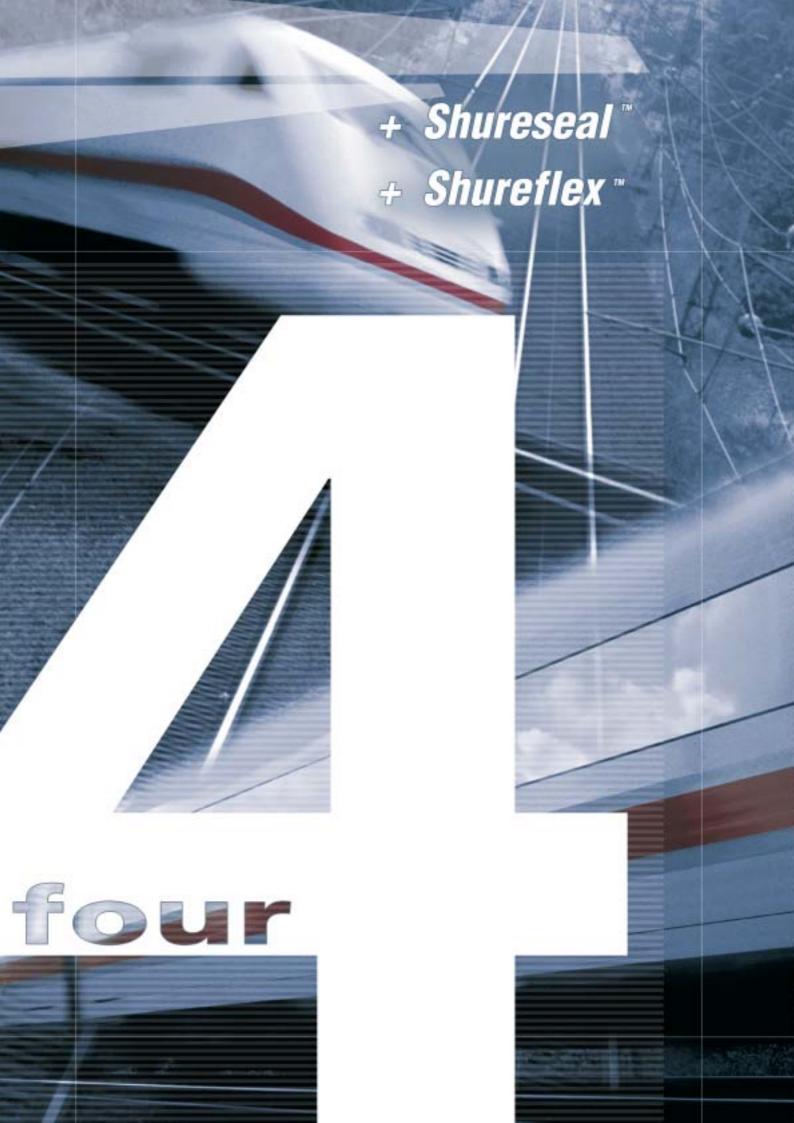


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# Conduit & Fittings

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# Conduit & Fittings

### 4. Conduit & Fittings

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# Flexible conduits Selection guide

#### Introduction

#### Thomas & Betts ... The Complete Product Line

For a century, Thomas & Betts has been a recognised leader in electrical fittings. Industry standards such as Chase Nipples and Erickson Couplings were introduced by Thomas & Betts and are still popular in the industry. This leadership continues. Here's why.

#### **Innovative Designs**

The real test of product design of electrical fittings lies in two areas: job-suited installation and life of the job reliability. Thanks to a long experience in this industry, Thomas & Betts provide both of them in the range of Conduits & Fittings.

#### **Approvals and Listings**

Flexible cable protection systems require accessory fittings that provide the mechanical strength, ground continuity, and environmental integrity of the system. As new systems have been introduced, Thomas & Betts engineers have designed fittings which meet the listing requirements of UL (Underwriters' Laboratories) and CSA (Canadian Standards Association).

#### **High Performance Products**

Quality and performance result when engineering design skills are combined with the manufacturing technologies required to produce them. The Thomas & Betts Conduits and Fittings in this section are produced from many materials and by many manufacturing methods, each carefully selected for its end use suitability, a combination that assures a reliable performance.

#### **Lower Installed Cost**

It is a function of purchase cost, availability, installation advantage, and performance. Lower installed cost comes in every carton of Thomas & Betts Conduit & Fittings.

#### Construction

The **Shureseal**™ **flexible metallic liquidtight conduits** provide an excellent protection for electrical cables against:

- · aggressive media
- pressure loads
- moisture and liquid
- chemicals and oil
- dust and pollution
- extreme temperatures

All grades of Shureseal<sup>TM</sup> flexible metallic liquidtight conduits are constructed using an interlocking, convoluted, heavy-duty galvanised steel core. Depending on the grade and size of the conduit, a packing material is added to the convolutions of the core to improve performance. Finally, a smooth jacket is extruded over the steel core to give protection and improve flexing properties.

Ideal for applications which require resistance to bending strain vibration or similar forces, the range of Shureseal<sup>TM</sup> flexible metallic liquidtight conduits are universally installable with the comprehensive Shureseal<sup>TM</sup> fittings system. UL and CSA approved versions are available.

The Shureseal™ flexible non-metallic liquidtight conduits offer an excellent protection for electrical cables combined with:

- An outstanding flexibility
- A strong resistance to chemicals
- · A good level of mechanical resistance

Non-metallic conduits are CSA and UL recognised. Their smooth inner surface ensures that cables and conductors can be fed through with ease.

Ideal for applications which require resistance to bending strain, vibration or similar forces, the range of Shureseal<sup>TM</sup> flexible, non-metallic liquidtight conduits is installable with the appropriate fittings available in the Shureseal<sup>TM</sup> range.

The Shureflex<sup>™</sup> system of ultra-flexible metallic conduits in galvanised steel offers an economic solution for the protection of cables in industrial and commercial applications.

The galvanised steel conduits have an excellent resistance to crushing, vibrations and bending, as well as high flexibility and pull off strength.

The corresponding Shureflex<sup>™</sup> fittings are easy to mount and are made from nickel plated brass. They are available in straight style with different versions: fixed or swivel, with male or female thread, space saver version.

The Shureflex<sup>™</sup> conduits are also available in stainless steel upon request.

The **new range of Shureflex™ Nylon conduit and fittings** provides all the benefits of a Halogen free, flexible watertight system of protection for electrical cables.

The Shureflex<sup>™</sup> Nylon conduits are made from Halogen free Polyamide 6 (PA6) and Polyamide 12 (PA12) and are recommended for the insulation and the mechanical protection of electrical cables, in accordance with EN60204 (Machine Safety).

Three grades of conduit available in 8 sizes offer an excellent combination of flexibility and mechanical strength, to better suit all types of applications: Standard Grade (PA6), Medium Grade (PA6) and Extra Flexible Grade (PA12).

With its wide range of fittings and accessories, this system is ideally suitable for all types of applications in general wiring, industrial equipment, machine tools and machinery, production equipment, control equipment, robotics, automotive, transportation, railway.

### Flexible conduits

### Selection guide

The Shureseal<sup>™</sup> range is made of 5 grades of metallic and 5 grades of non-metallic liquidtight conduits. Their features and a guide to their application suitability are given below. In the Shureflex<sup>™</sup> range there are 2 types of galvanised steel conduits (with or without covering) and 3 grades of Halogen free Polyamide conduits.

In addition, conduits and fittings made from stainless steel for specific applications can be available upon request. The tables below show the features and applications for the different conduits as well as their technical specifications.



### **Selection Table**

CONDUIT TYPE	Features	Applications
SHURESEAL <sup>TM</sup> F	LEXIBLE METALLIC LIQUIDTIGHT CONDUITS	
TBEF	Flexible, VDE approved, for heavy-duty use	Standard multi-purpose conduit
TBDL	UL / CSA approved, silicone free	Export-oriented mechanical
	for heavy-duty use, multi-purpose	and plant engineering (USA, Canada etc.)
TBOR	Same as TBEF – plus high resistance	Mechanical engineering with high
	to oil and chemicals	exposure to oil or chemicals
TBEHC	Remains flexible at extreme temperatures	Same as TBEF but for higher temperatures
TBZH	Halogen-free, low smoke and flexible	Where human life is at risk e.g. underground, railway stations
SHURESEAL <sup>TM</sup> F	LEXIBLE NON-METALLIC LIQUIDTIGHT CONDUITS	
TYPEA	Multi-layer construction, UL / CSA approved	Robotics, export version
EFC	Highly flexible, crush-resistant, very good chemical resistance	OEM: flexing component wiring protection, fiber optic cable
		protection etc
LTC	Smooth inner and outer surfaces, UL & CSA listed	Industrial applications: machinery, food processing equipment, etc
LTC-GY	Smooth inner and outer surfaces, UL & CSA listed, grey	Commercial applications: indoor & outdoor lighting, etc
SHUREFLEX <sup>TM</sup> F	LEXIBLE METALLIC CONDUITS	
UGS	Extremely flexible, even at	Industrial and commercial applications such as
	extremely high and low temperatures	lighting, security cameras and underfloor wiring
PGS	Flexible, PVC-covered*	Industrial and commercial applications such as
		lighting, security cameras and underfloor wiring
SHUREFLEX <sup>TM</sup> U	JLTRA-FLEXIBLE NYLON CONDUITS	
NY-SG	Halogen-free Polyamide 6	General wiring, machine tools, industrial equipment
	Very flexible and light	and automotive
	Easy installation (push-mount fitting)	
NY-MG	Halogen-free Polyamide 6	Machine tools and machinery, industrial equipment,
	Flexible with increased mechanical strength	railway
	Easy installation (push-mount fitting)	
NY-EG	Halogen-free Polyamide 12	Demanding applications requiring repetitive bending and
	Extremely flexible, even at negative temperatures	flexing movements: robotics, automation, production equipment
	and in very dry atmosphere	
	Easy installation (push-mount fitting)	

<sup>\*</sup> LFH (Limited Fire Hazard) covering is available upon request The Shureflex $^{\rm TM}$  conduits are also available in stainless steel, upon request

Selection guide

	TBEF	TBDL	TBOR	ТВЕНС	ТВХН	TYPEA	EFC	LTC	LTC-GY	nGS	PGS	NY-SG	NY-MG	NY-EG
Flexible	В	В	В	В	8	<	⋖	<	<	∢	В	K	<	<
High mechanical strength	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Oil and chemical resistant	ı	I	yes	yes	I	yes	yes	yes	yes	1	I	yes	yes	yes
Zero halogen	ı	ı	I	I	yes	I	I	I	I	yes	I	yes	yes	yes
Low acid	ı	ı	I	I	yes	I	ı	ı	ı	yes	yes	yes	yes	yes
Limited fire hazard	I	1	1	1	yes	1	1	1	1	yes	*	yes	yes	1
Flame retardant	yes	yes	yes	yes	yes	1	ı	ı	1	yes	yes	yes	yes	1
Temperature rating -2	25 to +105°C -	25 to +105°C	-25 to +105°C -25 to +105°C -25 to +105°C	-50 to +130°C	-25 to +90°C	-20 to +60°C	-18 to +60°C -18 to +105°C	-18 to +105°C	-18 to +80°C	-50 to +300°C	-25 to +70°C	-25 to +70°C -40 to +105°C -40 to +105°C -50 to +90°C	-40 to +105°C	-50 to +90°C
IP rating**	IP67	IP67	IP67	1P67	1967	1P66	IP65	IP65	IP65	IP40	IP54***	1P66/IP68	1P66/1P68	IP66/IP68
Standard colour	black	black	black	black	black	orange	black	black	grey	metallic	black	black	black	black
Material - covering	PVC	PVC	PVC	Polyester	Olefin	I	ı	ı	ı	I	PVC	ı	ı	I
Material - core	galvanised steel	galvanised steel	galvanised steel	galvanised steel	galvanised steel	2 layers of PVC	reinforced PVC	PVC	PVC	galvanised steel	galvanised steel	PA6	PA6	PA12
UL file Nr	I	E125517	ı	ı	I	E79308	ı	E95745	E95745	I	ı	E96548	E96548	I
CSA file Nr	ı	LL91693	ı	ı	I	LL18858	1	LL80349	LL80349	1	ı	ı	I	ı

A = ultra flexible, B = flexible

<sup>\*</sup> PGS conduits with limited fire hazard coverings are available upon request

<sup>\*\*</sup> Only applicable when correctly installed with Thomas & Betts fittings \*\*\* Fittings with IP65 rating are available upon request for the PGS conduits

### Flexible conduits

Degree of protection (IP rating)

# Degrees of Protection of enclosures according to DIN 40050 IEC 144/529

IP (Ingress Protection) and 2 figures (IPXY) indicates the protection class, the first figure X indicating the degree of protection against ingress of solid foreign objects, and the second figure Y indicating the degree of protection against ingress of water.



### IP rating table

DEGREE OF PR	ROTECTION OF EQUIPMENT	DEGREE OF PROTECT	TION PROTECTION OF EQUIPMENT
X	AGAINST INGRESS OF SOLID FOREIGN OBJECTS	Y	AGAINST INGRESS OF WATER
0	Non-protected	0	Non-protected
1	Protected against solid foreign objects of 50 mm ø & greater	1	Protected against vertically falling water drops
2	Protected against solid foreign objects of 12.5 mm ø & great	er 2	Protected against vertically falling water drops
			when enclosure is tilted up to 15°
3	Protected against solid foreign objects of 2.5 mm ø & greater	r 3	Protected against spraying water
4	Protected against solid foreign objects of 1.0 mm ø & greate	er 4	Protected against splashing water
5	Dust-protected	5	Protected against water jets
6	Dust-tight Dust-tight	6	Protected against powerful water jets
		7	Protected against the effects of temporary immersion in water
		8	Protected against the effects of continuous
			immersion in water subject to agreement

(CHART-IP Protection in accordance with DIN 40050 / IEC 144/529)

### Minimum Bending Radius

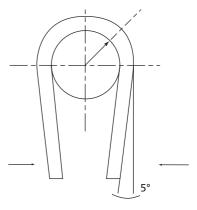
A flexible conduit is able to bend repetitively without permanent deformation. A way to compare the flexibility of different conduits is to define the amplitude of the bending that they can withstand, for example by bending the conduit around a cylindrical object (mandrel) of known radius.

While bending the conduit around a mandrel of large radius remains easy, this operation is getting more and more stringent when the radius is decreased, and the smallest radius that can be reached before damaging the conduit is called the Minimum Bending Radius. Therefore the conduits having smaller Minimum Bending Radius can be qualified as more flexible.

The method for checking the conduit bending is carried out by bending the conduit half turn around a solid mandrel at the Minimum Bending Radius. As materials get stiffer at low temperatures, the use of the conduits in flexing mode is limited to a narrower range of temperatures than their use in static mode, as shown in the technical specifications of the conduits.

The Minimum Bending Radius shown in the tables is suitable for both the flexing mode (within the flexing temperature range) and the static mode (within the static temperature range)

Mandrel Radius = Minimum Bending Radius



# Shureseal TM Elexible metallic liquid

### Flexible metallic liquidtight conduits

### Prescriptions & specifications

#### Conduits: directions for use

Below are a few short extracts taken from the relevant prescriptions.

VDE 0113/12.73

Metal tubing, pipes and conduits must be used in accordance with the prescribed safety standard.

Paragraph 10.3 1 states that all conduits must be designed to protect against the expected demands made on the product. This is to say, for example, that cable can only be fed through conduit if it is suitably protected from liquids, dust (IP-Protection) and other foreign substances.

Surfaces with which the laid conduits come into contact - such as edges, threads etc. should not damage the insulation of the conduit.

Conduits and fitting assemblies must be installed in accordance with VDE 0113.

Fittings: directions for use

It is not adequate just to feed the conduit into a housing. The conduit must be installed using a lock nut and fitting, which ensure a good electrical connection between the conduit and housing. The conduit must not reduce the protective capability of the housing. In order to ensure the effective installation of the conduit, it is important not only to use a suitable conduit but also to use the appropriate type of fitting. (see IEC-204)

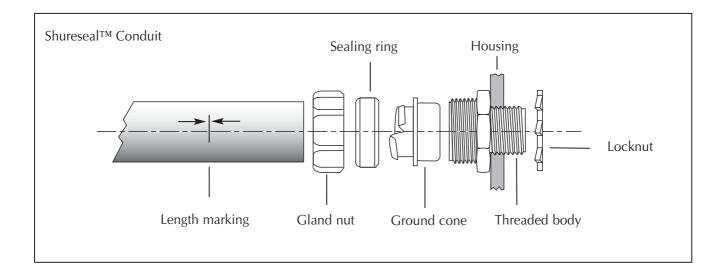
#### **Specifications**

Shureseal<sup>TM</sup> fittings and conduits satisfy the following specifications:

- for heavy industrial applications in accordance with DIN 49012.
- according to IP67 rating
- according to DIN/VDE 0650, section, 2.1.1b
- according to BS731, part 1
- and have the necessary approvals (UL/CSA and VDE)

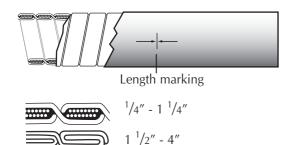
#### Installation

Installation is simple. The fitting screws easily onto the conduit, without the need for special tools. The fitting can be removed and re-used again at any time. The fitting also performs excellently against severe vibration. The conduit is not deformed by the fitting. In tests, the fittings have been shown to be extremely secure and guarantee a high level of security and reliability.



# Flexible metallic liquidtight conduits Type TBEF - universal

- TBEF (now integrating the TBHT grade) conduit with heavy duty double interlocked / single interlocked (with packing) galvanised steel core
- Universal conduit for all liquidtight applications requiring good mechanical strength and flexibility: machinery, conveyors, etc.
- Cotton packing for high flexibility (up to 1 1/4 ")
- High performance acid and oil resistant, self-extinguishing PVC jacket
- High mechanical stability
- Tested and certified in accordance with DIN VDE 0605:1982-04 (File Nr: 24058-5410-0050 / 32CRB F41 / LR, Document Nr.: 131354)
- Marked lengths (every 1 m) for quick and easy measuring and cutting





### **Technical Information**

Outer jacket	PVC, self-extinguishing within
	30 seconds
Core	Galvanised steel
Packing	Cotton (up to 1 1/4")
Colour	Black or grey**
Temperature range	Static: -25°C to +105°C
	Flexing: -5°C to +105°C
Voltage breakdown	> 2 kV
(flash test)	
Insulation resistance	> 100 MOhm
System IP rating	IP67, when correctly installed with
	Shureseal™ liquidtight fittings

<sup>\*\* (</sup>Grey available upon request. Suffix = G, e.g. TBEF0250-50G)

### **Approvals**



### Ordering Information

PRODUCT REF.	Nominal	Metric	LENGTH	Internal	External	Min.	MECHANICAI	. VALUES	WEIGHT	Түре
	SIZE	SIZE		DIAMETER	DIAMETER	BENDING	MIN. TENSILE M	IIN. COMPRESSIC	ON OF	
						RADIUS	STRENGTH	STRENGTH	PACKAGING	
	[inch]	[mm]	[m]	[mm]	[mm]	[mm]	[N]	[N]	[kg/100 m]	
TBEF0250-50*	1/4	10	50	6.2	11.4	45	500	1250	20.0	A
TBEF0312-50*	5/16	12	50	10.0	14.4	50	500	1250	22.2	Α
TBEF0375-10	3/8	16	10	12.5	17.8	50	1000	1250	41.9	Α
TBEF0375-75	3/8	16	75	12.5	17.8	50	1000	1250	41.9	В
TBEF0500-10	1/2	20	10	16.0	21.1	75	1000	1250	48.1	Α
TBEF0500-60	1/2	20	60	16.0	21.1	75	1000	1250	48.1	В
TBEF0750-10	3/4	25	10	21.0	26.4	90	1000	1250	68.9	Α
TBEF0750-50	3/4	25	50	21.0	26.4	90	1000	1250	68.9	С
TBEF1000-30	1	32	30	26.0	33.1	110	1000	1250	97.5	С
TBEF1250-30	1 1/4	40	30	34.8	41.8	130	1000	1250	123.3	C
TBEF1500-15*	1 1/2	50	15	40.4	47.7	190	2500	1250	144.8	С
TBEF2000-15*	2	63	15	51.6	60.0	250	2500	1250	161.0	С
TBEF2500-15*	2 1/2	75	15	63.3	72.6	480	2500	1250	298.0	С
TBEF3000-7*	3	90	7	78.4	88.4	760	2500	1250	327.8	С
TBEF4000-7*	4	115	7	102.1	113.8	860	2500	1250	394.4	С

\* Not VDE approved

Packaging sizes: A= box  $370 \times 370 \times 180 \text{ mm}$ 

B= box 500 x 500 x 275 mm

C = reel 800 mm ø

See page 229 for explanations on min. bending radius and temperature ranges For Shureseal  $^{\rm IM}$  liquidtight fittings see pages 248 to 256

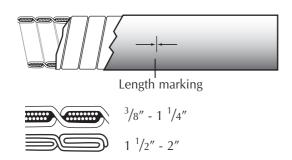


# 4.1

## **Shureseal**™

# Flexible metallic liquidtight conduits Type TBDL - dual listed UL & CSA

- Type TBDL with UL / CSA approval, heavy duty double interlocked / single interlocked galvanised steel core
- Export and North-America oriented applications: multi-national projects, power plant, ...
- Copper wire packing for improved grounding (up to 1 1/4")
- High performance, acid- and oil-resistant PVC jacket, self-extinguishing in accordance with UL360
- Extremely high mechanical stability
- Marked lengths (every 1 m) for simple measuring and cutting
- Silicone free





