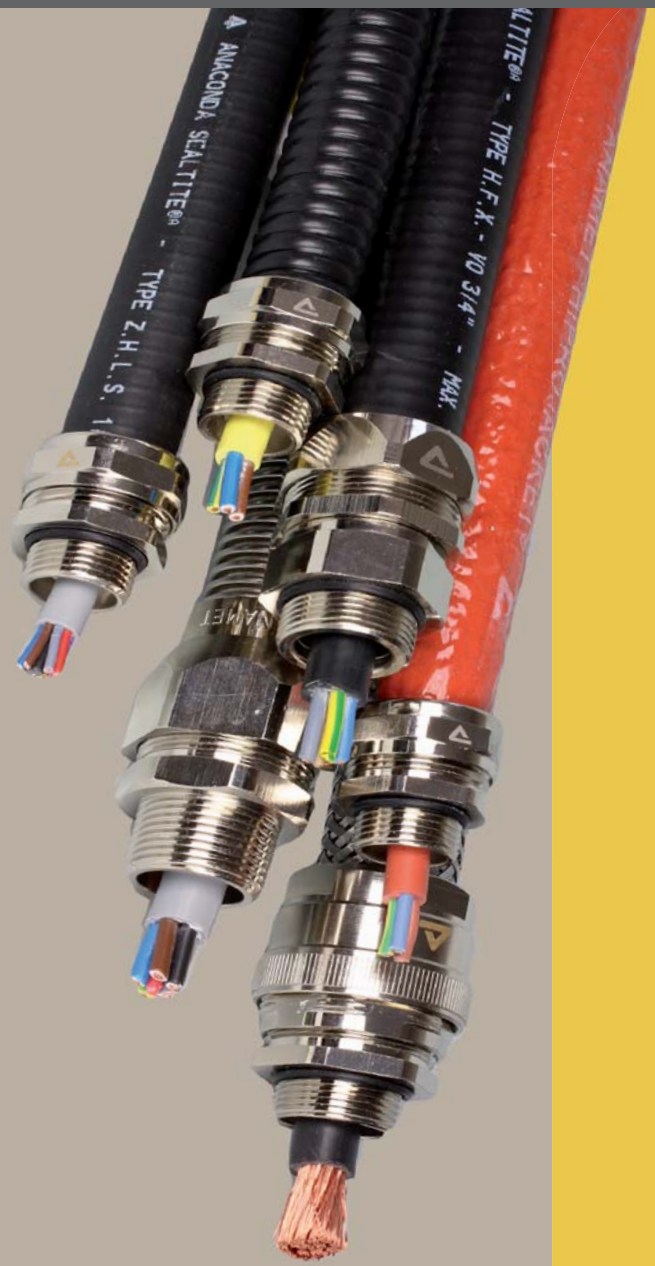
CONDUIT SYSTEMS FOR ELECTRICAL WIRES AND CABLES: ANACONDA TRAIN AND RAIL SOLUTIONS



ANAMET EUROPE

YOUR CONDUIT SYSTEM SPECIALIST

CONDUIT SELECTION TABLE ANACONDA TRAIN AND RAIL SOLUTIONS

Conduit	Material	Material	Temp. (°C)		Resistance (NEN-EN-IEC 61386)			Flexi-bility	Resistance		Approvals		Protec-tion	Page
Type	Core	Cover	Min.	Max.	Compr.	Impact	Tensile		UV	Oil			Class	
 HFX-V0 Black	Galvanised steel	TPU Halogen-free RoHS	-50	+105	4 (1250N)	4 (6J)	4 (1000N)	++++	++++	++++	EN 45545 NFF	GOST-R	IP 67	05
 ZHUA Black	Galvanised steel	TPU Halogen-free RoHS	-50	+105	4 (1250N)	4 (6J)	4 (1000N)	++++	++++	++++	EN 45545 NFF	UL GOST-R	IP 67	06
 ZHLS Black	Galvanised steel	Polyolefin Halogen-free RoHS	-25	+80	4 (1250N)	4 (6J)	4 (1000N)	+++	++++	++	EN 45545 BS 6853	GOST-R	IP 67	07
 Shieldtite Z1	Bronze	TPU Halogen free RoHS	-50	+105	4 (1250N)	4 (6J)	4 (1000N)	++++	++++	++++	EN 45545 NFF	GOST-R	IP 67	08
 HFX Black	Galvanised steel	TPU Halogen-free RoHS	-55	+105	4 (1250N)	4 (6J)	4 (1000N)	++++	++++	++++		GOST-R	IP 67	09
 FCE-PU-V0 Black	Galvanised steel	TPU Halogen-free RoHS	-50	+105	4 (1250N)	4 (6J)	4 (1000N)	++++	++++	++++	EN 45545	GOST-R	IP 67	20
 FCE-LFH Black	Galvanised steel	Polyolefin Halogen-free RoHS	-25	+80	4 (1250N)	4 (6J)	4 (1000N)	++++	++++	++	EN 45545 BS 6853	GOST-R	IP 67	21
 FCE-LFHB	Galvanised steel	Polyolefin cover and stainless steel braid	-25	+80	4 (1250N)	4 (6J)	4 (1000N)	++++	++++	++	EN 45545 BS 6853	GOST-R	IP 67	27
 Hiprojacket Aero	Glass fibre	Silicone Halogen-free RoHS	-55	+260	-	-	-	++++	++++	++++	EN 45545 NFF	BS 6853 GOST-R		32
 PA6V0 Black	Polyamide PA6 Halogen-free	-	-40	+120	3 (750N)	3 (2J)	3 (500N)	++++	++++	++++	EN 45545		IP 67	34
 Anaflex	Stainless steel AISI-316L	-	-70	+250	3 (750N)	3 (2J)	4 (1000N)	++++	++++	++++	SPF	GOST-R	IP 69	37
 FCEN	Galvanised steel	-	-55	+300	4 (1250N)	4 (6J)	4 (1000N)	++++	++++	++++		GOST-R	IP 40	39
 UI	Stainless steel AISI-304	-	-100	+600	5 (4000N)	4 (6J)	4 (1000N)	++++	++++	++++		GOST-R	IP 40	43

