Type PA / CP / PR / PF / PK	
IP66	N/A
IP67	Yes
IP68	Yes (1.1 bar 35mins)
IP69	Yes (DIN 40050)

Temperature range
Static applications: -50°C to +120°C
Moving applications: -45°C to +120°C



Non-metallic conduit systems

Accessories

Type LNP

Nylon locknuts / Materials: Polyamide (nylon) 6 / Colour: Black (BL), Grey (GR)

Part no. Black	Part no. Grey	Metric thread	Part no. Black	Part no. Grey	PG thread
LNPB/M12	–	M12	LNPB/PG7	LNPG/PG7	PG7
LNPB/M16	LNPG/M16	M16	LNPB/PG9	LNPG/PG9	PG9
LNPB/M20	LNPG/M20	M20	LNPB/PG11	LNPG/PG11	PG11
LNPB/M25	LNPG/M25	M25	LNPB/PG13	LNPG/PG13	PG13
LNPB/M32	LNPG/M32	M32	LNPB/PG16	LNPG/PG16	PG16
LNPB/M40	LNPG/M40	M40	LNPB/PG21		PG21
LNPB/M50	LNPG/M50	M50	LNPB/PG29	LNPG/PG29	PG29
LNPB/M63		M63	LNPB/PG36	LNPG/PG36	PG36
			LNPB/PG48	LNPG/PG48	PG48

Type SW

Thread sealing washer

Part no.	Metric thread	Part no.	PG thread	Part no.	NPT & PF thread
SWM12*	M12	SWPG07	PG07	SW038	⅜”
SWM16	M16	SWPG09	PG09	SW050	½”
SWM20	M20	SWPG11	PG11	SW075	¾”
SWM25	M25	SWPG13	PG13	SW100	1”
SWM32	M32	SWPG16	PG16	SW125	1 ¼”
SWM40	M40	SWPG21	PG21	SW150	1 ½”
SWM50	M50	SWPG29	PG29	SW200	2”
SWM63	M63	SWPG36	PG36		

TPE - For use with Nylon threaded fittings. Nylon - For use with swivel metal threaded fittings
To order quote part number & body colour, TPE Black only, e.g. SWM12,
Nylon (N) - Black (BL), Blue (B) & Yellow (Y) Metric and NPT threads only, e.g. SWM32NB
*Not available in Nylon

Type AC

Conduit clips / Materials: Polyamide (nylon) 66, Impact modified nylon - ST version only / Colour: Black (BL), Grey (GR)

Part no. Black	Part no. Grey	Impact modified (black only)	Nominal conduit size (mm)
ACB10	ACG10	–	10
ACB13	ACG13	ACB13/ST	13
ACB16	ACG16	ACB16/ST	16
ACB21	ACG21	ACB21/ST	21
ACB28	ACG28	ACB28/ST	28
ACB34	ACG34	ACB34/ST	34
ACB42	ACG42	ACB42/ST	42
ACB54	ACG54	ACB54/ST	54

With integral lid

Non-metallic conduit systems
Accessories

Type GZ

End sleeves / Materials: Polyamide (nylon) 66 / Colour: Black (BL) only

Part no.	Nominal conduit size (mm)
GZ09	13
GZ11	16
GZ13	21
GZ21	28
GZ29	34
GZ36	42

For sealing cables to non-metallic conduit

Type EC

End caps / Materials: Acetal (POM) / Colour: Black (BL) only

Part no.	Nominal conduit size (mm)
ECB13	13
ECB16	16
ECB21	21
ECB28	28
ECB34	34
ECB42	42
ECB54	54

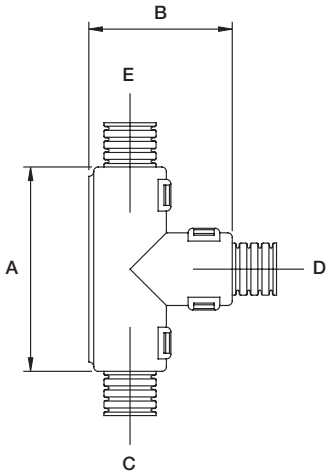
Provides a smooth finish to conduit preventing any damage to cables when not terminated with a fitting

Non-metallic conduit systems

Accessories

Type T

Hinged T-piece / Materials: Polyamide (nylon) 66 / Colour: Black (BL)