### **Technical Information**

Outer jacket	PVC, self-extinguishing in 60 seconds
Core	Galvanised steel
Packing	Flat copper conductor (up to 1 1/4")
Colour	Black
Temperature range	Static: -25°C to +105°C
	(+120°C intermittent)
	Flexing: -5°C to +105°C
	UL rating: -10°C to +60°C
	CSA rating: -10°C to +75°C
System IP rating	IP67, when correctly installed with
	Shureseal™ liquidtight fittings

### **Approvals**





### **Ordering Information**

PRODUCT REF.	Nominal	Metric	LENGTH	Internal	External	Min.	Mechanic	CAL VALUES	WEIGHT	Түре
	SIZE	SIZE		DIAMETER	DIAMETER	BENDING	MIN. TENSILE	MIN. COMPRESSI	ON	OF
						RADIUS	STRENGTH	STRENGTH		PACKAGING
	[inch]	[mm]	[m]	[mm]	[mm]	[mm]	[N]	[N]	[kg/100 m]	
TBDL0375-75	3/8	16	75	12.5	17.8	50	1000	4000	39.4	В
TBDL0500-60	1/2	20	60	16.0	21.1	80	1000	4000	48.5	В
TBDL0750-50	3/4	25	50	21.0	26.4	105	1000	1250	66.3	С
TBDL1000-30	1	32	30	26.0	33.1	165	1000	4000	112.0	С
TBDL1250-30	1 1/4	40	30	34.8	41.8	200	1000	1250	160.0	C
TBDL1500-15	1 1/2	50	15	40.4	47.7	280	2500	4000	193.5	С
TBDL2000-15	2	63	15	51.6	60.0	355	2500	1250	253.0	С

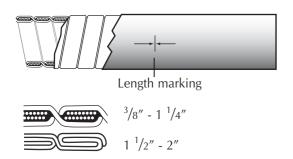
Packaging sizes:  $B = box 500 \times 500 \times 275 mm$ 

C = reel 800 mm ø

See page 229 for explanations on min. bending radius and temperature ranges Other sizes available upon request - please contact your Sales Office For Shureseal<sup>TM</sup> liquidtight fittings see pages 248 to 256

### Flexible metallic liquidtight conduits Type TBOR - oil resistant

- Type TBOR, with heavy duty double interlocked / single interlocked (with packing) galvanised steel core
- Applications in greasy environments: machine tools, assembly machines, hydraulic machinery
- Cotton packing for high flexibility (up to 1 1/4")
- High performance acid- and oil-resistant PVC outer jacket, self-extinguishing within 30 seconds
- High mechanical stability in accordance with DIN 49 012
- Marked lengths (every 1m) for quick and easy measuring and cutting





### **Technical Information**

Outer jacket	PVC, self-extinguishing within
	30 seconds
Core	Galvanised steel
Packing	Cotton (up to 1 1/4")
Colour	Black
Temperature range	Static: -25°C to +105°C
	Flexing: -5°C to +105°C
Voltage breakdown	> 2 kV
(flash test)	
Insulation resistance	> 100 MOhm
System IP rating	IP67, when correctly installed with
, 0	Shureseal™ liquidtight fittings

### **Ordering Information**

PRODUCT REF.	Nominal	METRIC	LENGTH	Internal	External	Min.	Mechan	IICAL VALUES	WEIGHT	Түре
	SIZE	SIZE		DIAMETER	DIAMETER	BENDING	MIN. TENSILE	MIN. COMPRESSI	ION	OF
						RADIUS	STRENGTH	STRENGTH		PACKAGING
	[inch]	[mm]	[m]	[mm]	[mm]	[mm]	[N]	[N]	[kg/100 m	]
TBOR0375-75	3/8	16	75	12.5	17.8	50	1000	1250	41.9	В
TBOR0500-60	1/2	20	60	16.0	21.1	75	1000	1250	48.1	В
TBOR0750-50	3/4	25	50	21.0	26.4	90	1000	1250	68.9	С
TBOR1000-30	1	32	30	26.0	33.1	110	1000	1250	97.5	С
TBOR1250-30	1 1/4	40	30	34.8	41.8	130	1000	1250	123.3	С
TBOR1500-15	1 1/2	50	15	40.4	47.7	190	2500	1250	144.8	С
TBOR2000-15	2	63	15	51.6	60.0	250	2500	1250	161.0	С

Packaging sizes:  $B = box 500 \times 500 \times 275 mm$ 

 $C = reel 800 \text{ mm } \emptyset$ 

See page 229 for explanations on min. bending radius and temperature ranges Other sizes available upon request - please contact your Sales Office

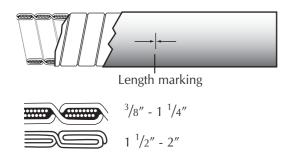
For Shureseal  $^{\mbox{\tiny TM}}$  liquid tight fittings see pages 248 to 256

# 4.1

## **Shureseal**™

# Flexible metallic liquidtight conduits Type TBEHC - extreme heat/cold

- Applications at extreme temperatures: refrigeration, transportation, industrial HVAC, heavy industries
- Very high tolerance to extreme changes in temperature
- Heavy duty double interlocked / single interlocked (with packing) galvanised steel core
- Cotton packing for high flexibility (up to 1 1/4")
- High performance acid- and oil-resistant Polyester jacket, self-extinguishing according to UL 94 V-2
- High mechanical stability in accordance with DIN 49 012
- Marked lengths (every 1m) for quick and easy measuring and cutting





### **Technical Information**

Outer jacket	Polyester, self-extinguishing
	within 30 seconds
Core	Galvanised steel
Packing	Cotton (up to 1 1/4")
Colour	Black
Temperature range	Static: -50°C to +130°C
	(+150°C intermittent)
	Flexing: -5°C to +130°C
Voltage breakdown	> 2 kV
(flash test)	
System IP rating	IP67, when correctly installed with
	Shureseal <sup>TM</sup> liquidtight fittings

### Ordering Information

PRODUCT REF.	Nominal	METRIC	LENGTH	Internal	External	Min.	Mechan	ICAL VALUES	WEIGHT	Түре
	SIZE	SIZE		DIAMETER	DIAMETER	BENDING	MIN. TENSILE	MIN. COMPRESSION	I	OF
						RADIUS	STRENGTH	STRENGTH		PACKAGING
	[inch]	[mm]	[m]	[mm]	[mm]	[mm]	[N]	[N]	[kg/100 m]	
TBEHC0375-30	3/8	16	30	12.5	17.8	50	1000	1250	40.7	В
TBEHC0500-30	1/2	20	30	16.0	21.1	75	1000	1250	45.0	В
TBEHC0750-30	3/4	25	30	21.0	26.4	90	1000	1250	64.5	С
TBEHC1000-30	1	32	30	26.0	33.1	110	1000	1250	90.7	С
TBEHC1250-30	1 1/4	40	30	34.8	41.8	130	1000	1250	112.6	С
TBEHC1500-15	1 1/2	50	15	40.4	47.7	190	2500	1250	134.5	С
TBEHC2000-15	2	63	15	51.6	60.0	250	2500	1250	148.7	С

Packaging sizes:  $B = box 500 \times 500 \times 275 \text{ mm}$ 

 $C = reel 800 \text{ mm } \emptyset$ 

See page 229 for explanations on min. bending radius and temperature ranges

Other sizes available upon request - please contact your Sales Office

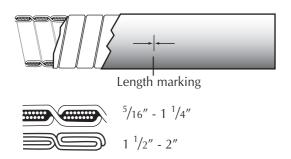
For Shureseal  $^{\mbox{\scriptsize TM}}$  liquid tight fittings see pages 248 to 256

Special fittings (HT series) rated at 150°C are now available for high temperature applications - please contact your Sales Office for product availability.

TBEHC conduits with 316 grade stainless steel core (TBEHCSS series) can be available upon request - please contact your Sales Office for product availability and Minimum Order Quantities.

### Flexible metallic liquidtight conduits Type TBZH - zero halogen

- Halogen free and low smoke outer jacket
- Ideal for applications where human lives can be a concern: public transportation, metro, train,...
- Heavy duty double interlocked / single interlocked (with packing) galvanised steel core
- Cotton packing for high flexibility (up to 1 1/4")
- High performance acid- and oil-resistant Olefin outer jacket, self-extinguishing within 30 seconds
- For use in safety areas (tunnels, public areas and transportation equipment)
- Marked lengths (every 1m) for quick and easy measuring and cutting
- NFF16-101 / NFF16-102 tested:
   I index = I3 (oxygen index = 40.7), F index = F1





### **Technical Information**

Outer jacket	Olefin, self-extinguishing				
	within 30 seconds				
Core	Galvanised steel				
Packing	Cotton (up to 1 1/4")				
Colour	Black				
Temperature range	Static: -25°C to +90°C				
	Flexing: -5°C to +90°C				
Voltage breakdown	> 2 kV				
(flash test)					
Insulation resistance	> 100 MOhm				
System IP rating	IP67, when correctly installed with				
_	Shureseal™ liquidtight fittings				

### **Ordering Information**

PRODUCT REF.	Nominal	Metric	LENGTH	Internal	External	Min.	Mechan	NICAL VALUES	Weight	Түре
	SIZE	SIZE		DIAMETER	DIAMETER	BENDING	MIN. TENSILE	MIN. COMPRESSIO	ON	OF
						RADIUS	STRENGTH	STRENGTH		PACKAGING
	[inch]	[mm]	[m]	[mm]	[mm]	[mm]	[N]	[N]	[kg/100 m	]
TBZH0375-75	3/8	16	75	12.5	17.8	60	1000	1250	41.9	В
TBZH0500-60	1/2	20	60	16.0	21.1	90	1000	1250	48.1	В
TBZH0750-50	3/4	25	50	21.0	26.4	110	1000	1250	68.9	С
TBZH1000-30	1	32	30	26.0	33.1	130	1000	1250	97.5	С
TBZH1250-30	1 1/4	40	30	34.8	41.8	160	1000	1250	123.3	С
TBZH1500-15	1 1/2	50	15	40.4	47.7	230	2500	1250	144.8	С
TBZH2000-15	2	63	15	51.6	60.0	300	2500	1250	161.0	С

Packaging sizes:  $B = box 500 \times 500 \times 275 \text{ mm}$ 

C = reel 800 mm ø

For Shureseal  $^{\mbox{\tiny TM}}$  liquidtight fittings see pages 248 to 256

See page 229 for explanations on min. bending radius and temperature ranges



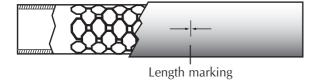
# Flexible non-metallic liquidtight conduits Type TYPEA - smooth outer surface

- UL and CSA approved
- Double layer construction offers a high level of mechanical stability for plastic tubing
- The Nylon lining between the 2 layers ensures a high level of flexibility
- High performance, durable acid- and oil resistant PVC outer jacket
- Perfectly designed for fittings which have to be safe, secure and electrically insulated
- Marked in lengths of 1 foot / 30.48 cm for quick and easy measuring and cutting
- High retention assured when used in association with T&B special fittings (Product Ref. 37XX and 63XX) (see pages 257 and 258)



### **Technical Information**

Material	2 layers of PVC with a woven Nylon
	fabric in between
Colour	Orange
Temperature range	-20°C to +60°C
System IP rating	IP66, when correctly installed with
	Shureseal™ liquidtight fittings



### **Approvals**





### Ordering Information

PRODUCT REF.	NOMINAL SIZE	METRIC SIZE	LENGTH	INTERNAL DIAMETER	EXTERNAL DIAMETER	MIN. BENDING RADIUS	WEIGHT
	[inch]	[mm]	[m]	[mm]	[mm]	[mm]	[kg/100 m]
TYPEA38-250	3/8	16	76.2	12.32	19.63	63.5	23.3
TYPEA50-200	1/2	20	61.0	15.75	23.62	76.2	33.3
TYPEA75-175	3/4	25	53.3	20.70	29.72	101.6	46.7
TYPEA100-100	1	32	30.5	26.16	36.58	152.4	63.3
TYPEA125-100	1 1/4	40	30.5	34.80	46.36	177.8	93.3
TYPEA150-50	1 1/2	50	15.2	40.26	52.83	203.2	120.0
TYPEA200-50	2	63	15.2	52.71	65.79	228.6	180.0

For Shureseal™ liquidtight fittings for non-metallic conduits see pages 257 and 258

### Flexible non-metallic liquidtight conduits Type EFC - with strengthened inner coil

- UL Type B liquidtight flexible non-metallic conduit, OEM grade
- Highly flexible, liquidtight plastic tubing with strengthened inner coil
- UV-resistant and weatherproof
- High chemical resistance
- UL recognised under File No. E 96548
- CSA approved File No. LL 067241

**Ordering Information** 

- Crush-resistant due to stiffening effects of strengthened inner coil
- The ultra-smooth inner surface ensures that cables and conductors can be fed through very easily
- Can be used with plastic or metallic T&B "Bullet" fittings (see pages 259 to 263)



### **Technical Information**

Material	PVC
Colour	Black or orange* or blue*
Temperature range	-18°C to +75°C (CSA)
	-18°C to +60°C (UL)
System IP rating	IP65, when correctly installed with
	Shureseal™ liquidtight fittings



### **Approvals**





PRODUCT REF.	NOMINAL SIZE	METRIC SIZE	LENGTH	Internal Diameter	External Diameter	MIN. BENDING RADIUS	Weight	TYPE OF PACKAGING
	[inch]	[mm]	[m]	[mm]	[mm]	[mm]	[kg/100 m]	
EFC025	1/4	10	30.5	10.0	14.6	20	7.3	reel
EFC038	3/8	16	30.5	12.3	18.0	25	10.7	reel
EFC050	1/2	20	30.5	15.8	21.3	30	12.4	reel
EFC075	3/4	25	30.5	20.8	26.7	40	15.3	reel
EFC100	1	32	30.5	26.4	33.4	50	23.8	reel
EFC125	1 1/4	40	30.5	35.1	42.2	60	31.6	reel
EFC150	1 1/2	50	15.2	40.0	48.3	70	43.8	reel
EFC200	2	63	15.2	51.3	60.3	85	59.5	reel

For Shureseal™ "Bullet" fittings see pages 259 to 263

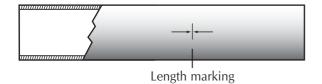


<sup>\*</sup> Standard colour = black, add suffix -1 for orange and -2 for blue to Product Ref. (e.g. EFC025-1 for orange conduit)



# Flexible non-metallic liquidtight conduits Type LTC - smooth outer surface

- UL Type B liquidtight flexible non-metallic conduit, industrial grade
- UL listed (E95745), CSA approved (LL80349)
- Highly flexible, with smooth outer jacket
- UV-resistant and weather-proof
- High chemical resistance
- The smooth inner surface ensures that cables and conductors can be fed through very easily
- Marked lengths (every 1 foot = 30.5 cm) for quick and easy measuring and cutting
- Can be used with plastic or metallic Shureseal™ "Bullet" fittings (see pages 259 to 263)
- Recommended industrial applications include: food processing equipment, extensions from wireways, sensor and microswitch control consoles





### **Technical Information**

Material	PVC				
Colour	Standard: black				
	Can be available in blue* and orange*				
Temperature range	-18°C to +105°C				
	CSA rating: -18°C to +75°C				
	UL rating: -18°C to +105°C (dry)				
	-18°C to +70°C (oil)				
	-18°C to +60°C (wet)				
Voltage rating	600V				
Flammability rating	UL1660				
UL spectifications	Oil resistant: yes				
	Outdoor applications: yes (black				
	version only)				
	Direct burial: yes				
System IP rating	IP65, when correctly installed with				
	Shureseal™ plastic or metallic "Bullet"				
	fittings				

### **Approvals**





LL80349

E9574

### Ordering Information

PRODUCT REF.	Nominal size [inch]	METRIC SIZE [mm]	Length [m]	Internal Diameter [mm]	EXTERNAL DIAMETER [mm]	<b>Wыснт</b> [kg/100 m]
LTC038	3/8	16	30.5	12.3	18.0	19.0
LTC050	1/2	20	30.5	15.8	21.3	22.0
LTC075	3/4	25	30.5	20.8	26.7	27.2
LTC100-TB	1	32	30.5	26.4	33.4	42.3
LTC125-TB	1 1/4	40	30.5	35.1	42.2	56.1
LTC150-TB	1 1/2	50	15.2	40.0	48.3	77.8
LTC200	2	63	15.2	51.3	60.3	105.7

Suitable for use in hazardous location where general purpose equipment is specifically permitted by the NEC Class I Div. 2, Class II, Div. 1 & 2 Class III, Div. 1 & 2, NEC 501-4(b) 502-4(a)(b) 503-3(a)(b).

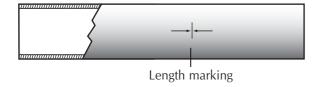
Other lengths can be available - please contact your Sales Office for availability

For Shureseal  $^{\text{TM}}$  "Bullet" fittings, see pages 259 to 263

\* Add suffix to Product Ref. (e.g. LTC050-1 for orange conduit) standard colour = black, -1 = orange, -2 = blue

### Flexible non-metallic liquidtight conduits Type LTC-GY - smooth outer surface

- UL Type B liquidtight flexible non-metallic conduit, commercial grade
- UL listed (E95745), CSA approved (LL80349)
- Highly flexible, with smooth outer jacket
- UV-resistant and weather-proof
- High chemical resistance
- The smooth inner surface ensures that cables and conductors can be fed through very easily
- Can be used with plastic or metallic Shureseal<sup>TM</sup> "Bullet" fittings (see pages 259 to 263)
- Recommended for commercial applications





### **Technical Information**

Material	PVC					
Colour	Grey					
Temperature range	-18°C to +80°C					
	UL rating: -18°C to +80°C (dry)					
	-18°C to +70°C (oil)					
	-18°C to +60°C (wet)					
Voltage rating	600V					
UL spectifications	Oil resistant: yes					
	Outdoor applications: yes					
	Direct burial: yes					
System IP rating	IP65, when correctly installed with					
	Shureseal™ plastic or metallic "Bullet"					
	fittings					

### **Approvals**





LL80349

E9574.

