CATALOGUE

Flexible metallic conduit systems

Liquidtight and superflexible solutions for demanding applications

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.

Table of contents

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.

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
Controlling the impact of manufacturing activities on the environment is a major challenge. Again Adaptaflex lead the way by being the first conduit manufacturer to comply with this Standard.

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.

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.

KM35161
LOW VOLTAGE DIRECTIVE
C US
UNDERGROUND
NF NORME FRANÇAISE

Flexible metallic conduit systems
Introduction

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

01

02

03

04

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.

—
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.

—
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.

—
02

Markets
Food, pharma and chemical

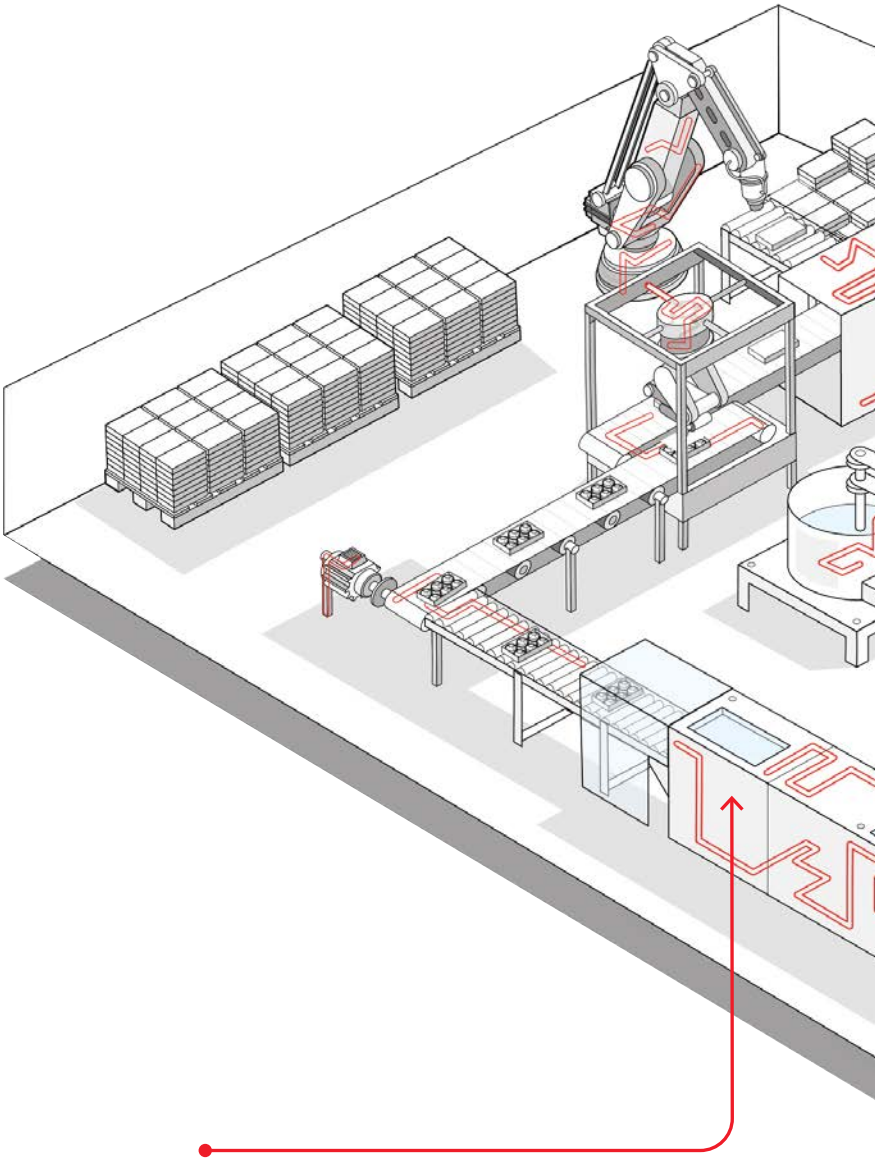
ABB Anti-microbial conduit systems are designed to protect complex processing equipment with sensitive electrical wiring systems, controls and automation. These solutions enable processors to increase revenue, plant sustainability, safety and brand equity.

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.