		Nominal dimensions / conduit size (mm)				
	Part no.	A	B	C	D	E
10T	T101010/BL	45.2	31.1	10	10	10
	T101310/BL	45.2	31.1	10	13	10
	T101613/BL	45.2	31.1	10	16	13
13T	T131010/BL	45.2	31.1	13	10	10
	T131013/BL	45.2	31.1	13	10	13
	T131310/BL	45.2	31.1	13	13	10
	T131313/BL	45.2	31.1	13	13	13
	T131613/BL	45.2	31.1	13	16	13
16T	T161013/BL	49.1	34.8	16	10	13
	T161313/BL	49.1	34.8	16	13	13
	T161316/BL	49.1	34.8	16	13	16
	T161613/BL	49.1	34.8	16	16	13
	T161616/BL	49.1	34.8	16	16	16
	T162116/BL	49.1	34.8	16	21	16
21T	T211016/BL	56.5	41.0	21	10	16
	T211021/BL	56.5	41.0	21	10	21
	T211316/BL	56.5	41.0	21	13	16
	T211321/BL	56.5	41.0	21	13	21
	T211613/BL	56.5	41.0	21	16	13
	T211616/BL	56.5	41.0	21	16	16
	T211621/BL	56.5	41.0	21	16	21
	T212113/BL	56.5	41.0	21	21	13
	T212116/BL	56.5	41.0	21	21	16
	T212121/BL	56.5	41.0	21	21	21
28T	T281021/BL	64.5	48.5	28	10	21
	T281028/BL	64.5	48.6	28	10	28
	T281321/BL	64.5	48.6	28	13	21
	T281328/BL	64.5	48.6	28	13	28
	T281621/BL	64.5	48.6	28	16	21
	T281628/BL	64.5	48.6	28	16	28
	T282121/BL	64.5	48.6	28	21	21
	T282128/BL	64.5	48.6	28	21	28
	T282828/BL	64.5	48.6	28	28	28
34T	T341634/BL	72.0	55.3	34	16	34
	T342128/BL	72.0	55.3	34	21	28
	T342134/BL	72.0	55.3	34	21	34
	T343434/BL	72.0	55.3	34	34	34

Approvals

IP rating — **Appropriate conduit**

For use with: Type PA / PR / PF

IP40 — Yes

Temperature range

Static applications: -40°C to +120°C

Moving applications: -5°C to +120°C

Fitting characteristics

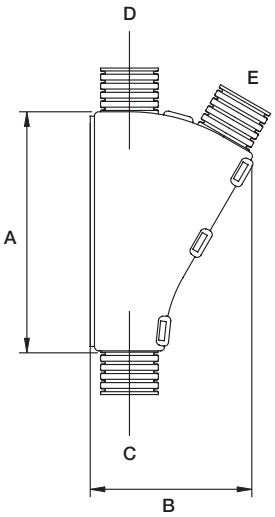
Snap fit

Non-metallic conduit systems

Accessories

Type Y

Hinged Y-piece / Materials: Polyamide (nylon) 66 / Colour: Black (BL)



	Part no.	Nominal dimensions / conduit size (mm) A	B	C	D	E
10Y	Y101010/BL	54.6	37.1	10	10	10
	Y101013/BL	54.6	37.1	10	10	13
13Y	Y131010/BL	54.6	37.1	13	10	10
	Y131310/BL	54.6	37.1	13	13	10
	Y131313/BL	54.6	37.1	13	13	13
16Y	Y161310/BL	54.9	39.8	16	13	10
	Y161313/BL	54.9	39.8	16	13	13
	Y161610/BL	54.9	39.8	16	16	10
	Y161613/BL	54.9	39.8	16	16	13
21Y	Y211010/BL	42.8	41.0	21	10	10
	Y211310/BL	42.8	41.0	21	13	10
	Y211313/BL	42.8	41.0	21	13	13
	Y211610/BL	48.2	39.8	21	16	10
	Y211613/BL	48.2	39.6	21	16	13
	Y211616/BL	63.6	47.5	21	16	16
	Y212110/BL	57.9	44.9	21	21	10
	Y212113/BL	57.9	44.9	21	21	13
	Y212116/BL	63.6	47.5	21	21	16
28Y	Y282113/BL	54.0	48.8	28	21	13
	Y282116/BL	54.0	48.8	28	21	16
	Y282121/BL	76.5	60.0	28	21	21
	Y282813/BL	67.3	55.9	28	28	13
	Y282816/BL	67.3	55.9	28	28	16
	Y282821/BL	76.5	60.0	28	28	21
	Y282828/BL	90.7	67.0	28	28	28
34Y	Y343416/BL	100.6	75.0	34	34	16
	Y343421/BL	100.6	76.0	34	34	21
	Y343434/BL	100.6	82.1	34	34	34

Approvals

IP rating — **Appropriate conduit**

For use with: Type PA / PR / PF

IP40 — Yes

Temperature range

Static applications: -40°C to +120°C

Moving applications: -5°C to +120°C

Fitting characteristics

Snap fit

Convenience packs

Flexible metallic conduit systems for professional installers

Liquid resistant convenience - CP-AF20SP-BS

	Component item	Quantity	IP rating
	Black Type SP PVC covered steel 20mm NC	10m	
	Locknuts	10	
	Fixed M20 male fitting	5	IP54
	Swivel M20 male fitting	5	IP54

Convenience pack / Type SP Adaptasteel PVC covered steel conduit with fixed and swivel fittings
Materials: PVC covered galvanised steel / Colour: Black (BL)