### **Ordering Information**

PRODUCT REF.	Nominal Size	Metric Size	LENGTH	Internal Diameter	External Diameter	WEIGHT
	[inch]	[mm]	[m]	[mm]	[mm]	[kg/100 m]
LTC038GY	3/8	16	30.5	12.3	18.0	19.0
LTC050GY	1/2	20	30.5	15.8	21.3	22.0
LTC075GY	3/4	25	30.5	20.8	26.7	27.2
LTC100GY	1	32	30.5	26.4	33.4	42.3
LTC125GY	1 1/4	40	30.5	35.1	42.2	56.1
LTC150GY	1 1/2	50	15.2	40.0	48.3	77.8
LTC200GY	2	63	15.2	51.3	60.3	105.7

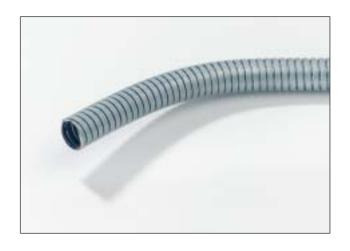
Other lengths can be available – please contact your Sales Office for availability For Shureseal  $^{\text{TM}}$  "Bullet" fittings, see pages 259 to 263



# Ultra-flexible galvanised steel conduits Type UGS - uncovered version

- Highly crush-resistant with an excellent pull off strength
- An economic solution for the protection of cables in industrial and commercial applications where there is flexing, bending or vibration
- Stainless steel grade 316 conduits and fittings are available for specialised applications. Please contact your Sales Office for any specific requirements
- Wide choice of male fittings (fixed or swivel) with PG or metric threads, as well as a space saver version
- Typical applications include amongst others: lighting, security cameras, underfloor wiring, transport and machine-tools





### **Technical Information**

Outer jacket	None
Core	Continuous spiral in galvanised steel
Colour	Metallic
Temperature range	-50°C to +300°C
System IP rating	IP40, when correctly installed
	with Shureflex <sup>TM</sup> fittings

### **Ordering Information**

PRODUCT REF.	Nominal size [mm]	LENGTH	MIN. INNER DIAMETER [mm]	MAX. OUTER DIAMETER [mm]	MIN. BENDING RADIUS [mm]	<b>W</b> EIGHT [kg/100 m]	TYPE OF PACKAGING
UGS1010	10	10	7.0	9.6	20	8.4	box
UGS1030	10	30	7.0	9.6	20	8.4	box
UGS1210	12	10	10.0	12.8	20	12.9	box
UGS1230	12	30	10.0	12.8	20	12.9	box
UGS1610	16	10	12.9	16.1	24	15.6	box
UGS1630	16	30	12.9	16.1	24	15.6	box
UGS2010	20	10	17.0	20.2	32	21.7	box
UGS2030	20	30	17.0	20.2	32	21.7	box
UGS2510	25	10	21.1	24.7	32	27.0	box
UGS2530	25	30	21.1	24.7	32	27.0	box
UGS3210	32	10	28.4	32.0	32	36.0	box
UGS3220	32	20	28.4	32.0	32	36.0	box
UGS4010	40	10	36.4	40.1	44	45.5	box
UGS4020	40	20	36.4	40.1	44	45.5	box
UGS5010	50	10	48.2	53.2	95	98.5	box
UGS5020	50	20	48.2	53.2	95	98.5	box

For T&B Shureflex  $^{\text{TM}}$  fittings see pages 269 and 270

For stainless steel grade 316 conduits please contact your Sales Office

# Ultra-flexible galvanised steel conduits Type PGS - covered version

- Highly crush-resistant with an excellent pull off strength
- Improved IP rating (IP54), compared to the uncovered conduits (special fittings with IP65 rating are also available upon request)
- An economic solution for the protection of cables in industrial and commercial applications where there is flexing, bending or vibration
- Wide choice of male fittings (fixed or swivel) and female fittings (fixed), both with PG or metric threads, as well as a space saver version
- Typical applications include amongst others: lighting, security cameras, underfloor wiring, transport and machine-tools





### **Technical Information**

Outer jacket	Low acid PVC*
Core	Continuous spiral in galvanised steel
Colour	Black
Temperature range	-25°C to +70°C
System IP rating	IP54, (or IP65 **), when correctly
,	installed with Shureflex <sup>™</sup> fittings

- \* Limited Fire Hazard covering available upon request
- \*\* With special fitting, upon request

### **Ordering Information**

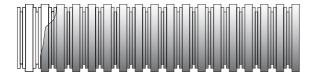
PRODUCT REF.	Nominal size [mm]	LENGTH	MIN. INNER DIAMETER [mm]	MAX. OUTER DIAMETER [mm]	MIN. BENDING RADIUS [mm]	<b>W</b> EIGHT [kg/100 m]	Type of packaging
PGS1010	10	10	7.0	10.3	30	12.5	box*
PGS1030	10	30	7.0	10.3	30	12.5	box*
PGS1210	12	10	10.0	13.8	30	19.8	box*
PGS1230	12	30	10.0	13.8	30	19.8	box*
PGS1610	16	10	12.9	17.1	35	23.1	box*
PGS1630	16	30	12.9	17.1	35	23.1	box*
PGS2010	20	10	17.0	21.2	40	31.4	box*
PGS2030	20	30	17.0	21.2	40	31.4	box*
PGS2510	25	10	21.1	25.7	50	38.5	box*
PGS2530	25	30	21.1	25.7	50	38.5	box*
PGS3210	32	10	28.4	33.0	60	51.7	box*
PGS3220	32	20	28.4	33.0	60	51.7	box*
PGS4010	40	10	36.4	41.1	80	64.4	box*
PGS4020	40	20	36.4	41.1	80	64.4	box*
PGS5010	50	10	48.2	54.9	180	116.0	box*
PGS5020	50	20	48.2	54.9	180	116.0	box*

<sup>\*</sup> Packed in a cardboard box which contains a reel For T&B Shureflex  $^{\rm TM}$  fittings see pages 271 and 272



# Ultra-flexible Nylon conduits Type SG- Standard grade (PA6)

- High performance Polyamide 6
- Standard grade: very flexible and light
- Resistant to fuel, mineral oils, greases and diluted bases
- UL recognised sizes
- To be used with the Shureflex™ Nylon Fittings to provide a watertight system (rated IP66) without the need for any additional accessory
- For the insulation and the mechanical protection of electrical cables in industrial applications, in accordance with EN60204 (Machine Safety)
- Typical applications include: general wiring, machine tools, industrial equipment, control equipment and automotive





### **Technical Information**

Material	Polyamide 6
Colour	Black
Temperature range	-40°C to +105°C
	(intermittent: to +150°C)
Flammability rating	UL 94 V-2 (produced from
	UL 94 V-0 raw material)
System IP rating	IP66, with Shureflex <sup>™</sup> Nylon fittings
	IP68, with Shureflex <sup>™</sup> Nylon fittings
	and additional Shureflex™ washers
	and O-rings
Other properties	Halogen, Phosphor and Cadmium
	free, UV-resistant

### **Approvals**



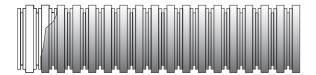
### **Ordering Information**

PRODUCT REF.	Nominal Size	LENGTH	Internal Diameter	External Diameter	MIN. BENDING RADIUS	Type of packaging	
	[mm]	[m]	[mm]	[mm]	[mm]		
NY-SG07-BK50	7	50	6.3	10.0	15	reel	
NY-SG10-BK50	10	50	9.7	13.0	20	reel	
NY-SG12-BK50	12	50	12.2	15.8	30	reel	
NY-SG17-BK50	17	50	16.8	21.2	40	reel	
NY-SG23-BK50	23	50	22.6	28.5	55	reel	
NY-SG29-BK50	29	50	28.3	34.5	65	reel	
NY-SG36-BK50	36	30	36.3	42.5	80	reel	
NY-SG48-BK50	48	30	47.4	54.5	95	reel	

For Shureflex  $^{\text{TM}}$  Nylon Fittings & Accessories: see pages 273 to 278

### Ultra-flexible Nylon conduits Type MG- Medium grade (PA6)

- High performance Polyamide 6
- Medium grade: flexible with increased mechanical strength (crush and impact resistance)
- Resistant to fuel, mineral oils, greases and diluted bases
- UL recognised sizes
- To be used with the Shureflex<sup>™</sup> Nylon Fittings to provide a watertight system (rated IP66) without the need for any additional accessory
- For the insulation and the mechanical protection of electrical cables in industrial applications, in accordance with EN60204 (Machine Safety)
- Typical applications include: machine tools and machinery, industrial equipment, production equipment and railway industry





### **Technical Information**

Material	Polyamide 6
Colour	Black
Temperature range	-40°C to +105°C
	(intermittent: to +150°C)
Flammability rating	UL 94 V-2 (produced from
	UL 94 V-0 raw material)
System IP rating	IP66, with Shureflex™ Nylon fittings
	IP68, with Shureflex™ Nylon fittings
	and additional Shureflex™ washers
	and O-rings
Other properties	Halogen, Phosphor and Cadmium
	free, UV-resistant

### **Approvals**



### Ordering Information

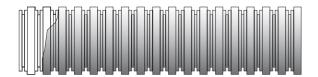
PRODUCT REF.	Nominal size [mm]	LENGTH [m]	INTERNAL DIAMETER [mm]	External Diameter [mm]	MIN. BENDING RADIUS [mm]	Type of Packaging	
NY-MG07-BK50	7	50	6.2	10.0	20	reel	
NY-MG10-BK50	10	50	9.6	13.0	25	reel	
NY-MG12-BK50	12	50	12.0	15.8	35	reel	
NY-MG17-BK50	17	30	16.5	21.2	50	reel	
NY-MG23-BK50	23	30	22.3	28.5	60	reel	
NY-MG29-BK50	29	30	28.2	34.5	70	reel	
NY-MG36-BK50	36	30	36.0	42.5	85	reel	
NY-MG48-BK50	48	30	47.1	54.5	100	reel	

For Shureflex  $^{\text{TM}}$  Nylon Fittings & Accessories: see pages 273 to 278



# Ultra-flexible Nylon conduits Type EG- Extra Flexible grade (PA12)

- High performance Polyamide 12
- Extremely flexible, even at negative temperatures and in very dry atmospheres
- Resistant to fuel, mineral oils, greases and diluted bases
- To be used with the Shureflex<sup>™</sup> Nylon Fittings to provide a watertight system (rated IP66) without the need for any additional accessory
- For the insulation and the mechanical protection of electrical cables in industrial applications, in accordance with EN60204 (Machine Safety)
- Especially recommended for demanding applications requiring repetitive bending and flexing movements, such as robotics, automation, production equipment





### **Technical Information**

Material	Polyamide 12
Colour	Black
Temperature range	-50°C to +90°C
	(intermittent: to +140°C)
Flammability rating	UL 94 HB
System IP rating	IP66, with Shureflex <sup>™</sup> Nylon fittings IP68, with Shureflex <sup>™</sup> Nylon fittings and additional Shureflex <sup>™</sup> washers and O-rings
Other properties	Halogen, Phosphor and Cadmium free, UV-resistant

### **Ordering Information**

PRODUCT REF.	Nominal	LENGTH	Internal	External	MIN. BENDING	TYPE OF
	SIZE		DIAMETER	DIAMETER	RADIUS	PACKAGING
	[mm]	[m]	[mm]	[mm]	[mm]	
NY-EG07-BK50	7	50	6.5	10.0	20	reel
NY-EG10-BK50	10	50	9.5	13.0	25	reel
NY-EG12-BK50	12	50	12.0	15.8	35	reel
NY-EG17-BK50	17	30	16.4	21.2	50	reel
NY-EG23-BK50	23	30	22.6	28.5	60	reel
NY-EG29-BK50	29	30	28.1	34.5	70	reel
NY-EG36-BK50	36	10	36.0	42.5	85	reel
NY-EG48-BK50	48	10	47.5	54.5	100	reel

For Shureflex™ Nylon Fittings & Accessories: see pages 273 to 278

### Flexible conduits

### Material specifications

This chart gives an indication of the capabilities of the Shureseal<sup>TM</sup> liquidtight flexible metallic conduits. It is extremely difficult to provide data on all possible combinations or conditions that can occur.

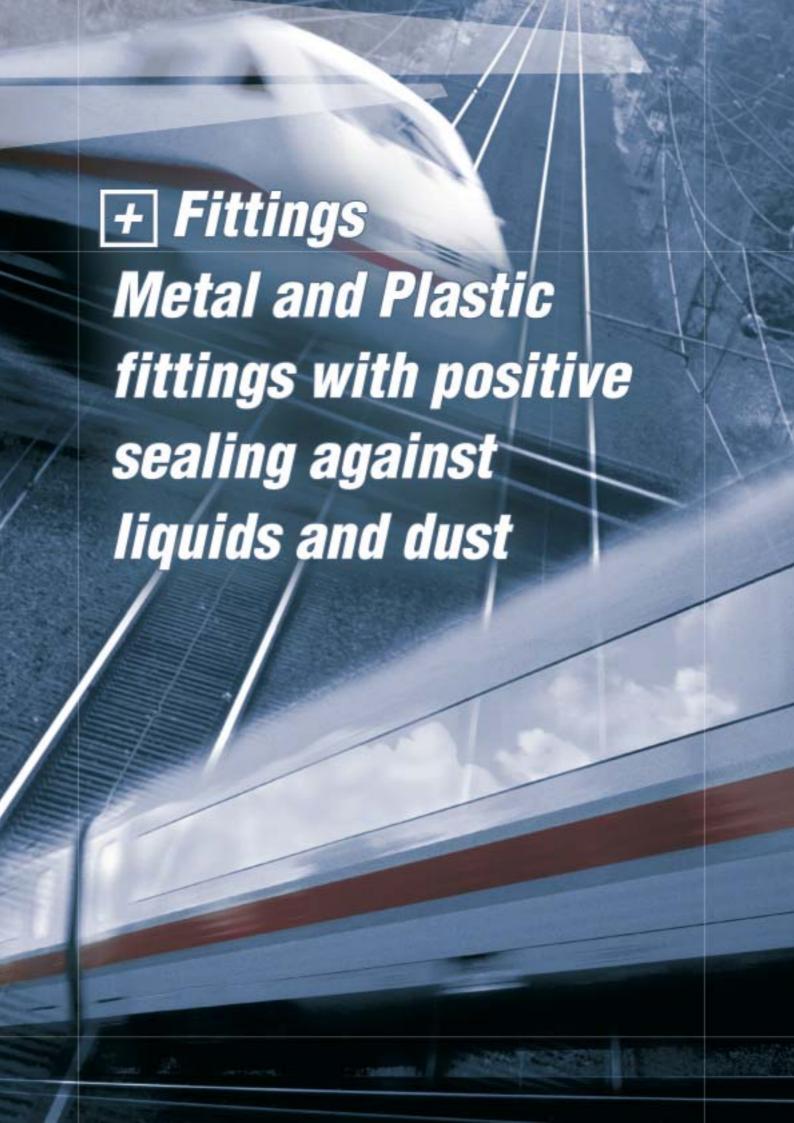
Therefore it is recommended that this information should be used as a guideline and that the conduit should be tested in the intended application by the user, to determine suitability. If you have specific requirements, please contact Technical Support.

### Material specifications table

CHEMICAL	TBEF	TBOR	ТВНС	ТВZН	TBDL	EFC LTC LTC-GY	ТҮРЕА	PGS
OILS AND HYDROCARBONS								
ASTM Oil No 1	Т	T	G	Р	T	G	-	T
ASTM Oil No 2	Т	Т	G	Р	L	_	-	L
ASTM Oil No 3	Т	Т	G	Р	T	L	L	T
Diesel Oil	Т	T	T	T	T	L	L	T
Lubricating Oil	L	L	G	L	L	G	G	L
Paraffin Oil	G	G	T	T	G	G	-	G
Petrol	G	G	L	T	G	_	-	G
Skydrol 500B	Т	Т	G	T	T	_	Р	T
Transformer Oil	Т	Т	T	T	T	_	-	T
Vegetable Oils	T	T	Т	T	T	_	G	T
ORGANIC SOLVENTS								
Acetone	Р	Р	L	Р	Р	Р	Р	Р
Benzene	Р	Р	L	Р	Р	Р	Р	Р
Ethyl Alcohol	Р	Р	L	L	Р	G	L	Р
Ethylene Glycol	L	L	G	T	L	G	G	L
Eteon 12	Т	Т	G	T	T	_	_	T
Methyl Alcohol	Р	Р	G	L	Р	G	L	Р
Methyl Ethyl Ketone	T	T	L	Р	T	Р	Р	T
Toluene 100 %	Р	Р	L	L	Р	Р	Р	Р
Turpentine 100 %	L	L	Т	L	L	L	L	L
White Spirit	Т	T	Т	L	T	_	_	T
ACIDS AND SALTS GIVING ACII	D SOLUTIONS							
Acetic Acid 10 %	G	G	G	T	G	G	G	G
Acetic Acid 20%	L	L	G	Т	L	_	_	L
Hydrochloric Acid 10 %	-	-	_	_	_	-	G	-
Hydrochloric Acid 20 %	L	L	L	Р	L	G	_	L
Hydrochloric Acid 40 %	_	_	-	_	_	-	L	_
Lactic Acid (90%)	Т	Т	T	T	T	Р	-	T
Oxalic Acid	G	G	T	T	G	G	G	G
Zinc Chloride	G	G	G	T	G	G	G	G
BASES AND SALTS GIVING BAS	SIC SOLUTIONS	5						
Aluminium Chloride (10%)	G	G	G	G	G	G	G	G
Sodium Hydroxide (20%)	T	T	G	G	T	G	G	Т
Sodium Hydroxide (45%)	T	T	L	L	T	G	G	T
OTHERS								
Ozone Gas	G	G	T	T	G	-	-	G
Sea Water	G	G	G	G	G	G	G	G

G = Good L = Limited P = Poor

T = No data available likely to have minor effect



# Conduit & Fittings

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# Shureseal TM Liquidtight fittings for

# Liquidtight fittings for flexible metallic conduits

### Product description

A standard fitting assembly is made of 4 pieces:

- 1. A screw body with a nylon throat on the connection side
- 2. The ground cone
- 3. The patented Nylon sealing ring
- 4. A gland nut

In addition, a locknut is supplied with the fittings with NPT thread.

#### **Double Bevelled Sealing Ring**

Unique sealing mechanism to prevent backwards installation. Look for the unique T&B Blue colour, ensuring the highest quality liquidtight product available.

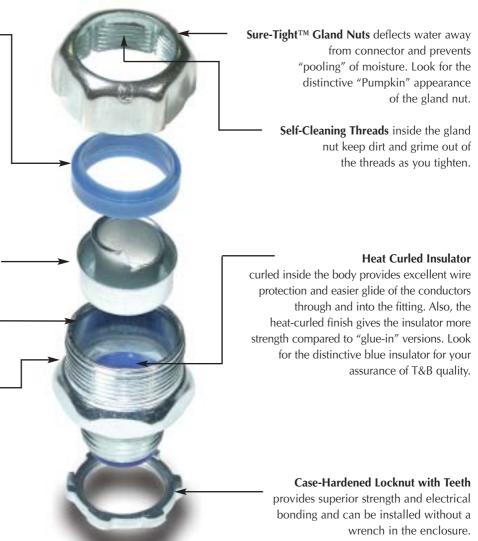
#### Safe Edge<sup>TM</sup> Ground Cone

Provides superior bonding, stronger pullout and easy threading into the conduit core. The electrical continuity is ensured while the rounded edge protects the cable.

**Double Plating** for superior corrosion protection. Zinc plating with clear Chromate finish.

#### **Precision Rolled Threads**

provides smooth, easy installations and is stronger than cut threads. The body is drawn steel for exceptional strength and quality.



## Liquidtight fittings for flexible metallic conduits

#### **Product description**

When correctly installed, the Shureseal™ fittings produce a positive seal against oil, liquids, moisture and dust.

The main features of the assembly include:

- a high resistance to conduit pull-off and a great resistance to vibration from machines
- · an excellent earth continuity
- simplicity of installation: ability to install quickly by hand (or with standard spanners or wrenches, but no special tools are needed)
- the fittings will not damage or distort the flexible conduit.
- the nylon throat bush makes it easier to pull wires through without risk of damage.
- the fittings have a rugged construction and can be disconnected and reused.
- available with N.P.T., Imperial, P.G. and metric (I.S.O.) threads
- excellent IP ratings

The patented ground cone design offers the following advantages:

- it compresses the metallic convolutions of the conduit, providing a high quality ground contact with low impedance and a high conduit pull-off resistance
- the single helical thread on the ground cone is easy to install without cross threading
- it tolerates variations in conduit diameters and convolution pitch
- its rolled-over edge protects the conductors

The patented sealing ring design has the following exclusive features:

- it grips and seals the conduit without damaging the conduit jacket
- its symmetrical shape assures a foolproof assembly
- it ensures a positive seal against oils, liquids, moisture and dust

The range of fittings includes 5 different styles:

- straight version
- 45° version
- 90° version
- "Chase" = compact version for confined spaces, behind panels and boxes
- "Female Hub" version, for connecting flexible conduit direct to rigid conduit and flexible conduits

#### **Approvals**

- C.E.G.B. approved (UK)
- UL listed Liquidtight File No E 23018
- ISO threads per BS 4568
- PG threads per DIN 40430
- Canadian Standard Association:
   File No. 002884, File No. LR 052391, File No. LR 82069

# Easy assembly without the requirement of any special tooling

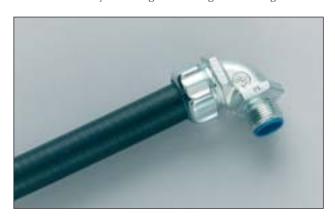
1. Slide the gland nut and the sealing ring onto the conduit



2. Screw the ground cone into the conduit (between the convolutions) as far as possible



3. Screw the body and the gland nut together and tighten





# Liquidtight fittings for flexible metallic conduits General information

- High-performance fittings for Shureseal™ Liquidtight conduits
- Straight, 90° and 45° versions
- Safe and effective installation without any efforts
- The fitting is composed of 4 parts: the threaded body, the zinc plated steel ground cone, the nylon sealing ring and the gland nut ensuring an easy assembly without the need for specific tools
- In addition, a locknut is supplied with the fittings with NPT thread
- The steel ground cone which is screwed into the conduit ensures an excellent earthing continuity and pull-off strength, as well as a very good resistance against vibrations
- Re-useable and independent replacement parts
- Special fittings (HT series) rated at 150°C are available for high temperature applications please contact your Sales Office for product availability

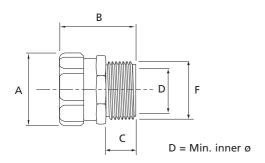
### **Approvals**

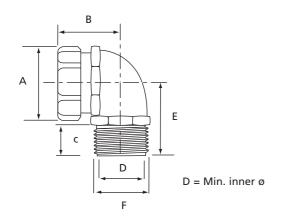




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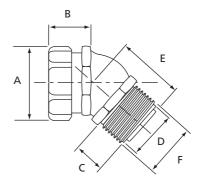






### **Technical Information**

Conduit type	Shureseal™ flexible metallic conduit
Style	Straight, 90° and 45°
Thread	NPT, Metric (I.S.O.), PG and Imperial
IP rating	IP67
Material	Galvanised steel chromate finish
Inner sleeve and	Polyamide
sealing ring	
Colour	Metallic



D = Min. inner ø

Liquidtight fittings for flexible metallic conduits Straight fittings





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### **Ordering Information**