System recommendations:

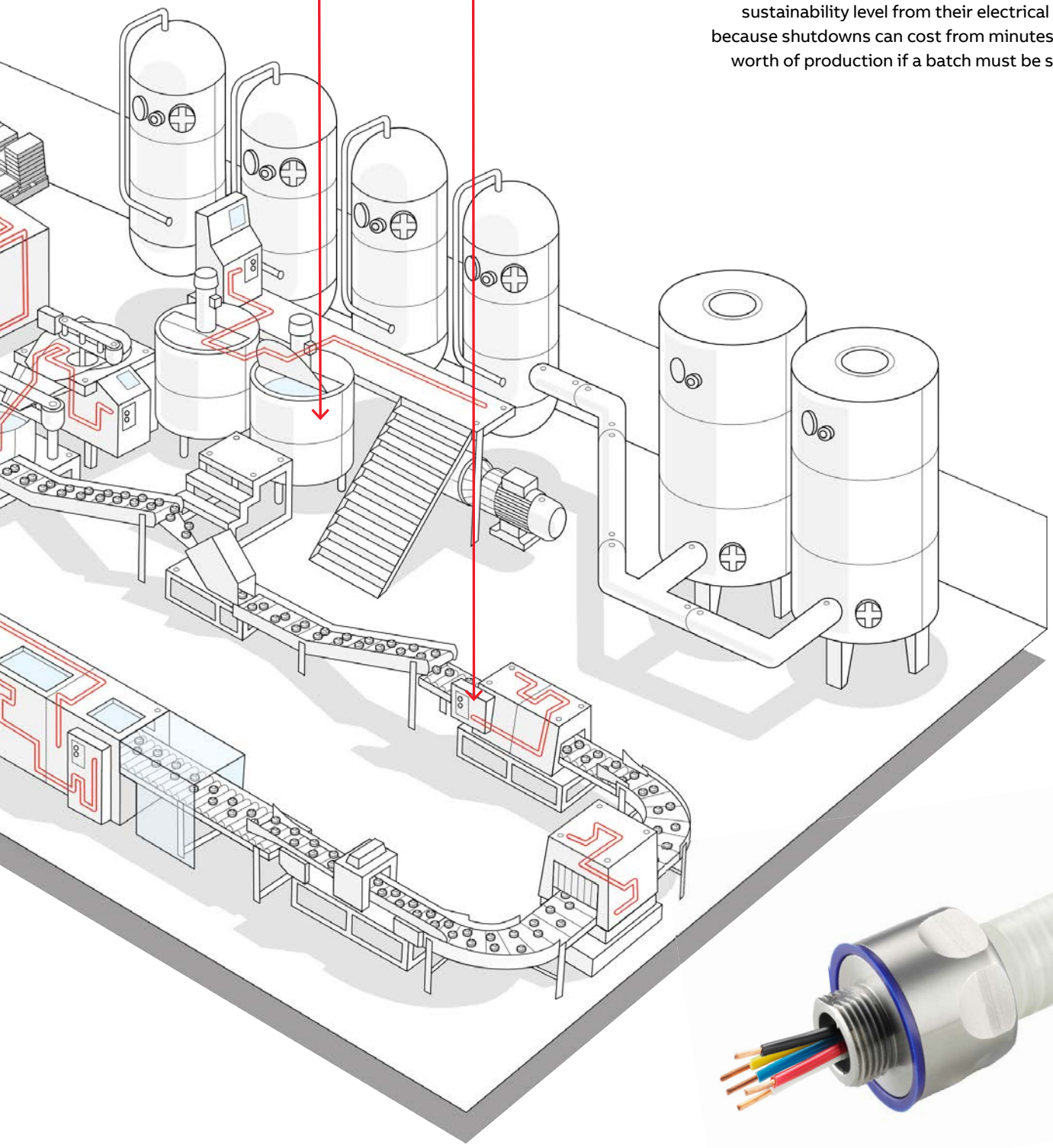
- **Conduits:**
  - Anti-microbial NSF Systems:
    SSAMHL (page 20)
    SAMHL (page 21)
    SAMHURL (page 22)
  - NSF Food Zone Non-contact Systems:
    LFH-SPL (page 27)
    SSPLHC (page 28)
    SPLHC (page 29)
    SSPL (page 30)
    SPL (page 31)
- **Fittings:**
  SPL/SAM (page 23)
  SSPL/M (page 33)
  SPL/M (page 34)