Approvals

KM35161 LOW VOLTAGE DIRECTIVE

Convenience packs

Flexible non-metallic conduit systems for professional installers

LFH Convenience

Type	Type	Conduit/fitting diameter (mm)	One-piece conduit fittings	Locknuts	IP rating
CP-AF20A	10m Black Type PA LFH Nylon 6, 20mm diameter	20	10	10	IP66
CP-AF25A	10m Black Type PA LFH Nylon 6, 25mm diameter	25	10	10	IP66

Convenience pack / Nylon Conduit with Adaptalok One-Piece, Fast Fit, Push & Twist Fittings
Materials: Polyamide Nylon 6 / Colour: Black (BL)

Polypropylene Convenience

Type	Type	Conduit/fitting diameter (mm)	One-piece conduit fittings	Locknuts	IP rating
CP-AF20BS-PP	10m Grey Type PP Polypropylene conduit, 20mm diameter	20	10	10	IP54
CP-AF25BS-PP	10m Grey Type PP Polypropylene conduit, 25mm diameter	25	10	10	IP54

Convenience Pack / Type PP Polypropylene Conduit with One-Piece, Fast Fit, Push & Twist Fittings
Materials: PP Polypropylene / Colour: Grey (GR)

Retail / Office Convenience

Type	Type	Conduit/fitting diameter (mm)	One-piece conduit fittings	Locknuts	IP rating
CP-AF20BS	10m Grey Type KF PVCu, 20mm diameter	20	10	10	IP66
CP-AF25BS	10m Grey Type KF PVCu, 20mm diameter	25	10	10	IP66
CP-KF20BS	10m White Type KF PVCu, 25mm diameter	20	10	10	IP66
CP-KF25BS	10m White Type KF PVCu, 25mm diameter	25	10	10	IP66

Convenience Pack / Self-Extinguishing PVC Conduit & One-Piece Fittings & Locknuts
Materials: PVC Pliable / Colour: White (W)

Tools for metallic conduit systems

Cut-vice & Rotocut

Cut-vice — **Cut-vice cutting tool**

Part no.
CUT-VICE

Rotocut — **Rotocut cutting tool**

Part no.
ROTOCUT

Cut-vice
Cut-vice offers the ability to produce a clean cut for conduit sizes 16mm to 40mm.

Instructions
Place the conduit along the vice body and tighten the clamp. Holding the conduit and integral handle together, insert a hacksaw blade into the guide and cut. For braided conduit, wrap adhesive tape around the cutting point to secure braid. Remove tape after cutting.

Rotocut
Rotocut offers a simple but effective method for cutting 20mm and 25mm S, SS, SP, LFH-SP and SN steel conduit types.

Instructions
Adjust the clamping pin so that the conduit is just held in the recess. Squeeze the lever and body whilst rotating the cutting blade. When the blade appears on the inside of the conduit, release the pressure and remove the conduit.
A simple twist will then separate the two parts. Where the conduit is covered, the covering can be cut prior to separation. Spare blades are available.

Tools for non-metallic conduit systems

ALRT & Kwikcut

ALRT

Adaptalok removal tool / Materials: Polyamide (nylon) 6 / Colour: Black (BL) only

Part no.	Adaptalok fitting size (mm)
AL13RT	13
AL16RT	16
AL21RT	21
AL28RT	28
AL34RT	34
AL42RT	42
AL54RT	54

To provide easy removal of Adaptalok & ATS Fittings
NOTE: For a 13-34mm set use part number ALRTSET

Kwikcut

Kwikcut cutting tool

Part no.
KWIKCUT

Kwikcut
Kwikcut is the ideal cutting tool for non-metallic conduits (PA, PF, PR, CP, KFL, KFS, KFM, PP, XF & PK) up to 32mm.

Instructions
Place the conduit between the cutting blade and lower support, squeeze the handles and rotate the conduit for a clean, easy cut. Spare blades are available.

Technical section

Thread data

Metric thread data

Thread size	External thread outside diameter (mm)	Internal thread inside diameter (mm)	Pitch (mm)
M8	8	6.9	1
M10	10	8.9	1
M12	12	10.9	1
M12	12	10.4	1.5
M16	16	14.4	1.5
M18	18	16.9	1
M20	20	18.4	1.5
M25	25	23.4	1.5
M30	30	28.4	1.5
M32	32	30.4	1.5
M40	40	38.4	1.5
M50	50	48.4	1.5
M63	63	61.4	1.5
M75	75	73.4	1.5

Standard thread conforming to EN60423 & BS3643
NOTE: Dimensions are nominal

PG thread data

Thread size	External thread outside diameter (mm)	Internal thread inside diameter (mm)	Pitch (mm)
PG7	12.5	11.3	1.27
PG9	15.2	13.9	1.41
PG11	18.6	17.3	1.41
PG13,5	20.4	19.1	1.41
PG16	22.5	21.2	1.41
PG21	28.3	26.8	1.59
PG29	37	35.5	1.59
PG36	47	45.5	1.59
PG42	54	52.5	1.59
PG48	59.3	57.8	1.59