PRODUCT REF.	FOR CONDUIT SIZE		THREAD		I	DIMENSION	s		WEIGHT	QUANTITY
			SIZE	Α	В	C	D	F		
	[inch]	[mm]		[mm]	[mm]	[mm]	[mm]	[mm]	[kg/100]	[pieces]
STRAIGHT FITTI	NG WITH MI	ETRIC (I.S.C	).) THREAD							
9306*	5/16	12	M16	22	36	12	10.0	16.0	5.1	25
9307	<sup>5</sup> /16	12	M20	22	36	12	10.0	20.0	5.1	25
9330*	1/4	10	M16	22	36	12	6.0	16.0	3.5	25
9331*	1/4	10	M20	22	36	12	6.0	20.0	3.5	25
9360	3/8	16	M16	29	40	16	11.0	16.0	6.3	25
9361	3/8	16	M20	29	40	16	11.0	20.0	6.3	25
9362	1/2	20	M20	35	42	16	14.5	20.0	8.1	25
9363	3/4	25	M25	42	45	16	20.0	25.0	12.6	25
9364	1	32	M32	47	54	15	25.0	32.0	23.0	5
STRAIGHT FITTI	NG WITH PG	THREAD								
7329	1/4	10	PG 7	12	23	6	5.6	12.2	2.2	25
7330*	1/4	10	PG 9	21	36	12	6.0	15.2	3.5	25
7360*	5/16	12	PG 9	26	36	12	10.0	15.2	5.1	25
7361	3/8	16	PG 11	29	40	14	11.0	18.6	6.3	25
7362	3/8	16	PG 13.5	29	40	14	11.0	20.4	6.3	25
7363	1/2	20	PG 16	35	41	14	14.5	22.5	8.1	25
7364	3/4	25	PG 21	42	43	14	20.0	28.3	12.6	25
7365	1	32	PG 29	47	56	19	25.0	37.0	23.0	5
7366	1 1/4	40	PG 36	58	67	21	33.5	47.0	41.4	5
7367	1 1/2	50	PG 42	69	72	21	38.5	54.0	47.3	2
7368	2	63	PG 48	83	81	21	49.5	59.3	72.0	1
STRAIGHT FITTI	NG WITH NP	T THREAD	(SUPPLIED WI	TH LOCKNU	JT)					
5229**	1/4	10	1/4"	21	35	12	6.0	_	3.5	25
5330**	5/16	12	3/8"	25	35	12	10.0	_	5.1	25
5331	3/8	16	1/2"	29	38	14	11.0	_	6.3	25
5332	1/2	20	1/2"	35	40	14	14.5	_	8.1	25
5333	3/4	25	3/4"	42	41	14	20.0	_	12.6	25
5334-TB	1	32	1"	48	52	19	25.0	_	23.0	10
5335	1 1/4	40	1 1/4"	58	64	21	33.5	_	41.4	5
5336	1 1/2	50	1 1/2"	69	68	21	38.5	-	47.3	2
5337	2	63	2"	83	78	22	49.5	-	72.0	5
5338	2 1/2	75	2 1/2"	95	105	25	61.0	-	135.5	5
5339	3	90	3"	114	108	25	75.0	_	168.8	5
5340	4	115	4"	140	114	29	99.0	_	275.4	1
STRAIGHT FITTI	NG WITH IM	PERIAL TH	READ							
6365	1 1/4	40	1 1/2"	58	64	21	33.5	_	41.4	5
6366	1 1/2	50	2"	69	68	21	38.5	_	47.3	2
6367	2	63	2 1/2"	83	78	22	49.5	_	72.0	5

<sup>\*</sup> The products with a \* are not UL/CSA approved

<sup>\*\*</sup> The products with a \*\* are not UL/CSA approved and are supplied without locknut See pages 248 to 250 for product description and technical information



# 4.2

## **Shureseal** TM

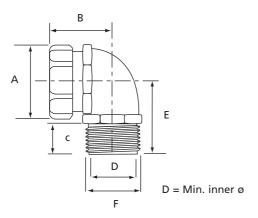
Liquidtight fittings for flexible metallic conduits 90° fittings





E23018

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### **Ordering Information**

PRODUCT REF.	For conduit size		THREAD		Г	DIMENSION	IS			WEIGHT	QUANTITY
			SIZE	Α	В	C	D	E	F		
	[inch]	[mm]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg/100]	[pieces]
90° FITTING WITH METRIC (I.S.O.) THREAD											
9350	3/8	16	M16	28	35	16	10.1	34	16.0	12.6	25
9351	3/8	16	M20	28	35	16	10.1	34	20.0	12.6	25
9352-TB	1/2	20	M20	34	39	16	14.5	34	20.0	14.4	25
9353-TB	3/4	25	M25	42	43	16	20.0	38	25.0	20.2	10
9354-TB	1	32	M32	47	48	23	25.0	43	32.0	30.6	5
90° FITTING W	ITH PG THR	EAD									
7351	3/8	16	PG 11	29	37	14	11.0	33	18.6	12.6	25
7352	3/8	16	PG 13.5	29	37	14	11.0	33	20.4	12.6	25
7353	1/2	20	PG 16	35	40	14	14.5	37	22.5	14.4	25
7354	3/4	25	PG 21	42	44	14	20.0	39	28.3	20.2	5
7355	1	32	PG 29	47	56	21	25.0	48	37.0	30.6	5
7356	1 1/4	40	PG 36	58	70	21	33.5	56	47.0	54.0	5
7357	1 1/2	50	PG 42	69	75	21	38.5	61	54.0	72.0	2
7358	2	63	PG 48	83	87	24	49.5	66	59.3	103.5	1
90° FITTING W	ITH NPT TH	READ (SUPP	LIED WITH LO	OCKNUT)							
5351	3/8	16	1/2"	29	35	14	11.0	33	-	12.6	25
5352	1/2	20	1/2"	35	40	14	14.5	37	-	14.4	25
5353	3/4	25	3/4"	42	45	14	20.0	39	-	20.2	10
5354	1	32	1″	48	56	19	25.0	48	_	30.6	5
5355	1 1/4	40	1 1/4"	58	70	21	33.5	56	-	54.0	5
5356	1 1/2	50	1 1/2"	69	75	21	38.5	61	-	72.0	5
5357	2	63	2"	83	287	22	49.5	66	_	103.5	2
5358	2 1/2	75	2 1/2"	95	225	25	61.0	149	-	270.0	1
5359	3	90	3"	114	260	25	75.0	219	_	393.8	1
5360	4	115	4"	140	321	29	99.0	299	-	551.0	1
90° FITTING W	ITH IMPERIA	AL THREAD									
6355	1 1/4	40	1 1/2"	58	64	21	33.5	56	-	54.0	5

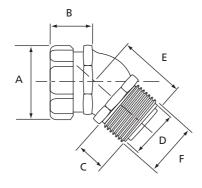
See pages 248 to 250 for product description and technical information

Liquidtight fittings for flexible metallic conduits 45° fittings













### **Ordering Information**

PRODUCT REF.	PRODUCT REF. FOR CONDUIT SIZE		THREAD			DIMENS	IONS			WEIGHT	QUANTITY
			SIZE	Α	В	C	D	E	F		
	[inch]	[mm]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg/100]	[pieces]
45° FITTING WIT	H METRIC (I	S O ) THE	DEAD								
9340	3/8	. <b>3.0.</b> ) THI	M16	28	35	16	10.1	34	16.0	12.6	25
9340	3/8	16	M20	28	35	16	10.1	34	20.0	12.6	25
9342	1/2	20	M20	34	39	16	14.5	34	20.0	14.4	25
9343-TB	3/4	25	M25	42	43	16	20.0	38	25.0	20.2	10
9344	1	32	M32	47	48	23	25.0	43	32.0	30.6	5
45° FITTING WIT	-		11132	.,,	10	23	25.0	13	32.0	30.0	<u> </u>
7341	3/8	16	PG 11	29	37	14	11.0	33	18.6	12.6	25
7342	3/8	16	PG 13.5	29	37	14	11.0	33	20.4	12.6	25
7343	1/2	20	PG 16	35	40	14	14.5	37	22.5	14.4	25
7344-TB	3/4	25	PG 21	42	44	14	20.0	39	28.3	20.2	5
7345	1	32	PG 29	47	56	21	25.0	48	37.0	30.6	5
7346	1 1/4	40	PG 36	58	70	21	33.5	56	47.0	54.0	5
7347	1 1/2	50	PG 42	69	75	21	38.5	61	54.0	72.0	2
7348-TB	2	63	PG 48	83	87	24	49.5	66	59.3	103.5	1
45° FITTING WIT	H NPT THRE	AD (SUPF	LIED WITH LO	OCKNUT)							
5341	3/8	16	1/2"	29	35	14	11.0	33	-	12.6	25
5342	1/2	20	1/2"	35	40	14	14.5	37	_	14.4	25
5343	3/4	25	3/4"	42	45	14	20.0	39	_	20.2	10
5344	1	32	1"	48	56	19	25.0	48	_	30.6	5
5345	1 1/4	40	1 1/4"	58	70	21	33.5	56	-	54.0	5
5346	1 1/2	50	1 1/2"	69	75	21	38.5	61	-	72.0	2
5347	2	63	2"	83	287	22	49.5	66	_	103.5	1
5348*	2 1/2	75	2 1/2"	95	225	25	61.0	149	_	270.0	1
5349*	3	90	3"	114	260	25	75.0	219	_	393.8	1
5350*	4	115	4"	140	321	29	99.0	299	_	551.0	1
45° FITTING WIT	H IMPERIAL	THREAD									
6346	1 1/2	50	2"	69	68	21	38.5	61	-	72.0	2

 $<sup>^{*}</sup>$  The Product Ref. with a  $^{*}$  are not UL/CSA approved See pages 248 to 250 for product description and technical information

# Liquidtight fittings for flexible metallic conduits

### "Chase" fittings, straight or right-angled

- High-performance fittings for Shureseal<sup>™</sup> liquidtight conduits
- Special compact version (CHASE) for space-saving assembly, thanks to the male nipple (supplied with the fitting) that can be screwed into the female thread of the body
- Safe and effective installation without any efforts
- The fitting is composed of 6 parts: the threaded body, the steel ground cone, the nylon sealing ring, the gland nut, the sealing washer and a male nipple, ensuring an easy assembly without the need for specific tools
- The steel ground cone which is screwed into the conduit ensures an excellent earthing continuity and pull-off strength, as well as a very good resistance against vibrations
- Re-useable and independent replacement parts



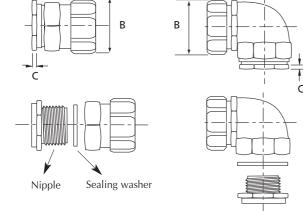
### **Technical Information**

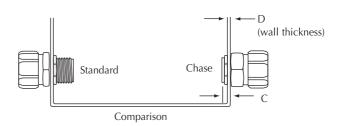
Conduit type	Shureseal <sup>TM</sup> flexible metallic conduit						
Style/thread	Straight or right angled, NPT threads						
System IP rating	IP67						
Material	Zinc plated steel						
Insulation throat and	Polyamide						
sealing ring							
Colour	Metallic						

### **Approvals**







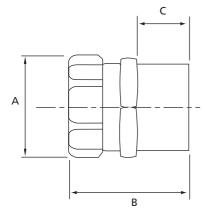


### **Ordering Information**

PRODUCT REF.	FOR CO	ONDUIT		DIMENSION	2	FOR WALL THICKNESS	Installation hole	WEIGHT	QUANTITY	
I RODUCT KEI.	SIZE		Α	B	, C	(D) UP TO	DIAMETER	WEIGH	QUANTITY	
	[inch]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg/100]	[pieces]	
STRAIGHT CHA	SE FITTING	- (SUPPLIE	D WITH M	ALE NIPPLE	AND SE	ALING WASHER)				
5361	3/8	16	35	30	3.2	5	22.2	8.1	25	
5362	1/2	20	35	36	4.7	5	22.2	9.9	25	
5363	3/4	25	41	44	6.3	8	27.8	15.4	25	
5364	1	32	52	50	6.3	10	33.3	29.0	10	
5365	1 1/4	40	60	69	7.9	12	44.5	58.0	5	
5366	1 1/2	50	69	75	9.5	13	50.8	68.0	2	
5367	2	63	76	88	9.5	15	63.5	99.7	1	
5368	2 1/2	75	100	107	11.1	15	76.2	199.4	1	
5369	3	90	105	125	17.2	17	92.1	253.7	1	
5370	4	115	111	155	19.0	19	117.5	407.7	1	
90° CHASE FIT	TING - (SUPF	PLIED WITH	MALE NIP	PLE AND SE	ALING W	/ASHER)				
5371	3/8	16	38	30	3.2	5	22.2	8.1	25	
5372	1/2	20	37	36	4.7	5	22.2	9.9	25	
5373	3/4	25	48	44	6.3	8	27.8	18.1	10	
5374	1	32	57	50	6.3	10	33.3	30.8	5	

# Liquidtight fittings for flexible metallic conduits Female hub and adaptor fittings

- High-performance special type fittings for Shureseal<sup>™</sup> Liquidtight conduit
- Special type hub fitting with female (internal) thread for connecting flexible conduits to rigid conduits or for connecting 2 flexible conduits together (using male fittings)
- Special type adaptor fitting with female (internal) thread for connecting flexible conduits to AN-MS connector shells (such as MIL-C-5015 connectors and accessories)
- Safe and effective installation without any efforts
- The fitting is composed of 4 parts: the threaded body, the zinc plated steel ground cone, the nylon sealing ring and the gland nut ensuring an easy assembly without the need for specific tools
- The steel ground cone which is screwed into the conduit ensures an excellent earthing continuity and pull-off strength, as well as a very good resistance against vibrations
- Re-useable and independent replacement parts





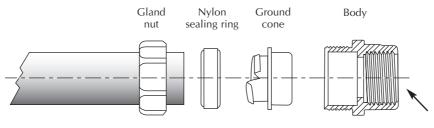
### **Technical Information**

Conduit type	Shureseal <sup>TM</sup> flexible metallic conduits
Style	Straight
Thread	NPT, metric (I.S.O.) and
	UNEF female threads
System IP rating	IP67
Material	Zinc plated steel
Insulation throat and	Polyamide
sealing ring	
Colour	Metallic

### **Approvals**







Female thread ISO or NPT or UNEF2-B



# **Shureseal** TM

Liquidtight fittings for flexible metallic conduits
Female hub and adaptor fittings

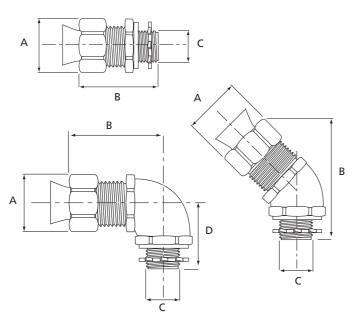
### Ordering Information

PRODUCT REF.	For co	ONDUIT	Inner A	N-MS CONNECTOR		DIMENSIONS		WEIGHT	QUANTITY	
	SI	ZE	THREAD	SHELL SIZE	Α	В	C			
	[inch]	[mm]			[mm]	[mm]	[mm]	[kg/100]	[pieces]	
STRAIGHT FEN	MALE HUB	FITTING W	ITH METRIC (I.S.O.) TI	HREAD						
9270	3/8	16	M16	_	28	40	15	7.0	25	
9271	3/8	16	M20	-	30	40	15	7.2	25	
9272	1/2	20	M20	-	34	43	15	10.0	25	
9273	3/4	25	M25	-	42	45	15	14.5	25	
9274	1	32	M32	_	47	54	15	19.0	5	
STRAIGHT FEM	MALE HUB	FITTING W	ITH NPT THREAD							
5271	3/8	16	1/2"	-	25	40	15	7.2	25	
5272	1/2	20	1/2"	-	32	43	15	10.0	25	
5273	3/4	25	3/4"	-	38	44	15	14.5	25	
5274	1	32	1"	-	44	54	20	19.0	10	
5275	1 1/4	40	1 1/4"	-	58	64	20	32.6	5	
5276	1 1/2	50	1 1/2"	-	70	68	20	54.4	5	
5277	2	63	2"	-	88	78	25	72.5	5	
STRAIGHT AD	APTORS FI	TTING WIT	H UNEF THREAD							
LTA03810	3/8	16	<sup>5</sup> /8" - 24 UNEF-2B	10SL, 12, 12S	25.4	11.9	-	6.8	25	
LTA03814	3/8	16	3/4" - 20 UNEF-2B	14, 14S	25.4	11.9	-	7.3	25	
LTA05014	1/2	20	3/4" - 20 UNEF-2B	14, 14S	31.8	23.8	-	8.7	25	
LTA05016	1/2	20	<sup>7</sup> /8" - 20 UNEF-2B	16, 16S	31.8	23.8	-	8.7	25	
LTA05018	1/2	20	1" - 20 UNEF-2B	18	31.8	23.8	-	8.7	25	
LTA07516	3/4	25	<sup>7</sup> /8" - 20 UNEF-2B	16, 16S	38.1	27.0	-	13.6	25	
LTA07518	3/4	25	1" - 20 UNEF-2B	18	38.1	27.0	-	13.6	25	
LTA07520	3/4	25	<sup>13</sup> / <sub>16</sub> " - 18 UNEF-2B	20, 22	38.1	27.0	_	13.6	25	
LTA10020	1	32	<sup>13</sup> / <sub>16</sub> " - 18 UNEF-2B	20, 22	43.7	44.5	-	21.0	10	
LTA10024	1	32	<sup>17</sup> / <sub>16</sub> " - 18 UNEF-2B	25, 28	43.7	44.5	_	21.0	10	

### Liquidtight fittings for non-metallic conduits

#### Type TYPEA - metallic fittings

- Easy installation
- Inner polyamide sleeve for protection of conductors
- Liquid- and dust-tight in accordance with IP66
- High mechanical stability (high retention)
- Supplied with locknut and sealing washer





#### **Technical Information**

Conduit type	Shureseal <sup>TM</sup> conduit type TYPEA
Style/thread	Straight, 45°, 90°, NPT thread
System IP rating	IP66
Material	Galvanised steel, chromate finish
Connecting sleeve and	Polyamide 6.6
internal insulation	
Colour	Metallic

#### **Approvals**



PRODUCT REF.	For co	ONDUIT	THREAD		DIMEN	NSIONS		WEIGHT	QUANTITY
	SIZ	ZE	SIZE	Α	В	C	D		
	[inch]	[mm]	[inch]	[mm]	[mm]	[mm]	[mm]	[kg/100]	[pieces]
STRAIGHT FITTI	ING WITH N	IDT TUDEAD	CLIDDLIED WIT	HIOCKNIII	CAND CEALIN	C MACHED			
3720-TB*	3/8	16	1/2	29.4	51.0	12.0	_	8.2	25
3721-TB	1/2	20	1/2	34.9	54.0	16.0		9.1	25
3721-TB 3722-TB	3/4	25	3/4	41.3	57.2	21.0		13.6	25
3723	1	32	1	47.6	63.5	26.0		23.6	10
3724-TB	1 1/4	40	1 <sup>1</sup> / <sub>4</sub>	60.3	76.2	35.0	_	40.0	5
3725	1 1/2	50	1 1/2	69.9	85.7	41.0	_	59.0	2
3726	2	63	2	89.7	92.1	50.0	_	118.0	1
45° FITTING WI	TH NPT THE	READ (SUPPLI	ED WITH LOCI	(NUT AND	SEALING WAS	SHER)			
3730-TB*	3/8	16	1/2	29.4	51.6	12.0	_	5.4	25
3731-TB	1/2	20	1/2	34.9	65.1	16.0	-	8.2	25
3732	3/4	25	3/4	41.3	76.2	21.0	-	20.8	10
3733-TB	1	32	1	47.6	88.9	26.0	_	31.2	5
3734-TB	1 1/4	40	1 1/4	60.3	104.8	35.0	_	54.4	5
3735-TB	1 1/2	50	1 <sup>1</sup> / <sub>2</sub>	69.9	123.8	41.0	-	77.0	2
90° FITTING WI	TH NPT THR	READ (SUPPLI	ED WITH LOC	KNUT AND	SEALING WAS	HER)			
3740*	3/8	16	1/2	29.4	41.3	12.0	33.3	5.0	25
3741	1/2	20	1/2	34.9	44.5	16.0	35.7	7.7	25
3742	3/4	25	3/4	41.3	57.2	21.0	39.7	22.6	10
3743-TB	1	32	1	47.6	65.1	26.0	47.6	30.7	5
3744-TB	1 1/4	40	1 1/4	60.3	82.6	35.0	57.2	54.4	5
3745	1 1/2	50	1 1/2	69.9	88.9	41.0	60.3	77.0	2
3746-TB	2	63	2	89.7	104.8	53.2	73.0	145.0	1

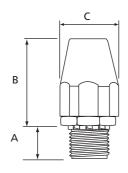
<sup>\*</sup> The Product Ref. with a \* are not UL approved

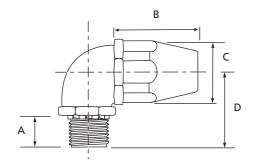


### Liquidtight fittings for non-metallic conduits

### Type TYPEA - plastic fittings

- Easy installation
- High strength, chemical resistant, non-burning, non dripping thermoplastic construction
- Smooth insulated body throughout for maximum dielectric strength
- Ideal for corrosion resistant applications
- Liquid- and dust-tight in accordance with IP66
- Serrated design provides high mechanical pullout strength
- Supplied with steel locknut and sealing 'O' ring





#### **Technical Information**

Shureseal™ conduit type TYPEA
Straight, 90° / NPT
IP66
Body: thermoplastic
Gland nut: thermoplastic
'O' Ring: Neoprene
Locknut: Steel, case hardened and zinc
plated
Blue
UL 94 V-0