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

KM35161

LOW VOLTAGE DIRECTIVE

Systems recommendations:
- Solutions for EMI screening
  EMIEF-SPL (page 24)
  EMILFH-SPL (page 25)
  LFH-SPSS (page 54)
  STC (page 66)
  SB (page 67)
  SSB (page 68)
- SPL-EF conduit (IP66..IP69 Liquidtight Enhanced Fire Performance, Zero Halogen) (page 26)
  + SPL fittings (page 33-39)
- LFH-SPL conduit (IP66..IP69 Liquidtight Low Fire Hazard, Zero Halogen) (page 27)
  + SPL fittings (page 33-39)
- LFH-SP conduit (IP65 Liquid resistant Low Fire Hazard, Zero Halogen) (page 45)
  + SPL fittings (page 33-39)
- SN conduit (Nylon Covered, Halogen Free) (page 46)
  + SP fittings (page 48-53)
- S and SS conduits (Inherent Low Fire Hazard) (page 61-62)
  + S fittings (page 63-65)

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

KM35161

LOW VOLTAGE DIRECTIVE

Systems recommendations:
- Solutions for EMI screening
  EMIEF-SPL (page 24)
  EMILFH-SPL (page 25)
  LFH-SPSS (page 54)
  STC (page 66)
  SB (page 67)
  SSB (page 68)
- SPL-EF conduit (IP66..IP69 Liquidtight Enhanced Fire Performance, Zero Halogen) (page 24)
  + SPL fittings (page 33-39)
- LFH-SPL conduit (IP66..IP69 Liquidtight Low Fire Hazard, Zero Halogen) (page 27)
  + SPL fittings (page 33-39)
- LFH-SP conduit (IP65 Liquid resistant Low Fire Hazard, Zero Halogen) (page 45)
  + SPL fittings (page 33-39)
- SN conduit (Nylon Covered, Halogen Free) (page 46)
  + SP fittings (page 48-53)
- S and SS conduits (Inherent Low Fire Hazard) (page 61-62)
  + S fittings (page 63-65)

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

Systems recommendations:

- Solutions for EMI screening
  EMIEF-SPL (page 24)
  EMILFH-SPL (page 25)
  LFH-SPSS (page 54)
  STC (page 66)
  SB (page 67)
  SSB (page 68)
- SPL-EF conduit (IP66..IP69 Liquidtight Enhanced Fire Performance, Zero Halogen) (page 24)
  + SPL fittings (page 33-39)
- LFH-SPL conduit (IP66..IP69 Liquidtight Low Fire Hazard, Zero Halogen) (page 27)
  + SPL fittings (page 33-39)
- SSPLHC/SPLHC conduit (page 28, 29)
  + SSPL/SPL fittings (page 33, 34)
- LFH-SP conduit (IP65 Liquid resistant Low Fire Hazard, Zero Halogen) (page 45)
  + SPL fittings (page 33-39)
- SN conduit (Nylon Covered, Halogen Free) (page 46) + SP fittings (page 48-53)
- S and SS conduits (Inherent Low Fire Hazard) (page 61-62) + S fittings (page 63-65)