German standard thread conforming to DIN40430
NOTE: Dimensions are nominal

PF thread data

Thread size (in)	External thread outside diameter (mm)	Internal thread inside diameter (mm)	Pitch (mm)
¼	13	-	1.34
⅜	16.7	15.0	1.34
½	21.0	18.6	1.81
¾	26.4	24.1	1.81
1	33.3	30.3	2.31
1 ¼	41.9	39.0	2.31
1 ½	47.8	44.8	2.31
2	59.6	56.7	2.31

Japanese conduit thread conforming to JIS B 0202
NOTE: Dimensions are nominal

NPT thread data

Thread size (in)	External thread outside diameter (mm)	Pitch (mm)
⅜	16.7	1.14
½	21.0	1.81
¾	26.4	1.81
1	33.3	2.21
1 ¼	41.9	2.21
1 ½	47.8	2.21
2	59.6	2.21

US taper seal pipe thread conforming to ANSI/ASME B1.20.1 - 1983
NOTE: Dimensions are nominal

UNEF / UNS thread data

Thread size (in)	External thread outside diameter (mm)	Internal thread inside diameter (mm)	Pitch (mm)
⅝	15.9	14.7	1.06
¾	19.1	17.7	1.27
13/16	20.6	19.3	1.27
⅞	22.2	20.9	1.27
15/16	23.8	22.4	1.27
1	25.4	24.0	1.27
1 ⅛	28.6	27.0	1.41
1 3/16	30.2	28.6	1.41
1 ¼	31.8	30.2	1.41
1 5/16	33.3	31.8	1.41
1 ⅜	34.9	33.4	1.41
1 7/16	36.5	35.0	1.41
1 ¾	44.5	42.9	1.41
2	50.8	49.3	1.59
2 ¼	57.2	55.4	1.59

American unified thread conforming to BS1580
NOTE: Dimensions are nominal

Technical section

EMI screen system & fire performance

EMI screen system
For applications where electromagnetic interference is of particular concern we have classified suitable conduit systems by means of symbols. These are related in an ascending scale of performance from Standard EMI Screen (products featuring a stainless steel overbraid) through to High EMI Screen (products featuring a tinned copper overbraid). Contact us for full details.

Standard EMI Screen	Enhanced EMI Screen	High EMI Screen
Screening level 40db @ 100MHz	Screening level 60db @ 100MHz	Screening level 75db @ 100MHz

Fire performance
Adaptaflex has introduced a set of symbols to help the user specify conduit systems for installations where fire performance is of particular concern.

Each symbol encompasses a range of properties relevant to the high specification materials used in the construction of the conduit.

They are in an ascending scale of performance from Low Fire Hazard (LFH) featuring zero halogen through to Super Low Fire Hazard (SLFH) featuring zero nitrogen. In addition, Inherent Low Fire Hazard systems (ILFH) are classified as being all metal systems.

Property	Low Fire Hazard LFH	Enhanced Low Fire Hazard ELFH	Super Low Fire Hazard SLFH	Inherent Low Fire Hazard ILFH
Oxygen Index ISO4589	31% ≥ OI ≥ 28%	OI ≥ 32%	OI ≥ 32%	Inherent Low Fire Hazard i.e. Type S, SS, SPB STC, SSB & SSBGS Metallic Conduit & Fittings
BS6853 Smoke Density 3m³	0.02 ≥ A0 ≥ 0.03	0.005 ≥ A0 ≥ 0.02	0.02 A0 ≤ 0.005	
Zero Halogen	■	■	■	
Zero Phosphorus	■	■	■	
Zero Sulphur	■	■	■	
London Underground	Concession	Approved	Approved	
Toxicity Index NES713 Issue 3	5.0 ≥ TI ≥ 6.0	0.5 ≥ TI ≥ 5.0	TI ≤ 0.5	
NFF16-102	I3F2	I2F2	I2F1	

Technical section

IP ratings

IP suitability ratings are a system for classifying the degree of protection provided by enclosures of electrical equipment.

Protection against solid bodies
Degree of protection for persons against access to hazardous parts inside the enclosure and/or against the ingress of solid foreign objects.

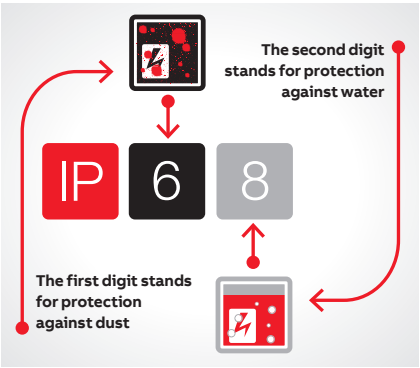
0	No protection
1	Objects greater than 50 mm, accidental touch by hands
2	Objects greater than 12 mm, accidental touch by fingers
3	Objects greater than 2.5 mm, e.g. tools/wires
4	Objects greater than 1 mm, e.g. tools/wires/small wires
5	Protected against dust – limited ingress (no harmful deposits)
6	Totally protected against dust (dust-tight)

Protection against water
Degree of protection of equipment inside enclosures against damage from the ingress of water.