#### **Approvals**

<b>MEETS</b>
<b>COAST</b>
<b>GUARD</b>



CG293

E23018

PRODUCT REF.	For co	ONDUIT	THREAD		DIMEN	NSIONS		QUANTITY
	SI	ZE	SIZE	Α	В	C	D	
	[inch]	[mm]	[inch]	[mm]	[mm]	[mm]	[mm]	[pieces]
STRAIGHT PLAST	TIC FITTING V	VITH NPT THE	READ (SUPPLIED V	VITH LOCKNUT	AND SEALING '	O' RING)		
6302	1/2	20	1/2	37.6	57.9	14.5	_	20
6303	3/4	25	3/4	44.7	62.5	19.1	_	10
6304	1	32	1	53.3	67.6	24.4	-	5
6305	1 1/4	40	1 1/4	67.8	78.5	32.0	_	5
90° PLASTIC FITT	ING WITH N	PT THREAD (S	SUPPLIED WITH LO	OCKNUT AND S	EALING 'O' RIN	G)		
6322	1/2	20	1/2	37.6	39.6	14.5	39.9	10
6323	3/4	25	3/4	44.7	44.2	19.1	43.4	10
6324	1	32	1	53.3	45.2	24.4	50.8	5
6325	1 1/4	40	1 1/4	67.8	54.1	32.0	61.2	5

### Liquidtight fittings for non-metallic conduits - Type EFC / LTC / LTC-GY plastic Bullet fittings

- Liquid-tight, dust-tight and oil-resistant
- Thomas & Betts patented quick connecting feature designed to prevent unlocking
- The spiral-shaped EFC conduit coil locks into fitting
- No loose pieces secure against vibration
- Supplied with sealing washer (O ring)
- Fittings with NPT threads are supplied with locknut

#### **Technical Information**

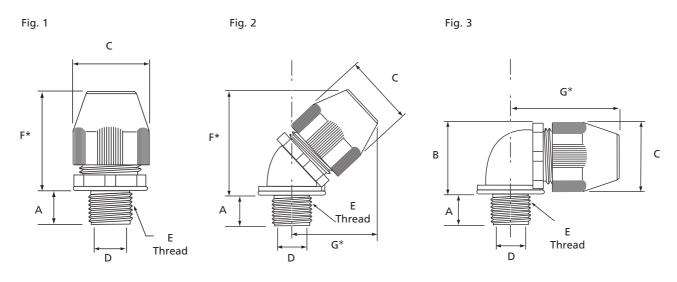
Complete true	Characacal TM considerit to up o
Conduit type	Shureseal™ conduit type
	EFC / LTC / LTC-GY
Style/thread	Straight, 45°, 90°, NPT and
	metric (I.S.O.) threads
System IP rating	IP65
Material	UV-resistant thermoplastic
Locknut	Zinc plated steel
Sealing washer	Nitryl
Colour	Black
Temperature range	-45°C to +105°C
Flammability rating	Self-extinguishing according
	to UL 94 V-2



### **Approvals**







<sup>\*</sup> Variable dimensions

## 4.2

### **Shureseal**™

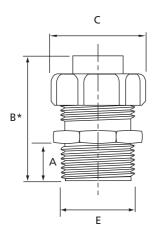
Liquidtight fittings for non-metallic conduits - Type EFC / LTC / LTC-GY plastic Bullet fittings

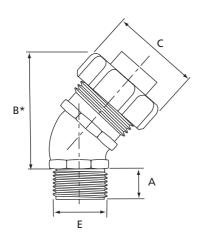
PRODUCT REF.	For c	CONDUIT	THREAD SIZE		DIMENSIO	NS	D MIN. THROAT	F*	G*	WEIGHT	QUANTITY
	:	SIZE	E	Α	В	C	DIAMETER	APPROX.	APPROX.		
	[inch]	[mm]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[g/100]	[pieces]
STRAIGHT FITT	ING WITH	METRIC (	I.S.O.) THREAD	- FIG.1							
LT38P-ISO20	3/8	16	M20	14.5	-	34.4	10.6	40.5	-	3.9	20
LT50P-ISO20	1/2	20	M20	14.5	_	36.8	14.0	41.6	-	4.1	20
LT75P-ISO25	3/4	25	M25	14.8	_	44.2	18.8	44.6	_	6.3	10
STRAIGHT FITTING WITH NPT THREAD (SUPPLIED WITH LOCKNUT) - FIG.1											
LT38P	3/8	16	1/2"	14.5	-	34.4	10.6	40.5	-	3.9	20
LT50P	1/2	20	1/2"	14.5		36.8	14.0	41.6	-	4.1	20
LT75P	3/4	25	3/4"	14.8	-	44.2	18.8	44.6	_	6.3	10
LT100P	1	32	1″	18.4	_	52.5	23.9	48.8	_	9.9	5
LT125P	1 1/4	40	1 1/4"	19.1	_	63.4	31.9	55.0	-	15.2	5
LT150P	1 1/2	50	1 1/2"	19.5	_	70.7	36.9	59.8	_	21.3	2
LT200P	2	63	2"	20.2	_	85.4	47.8	66.2	_	34.0	1
90° FITTING W	ITH METRI	C (I.S.O.) 1	HREAD - FIG.3								
LT938P-ISO20	3/8	16	M20	14.5	35.0	34.4	10.6	_	47.8	4.9	20
LT950P-ISO20	1/2	20	M20	14.5	37.8	36.8	14.0	_	50.4	4.9	20
LT975P-ISO25	3/4	25	M25	14.8	45.5	44.2	18.8	_	56.0	7.8	10
90° FITTING W	ITH NPT TI	HREAD (SU	JPPLIED WITH L	OCKNU	T) - FIG.3						
LT938P	3/8	16	1/2"	14.5	35.0	34.4	10.6	_	47.8	4.9	10
LT950P	1/2	20	1/2"	14.5	37.8	36.8	14.0	_	50.4	4.9	10
LT975P	3/4	25	3/4"	14.8	45.5	44.2	18.8	_	56.2	7.8	10
LT9100P	1	32	1"	18.4	53.4	44.2	23.9	_	63.7	12.6	5
LT9125P	1 1/4	40	1 1/4"	19.1	65.1	52.5	31.9	_	72.5	21.3	2
LT9150P	1 1/2	50	1 1/2"	19.5	72.5	63.4	36.9	_	79.9	36.3	2
LT9200P	2	63	2"	20.2	87.2	70.7	47.8	_	93.3	40.8	1
45° FITTING W	ITH NPT TI	HREAD (SL	JPPLIED WTH LO	OCKNUT	) - FIG.2						
LT438P	3/8	16	1/2"	14.5	_	34.4	10.6	39.0	35.1	4.8	20
LT450P	1/2	20	1/2"	14.5	_	36.8	14.0	40.4	37.8	5.0	20
LT475P	3/4	25	3/4"	14.8	-	44.2	18.8	46.3	45.5	7.4	10
LT4100P	1	32	1"	18.4	-	52.5	23.9	51.7	53.4	11.7	5
LT4125P	1 1/4	40	1 1/4"	19.0	_	43.4	31.9	60.6	65.1	20.9	5
LT4150P	1 1/2	50	1 1/2"	19.5	_	70.7	36.9	66.1	72.5	24.7	2
LT4200P	2	63	2"	20.2	_	85.4	47.8	77.5	87.2	38.1	1

 $<sup>\</sup>ast$  Dimensions F and G are after assembly (approx.)

### Liquidtight fittings for non-metallic conduits - Type EFC / LTC / LTC-GY metallic Bullet fittings

- Metallic fitting, designed for type EFC / LTC / LTC-GY flexible plastic conduit
- Robust construction, ideal for demanding applications like in the railway industry (can be used with other kind of conduits and hoses commonly used in the railway industry, such as textile inserted rubber hoses,...)
- Liquid-tight, dust-tight and oil-resistant
- Thomas & Betts patented quick connecting feature designed to prevent unlocking
- Separate rotating attachment for easy fitting of conduit
- Spiral-shaped EFC conduit coil locks into fitting
- No loose pieces secure against vibration
- Delivered with locknut







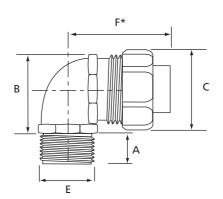
#### **Technical Information**

Conduit type	Shureseal™ conduit type
	EFC / LTC / LTC-GY
Style/thread	Straight, 45°, 90°, NPT and
	Metric (I.S.O.) threads
System IP rating	IP65
Material	Body: zinc plated steel
	Gland nut: zinc steel
	Insert: nylon
Colour	Metallic

#### **Approvals**







## 4.2

### **Shureseal**™

Liquidtight fittings for non-metallic conduits - Type EFC / LTC / LTC-GY metallic Bullet fittings

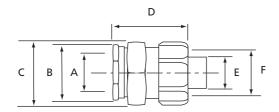
### **Ordering Information**

PRODUCT REF.	For co	ONDUIT	THREAD SIZE		DIMEN	ISIONS		WEIGHT	QUANTITY
	SI	ZE	E	Α	В	C	F		
	[inch]	[mm]		[mm]	[mm]	[mm]	[mm]	[kg/100]	[pieces]
STRAIGHT FITTIN	G WITH ME	TRIC (I.S.O)	THREAD - FIG.1						
LT38M-ISO20	3/8	16	M20	14.3	38.1(*)	29.4	_	5.8	25
LT50M-ISO20	1/2	20	M20	14.3	39.7(*)	34.9	_	7.7	25
LT75M-ISO25	3/4	25	M25	15.9	41.2(*)	42.1	-	10.9	25
STRAIGHT FITTIN	G WITH NPT	THREAD -	FIG.1						
LT38M	3/8	16	3/8"	14.3	38.1(*)	29.4	_	5.8	25
LT50M	1/2	20	1/2"	14.3	39.7(*)	34.9	_	7.7	25
LT75M	3/4	25	3/4"	15.9	41.2(*)	42.1	_	10.9	25
LT100M	1	32	1″	19.0	52.4(*)	47.6	_	16.1	10
LT125M	1 1/4	40	1 1/4"	20.6	63.5(*)	60.3	_	28.9	5
LT150M	1 <sup>1</sup> / <sub>2</sub>	50	1 1/2"	20.6	68.2(*)	69.8		46.7	2
LT200M	2	63	2"	20.6	77.8(*)	88.1	-	69.9	1
90° FITTING WITH	I METRIC (I.	S.O) THREA	D - FIG.3						
LT938M-ISO20	3/8	16	M20	15.9	33.3	29.4	34.9(*)	9.4	25
LT950M-ISO20	1/2	20	M20	15.9	36.5	34.9	39.7(*)	13.2	25
LT975M-ISO25	3/4	25	M25	15.9	44.4	42.1	44.4(*)	18.1	25
90° FITTING WITH	NPT THRE	AD - FIG.3							
LT938M	3/8	16	3/8"	15.9	33.3	29.4	34.9(*)	9.4	25
LT950M	1/2	20	1/2"	15.9	36.5	34.9	39.7(*)	13.2	25
LT975M	3/4	25	3/4"	15.9	44.4	42.1	44.4(*)	18.1	25
LT9100M	1	32	1"	20.6	49.2	47.6	55.5(*)	30.2	10
LT9125M	1 1/4	40	1 1/4"	20.6	63.5	60.3	69.8(*)	55.7	5
LT9150M	1 1/2	50	1 1/2"	20.6	71.4	69.8	74.6(*)	76.4	2
LT9200M	2	63	2"	22.2	88.9	88.1	87.3(*)	116.6	1
45° FITTING WITH	I METRIC (I.	S.O) THREA	D - FIG.2						
LT438M-ISO20	3/8	16	M20	14.3	49.8(*)	29.4	-	7.7	25
LT450M-ISO20	1/2	20	M20	14.3	47.6(*)	34.9	-	14.2	25
45° FITTING WITH	NPT THRE	AD - FIG.2							
LT438M	3/8	16	3/8"	14.3	49.8(*)	29.4	-	7.7	25
LT450M	1/2	20	1/2"	14.3	47.6(*)	34.9	_	14.2	25
LT475M	3/4	25	3/4"	14.3	54.0(*)	42.1	_	18.6	10
LT4100M	1	32	1"	20.6	57.1(*)	47.6	_	25.5	5
LT4125M	1 1/4	40	1 1/4"	20.6	69.8(*)	60.3	_	49.6	5
LT4150M	1 1/2	50	1 1/2"	20.6	69.8(*)	69.8	_	68.0	2
LT4200M	2	63	2"	22.2	98.4(*)	88.1	_	99.8	1

Note: dimensions shown with a (\*) are after assembly (approx.)

### Liquidtight fittings for non-metallic conduits - Type EFC / LTC / LTC-GY metallic Bullet, Chase version

- Metallic fitting, designed for type EFC / LTC / LTC-GY flexible plastic conduit
  - Special version (Chase) for space saving assembly, thanks to the male nipple that can be screwed into the female thread of the body
- Liquid-tight, dust-tight and oil-resistant
- Robust construction, ideal for demanding applications like in the railway industry (can be used with other kind of conduits and hoses commonly used in the railway industry, such as textile inserted rubber hoses,...)
- Spiral-shaped EFC conduit coil locks into fitting
- The fitting is composed of 5 components: nipple with insulation throat, o-ring, body, insert and gland nut (Product Ref. LT6275MI also includes an additional sleeve)





#### **Technical Information**

Conduit type	Shureseal <sup>TM</sup> conduit type
	EFC / LTC / LTC-GY
Style/thread	Straight
System IP rating	IP65
Material	Body: zinc plated steel
	Gland nut: zinc plated steel
	Insert: nylon
	O-ring: neoprene
Colour	Metallic

PRODUCT REF.	For conduit								
	!	SIZE	ø A*	В	C	D	ø E*	ø F*	
				ACROSS FLATS	ACROSS FLATS	APPROX.			
	[inch]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	
LT638MI	3/8	16	14.5	24	30	30	12.4	18.4	
LT650MI	1/2	20	14.5	24	30	30	15.4	22.0	
LT675MI	3/4	25	18.0	32	36	36	20.0	29.0	
LT6100MI	1	32	23.5	40	41	41	26.0	35.0	
LT6125MI	1 1/4	40	31.0	45	60	60	34.0	44.5	
LT6150MI	1 1/2	50	38.0	54	65	65	39.0	50.0	

<sup>\*</sup> ø A = inner diameter in fitting

 $<sup>\</sup>emptyset$  E = min. inner diameter of conduit

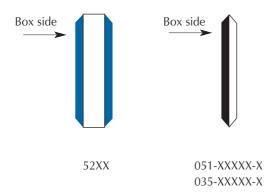
ø F = max. outer diameter of conduit



### Accessories for fittings Sealing washers

- Design locks resilient sealing material in steel
- Steel retainer protects seal from extruding out under torque and limits compression to an optimum predetermined value; provides high quality seal
- Resilient material flows and seals rough surfaces





#### **Technical Information**

Fitting Type Thread	Shureseal <sup>TM</sup> and Shureflex <sup>TM</sup> fittings  NPT, Metric (I.S.O.) and Imperial
	Threads
Material	Chromated galvanised steel, with blue Buna-N rubber or black synthetic rubber
Colour	Metallic

### **Approvals**



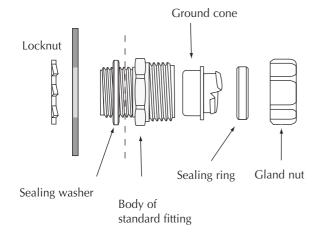


PRODUCT REF.	Thread size	<b>WeiGHT</b> [kg/100]	QUANTITY [pieces]									
SEALING WASHERS FO	SEALING WASHERS FOR METRIC (I.S.O.) FITTINGS											
051-72123-1*	M16	0.2	100									
035-72272-1*	M20	0.2	100									
035-72272-2*	M25	0.3	100									
035-72272-3*	M32	0.3	100									
SEALING WASHERS FO	OR NPT FITTINGS											
5261*	3/8″	0.2	50									
5262	1/2"	0.2	50									
5263	3/4"	0.3	25									
5264	1"	0.3	25									
5265	1 1/4"	1.8	5									
5266	1 1/2"	1.9	5									
5267	2"	2.0	5									
5268	2 1/2"	2.2	5									
5269	3"	2.9	5									
5270	4"	3.8	5									
SEALING WASHERS FOR IMPERIAL FITTINGS												
035 - 72272 - 4	1 <sup>1</sup> /2"	1.8	100									
051 - 72123 - 6	2"	1.9	50									

 $<sup>\</sup>ensuremath{^*}$  The Product Ref. with a  $\ensuremath{^*}$  are not UL approved

### Accessories for fittings Locknuts

**Case-Hardened Locknut with Teeth** provides superior strength and electrical bonding and can be installed without a wrench in the enclosure.





#### **Technical Information**

Fitting Type	Shureseal™ fittings
Thread	NPT
Material	Galvanised steel, chromated
Colour	Metallic

### **Approvals**





PRODUCT REF.	NPT THREAD SIZE [inch]	<b>WEIGHT</b> [kg/100]	<b>Q</b> UANTITY [pieces]
NPT LOCKNUT			
139	1/4	0.4	100
140	3/8	0.5	100
141	1/2	0.5	100
142-TB	3/4	0.9	100
143	1	1.8	50
144	1 1/4	3.2	50
145	1 1/2	4.0	50
146-TB	2	6.3	25
147	2 1/2	11.7	15
148	3	18.0	5
149	3 1/2	19.8	5
150	4	23.4	5

# 4.2

### **Shureseal**™

### Accessories for fittings Wire mesh adaptor

Strain Relief Wire Mesh adaptor with integrated gland nut:

- Simple installation: just replace the existing gland nut in the fitting with the wire mesh adaptor
- Provides a support function (strain relief), to protect the conduit at the point of connection
- Rounded corners ensure secure attachment of the conduit without the risk of damage
- Anti-corrosive



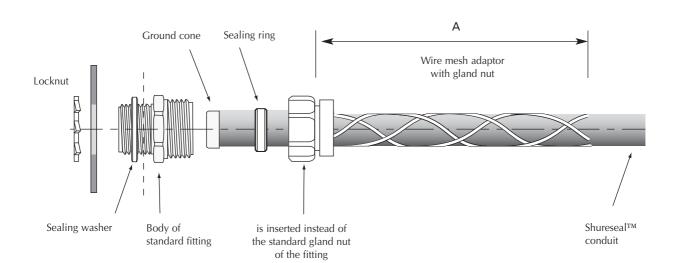
### **Approvals**





#### **Technical Information**

Fitting Type	Shureseal™ liquidtight fittings for
	metallic conduits (straight, 45°, 90°,
	chase, female hub)
Thread	Replaces the standard gland nut
Material	Gland nut: zinc plated steel
	Collar: aluminium
	Wire mesh: aluminium
Colour	Metallic



## Accessories for fittings Wire mesh adaptor

PRODUCT REF.	Cone		STRAIGHT	45° FITTING	90° FITTING	CHASE	CHASE 90°	ADAPTER	WEIGHT	QUANTITY
Kei	[inch]	[mm]	[prod. ref.]	[kg/100]	[pieces]					
FOR FITTINGS WITH ISO THREAD										
WMG-LT1	3/8	16	9360, 9361	9340, 9341	9350, 9351	-	-	9270, 9271	2.5	10
WMG-LT2	1/2	20	9362	9342	9352-TB	-	-	9272	4.0	10
WMG-LT3	3/4	25	9363	9343-TB	9353-TB	-	-	9273	5.0	10
WMG-LT4	1	32	9364	9344	9354-TB	-	_	9274	10.0	10
FOR FITTIN	IGS WITH	<b>PG THREA</b>	D							
WMG-LT1	3/8	16	7361, 7362	7341, 7342	7351, 7352	-	-	-	2.5	10
WMG-LT2	1/2	20	7363	7343	7353	-	-	-	4.0	10
WMG-LT3	3/4	25	7364	7344-TB	7354	-	-	-	5.0	10
WMG-LT4	1	32	7365	7345	7355	-		-	10.0	10
WMG-LT5	1 1/4	40	7366	7346	7356	-	_	_	17.0	2
WMG-LT6	1 1/2	50	7367	7347	7357	-	_	_	29.0	2
WMG-LT7	2	63	7368	7348-TB	7358	-	-	-	43.0	5
FOR FITTIN	IGS WITH	NPT THRE	AD							
WMG-LT1	3/8	16	5331	5341	5351	5361	5371	5271	2.5	10
WMG-LT2	1/2	20	5332	5342	5352	5362	5372	5272	4.0	10
WMG-LT3	3/4	25	5333	5343	5353	5363	5373	5273	5.0	10
WMG-LT4	1	32	5334-TB	5344	5354	5364	5374	5274	10.0	10
WMG-LT5	1 1/4	40	5335	5345	5355	5365	_	5275	17.0	2
WMG-LT6	1 1/2	50	5336	5346	5356	5366	_	5276	29.0	2
WMG-LT7	2	63	5337	5347	5357	5367	-	5277	43.0	5
FOR FITTIN	IGS WITH	IMPERIAL	THREAD							
WMG-LT5	1 1/4	40	6365	_	6355	_	_	_	17.0	2
WMG-LT6	1 1/2	50	6366	6346	6356	_	_	_	29.0	2
WMG-LT7	2	63	6367	6347	_	-	-	_	43.0	5



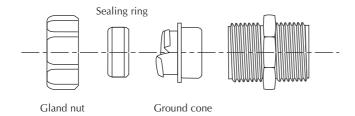
### Replacements parts for liquidtight metallic fittings

If after some time the fitting is released and needs to be re-secured, the seal and the ground cone should be replaced.