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

KM35161

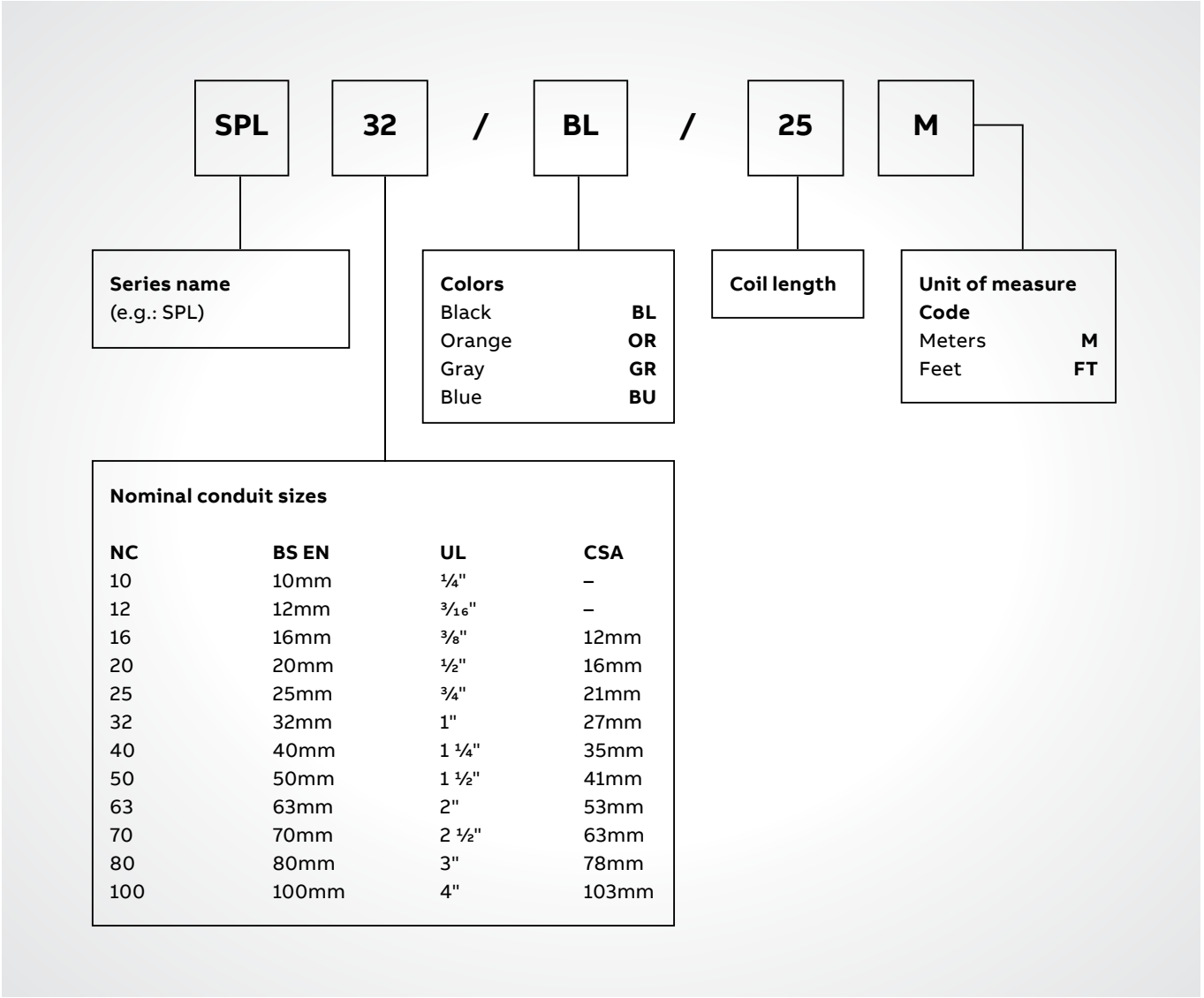
Systems recommendations:
- Solutions for EMI screening
  EMIEF-SPL (page 24)
  EMILFH-SPL (page 25)
  LFH-SPSS (page 54)
  STC (page 66)
  SB (page 67)
  SSB (page 68)
- SPL-EF conduit (IP66..IP69 Liquidtight Enhanced Fire Performance, Zero Halogen) (page 24)
  + SPL fittings (page 33-39)
- LFH-SPL conduit (IP66..IP69 Liquidtight Low Fire Hazard, Zero Halogen) (page 27)
  + SPL fittings (page 33-39)
- SSPLHC/SPLHC conduit (page 28, 29)
  + SSPL/SPL fittings (page 33, 34)
- LFH-SP conduit (IP65 Liquid resistant Low Fire Hazard, Zero Halogen) (page 45)
  + SPL fittings (page 33-39)
- SN conduit (Nylon Covered, Halogen Free) (page 46) + SP fittings (page 48-53)
- S and SS conduits (Inherent Low Fire Hazard) (page 61-62) + S fittings (page 63-65)


ICT-1

Adaptaflex flexible metallic conduit systems

Systems part number codes structure

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



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.	20	22	21	26	27





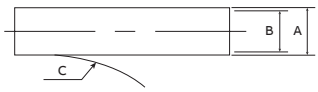

Type SSPLHC	Type SPLHC	Type SPUL	Type SSPL	Type SPL	Type SPLHCB
SSPLHC	**SPLHC**	**SPUL**	**SSPL**	**SPL**	**SPLHCB**
Stainless steel	Galvanised steel	Galvanised steel	Stainless steel	Galvanised steel	Galvanised steel
Thermoplastic rubber	Thermoplastic rubber	PVC	PVC	PVC	Thermoplastic rubber & stainless 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
■	■	■	■	■	■
–	–	–	–	–	■
■	■	■	■	■	–
■	■	■	■	■	■
–	–	■	–	–	–
–	■	–	–	■	–
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	–
28	29	32	30	31	40