0	No protection
1	Protected against vertically falling drops of water
2	Protected against direct sprays of water 15° from vertical
3	Protected against sprays of water to 60° from vertical
4	Protected against water sprayed from all directions – limited ingress permitted
5	Protected against low pressure jets of water from all directions – limited ingress permitted
6	Protected against strong pressure jets of water, heavy seas – limited ingress permitted
7	Protection against the effects of immersion between 15 cm – 1 m
8	Protection against long periods of immersion under a quoted pressure, e.g. 2 bar at 24 hours
9	IP69 Automotive standard DIN40050 and signifies resistance to high pressure jets of water (up to 80 bar) from any angle

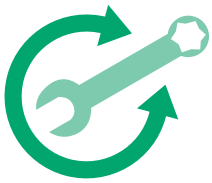
01 **IP ratings**
The higher the number, the greater the degree of protection; they apply ONLY to properly installed equipment.

01

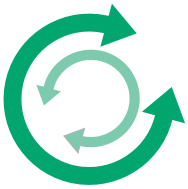


Technical section

Fitting characteristics



Fitting swivels independently of conduit for installation purpose but is not suitable as a rotating joint in constantly moving applications.



Fitting rotates independently of the conduit to act as a rotating joint within constantly moving applications.

Technical section

Chemical resistance

Chemical resistance comparison table

Chemicals — **Products**

Key:
2 = Suitable
1 = Limited suitability
0 = Unsuitable
– = No data

Chemicals	PA, PR, SN	PI, PF	CP	KF, RF, SP	PP	PK	Fittings PA66	ATS Elastomer Seal	S (including braid)	SS (including braid)	LFH-SP	SPL, SPUL	SPLHC	TC braid	Fittings nickel plated brass
Astm no.1	2	2	2	0	2	2	2	2	2	2	0	2	2	2	2
Astm no.2	2	2	2	0	2	2	2	2	2	2	1	2	1	2	2
Astm no.3	2	2	2	0	1	2	2	2	2	2	1	2	1	2	2
Acetic Acid (10%)	1	1	2	1	2	2	1	1	0	2	2	2	2	1	2
Acetone	2	2	1	0	2	2	2	1	2	2	0	0	2	2	2
Aluminium chloride	1	2	0	1	2	2	1	2	0	1	2	2	2	1	–
Aniline	1	0	0	0	2	1	1	0	2	2	1	0	2	2	2
Benzaldehyde	1	1	1	0	1	2	1	1	2	2	0	0	1	2	2
Benzene	2	2	1	0	1	2	2	1	2	2	0	0	0	2	2
Carbon tetrachloride	2	2	0	1	1	2	2	1	2	2	0	1	1	2	2
Chlorine water	0	0	1	0	1	0	0	0	0	0	1	0	2	0	2
Chloroform	0	0	0	0	1	2	0	1	2	2	0	0	1	2	2
Citric acid	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Copper sulphate	1	2	2	2	2	2	1	2	2	2	2	2	2	2	2
Cresol	0	0	–	1	2	1	0	0	2	2	0	1	2	1	2
Diesel oil	2	2	2	1	2	2	2	2	2	2	1	2	2	2	2
Diethylamine	2	1	1	1	2	2	2	0	2	2	2	1	2	2	2
Ethanol	2	1	2	0	2	2	2	1	2	2	1	0	2	2	2
Ether	2	2	–	1	2	2	2	2	2	2	0	1	2	2	2
Ethylamine	2	1	–	1	2	2	2	0	2	2	1	1	1	2	2
Ethylene glycol	2	2	2	1	2	2	2	2	0	2	2	1	2	2	2
Ethyl ethanoate	1	2	2	0	2	2	1	0	2	2	0	0	2	2	2
Freon 32	2	2	2	1	2	2	2	1	0	2	0	1	0	2	2
Hydrchloric acid (10%)	0	1	1	2	2	2	0	1	0	0	0	2	2	0	2
Hydrchloric acid (36%)	0	0	0	1	2	2	0	0	0	0	0	2	2	0	2
Hydrogen peroxide (35%)	1	1	1	2	2	2	1	0	0	2	1	2	1	2	2
Hydrogen peroxide (87%)	0	0	0	2	1	2	0	0	0	2	0	2	0	1	2
Lactic acid	1	2	0	1	2	2	1	2	0	2	2	1	1	2	2
Lubricating oil	2	2	2	1	2	2	2	2	2	2	1	2	1	2	2
Methanol	1	1	2	0	2	2	1	1	2	2	1	0	2	2	2
Methyl bromide	0	0	–	0	1	2	0	0	2	2	0	0	1	2	2
MEK	2	2	2	1	0	2	2	2	1	2	2	0	0	2	2
Nitric acid (10%)	0	0	1	2	2	2	0	0	0	0	2	2	2	0	2
Nitric acid (70%)	0	0	0	2	2	0	0	0	0	0	0	2	2	0	2
Oxalic acid	1	2	1	1	2	2	1	1	0	2	2	2	2	1	2
Ozone (gas)	0	0	–	1	1	2	0	2	0	2	2	1	1	2	2
Paraffin oil	2	2	2	1	2	2	2	2	2	2	1	2	2	2	2
Petrol	2	2	2	0	2	2	2	2	2	2	0	2	2	2	2
Phenol	0	0	0	1	0	1	0	1	2	2	0	1	2	1	2