The following accessories are appropriate for all the standard liquidtight Shureseal<sup>TM</sup> fittings for metallic conduits:

- Steel ground cone: it provides a high quality ground contact with low impedance and high conduit pull-off resistance. The single helical thread on ground cone is easy to install by hand without cross threading. It tolerates variations in conduit diameters and convolution pitch. Its rolled-over edge protects the conductors. Manufactured in zinc plated steel.
- Sealing ring: it grips and seals the conduit without damaging the conduit jacket. Its symmetrical shape assures a foolproof assembly. It ensures a positive seal against oils, liquids, moisture and dust. Made from high-performance nylon. Colour: blue.
- **Gland nut:** rugged construction, made of zinc plated steel. Reinforced corners to allow hand screwing.

#### Fitting replacement parts





PRODUCT REF.	Conduit size					
	[inch]	[mm]				
GROUND CONE						
R 719124	1/4	10				
IR 719123	5/16	12				
R 719101	3/8	16				
R 719125	1/2	20				
R 719126	3/4	25				
R 719127	1	32				
IR 719128	1 1/4	40				
IR 719129	1 1/2	50				
053-71814-127	2	63				
053-71814-128	2 1/2	75				
053-71814-129	3	90				
053-71814-130	4	115				
SEALING RING						
7 R68301	5/16	12				
IR 763101	3/8	16				
IR 763102	1/2	20				
IR 763108	3/4	25				
IR 763104	1	32				
IR 763105	1 1/4	40				
IR 763106	1 1/2	50				
053-71814-137	2	63				
053-71814-28	2 1/2	75				
053-71814-29	3	90				
053-71814-30	4	115				
GLAND NUT						
7 R68201	5/16	12				
R 735540	3/8	16				
R 735503	1/2	20				
R 735504	3/4	25				
R 735522	1	32				
IR 735509	1 1/4	40				
IR 723418	1 1/2	50				
053-71814-7	2	63				
053-71814-8	2 1/2	75				
053-71814-9	3	90				
053-71814-10	4	115				

### Fittings for ultra-flexible galvanised steel conduit

#### Type UGS - uncovered conduit

- Wide choice of fittings especially manufactured for Shureflex<sup>TM</sup> conduits
- Manufactured in nickel-plated brass for a professional quality and finish
- Highly crush resistant with an excellent pull-off strength
- Ideal for industrial and commercial applications where flexibility, crush and vibration resistance are required
- The swivel fittings improve the flexibility and decrease the stress in the connection of the conduit
- The space saver version, with its compact design, is perfectly appropriate for applications in confined spaces and to install the fitting directly on a panel
- The fixed male fittings with a metric thread are also available in stainless steel grade 316

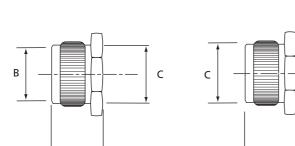


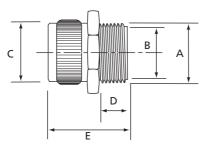
#### **Technical Information**

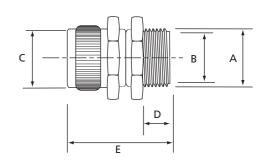
Conduit type	Shureflex <sup>TM</sup> type UGS uncovered conduits*
Style/thread	straight fixed male, straight swivel male and straight space saver with metric (I.S.O.) and PG threads
System IP rating	IP40
Material	Nickel-plated brass
Colour	Metallic
Temperature range	-50°C to +300°C

<sup>\*</sup> Can also be used with Shureflex<sup>TM</sup> stainless steel conduits

Type USM

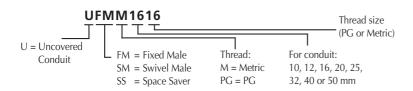






#### **Product reference structure**

Type USS



Type UFM

# Shureflex TM Fittings for ultra-flexible galvanised steel conduits

Type UGS - uncovered conduit

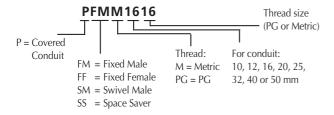
PRODUCT REF.	CONDUIT TYPE	THREAD			DIMENSIONS			WEIGHT	QUANTITY
		SIZE	Α	В	С	D	E		
			[mm]	[mm]	[mm]	[mm]	[mm]	[g/100]	[pieces]
TYPE UFMM: FIXE									
UFMM1616	UGS1610 / UGS1630	M16	16	10.8	19	10	24.5	550	25
UFMM1620	UGS1610 / UGS1630	M20	20	10.8	24	10	24.5	900	25
UFMM2020	UGS2010 / UGS2030	M20	20	14.8	24	10	24.5	700	25
UFMM2525	UGS2510 / UGS2530	M25	25	18.8	30	12	28.0	450	10
UFMM3232	UGS3210 / UGS3220	M32	32	25.8	36	13	29.0	350	5
UFMM4040	UGS4010 / UGS4020	M40	40	33.8	46	15	31.5	450	5
UFMM5050	UGS5010 / UGS5020	M50	50	41.8	55	15	33.0	400	2
TYPE UFMPG: FIX	ED STRAIGHT FITTING WITH	PG MALE THREA	AD						
UFMPG1007	UGS1010 / UGS1030	PG7	12.5	4.8	14.0	5.0	16.5	271	25
UFMPG1209	UGS1210 / UGS1230	PG9	15.2	7.8	17.0	8.0	21.5	532	25
UFMPG1611	UGS1610 / UGS1630	PG11	18.6	10.9	20.0	12.0	28.0	750	25
UFMPG2016	UGS2010 / UGS2030	PG16	22.5	14.9	24.0	12.0	28.0	1100	25
UFMPG2521	UGS2510 / UGS2530	PG21	28.3	18.9	30.0	13.5	31.0	650	10
UFMPG3229	UGS3210 / UGS3220	PG29	37.0	25.9	40.0	15.0	33.0	350	5
UFMPG4036	UGS4010 / UGS4020	PG36	47.0	33.9	49.6	17.0	36.0	900	5
TYPE USMM: SW	IVEL STRAIGHT FITTING WITH	H METRIC (I.S.O.)	MALE THR	EAD					
USMM1616	UGS1610 / UGS1630	M16	16	10.8	19	10	34.3	850	25
USMM2020	UGS2010 / UGS2030	M20	20	14.8	24	10	34.3	1020	25
USMM2525	UGS2510 / UGS2530	M25	25	18.8	30	12	40.5	840	10
USMM3232	UGS3210 / UGS3220	M32	32	25.8	36	13	41.5	850	5
USMM4040	UGS4010 / UGS4020	M40	40	33.8	46	15	47.3	730	5
USMM5050	UGS5010 / UGS5020	M50	50	41.8	55	15	47.0	750	2
TYPE USMPG: SW	/IVEL STRAIGHT FITTING WIT	H PG MALE THR	EAD						
USMPG1007	UGS1010 / UGS1030	PG7	12.5	4.8	14	5	22.0	550	25
USMPG1209	UGS1210 / UGS1230	PG9	15.2	7.8	17	8	30.3	750	25
USMPG1611	UGS1610 / UGS1630	PG11	18.6	10.9	20	12	38.0	1150	25
USMPG2016	UGS2010 / UGS2030	PG16	22.5	14.9	24	12	38.0	1300	25
USMPG2521	UGS2510 / UGS2530	PG21	28.3	18.9	30	12	41.0	1000	10
USMPG3229	UGS3210 / UGS3220	PG29	37.0	25.9	40	15	46.0	800	5
USMPG4036	UGS4010 / UGS4020	PG36	47.0	33.9	49	17	51.0	1250	5
TYPE USSM: SPAC	CE SAVER STRAIGHT FITTING	(NO THREAD)							
USSM1010	UGS1010 / UGS1030	_	_	4.8	14	-	11.5	255	25
USSM1212	UGS1210 / UGS1230			7.8	16		13.5	351	25
USSM1616	UGS1610 / UGS1630	_		10.8	19		14.5	470	25
USSM2020	UGS2010 / UGS2030	_		14.8	24		14.5	662	25
USSM2525	UGS2510 / UGS2530	_		18.8	30		16.0	370	10
USSM3232	UGS3210 / UGS3220	_		25.8	36		16.0	254	5
USSM4040	UGS4010 / UGS4020	_		33.8	46		16.0	322	5
USSM5050	UGS5010 / UGS5020	_	_	41.8	55	_	18.0	200	2

### Fittings for ultra-flexible galvanised steel conduit

#### Type PGS - covered conduit

- Wide choice of fittings especially manufactured for Shureflex<sup>TM</sup> conduit
- Manufactured in nickel-plated brass for a professional quality and finish
- Highly crush resistant with an excellent pull-off strength
- Improved IP rating (IP54) compared to the uncovered conduit
- Special IP65 rated fittings available on request
- Ideal for industrial and commercial applications where flexibility, crush and vibration resistance are required
- The swivel fittings improve the flexibility and decrease the stress in the connection of the conduit
- The space saver version, with its compact design, is perfectly appropriate for applications in confined spaces and to install the fitting directly on a panel

#### **Product reference Structure**



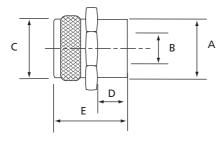


#### **Technical Information**

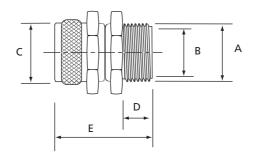
Conduit Turo	Churcher TM truce DCC correct
Conduit Type	Shureflex <sup>™</sup> type PGS covered
	conduit
Style	straight fixed male and female,
	straight swivel male,
	straight space saver
Thread	With metric (I.S.O.) and PG threads
IP rating	IP54
Material	Nickel-plated brass
Colour	Metallic
Temperature range	-50°C to +300°C*

<sup>\*</sup> PGS conduit temperature -25°C to +70°C

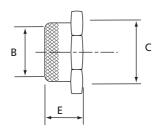
Type PFF



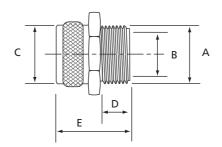
Type PSM



Type PSS



Type PFM



# Shureflex TM Fittings for ultra-flevil

Fittings for ultra-flexible galvanised steel conduit

Type PGS - covered conduit

PRODUCT REF.	CONDUIT TYPE	THREAD		DIMENSIONS				WEIGHT	QUANTITY
		SIZE	Α	В	C	D	E		
			[mm]	[mm]	[mm]	[mm]	[mm]	[g/100]	[pieces]
TVDE DEMAN, EIVE	D STRAIGHT FITTING WITH I	METRIC (LC O.) N	AALE TUDEA	D					
PFMM1616	PGS1610 / PGS1630	M16	16	10.8	19	10	24.5	550	25
PFMM1620	PGS1610 / PGS1630	M20	20	10.8	24	10	24.5	900	25
PFMM2020	PGS2010 / PGS2030	M20	20	14.8	24	10	24.5	700	25
PFMM2525	PGS2510 / PGS2530	M25	25	18.8	30	12	28.0	450	10
PFMM3232	PGS3210 / PGS3220	M32	32	25.8	36	13	29.0	350	5
PFMM4040	PGS4010 / PGS4020	M40	40	33.8	46	15	31.5	450	5
PFMM5050	PGS5010 / PGS5020	M50	50	41.8	55	15	33.0	400	2
	D STRAIGHT FITTING WITH			41.0	33	13	33.0	400	2
PFMPG1007	PGS1010 / PGS1030	PG7	12.5	4.8	14.0	8.0	16.5	270	25
PFMPG1209	PGS1210 / PGS1230	PG9	15.2	7.8	17.0	8.0	21.5	483	25
PFMPG1611	PGS1610 / PGS1630	PG11	18.6	10.9	20.0	12.0	28.0	550	25
	,	PG16	22.5						25
PFMPG2016 PFMPG2521	PGS2010 / PGS2030 PGS2510 / PGS2530	PG21	28.3	14.9	24.0	12.0	28.0	1050	
PFMPG3229	,	PG29	37.0	18.9	30.0	13.5	31.0	650	10
PFMPG3229 PFMPG4036	PGS3210 / PGS3220 PGS4010 / PGS4020	PG29 PG36	47.0	25.9	40.0	15.0 17.0	33.0	1150	<u> </u>
	VEL STRAIGHT FITTING WITH			33.9	49.6	17.0	36.0	450	3
					10	10	24.2	0.0	25
PSMM1616	PGS1610 / PGS1630	M16	16	10.8	19	10	34.3	1060	25
PSMM2020	PGS2010 / PGS2030	M20	20	14.8	24	10	34.3	1060	25
PSMM2525	PGS2510 / PGS2530	M25	25	18.8	30	12	40.5	850	10
PSMM3232	PGS3210 / PGS3220	M32	32	25.8	36	13	41.5	800	5
PSMM4040	PGS4010 / PGS4020	M40	40	33.8	46	15	47.3	850	5
PSMM5050	PGS5010 / PGS5020	M50	50	41.8	55	15	47.0	700	2
	IVEL STRAIGHT FITTING WIT			4.0	140		22.0	200	25
PSMPG1007	PGS1010 / PGS1030	PG7	12.5	4.8	14.0	8	22.0	280	25
PSMPG1209	PGS1210 / PGS1230	PG9	15.2	7.8	17.0	8	30.3	550	25
PSMPG1611	PGS1610 / PGS1630	PG11	18.6	10.9	20.0	12	38.0	1100	25
PSMPG2016	PGS2010 / PGS2030	PG16	22.5	14.9	24.0	12	38.0	1300	25
PSMPG2521	PGS2510 / PGS2530	PG21	28.3	18.9	30.0	12	41.0	950	10
PSMPG3229	PGS3210 / PGS3220	PG29	37.0	25.9	40.0	15	46.0	750	5
PSMPG4036	PGS4010 / PGS4020	PG36	47.0	33.9	49.6	17	51.0	850	5
	E SAVER STRAIGHT FITTING	(NO THREAD)			4.4		44.5	202	25
PSSM1010	PGS1010 / PGS1030			4.8	14		11.5	203	25
PSSM1212	PGS1210 / PGS1230			7.8	16		13.5	296	25
PSSM1616	PGS1610 / PGS1630	_		10.8	19		14.5	405	25
PSSM2020	PGS2010 / PGS2030	<u> </u>		14.8	24		14.5	560	25
PSSM2525	PGS2510 / PGS2530		_	18.8	30	_	16.0	350	10
PSSM3232	PGS3210 / PGS3220	<u> </u>		25.8	36		16.0	240	5
PSSM4040	PGS4010 / PGS4020	<u> </u>		33.8	46	_	16.0	382	5
PSSM5050	PGS5010 / PGS5020	_	_	41.8	55	_	18.0	213	2
	STRAIGHT FITTING WITH N								
PFFM1616	PGS1610 / PGS1630	M16	16	10.8	19	10	23.5	552	25
PFFM2020	PGS2010 / PGS2030	M20	20	14.8	24	10	23.5	765	25
PFFM2525	PGS2510 / PGS2530	M25	25	18.8	30	12	28.0	511	10
PFFM3232	PGS3210 / PGS3220	M32	32	25.8	36	13	28.0	292	5
PFFM4040	PGS4010 / PGS4020	M40	40	33.8	46	15	30.5	535	5
	D STRAIGHT FITTING WITH F								
PFFPG1209	PGS1210 / PGS1230	PG9	15.2	7.8	19	8	20.5	389	25

# Fast & Flexible

"One piece assembly" fitting,

no loose piece, handy to use, requires no tool

Twelve flat edges,

for easy tightening

#### **Solid construction:**

robust design, shock resistant and high quality material (Halogen free Polyamide 6), for a durable performance

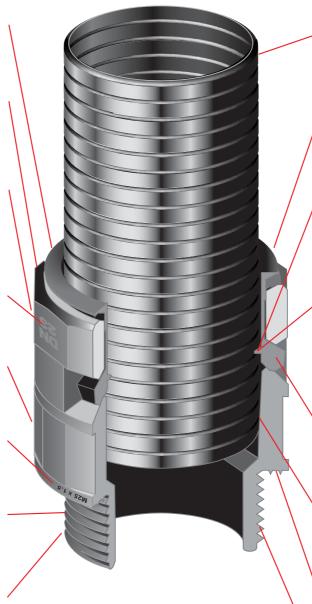
Conduit size marking on the fitting, for immediate identification

**Six flat edges,** for spanner tightening

Thread style/size marking, for immediate identification

Optional O-ring and sealing washer, for IP68 rating

**Range of accessories:** locknuts for panel mounting, mounting brackets for attaching the conduits, T-splits for connecting 3 conduits together



Three grades of Halogen free flexible conduits, available in 8 sizes, with an excellent combination of flexibility and mechanical strength

**Release ring,** for easy removal without any tool

#### **Self-locking (push-fit):**

mounting and locking at the same time, for a quick and easy installation

### After mounting, the fitting can rotate freely on the conduit,

allowing the possibility to premount the straight fittings on the conduits before the final installation on the support (without causing the cables to be twisted)

### Crown of self-locking clips around the whole circumference of the conduit,

for a secure locking and a superior pull-off strength

**Tapered fitting body,** providing a **standard IP66** watertight system, without the need for any additional accessory

**Broad contact base,** with 2 built-in sealing rings

Available in straight, 90° and 45° versions, with Metric (I.S.O.) and PG threads

### Shureflex<sup>™</sup> Fittings for ultra-flexible Nylon conduits

The new range of Shureflex<sup>TM</sup> Nylon conduit and fittings from Thomas & Betts provides all the benefits of a Halogen free, flexible watertight system of protection for electrical cables.

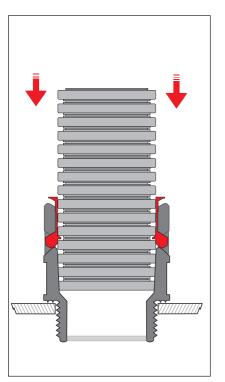
In particular, the high performance fitting, with its unique self-locking mechanism, allows a quick and secure installation with a watertight protection and an outstanding mechanical strength.

With three different grades of conduits and a wide range of fittings and accessories available in black, this system is ideally suitable for all types of applications in general wiring, industrial equipment, machine tools and machinery, production equipment, control equipment, robotics, automotive, transportation, railway.

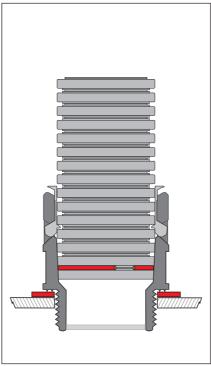


### ONE PUSH AND YOU'RE READY

### Installation with IP66 protection

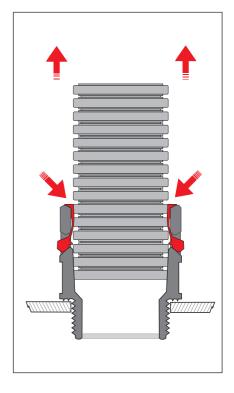


### Installation with IP68 protection



- Self-locking (push-fit) installation: simply push the conduit completely into the fitting. Mounting and locking the fitting are done simultaneously
- IP66 protection achieved without the need for any additional accessory
- For the applications requiring a maximum IP protection (IP68), an optional sealing washer can be used (placed around the thread of the fitting), in combination with an optional O-ring (inserted in the first groove of the conduit)

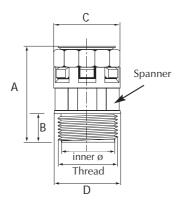
**Easily** released & removed



• Easy to remove: just press the release ring of the fitting and pull the conduit out. No tool is required!