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
Static applications: -50°C to +130°C
Moving applications: -5°C to +150°C

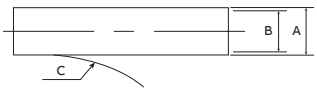
UV resistance
–

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

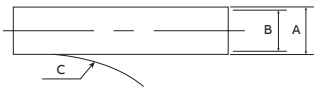
Approvals	IP rating	Appropriate fitting	Temperature range	UV resistance
KM35161 NSF 14159-1-2014 NSF 169-2009	**For use with:** Type SPL, SSPL and SAM		Static applications: -50°C to +130°C	–
	IP66	Type M, C45 & C90	Moving applications: -5°C to +150°C	
	IP67	Type A, B, M, C45 & C90	**Flexibility & fatigue life**	
	IP68	Type M, C45 & C90 (10 bar 30mins)	High flexibility - High fatigue life	
	IP69	Type M, C45 & C90	**Fire Performance & EMI Screen**	
			Self extinguishing	

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

c UL us
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

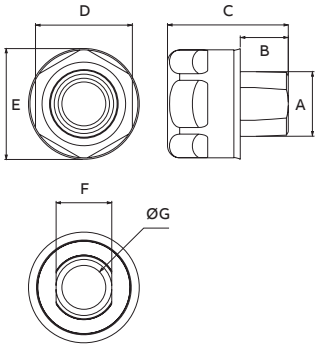
UV resistance
–

Single piece stainless steel liquidtight fitting

Type SAM fitting

Type SAM

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



Part no.	Conduit size (A) 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	IP rating		Temperature range	UV resistance
KM35161 TO BS EN 61386 · LOW VOLTAGE DIRECTIVE · NSF 14159-1-2014 NSF 169-2009	**For use with:** All liquidtight conduit		Static applications: -50°C to +130°C	–
UL514b File No. E60625	**IP66**	Yes	Moving applications: -5°C to +150°C	
	IP68	Yes (10 bar 30mins)	**Flexibility & fatigue life**	
	IP69	Yes	High flexibility - High fatigue life	
			Fire Performance & EMI Screen	
			Self extinguishing	

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.

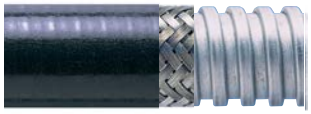
The system provides higher performance levels of flexibility, impact and abrasion resistance, combined with enhanced chemical resistances especially to oils and greases, with a much higher and lower temperature rating (-40°C to +105°C), than any other metallic conduit system with a EN45545-2 HL3 rating. 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

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

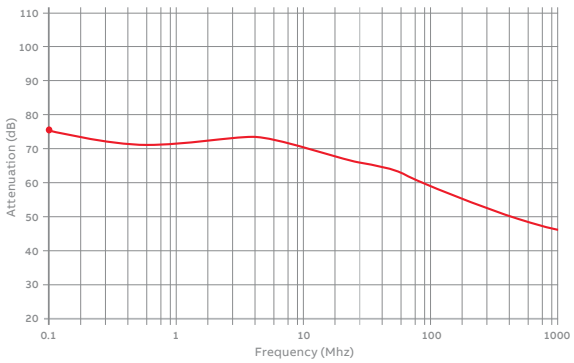
Very high

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

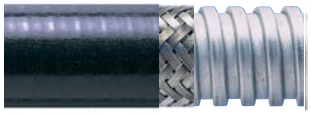
The EMILFH-SPL conduit systems are a Low Fire Hazard Performance rated, flexible, liquidtight range. Designed to meet the demand for 'interoperability' and compliance with stringent local and European fire safety requirements in the rail infrastructure market, the EMILFH-SPL system, is accredited with 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

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

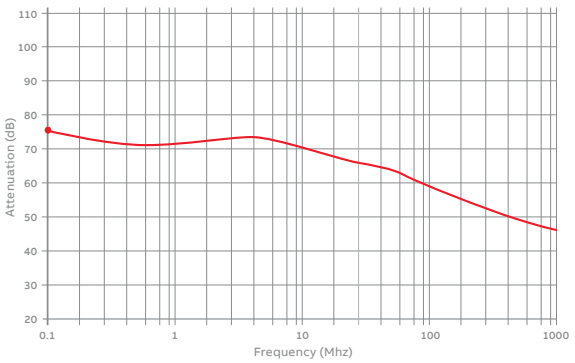
Temperature range	UV resistance
Static applications: -20oC to +90oC	High
Moving applications: --5oC to +105oC	
Flexibility & fatigue life	
Medium flexibility – Medium fatigue life	
Fire performance & EMI screen	
Self extinguishing	
Halogen free	

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.