Technical section
Chemical resistance

Chemical resistance comparison table

Key:
2 = Suitable
1 = Limited suitability
0 = Unsuitable
– = No data

Chemicals	PA, PR, SN	PI, PF	CP	KF, RF, SP	PP	PK	Fittings PA66	ATS Elastomer Seal	S (including braid)	SS (including braid)	LFH-SP	SPL, SPUL	SPLHC	TC braid	Fittings nickel plated brass
															Products
Sea water	2	2	2	2	2	2	2	2	0	2	2	2	2	2	1
Silver nitrate	2	2	–	2	2	2	2	2	0	2	2	2	2	2	2
Skydrol	2	2	2	0	2	2	2	1	2	2	0	0	2	2	2
Sodium chloride	2	2	2	2	2	2	2	2	0	2	2	2	2	2	1
Sodium hydroxide (10%)	2	2	2	2	2	2	2	2	0	2	2	2	2	2	2
Sodium hydroxide (60%)	2	1	0	1	2	2	2	1	0	1	2	2	2	2	2
Sulphur dioxide (gas)	0	0	1	2	2	2	0	0	0	0	1	2	2	1	0
Sulphuric acid (10%)	0	1	2	2	2	2	0	1	0	0	2	2	2	0	0
Sulphuric acid (70%)	0	0	0	2	2	0	0	0	0	0	1	2	2	0	0
Toluene	2	2	1	0	2	2	2	0	2	2	1	0	0	2	2
Transformer oil	2	2	2	1	2	2	2	2	2	2	1	2	1	2	2
1,1,1-Trichloroethane	2	2	1	0	1	2	2	1	0	2	1	0	1	2	2
Trichloroethylene	1	0	0	0	1	2	1	1	0	2	1	0	0	2	2
Turpentine	2	2	2	1	0	2	2	1	2	2	0	1	0	2	2
Vegetable oil	2	2	2	1	2	2	2	2	2	2	1	2	2	2	2
Vinyl acetate	1	2	–	0	2	2	1	0	0	2	0	0	2	2	2
Water	2	2	2	2	2	2	2	2	0	2	2	2	2	2	2
White spirit	2	2	–	1	2	2	2	1	2	2	0	1	1	2	2
Zinc chloride	0	2	1	2	2	2	0	2	0	2	2	2	2	1	2

Note: The information above is given as a guide only and is based on published technical data and experience.

The chemical resistance of the above products is dependent on factors such as chemical exposure, concentration of the chemical and temperature. The above chemicals are valid for a temperature of 23°C.

Use of the above table is at the users own discretion and risk. Those using it must satisfy themselves that their application presents no health and safety risks.

The end user should assess compatibility with their application and contact Adaptaflex for further information.

Technical section

Cable carrying capacity (wire fill) guide for metallic conduits

40% of the cross sectional area (CSA) - UK Wiring regulations BS7671 recommend that the total cross sectional area of the sum of individual cables shall not exceed 40% of the cross sectional area of the conduit based on 'using 3 or more cables'.

These instructions enable you to select the correct nominal diameter of metallic conduit, depending on the number and overall diameter of the cables to protect.

Instructions to define the nominal diameter of a metallic conduit:

- **Step 1:** Establish the number and size of each wire to be run in the conduit
- **Step 2:** Look on the Cross Sectional Area (CSA) chart (table 1), look up the CSA taken up by each of the wires from Step 1
- **Step 3:** Add all the CSA values together (Total CSA)
- **Step 4:** Look on the conduit fill value chart (table 2) and choose a conduit with a 40% fill value higher than the total CSA from Step 3

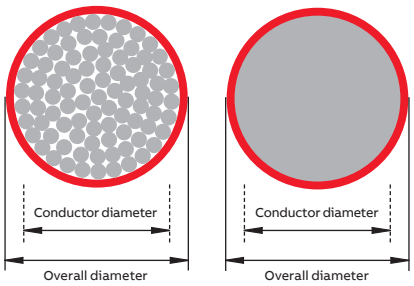
Example - What size of conduit to use?