### Fittings for ultra-flexible Nylon conduits Straight version

- High quality Polyamide (PA6)
- UL recognised sizes
- UV and shock resistant
- Secure: self-locking (push-fit) installation onto the conduit
- Quick and easy to install and remove, no tool required
- Strong: high pull-off strength thanks to the self-locking clips around the whole circumference of the conduit
- Handy: "one-piece assembly" construction, no loose parts
- Watertight: IP66 rating as standard, without additional accessories
- Sealing washers and O-rings available (delivered separately) for the applications requiring a maximum IP rating (IP68)
- Can be used with all the types and sizes of Shureflex TM ultra-flexible Nylon conduits
- Locknuts (delivered separately) are available for installations on panels and enclosures





#### **Technical Information**

Conduit type	Shureflex™ Nylon conduits
Style / thread	Straight / Metric (I.S.O.), PG thread
System IP rating	IP66 (standard)
	IP68 (with additional Shureflex™
	washers and O-rings)
Material	Polyamide 6
Colour	Black
Temperature range	-30°C to +100°C
	(intermittent: to +150°C)
Flammability rating	UL 94 V-2 (produced from
	UL 94 V-0 raw material)
Other properties	Halogen, Phosphor and Cadmium
	free, UV-resistant
	Good resistance to fuel, mineral oils,
	greases and diluted bases

#### **Approvals**



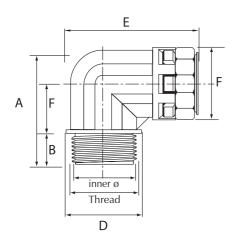
### Ordering information: Straight fittings

PRODUCT REF.	For conduit	THREAD	Inner		DIMENSIONS			Spanner	WEIGHT	QUANTITY
	SIZE	SIZE	DIAMETER	Α	В	С	D	SIZE		
	[mm]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg/100]	[pieces]
METRIC (I.S.O.) TH	IREAD									
NY-SF07-BKM12	7	M12 x 1.5	6.5	35.0	11.0	19.0	17.0	15	0.4	100
NY-SF10-BKM16	10	M16 x 1.5	10.0	37.0	11.0	21.0	21.0	18	0.6	100
NY-SF12-BKM16	12	M16 x 1.5	10.0	37.0	11.0	26.0	25.5	20	0.7	100
NY-SF12-BKM20	12	M20 x 1.5	14.0	37.0	11.0	31.0	25.5	20	0.8	100
NY-SF17-BKM20	17	M20 x 1.5	14.5	44.0	11.0	31.0	30.0	27	1.2	100
NY-SF23-BKM25	23	M25 x 1.5	18.5	48.0	12.0	37.0	37.0	34	1.6	50
NY-SF29-BKM32	29	M32 x 1.5	25.5	52.0	15.0	46.0	46.0	42	2.8	30
NY-SF36-BKM40	36	M40 x 1.5	32.0	60.0	19.0	54.0	54.0	50	3.9	20
NY-SF48-BKM50	48	M50 x 1.5	42.0	61.0	19.0	69.0	69.0	66	6.2	10
PG THREAD										
NY-SF07-BKPG7	7	PG7	8.0	35.5	11.5	19.0	17.0	15	0.4	100
NY-SF10-BKPG9	10	PG9	10.3	37.5	11.5	21.0	21.0	18	0.6	100
NY-SF12-BKPG11	12	PG11	14.0	37.5	11.5	26.0	25.5	20	0.8	100
NY-SF17-BKPG13	17	PG13.5	14.0	44.5	11.5	31.0	28.0	27	1.2	100
NY-SF17-BKPG16	17	PG16	17.0	44.5	11.5	31.0	29.0	27	1.2	100
NY-SF23-BKPG21	23	PG21	22.0	48.5	12.5	37.0	36.5	34	1.6	50
NY-SF29-BKPG29	29	PG29	30.0	49.5	12.5	46.0	46.0	42	2.8	30
NY-SF36-BKPG36	36	PG36	37.5	55.0	14.0	54.0	56.0	50	3.9	20
NY-SF48-BKPG48	48	PG48	50.0	56.0	14.0	69.0	69.5	66	5.6	10



### Fittings for ultra-flexible Nylon conduits 90° version

- High quality Polyamide (PA6)
- UV and shock resistant
- Secure: self-locking (push-fit) installation onto the conduit
- Quick and easy to install and remove, no tool required
- Strong: high pull-off strength thanks to the self-locking clips around the whole circumference of the conduit
- Handy: "one-piece assembly" construction, no loose parts
- Watertight: IP66 rating as standard, without additional accessories
- Sealing washers and O-rings available (delivered separately) for the applications requiring a maximum IP rating (IP68)
- Can be used with all the types of Shureflex ™ ultra-flexible Nylon conduits, from 10mm to 48mm nominal sizes
- Locknuts (delivered separately) are available for installations on panels and enclosures





#### **Technical Information**

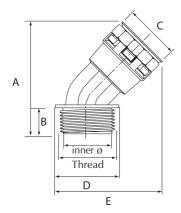
Conduit type	Shureflex <sup>TM</sup> Nylon conduits
Style / thread	90° / Metric (I.S.O.), PG thread
System IP rating	IP66 (standard)
	IP68 (with additional Shureflex™
	washers and O-rings)
Material	Polyamide 6
Colour	Black
Temperature range	-30°C to +100°C
	(intermittent: to +150°C)
Flammability rating	UL 94 V-2 (produced from
	UL 94 V-0 raw material)
Other properties	Halogen, Phosphor and Cadmium
	free, UV-resistant
	Good resistance to fuel, mineral oils,
	greases and diluted bases

### Ordering information: 90° fittings

PRODUCT REF.	FOR CONDUIT	THREAD SIZE	INNER	A	DIMENSIONS B	С	D	E	F	WEIGHT	QUANTITY
	[mm]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg/100]	[pieces]
METRIC (I.S.O.) TH	READ										
NY-90F10-BKM16	10	M16 x 1.5	10.0	35.0	11.0	21.0	21.0	42.5	11.0	0.9	50
NY-90F12-BKM16	12	M16 x 1.5	10.5	39.0	11.0	25.0	23.0	44.0	15.0	1.3	50
NY-90F12-BKM20	12	M20 x 1.5	12.3	39.0	11.0	25.0	26.0	45.5	15.0	1.3	50
NY-90F17-BKM20	17	M20 x 1.5	14.5	45.0	11.0	30.0	30.0	58.0	18.0	2.2	50
NY-90F23-BKM25	23	M25 x 1.5	18.5	53.0	12.0	36.5	37.0	66.0	23.0	3.4	30
NY-90F29-BKM32	29	M32 x 1.5	25.5	66.0	15.0	45.0	46.0	76.0	27.0	5.5	20
NY-90F36-BKM40	36	M40 x 1.5	32.0	79.0	19.0	54.0	55.0	89.0	33.0	9.2	10
NY-90F48-BKM50	48	M50 x 1.5	42.0	92.0	19.0	68.0	69.0	103.0	39.0	15.0	10
PG THREAD											
NY-90F10-BKPG9	10	PG9	10.3	35.0	11.5	21.0	21.5	42.5	11.0	0.8	50
NY-90F12-BKPG11	12	PG11	14.0	39.0	11.5	25.0	25.0	45.0	15.0	1.1	50
NY-90F17-BKPG13	17	PG13.5	14.0	45.0	11.5	30.0	27.0	56.5	18.0	2.2	50
NY-90F17-BKPG16	17	PG16	17.0	45.0	11.5	30.0	29.0	57.5	18.0	1.9	50
NY-90F23-BKPG21	23	PG21	22.0	53.0	12.5	37.0	36.5	65.5	23.0	3.0	30
NY-90F29-BKPG29	29	PG29	30.0	65.0	12.5	45.0	46.0	76.0	28.0	4.6	20
NY-90F36-BKPG36	36	PG36	37.5	79.0	14.0	54.0	56.0	89.5	33.0	7.5	10
NY-90F48-BKPG48	48	PG48	50.0	92.0	14.0	68.0	69.5	103.5	39.0	11.7	10

### Fittings for ultra-flexible Nylon conduits 45° version

- High quality Polyamide (PA6)
- UV and shock resistant
- Secure: self-locking (push-fit) installation onto the conduit
- Quick and easy to install and remove, no tool required
- Strong: high pull-off strength thanks to the self-locking clips around the whole circumference of the conduit
- Handy: "one-piece assembly" construction, no loose parts
- Watertight: IP66 rating as standard, without additional accessories
- Sealing washers and O-rings available (delivered separately) for the applications requiring a maximum IP rating (IP68)
- Can be used with all the types of Shureflex ™ ultra-flexible Nylon conduits, from 12mm to 48mm nominal sizes
- Locknuts (delivered separately) are available for installations on panels and enclosures





#### **Technical Information**

Conduit type	Shureflex <sup>™</sup> Nylon conduits
Style / thread	45° / Metric (I.S.O.), PG thread
System IP rating	IP66 (standard)
	IP68 (with additional Shureflex™
	washers and O-rings)
Material	Polyamide 6
Colour	Black
Temperature range	-30°C to +100°C
	(intermittent: to +150°C)
Flammability rating	UL 94 V-2 (produced from
	UL 94 V-0 raw material)
Other properties	Halogen, Phosphor and Cadmium
	free, UV-resistant
	Good resistance to fuel, mineral oils,
	greases and diluted bases

### Ordering information: 45° fittings

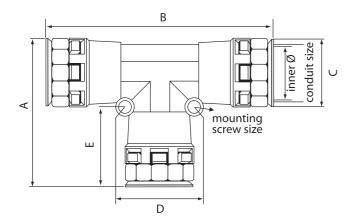
PRODUCT REF.	For conduit	THREAD	Inner		DIMENSIONS				WEIGHT	QUANTITY
	SIZE [mm]	SIZE	DIAMETER [mm]	A [mm]	<b>B</b> [mm]	C [mm]	<b>D</b> [mm]	<b>E</b> [mm]	[kg/100]	[pieces]
METRIC (I.S.O.) TH	METRIC (I.S.O.) THREAD									
NY-45F12-BKM16	12	M16 x 1.5	10.5	50.0	11.0	24.0	23.0	45.0	0.9	50
NY-45F17-BKM20	17	M20 x 1.5	11.5	60.0	11.0	29.0	27.0	56.0	1.4	50
NY-45F23-BKM25	23	M25 x 1.5	18.5	70.0	12.0	37.0	34.0	67.0	2.2	30
NY-45F29-BKM32	29	M32 x 1.5	25.7	80.0	15.0	45.0	41.0	76.0	3.6	10
NY-45F36-BKM40	36	M40 x 1.5	32.0	96.0	19.0	53.0	50.0	90.0	5.4	10
NY-45F48-BKM50	48	M50 x 1.5	42.0	109.0	19.0	67.0	60.0	106.0	8.4	5
PG THREAD										
NY-45F12-BKPG11	12	PG11	11.5	50.0	11.0	24.0	26.0	47.0	0.9	50
NY-45F17-BKPG16	17	PG16	14.7	60.0	11.0	29.0	30.0	58.0	1.5	50
NY-45F23-BKPG21	23	PG21	18.5	69.0	11.0	37.0	37.0	69.0	2.2	30
NY-45F29-BKPG29	29	PG29	25.5	78.0	12.0	45.0	46.0	79.0	3.7	10
NY-45F36-BKPG36	36	PG36	32.0	90.0	13.0	53.0	56.0	94.0	5.5	10
NY-45F48-BKPG48	48	PG48	42.0	102.0	13.0	67.0	69.0	112.0	8.8	5

See pages 279 to 282 for locknuts and accessories



### Fittings for ultra-flexible Nylon conduits T-splits

- High quality Polyamide (PA6)
- UV and shock resistant
- Secure: self-locking (push-fit) installation onto the conduit
- Quick and easy to install and remove, no tool required
- Strong: high pull-off strength thanks to the self-locking clips around the whole circumference of the conduit
- Handy: "one-piece assembly" construction, no loose parts
- Watertight: IP66 rating as standard, without additional accessories
- O-rings are available (delivered separately) for the applications requiring a maximum IP rating (IP68)
- Can be used with all the types of Shureflex ™ ultra-flexible Nylon conduits, from 10mm to 36mm nominal sizes





#### **Technical Information**

Conduit type	Shureflex <sup>TM</sup> Nylon conduits				
System IP rating	IP66 (standard)				
	IP68 (with additional Shureflex™				
	O-ring)				
Material	Polyamide 6				
Colour	Black				
Temperature range	-30°C to +100°C				
	(intermittent: to +150°C)				
Flammability rating	UL 94 V-2 (produced from				
	UL 94 V-0 raw material)				
Other properties	Halogen, Phosphor and Cadmium				
	free, UV-resistant				
	Good resistance to fuel, mineral oils,				
	greases and diluted bases				

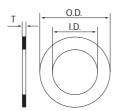
#### Ordering information: T-splits

PRODUCT REF.	For conduit	Mounting	Inner		DIMENSIONS				WEIGHT	QUANTITY
	SIZE	SCREW SIZE	DIAMETER	Α	В	С	D	E		
	[mm]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg/100]	[pieces]
NY-T10-BK	10 (3x)	M4 (2x)	11.2 (3x)	46.0	72.0	20.0 (3x)	19.0	27.0	1.5	20
NY-T12-BK	12 (3x)	M4 (2x)	12.8 (3x)	52.0	81.0	23.5 (3x)	20.5	30.0	2.1	20
NY-T17-BK	17 (3x)	M5 (2x)	18.0 (3x)	63.0	96.0	29.0 (3x)	28.0	35.0	3.4	20
NY-T23-BK	23 (3x)	M5 (2x)	25.5 (3x)	76.0	117.0	37.0 (3x)	36.0	40.0	5.3	10
NY-T29-BK	29 (3x)	M5 (2x)	31.5 (3x)	85.0	128.0	45.0 (3x)	41.5	41.0	8.6	5
NY-T36-BK	36 (3x)	M6 (2x)	38.5 (3x)	97.0	144.0	53.0 (3x)	50.5	46.0	11.7	5

See pages 279 to 282 for locknuts and accessories

### Accessories for Nylon fittings Sealing washers

• To be placed around the thread of the Shureflex<sup>TM</sup> Nylon fitting, between the fitting and the entry panel





### Technical Information

Fitting type	Shureflex <sup>TM</sup> Nylon fittings
Material	Deformable, asbestos free material
Colour	Blue
Temperature range	-40°C to +200°C

### Ordering information: Sealing washers

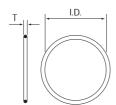
PRODUCT REF.	Thread size	INNER DIAMETER I.D. [mm]	OUTER DIAMETER O.D. [mm]	THICKNESS T [mm]	<b>W</b> еі <b>снт</b> [kg/100]	QUANTITY [pieces]
FOR METRIC (I.S.O.)	THREAD					
NY-SW-M12	M12	12	18	1.5	0.04	100
NY-SW-M16	M16	16	22	1.5	0.05	100
NY-SW-M20	M20	20	27	1.5	0.07	100
NY-SW-M25	M25	25	35	1.5	0.14	50
NY-SW-M32	M32	32	43	1.5	0.19	30
NY-SW-M40	M40	40	55	1.5	0.34	20
NY-SW-M50	M50	50	69	1.5	0.50	10
FOR PG THREAD						
NY-SW-PG7	PG7	12.4	18	1.5	0.04	100
NY-SW-PG9	PG9	15.2	21	1.5	0.04	100
NY-SW-PG11	PG11	18.6	26	1.5	0.07	100
NY-SW-PG13	PG13.5	20.4	29	1.5	0.09	100
NY-SW-PG16	PG16	22.5	33	1.5	0.13	100
NY-SW-PG21	PG21	28.3	39	1.5	0.29	50
NY-SW-PG29	PG29	37.0	49	1.5	0.34	30
NY-SW-PG36	PG36	47.0	59	1.5	0.25	20
NY-SW-PG48	PG48	59.3	71	1.5	0.30	10



### Accessories for Nylon fittings O-rings

• To be inserted in the first groove of the Shureflex<sup>™</sup> Nylon conduit, prior to the insertion of the conduit into the fitting





### **Technical Information**

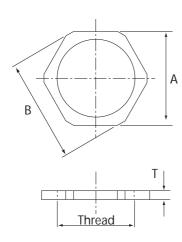
Conduit type	Shureflex <sup>TM</sup> Nylon conduits
Material	NBR70 elastomer
Colour	Black
Temperature range	-30°C to +100°C

### Ordering informations: O-rings

PRODUCT Ref.	CONDUIT	INNER DIAMETER	DIAMETER T	Weight	QUANTITY	
NET.	[mm]	[mm]	[mm]	[kg/100]	[pieces]	
NY-OR-07	7	6.35	1.27	0.004	100	
NY-OR-10	10	10.00	1.30	0.011	100	
NY-OR-12	12	11.50	1.50	0.013	100	
NY-OR-17	17	16.00	1.80	0.022	100	
NY-OR-23	23	22.00	2.00	0.037	50	
NY-OR-29	29	29.00	2.00	0.036	30	
NY-OR-36	36	34.00	2.30	0.073	20	
NY-OR-48	48	44.60	2.40	0.110	10	

### Accessories for Nylon fittings Hexagonal locknuts

- $\bullet$  For mounting the Shureflex  $^{\text{TM}}$  Nylon fittings on panels and enclosures
- High quality Polyamide (PA6)
- Shock resistant
- Thread style and thread size marked on the locknut for immediate identification
- Good resistance to mineral oils, greases and fuel





### **Technical Information**

Fitting type	Shureflex <sup>TM</sup> Nylon fittings
Thread	Metric (I.S.O.), PG thread
Material	Polyamide 6
Colour	Black
Temperature range	-30°C to +100°C
Flammability rating	UL 94 V-2
Other properties	Halogen, Phosphor and Cadmium
	free

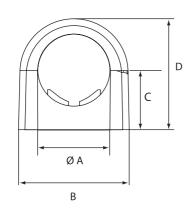
### Ordering informations: Hexagonal locknuts

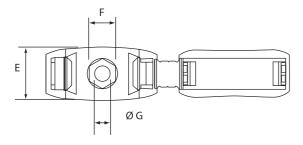
PRODUCT REF.	THREAD	A - SPANNER SIZE	DIMENSIONS  B - ACROSS CORNER	T - THICKNESS	Weight	Quantity
	SIZE	[mm]	[mm]	[mm]	[kg/100]	[pieces]
METRIC (I.S.O.) THRE	AD					
NY-LNBK-M12	M12	17	18.0	5	0.09	100
NY-LNBK-M16	M16	22	24.0	5	0.14	100
NY-LNBK-M20	M20	26	28.0	6	0.20	100
NY-LNBK-M25	M25	32	35.0	6	0.30	100
NY-LNBK-M32	M32	42	47.0	7	0.60	100
NY-LNBK-M40	M40	52	57.5	7	0.88	50
NY-LNBK-M50	M50	62	68.0	9	1.66	50
PG THREAD						
NY-LNBK-PG7	PG7	15	16.5	4.5	0.05	100
NY-LNBK-PG9	PG9	19	20.9	4.5	0.11	100
NY-LNBK-PG11	PG11	22	24.2	5.0	0.12	100
NY-LNBK-PG13	PG13.5	24	26.4	5.5	0.17	100
NY-LNBK-PG16	PG16	27	29.7	6.0	0.25	100
NY-LNBK-PG21	PG21	32	35.2	6.5	0.29	100
NY-LNBK-PG29	PG29	41	45.1	7.5	0.48	50
NY-LNBK-PG36	PG36	54	59.4	9.0	0.79	20
NY-LNBK-PG48	PG48	67	73.7	9.5	1.16	1



### Accessories for Nylon fittings Mounting brackets

- A range of mounting brackets for quickly and easily attaching the Shureflex<sup>TM</sup> Nylon conduits to existing equipment
- Screw mounted (with 1 screw) for secure installation
- Quick installation: the cover is just snapped after inserting the conduit
- The conduits can rotate freely in the mounting bracket
- Releasable and re-usable
- Resistant to UV, to oils, greases, fuels, cleaning fluids and synthetic fluids







#### **Technical Information**

Conduit type	Shureflex <sup>TM</sup> Nylon conduits
Material	Polyamide 6.6
Colour	Black
Temperature range	-40°C to +120°C
	(intermittent: to +150°C)
Other properties	Halogen free, UV resistant

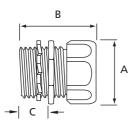
### Ordering information: Mounting brackets

PRODUCT REF. CONDUIT DIMENSIONS							ØG	WEIGHT	QUANTITY
	SIZE A	В	С	D	E	F	INSTALLATION HOLE		
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[g/piece]	[pieces]
NY-MB-07	7	22.6	12.9	23.3	11.6	7.5	4.2	1.9	10
NY-MB-10	10	22.6	12.9	23.3	11.6	7.5	4.2	1.7	10
NY-MB-12	12	26.7	15.1	26.9	13.7	8.8	5.1	2.6	10
NY-MB-17	17	33.8	19.5	34.9	17.5	10.4	6.1	4.8	10
NY-MB-23	23	43.8	23.4	43.7	20.7	10.3	6.1	8.6	10
NY-MB-29	29	52.8	26.9	51.6	23.2	10.2	6.2	12.7	10
NY-MB-36	36	64.5	32.4	62.5	27.0	10.2	6.2	19.5	5
NY-MB-48	48	81.0	38.5	77.0	32.1	10.2	6.2	34.7	5

### Rigid and intermediate metal conduit fittings

#### Metallic threadless fittings

- Makes a permanent connection and eliminates the need for cutting a thread on the rigid conduit.
- A split steel ring with diagonal serrations grips the conduit and bites into it for positive ground.
- Insulation helps to guarantee continuity of service with protection of the conductor at the critical point: the bushing
- Available in 2 versions, with or without nylon insert
- Components: gland nut, steel ring, steel spacer (only for sizes up to 1 inch), body (with or without insert), locknut





#### **Technical Information**

	I .
Conduit Type	Metallic rigid conduits
Style	Straight
Thread	NPT (up to 1") or NPS (larger than 1")
Material	Body: zinc plated steel or malleable
	iron
	Gland nut: zinc plated steel (up to 1")
	or malleable iron (larger sizes)
	Locknut: zinc plated steel
	Insert: nvlon

#### **Approvals**





#### **Ordering Information**

PRODUCT REF.	PRODUCT REF.	For conduit	THREAD		DIMENSION	S	WEIGHT	WEIGHT	QUANTITY	QUANTITY
INSULATED	NON-INSULATED	SIZE	SIZE	Α	В	C	INSULATED	NON-INSULATED	INSULATED	NON-INSULATED
		[inch]		[mm]	[mm]	[mm]	[kg/100]	[kg/100]	[pieces]	[pieces]
8123	8121	1/2	1/2" NPT	31.0	42.9	38.1	9.1	9.5	10	25
8223	8221	3/4	3/4" NPT	38.9	44.5	38.1	12.0	11.7	10	25
8323	8321	1	1" NPT	48.4	50.8	14.3	18.1	18.0	5	5
8423	8421	1 1/4	1 <sup>1</sup> / <sub>4</sub> " NPS	34.9	61.9	27.0	36.3	34.7	5	5
8523	8521	1 1/2	1 <sup>1</sup> / <sub>2</sub> " NPS	68.3	66.7	19.1	40.8	48.8	2	2
8623	8621	2	2" NPS	82.6	71.4	21.4	72.6	71.2	2	2
8723-TB	8721	2 1/2	2 <sup>1</sup> / <sub>2</sub> " NPS	104.8	96.8	28.6	154.2	160.6	2	2
8823-TB	8821	3	3" NPS	123.8	101.6	13.5	181.4	195.0	1	1
8853	8851	3 1/2	3 <sup>1</sup> / <sub>2</sub> " NPS	139.7	104.8	28.6	220.0	226.8	1	1
8973	8971	4	4" NPS	153.2	123.8	28.6	275.0	283.5	1	1