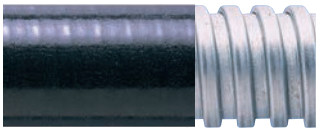


Enhanced Fire Performance liquidtight conduit systems

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	½	15.9	80	25
SPL-EF25/25M	25	26.4	¾	21.0	110	25
SPL-EF32/25M	32	33.1	1	26.4	145	25
SPL-EF40/10M	40	41.8	1 ¼	35.3	180	10
SPL-EF50/10M	50	47.7	1 ½	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

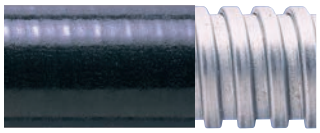
Very high

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

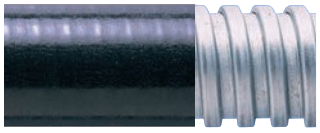
High

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

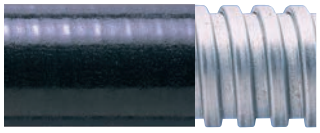
UV resistance
Very high

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

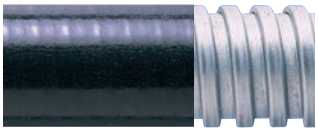
UV resistance
Very high

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

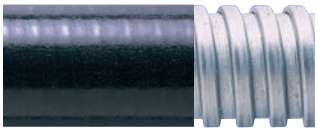
Approvals	IP rating	Appropriate fitting	Temperature range	UV resistance
KM35161	**For use with:** Type SPL, SSPL and SAM		Static applications: -20°C to +105°C	Very high
	IP66	Type M, C45 & C90	Moving applications: -5°C to +105°C	
	IP67	Type A, B, M, C45 & C90	**Flexibility & fatigue life**	
	IP68	Type M, C45 & C90 (10 bar 30mins)	Medium flexibility – Medium fatigue life	
	IP69	Type M, C45 & C90	**Fire performance & EMI screen**	
			Self extinguishing	

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

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

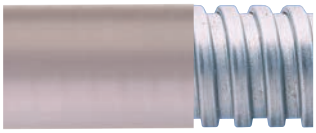
UV resistance
Very high

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

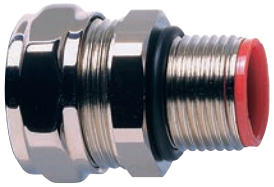
Approvals	IP rating	Appropriate fitting	Temperature range	UV resistance
File No. E76358	**For use with:** Type SPL, SSPL and SAM		Static applications: -20°C to +90°C	High
	IP66	Type M, C45 & C90	Moving applications: -5°C to +105°C	
	IP67	Type A, B, M, C45 & C90	**Flexibility & fatigue life**	
	IP68	Type M, C45 & C90 (10 bar 30mins)	Medium flexibility – Medium fatigue life	
	IP69	Type M, C45 & C90	**Fire performance & EMI screen**	
			Self extinguishing	

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

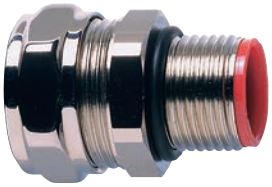
Fitting characteristics

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	IP rating		Temperature range
KM35161	**For use with:** All liquidtight conduit		Static applications: -65°C to +150°C
UL514B File No. E60625	**IP66**	Yes	Moving applications: -45°C to +150°C
	IP67	Yes	
	IP68	Yes (10 bar 30 mins)	
	IP69	Yes	