- **Step 1:** 4 x 2.5mm cables, 2 x 10mm cables, and 6 x 6mm cables
- **Step 2:**
  - The CSA of Four 2.5mm cables is 19.64 (4 x 4.91)
  - The CSA of Three 10mm cables is 235.62 (3 x 78.54)
  - The CSA of Six 6mm cables is 169.62 (6 x 28.27)
- **Step 3:** Total of these groups is 19.64 + 235.62 + 169.62 = 424.88
- **Step 4:** Using Table 2, we chose the size of metallic conduit with 40% fill value higher than 424.88: 50mm

NOTE: The information given above relates to SPL liquidtight conduit in combination with M-Type fittings.It is given in good faith and s hould be used only as a guide in conjunction with the relevant wiring regulations.

Table 1 - Cross Sectional Area (CSA) chart

Cross sectional area (CSA) [mm²]



Overall Diameter [mm]	CSA [mm²]
1	0.79
1.5	1.77
2.5	4.91
4	12.57
6	28.27
10	78.54
16	201.06
25	490.87
35	962.11
50	1963.50

Table 2 - Wire fill of metallic conduit

Nominal diameter (mm)	100% fill value	40% fill value
12	25.5	10.2
16	83.3	33.3
20	160.6	64.2
25	243.3	97.3
32	452.4	181
40	855.3	342.1
50	1164.2	465.7
63	1963.5	785.4
75	3473.3	1389.3

Technical section

Cable carrying capacity (wire fill) guide for non-metallic conduits

40% of the cross sectional area (CSA) - UK Wiring regulations BS7671 recommend that the total cross sectional area of the sum of individual cables shall not exceed 40% of the cross sectional area of the conduit based on 'using 3 or more cables'.

These instructions enable you to select the correct nominal diameter of non-metallic conduit, depending on the number and overall diameter of the cables to protect.

Instructions to define the nominal diameter of a non-metallic conduit:

- **Step 1:** Establish the number and size of each wire to be run in the conduit
- **Step 2:** Look on the Cross Sectional Area (CSA) chart (table 1), look up the CSA taken up by each of the wires from Step 1
- **Step 3:** Add all the CSA values together (Total CSA)
- **Step 4:** Look on the conduit fill value chart (table 2) and choose a conduit with a 40% fill value higher than the total CSA from Step 3

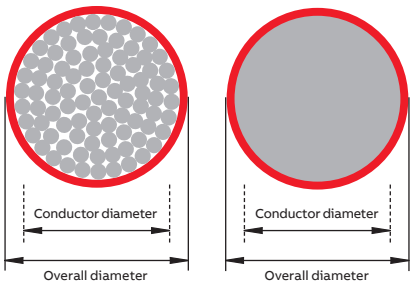
Example - What size of conduit to use?

- **Step 1:** 4 x 2.5mm cables, 2 x 10mm cables, and 3 x 25mm cables
- **Step 2:**
  - The CSA of Four 2.5mm cables is 19.64 (4 x 4.91)
  - The CSA of Two 10mm cables is 157.08 (2 x 78.54)
  - The CSA of Three 25mm cables is 1472.61 (3 x 490.87)
- **Step 3:** Total of these groups is 19.64 + 402.12 + 1472.61 = 1649.33
- **Step 4:** Using Table 2, we chose the size of non-metallic conduit with 40% fill value higher than 1649.33: 106mm

NOTE: The information given above relates to PA - Standard weight conduit and Adaptalok fittings. It is given in good faith and should be used only as a guide in conjunction with the relevant wiring regulations.

Table 1 - Cross Sectional Area (CSA) chart

Cross sectional area (CSA) [mm²]



Overall Diameter [mm]	CSA [mm²]
1	0.79
1.5	1.77
2.5	4.91
4	12.57
6	28.27
10	78.54
16	201.06
25	490.87
35	962.11
50	1963.50

Table 2 - Wire fill of non-metallic conduit

Nominal diameter (mm)	100% fill value	40% fill value
10	33.2	13
13	72.4	29
16	109.4	44
18	158.4	63
21	213.8	86
28	369.8	148
34	602.6	241
42	973.1	390
54	1698.2	680
80	3520	1410
106	6500	2600