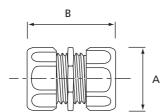
Note: insulated version also available in right angled (elbow) style up to  $2^{\prime\prime}$ 



### Rigid and intermediate metal conduit fittings

### Metallic threadless couplings

- Easy coupling between 2 rigid conduits
- Eliminates the need for cutting a thread on the rigid conduits
- When tightened with a wrench, they form a UL listed and CSA approved concrete-tight connection
- Components: 2 gland nuts, steel ring, steel spacer (only for sizes up to 1 inch), body





#### **Technical Information**

Conduit Type	Metallic rigid conduits
Style	Straight
Material	Body: zinc plated malleable iron or
	steel
	Gland nut: zinc plated steel (up to 1")
	or malleable iron (larger sizes)
	Locknut: zinc plated steel

#### **Approvals**



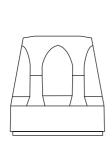


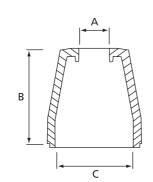
PRODUCT REF.	For conduit	DIME	NSIONS	WEIGHT	QUANTITY
	SIZE	A	В		
	[inch]	[mm]	[mm]	[kg/100]	[pieces]
8120	1/2	32.5	50.8	8.2	25
8220	3/4	40.5	58.7	14.6	25
8320	1	47.6	68.3	22.2	5
8420	1 1/4	60.3	71.4	54.0	5
8520	1 1/2	66.7	92.1	68.5	2
8620	2	82.6	96.8	98.9	2
8720	2 1/2	100.0	136.5	227.7	2
8820	3	119.1	139.7	258.6	1
8850	3 1/2	131.8	139.7	317.5	1
8970	4	144.5	139.7	378.8	1

### Rigid and intermediate metal conduit fittings

### Plastic bushing

- For threadless rigid conduits and intermediate metal conduits
- When assembled to the end of a threadless conduit, provides a well rounded insulating surface over which conductors may be pulled or on which conductors may bear while in service.
- Designed to be popped onto, and bush, conduit end.
- Fast easy installation without screws
- High impact thermoplastic construction, for applications up to +105 °C
- Flammability rating UL94 V-1







#### **Technical Information**

Conduit Type	Metallic rigid conduits
Style	Straight
Material	UL 94 V-1 rated thermoplastic
Conformity:	UL514, ANSI C80.4, ANSI C33.84
	NFPA 70-1978 (ANSI)

#### **Approvals**





PRODUCT REF.	For conduit		DIMENSIONS		WEIGHT	QUANTITY
	SIZE	Α	В	С		
	[inch]	[mm]	[mm]	[mm]	[kg/100]	[pieces]
TRIB-50	1/2	15.1	15.1	27.0	0.4	50
	,					
TRIB-75	3/4	19.8	35.3	31.8	1.1	50
TRIB-100	1	25.4	38.1	39.7	1.5	25
TRIB-125	1 1/4	23.8	41.3	48.8	2.9	10
TRIB-150	1 1/2	38.9	42.1	55.2	4.3	5
TRIB-200	2	50.0	46.0	68.3	7.9	2
TRIB-250	2 1/2	59.9	50.8	82.6	7.7	2
TRIB-300	3	74.2	56.4	99.2	5.0	2
TRIB-350	3 1/2	85.7	58.7	113.1	14.7	2
TRIB-400	4	97.6	61.1	127.0	14.7	2

# Other fittings and accessories for rigid conduits

Examples of other fittings and accessories for the rigid and intermediate metal conduit:

• Conduit straps and supports

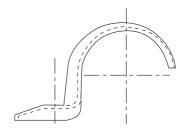
• Uncoated and PVC-coated hubs for threaded rigid conduits

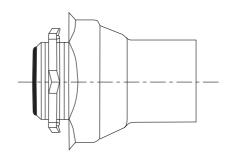
• Set screw connectors and couplings

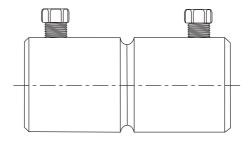
• Threaded Erickson couplings

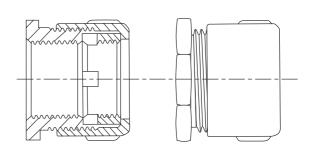
• Insulated nipples and bushings

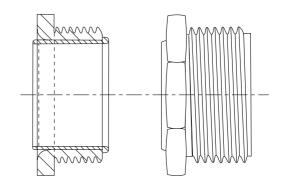
For more detailed information on these products, please visit the Thomas & Betts global web site: www.tnb.com and / or contact your Sales Office for product availability.







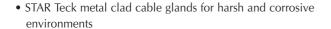


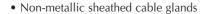


### Other Thomas & Betts Conduit and Fittings

The product ranges shown in this catalogue represent only a small part of the extensive range of conduits and fittings that Thomas & Betts offer on a global scale, including among others:

- Other special fittings for flexible metallic conduits (e.g. PVC coated fittings, aluminium fittings, fittings with revolving grounding lug, etc)
- Conduit outlet bodies, for ordinary and hazardous locations
- Explosion proof conduit outlet bodies, elbows, reducers, plugs, adapters and couplings
- Explosion proof aluminium sealing fittings





• OCAL, corrosion resistant PVC-coated rigid conduits, junction boxes and accessories

For more detailed information on these products, please visit the Thomas & Betts global web site: www.tnb.com and/or contact your Sales Office for product availability.

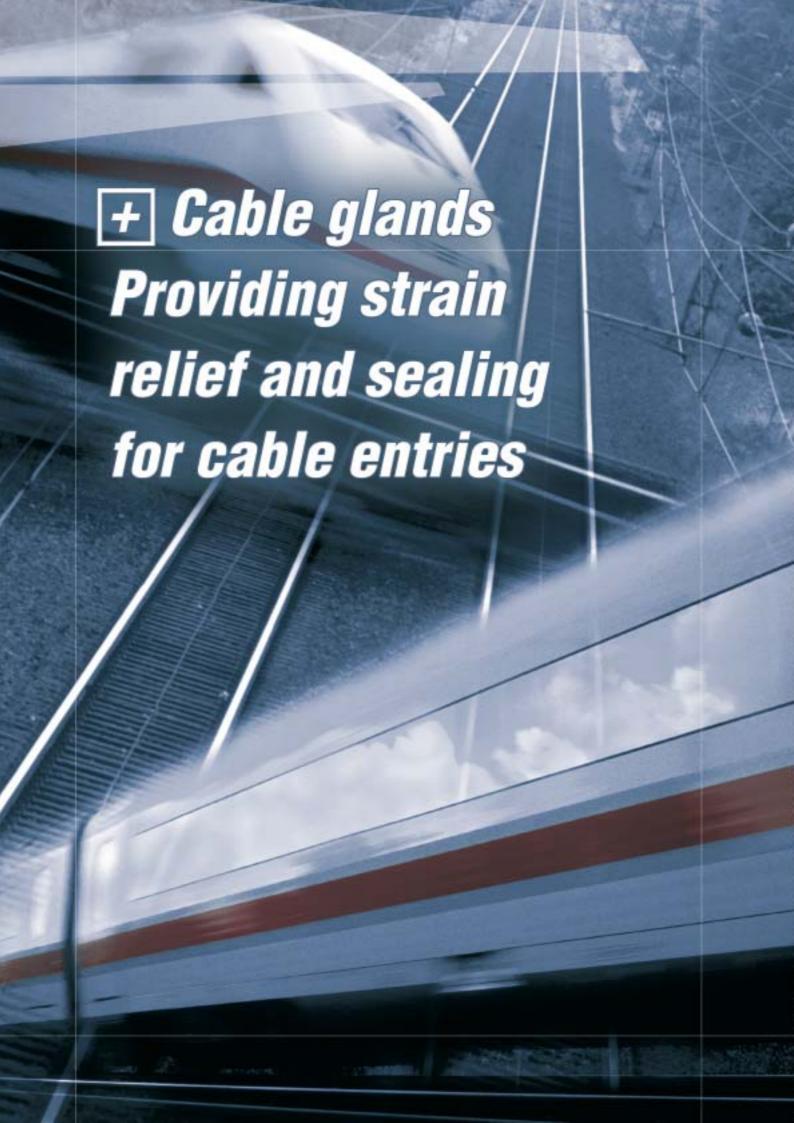












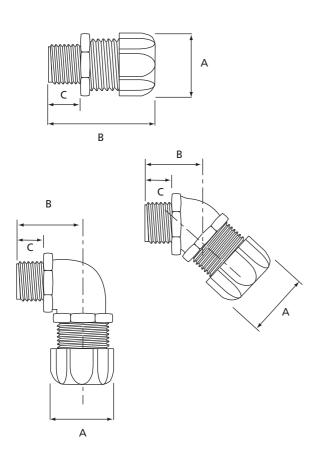
# Conduit & Fittings

### 4. Conduit & Fittings

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# Shureseal TM Cable glands Metallic cable glands

- High performance metal cable fittings
- Special construction prevents twisting and ensures effective strain relief
- Easy to install
- For cables with outer diameters from 3.2 mm to 47.6 mm





### **Technical Information**

Style/thread	Straight, 45° and 90°
	NPT and metric (I.S.O.) threads
System IP rating	IP65
Body (material)	Zinc or galvanized steel
Gland nut (material)	Steel or galvanised steel
Seal (material)	Neoprene or rubber
Colour	Metallic
Temperature range	-35°C to +105°C

### Approvals



052391 00589 004484



E-13938

PRODUCT REF.	MATERIAL	MATERIAL	Material	CABLE Ø RANGE	THREAD		DIMENSIONS		QUANTITY
	BODY	SEAL	NUT	FROMTO	SIZE	Α	В	C	
				[mm]		[mm]	[mm]	[mm]	[pieces]
STRAIGHT I	METALLIC CABLE (	SLAND WITH N	METRIC (I.S.O.) THRI	EAD					
9520	zinc plated steel	Neoprene	zinc plated steel	3.2 - 6.3	M20	28.6	42.0	14.3	25
9521-EU	zinc plated steel	Neoprene	zinc plated steel	6.3 - 9.5	M20	28.6	42.0	14.3	25
9522-EU	zinc plated steel	Neoprene	zinc plated steel	9.5 - 12.7	M20	28.6	42.0	14.3	25
9523	zinc plated steel	Neoprene	zinc plated steel	11.4 - 14.2	M20	28.6	42.0	14.3	25
9524-EU	zinc plated steel	Neoprene	zinc plated steel	12.7 - 15.8	M20	34.9	44.5	15.0	25
90° METALI	IC CABLE GLAND	WITH NPT TH	READ						
4960	zinc plated steel	rubber	steel	3.2 - 9.5	1/2"	28.6	44.5	15.9	25
4961	zinc plated steel	rubber	steel	7.9 - 14.2	1/2"	28.6	44.5	15.9	25
4970	zinc plated steel	rubber	steel	3.2 - 9.5	3/4"	34.9	45.2	17.5	10
4971	zinc plated steel	rubber	steel	7.9 - 14.2	3/4"	34.9	45.2	17.5	10
4972	zinc plated steel	rubber	steel	12.7 - 19.0	3/4"	34.9	45.2	17.5	10

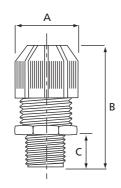
Cable glands Metallic cable glands

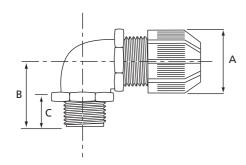
Product re	F. MATERIAL	Material Material		Cable Ø range	THREAD	DIMENSIONS			QUANTIT
	BODY	SEAL	NUT	FROMTO	SIZE	Α	В	C	
				[mm]	[inch]	[mm]	[mm]	[mm]	[pieces]
TRAIGHT	METALLIC CABLE GLAND	WITH NPT TH	IREAD						
920	zinc	rubber	zinc plated steel	3.2 - 9.5	1/2	28.6	44.5	15.9	25
921	zinc	rubber	zinc plated steel	7.9 - 14.2	1/2	28.6	44.5	15.9	25
922	zinc	rubber	zinc plated steel	12.7 - 19.1	1/2	34.9	44.5	15.9	10
930	zinc	rubber	zinc plated steel	3.2 - 9.5	3/4	34.9	45.2	19.1	10
931	zinc	rubber	zinc plated steel	7.9 - 14.2	3/4	34.9	45.2	19.1	10
932	zinc	rubber	zinc plated steel	12.7 - 19.1	3/4	34.9	45.2	19.1	10
940	zinc	rubber	zinc plated steel	7.9 - 14.2	1	34.9	44.5	20.6	10
941	zinc	rubber	zinc plated steel	12.7 - 19.1	1	34.9	44.5	20.6	10
942	zinc	rubber	zinc plated steel	17.8 - 24.1	1	41.3	47.6	20.6	10
520	zinc	Neoprene	steel	3.2 - 6.4	1/2	29.4	42.9	15.9	25
521	zinc	Neoprene	steel	6.4 - 9.5	1/2	29.4	42.9	15.9	25
522	zinc	Neoprene	steel	9.5 - 12.7	1/2	29.4	42.9	15.9	25
523	zinc	Neoprene	steel	11.4 - 14.2	1/2	29.4	42.9	15.9	25
524	zinc	Neoprene	steel	12.7 - 15.9	1/2	34.9	44.5	15.9	25
525	zinc	Neoprene	steel	15.9 - 19.1	1/2	34.9	44.5	15.9	25
558	zinc	Neoprene	steel	22.4 - 27.1	1 1/4	53.2	54.8	20.6	5
559	zinc	Neoprene	steel	27.1 - 30.6	1 1/4	53.2	54.8	20.6	5
562	zinc	Neoprene	steel	20.6 - 25.4	1 1/2	58.7	63.5	17.5	5
563	zinc	Neoprene	steel	25.4 - 30.1	1 1/2	58.7	63.5	17.5	5
:574	zinc	Neoprene	steel	34.9 - 41.3	2	69.9	66.7	20.6	1
2575	zinc	Neoprene	steel	41.3 - 47.6	2	69.9	66.7	20.6	 1
	LLIC CABLE GLAND WITH								
2200	zinc plated malleable iron	Neoprene	zinc plated steel	3.2 - 6.3	1/2	28.6	7.1	14.3	25
201	zinc plated malleable iron	Neoprene	zinc plated steel	6.3 - 9.5	1/2	28.6	7.1	14.3	25
202	zinc plated malleable iron	Neoprene	zinc plated steel	9.5 - 12.7	1/2	28.6	7.1	14.3	25
203	zinc plated malleable iron	Neoprene	zinc plated steel	11.4 - 14.2	1/2	28.6	7.1	14.3	25
204	zinc plated malleable iron	Neoprene	zinc plated steel	12.7 - 15.9	1/2	34.9	10.3	14.3	10
205	zinc plated malleable iron	Neoprene	zinc plated steel	15.9 - 19.1	1/2	34.9	35.7	14.3	10
	zinc plated malleable iron	Neoprene	zinc plated steel	3.2 - 6.3	3/4	34.9	35.7	15.9	10
207-TB	zinc plated malleable iron	Neoprene	zinc plated steel	6.3 - 9.5	3/4	34.9	35.7	15.9	10
208-TB	zinc plated malleable iron	Neoprene	zinc plated steel	9.5 - 12.7	3/4	34.9	35.7	15.9	10
209	zinc plated malleable iron	Neoprene	zinc plated steel	12.7 - 15.9	3/4	34.9	35.7	15.9	10
210	zinc plated malleable iron	Neoprene	zinc plated steel	15.9 - 19.1	3/4	34.9	35.7	15.9	10
211	zinc plated malleable iron	Neoprene	zinc plated steel	19.1 - 22.2	3/4	42.9	38.1	38.1	10
213	zinc plated malleable iron	Neoprene	zinc plated steel	9.5 - 12.7	1	34.9	38.1	19.8	5
	zinc plated malleable iron	Neoprene	zinc plated steel	12.7 - 15.9	1	34.9	38.1	19.8	5
215	zinc plated malleable iron	Neoprene	zinc plated steel	15.9 - 19.1	<del>·</del> 1	34.9	38.1	19.8	5
	zinc plated malleable iron	Neoprene	zinc plated steel	19.1 - 22.2	 1	42.9	37.3	19.8	5
217	zinc plated malleable iron	Neoprene	zinc plated steel	22.2 - 25.0	 1	42.9	37.3	19.8	5
	zinc plated malleable iron	Neoprene	zinc plated steel	22.3 - 27.0	1	52.4	50.0	19.8	<u>5</u>
219	zinc plated malleable iron	Neoprene	zinc plated steel	27.0 - 30.1	1	52.4	50.0	19.8	5
	zinc plated malleable iron	Neoprene	zinc plated steel	22.3 - 27.0	1 1/4	52.4	48.4	20.6	2
∠∠∪-1D	· · · · · · · · · · · · · · · · · · ·								
	zine plated malloable ire-								
221	zinc plated malleable iron zinc plated malleable iron	Neoprene Neoprene	zinc plated steel zinc plated steel	27.0 - 30.1 30.1 - 34.9	1 <sup>1</sup> / <sub>4</sub> 1 <sup>1</sup> / <sub>4</sub>	52.4 52.4	48.4 57.2	20.6	2

# Shureseal TM Cable glands

Plastic cable glands

- High performance plastic cable fittings
- Special construction prevents twisting and ensures effective strain relief
- Easy to install
- For all cable sizes between 3.2 and 24.1 mm of outer diameter







### **Technical Information**

Style/thread	Straight and 90° NPT threads
IP rating	IP65
Material	UV resistant polyamide 6.6.
Steel locknut	Chromate finished steel or zinc
Seal	Neoprene
Colour	Black
Flammability rating	UL 94 V-2
Temperature range	-34°C to +105°C

### Approvals



052391



PRODUCT REF.	CABLE DIAMETER RANGE	THREAD			QUANTITY					
	FROMTO	SIZE	A B C							
	[mm]	[inch]	[mm]	[mm]	[mm]	[pieces]				
STRAIGHT PLASTIC CABLE GLAND WITH NPT THREAD										
2920NM	3.2 - 9.5	1/2	26.2	54.0	15.9	25				
2921NM	7.9 - 14.2	1/2	26.2	54.0	15.9	25				
2922NM	12.7 - 19.0	1/2	35.7	54.0	15.9	25				
2930NM	3.2 - 9.5	3/4	35.7	55.6	15.9	10				
2931NM	7.9 - 14.2	3/4	35.7	55.6	15.9	10				
2932NM	12.7 - 14.2	3/4	35.7	55.6	15.9	10				
2940NM	7.9 - 14.2	1	35.7	59.5	19.8	10				
2941NM	12.7 - 19.0	1	35.7	59.5	19.8	10				
2942NM	17.8 - 24.1	1	42.5	60.3	19.8	10				
90° PLASTIC CABL	90° PLASTIC CABLE GLAND WITH NPT THREAD									
4960NM	3.2 - 9.5	1/2	30.9	31.8	15.9	25				
4961NM	7.9 - 14.2	1/2	30.9	31.8	15.9	25				
4970NM	3.2 - 9.5	3/4	35.7	34.9	15.9	10				
4971NM	7.9 - 14.2	3/4	35.7	34.9	15.9	10				
4972NM	12.7 - 19.0	3/4	35.7	34.9	15.9	10				

### **Accessories**

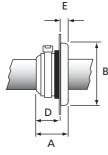
### Housing entry tubes with strain relief ties

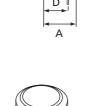
- Highly elastic material allows passing of single wires
- Resistant to chemicals
- Weatherproof
- Simple and fast installation
- Supplied with a UV-resistant Ty-Rap® cable tie (see chapter 1 for cable tie specifications) for strong, secure and watertight strain-relief

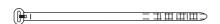
#### **Technical Information**

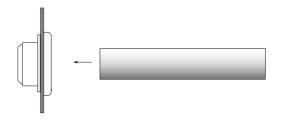
Material - Housing	Neoprene			
Material - Tie	Polyamide 6.6, UV-resistant			
Temperature range	-30°C to +110°C for the housing			
	-40°C to +85°C for the cable tie			
Colour	Black (housing and tie)			
Flammability rating	UL 514 (housing)			
	UL 94 V-2 (cable tie)			
Other properties	Halogen free, Silicone free			

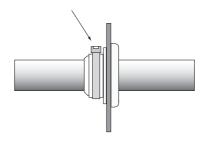












PRODUCT REF.		1	DIMENSIONS	S	FOR CABLE Ø	Ø OF HOLE	FOR PANEL	TYPE OF	WEIGHT	QUANTITY
	Α	В	D	E	FROM TO	IN PANEL	THICKNESS UP TO	INCLUDED		
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	CABLE TIE	[g/100]	[pieces]
7401	18.6	24	13.6	5.0	4.0 - 9.0	16	2.2	TY24MX	420	10
7402	18.7	28	13.7	5.0	7.0 - 12.0	19	2.2	TY25MX	690	10
7403	22.0	34	17.0	5.0	12.0 - 18.0	25	2.2	TY25MX	1100	10
7404	24.0	43	19.0	5.0	18.0 - 25.0	32	2.2	TY25MX	1500	5
7405	24.5	51	18.5	6.0	25.0 - 32.0	38	2.2	TY25MX	1950	5