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

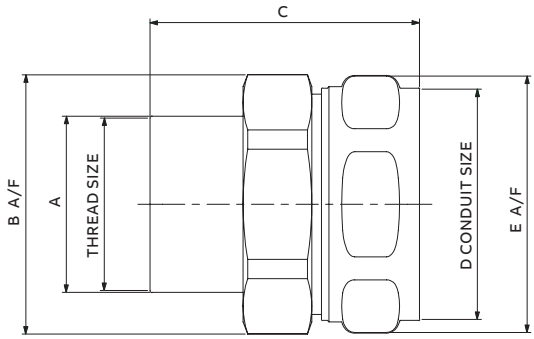
Part no.	Conduit	Thread size	Nominal dimensions A	B	C	D	E	Approx. weight (g)
SPL16/M16/MF	16	M16x1.5	18.0	24.0	25.0	NC16	24.0	45
SPL20/M20/MF	20	M20x1.5	22.0	25.4	25.6	NC20	28.6	52
SPL25/M25/MF	25	M25x1.5	27.6	32.0	27.6	NC25	35.0	97
SPL32/M32/MF	32	M32x1.5	34.5	38.1	38.0	NC32	42.0	145
SPL40/M40/MF	40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

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

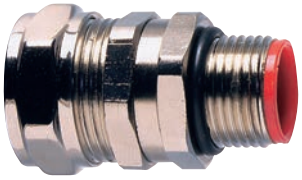


Liquidtight flexible metallic conduit systems

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

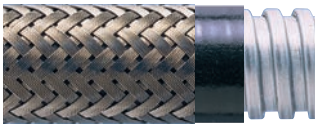
Fitting characteristics

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	IP rating		Temperature range
KM35161 LOW VOLTAGE DIRECTIVE	**For use with:** Type SPLHCB		Static applications: -65°C to +135°C
	IP66	Yes	Moving applications: -45°C to +150°C
	IP67	Yes	
	IP68	Yes (10 bar 30 mins)	

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	IP rating		Temperature range
KM35161 LOW VOLTAGE DIRECTIVE	**For use with:** Type SPLHCB		Static applications: -65°C to +135°C
	IP66	Yes	Moving applications: -45°C to +150°C
	IP67	Yes	**Fitting characteristics**
	IP68	Yes (10 bar 30 mins)	

Liquid resistant flexible 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.	45	46	47	55	54	56

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	IP rating	Appropriate fitting	Temperature range	UV resistance
KM35161	**For use with:** Type SP		Static applications: -40°C to +120°C	High
	IP54	Type SP - Type A, B, C, E & F	Moving applications: -25°C to +150°C	
	IP65	Type SP - Type M & C90	**Flexibility & fatigue life**	
			Medium flexibility - Medium fatigue life	
			Fire Performance & EMI Screen	
			Self extinguishing	
			Halogen free	

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

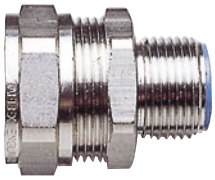
Approvals	IP rating	Appropriate fitting	Temperature range	UV resistance
KM35161	**For use with:** Type SP		Static applications: -25°C to +70°C	Very high
	IP54	Type SP - Type A, B, C, E & F	Moving applications: -5°C to +90°C	
	IP65	Type SP - Type M & C90	**Flexibility & fatigue life**	
			High flexibility - Medium fatigue life	
			Fire Performance & EMI Screen	
			Self extinguishing	

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

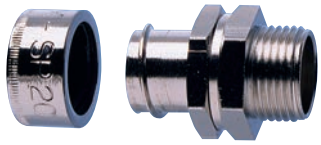
Fitting characteristics

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	**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	**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

KM35161

IP rating

For use with: Type SPB

IP54

Appropriate fitting

Type SB - Type A & B

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

Halogen free

UV resistance

Very high

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

For use with: Type SB

IP54

Appropriate fitting

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

For use with: Type SPB

IP54

Appropriate fitting

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

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	–	–	–	–	–
Page No.	61	62	68	66	67

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

KM35161

IP rating — **Appropriate fitting**

For use with: Type S

IP40 — Type S - Type A, B, F & C

Temperature range

Static applications: -50°C to +350°C

Moving applications: -45°C to +250°C

Flexibility & fatigue life

High flexibility - High fatigue life

Fire Performance & EMI Screen

UV resistance

Very high

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

IP rating

For use with: Type S

IP40

Appropriate fitting

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

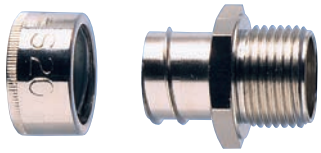
Very high

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)

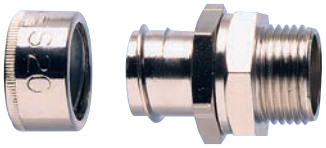
Approvals	IP rating		Temperature range
KM35161	**For use with:** Type S / SS		Static applications: -50°C to +300°C
	IP40	Yes	Moving applications: -45°C to +250°C