Technical section

IEC61386 classifications for flexible metallic conduits

Metallic conduits - IEC61386 classifications table

													Products
Metallic conduit	**With fitting**	**Compression strength**	**Impact strength**	**Minimum temperature**	**Maximum temperature**	**Bending properties**	**Electrical properties**	**IP rating solids**	**IP rating water**	**Corrosion resistance**	**Tensile strength**	**Non-flame propogating**	**Suspended load capacity**
SAMHURL	SPL	4	4	2	5	4	2	6	9	–	4	1	5
SSAMHL	SPL	4	4	2	5	4	2	6	9	–	4	1	5
SAMHL	SPL	4	4	2	5	4	2	6	9	–	4	1	5
EMIEF-SPL,	SPL (M)	4	4	2	3	4	2	6	9	–	4	1	5
EMILFH-SPL	SPL (M)	4	4	2	3	4	2	6	9	–	4	1	5
SPL-EF	SPL (M)	4	4	2	3	4	2	6	7	–	4	1	5
LFH-SPL	SPL (M)	4	4	2	3	4	2	6	7	–	4	1	5
SSPLHC	SPL(M)	4	4	5	5	4	0	6	7	–	4	1	5
SPLHC	SPL(M)	4	4	5	5	4	0	6	7	–	4	1	5
SPUL	SPL(M)	4	4	2	5	4	0	6	7	–	4	1	5
SSPL	SPL(M)	4	4	2	3	4	2	6	7	–	4	1	5
SPL	SPL(M)	4	4	2	3	4	2	6	7	–	4	1	5
SPLHCB	SPLB	4	4	5	5	4	1	6	7	–	5	1	5
LFH-SP	SP(M)	4	4	2	3	4	0	6	5	–	4	1	5
SN	SP(M)	4	4	4	5	4	0	6	5	–	4	1	5
SP	SP(M)	4	4	2	2	4	2	6	5	–	4	1	5
SPTC	SPB	4	4	2	2	4	3	5	4	–	4	1	5
LFH-SPSS	SP(M)	4	4	5	6	4	1	4	0	–	4	1	5
SPB	SP(M)	4	4	2	2	4	3	5	4	–	4	1	5
SS	S	4	4	5	6	4	0	4	0	1	4	1	5
S	S	4	4	5	6	4	0	4	0	1	4	1	5
STC	SB	4	4	5	6	4	1	4	0	1	4	1	5
SSB	SB	4	4	5	6	4	1	4	0	4	4	1	5
SB	SB	4	4	5	6	4	1	4	0	1	4	1	5

Performance classification key

Classification level	**(N)**	**(J)**	**(°C)**	**(°C)**						**(N)**		**(N)**
0						Not declared		0	N/A	Not declared	Not declared	
1	125	0.5	5	60	Rigid	Conductor		1	Low	100	4	20
2	320	1	-5	90	Pliable	Insulator		2	Medium	250	7	30
3	750	2	-15	105	Pliable/ semi rigid	Con/Ins	3	3	Med-hi	500		150
4	1250	6	-25	120	Flexible		4	4	High	1000		450
5	4000	20	-45	150			5	5		2500		850
6				250			6	6				
7								7				

Technical section

IEC61386 classifications for flexible non-metallic conduits

Non-metallic conduits - IEC61386 classifications table

													Products
Non-metallic conduit	**With fitting**	**Compression strength**	**Impact strength**	**Minimum temperature**	**Maximum temperature**	**Bending properties**	**Electrical properties**	**IP rating solids**	**IP rating water**	**Corrosion resistance**	**Tensile strength**	**Non-flame propogating**	**Suspended load capacity**
PA STANDARD	AT	2	4	2	4	4	0	6	7	–	1	1	0
PA HEAVY	AT	2	4	2	4	4	0	6	7	–	2	1	0
PF STANDARD	AT	1	3	5	4	4	0	6	7	–	1	1	0
PF HEAVY	AT	2	4	5	4	4	0	6	7	–	1	1	0
PR	AT	2	4	2	4	4	0	6	7	–	1	1	0
CP	AT	1	4	4	5	4	0	6	7	–	1	1	0
KF LIGHT	KC	2	2	2	1	2	2	4	0	–	1	1	0
KF STANDARD	KC	2	3	2	1	2	2	4	0	–	2	1	0
KF MEDIUM	KC	3	3	2	1	2	2	4	0	–	1	1	0
PK	PK	2	4	5	6	4	2	6	7	–	1	1	0
PKTC	PB	2	4	5	6	4	3	6	7	–	3	1	0
PKSS	PB	2	4	5	6	4	3	6	7	–	3	1	0
PRTC	PB	2	4	2	4	4	1	6	7	–	3	1	0
PRSS	PB	2	4	2	4	4	1	6	7	–	3	1	0
PRSS	PB	2	4	2	4	4	1	6	7	–	3	1	0

Performance classification key

Classification level	**(N)**	**(J)**	**(°C)**	**(°C)**						**(N)**		**(N)**
0						Not declared		0	N/A	Not declared	Not declared	
1	125	0.5	5	60	Rigid	Conductor		1	Low	100	4	20
2	320	1	-5	90	Pliable	Insulator		2	Medium	250	7	30
3	750	2	-15	105	Pliable/ semi rigid	Con/Ins	3	3	Med-hi	500		150
4	1250	6	-25	120	Flexible		4	4	High	1000		450
5	4000	20	-45	150			5	5		2500		850
6				250			6	6				
7								7				

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AL13/M16/SFA/BL	7TCA296000R0210	125
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AL16/PG11/S45/BL	7TCA296000R0427	125
AL16/PG11/SA/BL	7TCA296000R0429	124
AL16/PG11/SF45/BL	7TCA296000R0434	126
AL16/PG11/SFA/BL	7TCA296000R0436	125
AL16/PG13/45/BL	7TCA296000R0438	120
AL16/PG13/A/BL	7TCA296000R0443	118
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