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

KM33161

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
KM35161	**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

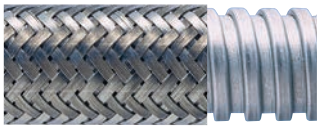
Approvals	IP rating		Temperature range
KM35161	**For use with:** Type S / SS		Static applications: -50°C to +300°C
	IP40	Yes	Moving applications: -45°C to +250°C

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

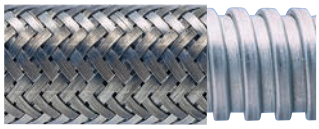
Approvals	IP rating	Appropriate fitting	Temperature range	UV resistance
KM35161 LOW VOLTAGE DIRECTIVE	**For use with:** Type SB		Static applications: -50°C to +300°C	Very high
	IP40	Type SB - Type A & B	Moving applications: -45°C to +250°C	
			Flexibility & fatigue life	
			High flexibility – High fatigue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

Braided superflexible metallic conduit systems

EMI screen 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 — **For use with:** Type SB

IP40

Appropriate fitting

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

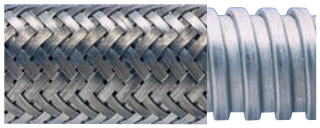
Very high

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

KM35161

IP rating

For use with: Type SB

IP40

Appropriate fitting

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 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	**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)

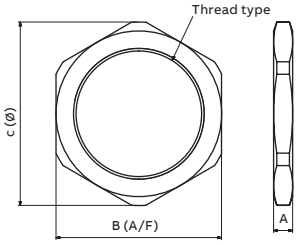
Approvals	IP rating		Temperature range
KM35161	**For use with:** All superflexible conduit		Static applications: -50°C to +300°C
	IP40	Yes	Moving applications: -45°C to +250°C
			Fitting characteristics

Flexible metallic conduit systems

Accessories - Locknuts

Stainless steel locknut

Female threaded locknut / Materials: 316 stainless steel



			Nominal dimensions (mm)	
Part no.	Thread size	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.
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

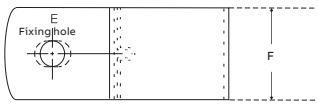
KM35161

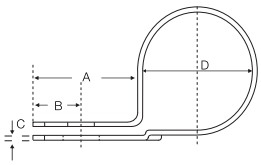
Flexible metallic conduit systems

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

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	-
–	–	–	–
–	–	–	–
–	–	–	–

Convenience packs

Professional installer conduit systems

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

Tools
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.

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

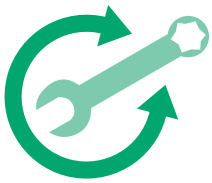
Protection against water
Degree of protection of equipment inside enclosures against damage from the ingress of water.

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 15cm – 1m
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	PA, PR, PADL, 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

—

Chemical resistance comparison table

Chemicals	Products														
Key: 2 = Suitable 1 = Limited suitability 0 = Unsuitable – = No data	PA, PR, PADL, 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
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)

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 should be used only as a guide in conjunction with the relevant wiring regulations.

Table 1 - Cross Sectional Area (CSA) chart

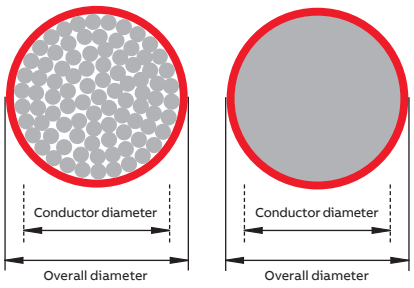
Cross sectional area (CSA) [mm²]	Overall Diameter [mm]	CSA [mm²]
	1	0.79
	1.5	1.77
	2.5	4.91
	4	12.57
	6	28.27
	10	78.54
	16	201.06
	25	490.87
	35	962.11
	50	1963.50

Table 2 - Wire fill of 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

IEC61386 classifications

Metallic- 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				

Appendix

Part number index

Appendix

Part number index

Appendix

Part number index

Additional information
We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB AG does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

ABB Cable Management Products Ltd.
Station Road, Coleshill,
Birmingham, B46 1HT
United Kingdom

Contact us:
cmg.conduitsystems@abb.com

www.adaptaflex.com

For other ABB locations visit new.abb.com/low-voltage

7TKK001441 03.2021