Anaconda Conduits for Rail Applications

Anamet Europe has a wide range of conduit systems for protecting cables and wires on rolling stock as well as in tunnels, tunnel equipment, infrastructure and wayside/lineside applications. The selection is extensive and certain conduits are suitable for use in more than one area of application. This brochure is set up as follows to enable customers to select the right product for their particular area of application in a speedy and efficient way:

1) Conduits for rolling stock for passenger trains that comply with EN 45545
2) Conduits for all other rolling stock and rail applications like tunnel, infrastructure, lineside etc., that do not need to comply with EN 45545

EN 45545 Classified Conduits for Rolling Stock Applications

Anaconda conduits for rolling stock applications are developed to meet the fire, smoke and toxicity requirements of EN 45545. The extensive range includes products for EMC/EMP cable protection, bogie, autocoupler, intercar jumper and sensor cable protection etc., as well as protection for interior wall and floor cables.

Non-EN 45545 Conduits for Rolling Stock, Tunnel, Infrastructure, and Lineside Applications

In addition, the Anaconda range of conduits includes a wide range of products for rail and train applications where it is not necessary to comply with EN 45545 such as tunnels, infrastructure and wayside/lineside applications, rail signalling systems but in many instances must have a good fire, smoke and toxicity rating that presents no danger to the public.

Anaconda Conduits for Rolling Stock According to EN 45545

Generally speaking, all Anaconda conduits that comply with the fire and smoke criteria of EN 45545 are designed to meet the following performance criteria:

- UL94 V0 classified
- UV, sunlight, oil and chemical resistant
- Flexible, robust: able to withstand to stone splash, ice and snow and dirt ballast and abrasion
- High IP rating
- Wide operating temperature range
- High flexibility with good bend radius
- Very good resistance to vibration and shocks

Anaconda Non- EN 45545 Conform Conduits for Train & Rail Applications

These conduits display the same performance criteria as their EN 45545 counterparts except they do not comply with the standard.

EN 45545 Classified Conduits for Rolling Stock Applications

HFX-V0	Exterior applications: Bogies, jumper cables, sensor cable protection, pantograph cable protection on all types of train Interior applications: all traction equipment that requires cable protection
ZHUA	As HFX-V0 : applications on trains that require compliance with UL
FCE-PU-V0	Exterior applications: Bogies jumper cables, sensor cable protection, pantograph cable protection etc., on all trains except high speed trains Interior applications: all traction equipment inside the train, CCTV, passenger information systems, air conditioning system for driver and passenger compartments, floor and wall applications etc
ZHLS	Exterior applications: Bogies, jumper cables, sensor cable protection, pantograph cable protection on all types of train Interior applications: all traction equipment that requires cable protection
FCE-LFH	Exterior applications: Bogies, jumper cables, sensor cable protection, pantograph cable protection on all types of train Interior applications: all traction equipment that requires cable protection Tunnels and infrastructure: cable protection in applications requiring a conduit with zero halogen and low smoke and fire hazard such as lineside/wayside equipment in tunnels, rail signalling systems, escalators, lifts, passenger information systems, CCTV installations etc
FCE-LFHB	Exterior applications: Bogies, jumper cables, sensor cable protection, pantograph cable protection on all types of train Interior applications: all traction equipment that requires cable protection Tunnels and infrastructure: cable protection in applications requiring a conduit with zero halogen and low smoke and fire hazard such as lineside/wayside equipment in tunnels, rail signalling systems, escalators, lifts, passenger information systems, CCTV installations etc

ENGINEERING DATA

EN 45545 Classified Conduits for Rolling Stock Applications - continued

Shieldtite Z1	Interior and Exterior Applications: EMC/EMP cable protection of antennae and data cables
AnaQuick PA6V0	Interior applications: CCTV, passenger information systems, floor and wall applications etc
Hiprojacket Aero	Exterior and Interior applications: Protection of sensor cables and wires that need to be protected from arcing, brake sparks, track and brake friction and heat generating equipment on board of a train etc

Non EN 45545 Classified Conduits for Train/Infrastructure/Tunnel & Lineside Applications

	Rolling Stock, Infrastructure, Tunnels and Lineside/Wayside
HFX	Exterior train applications: Bogies, jumper cables, sensor cable protection, pantograph cable protection on all types of train that do not require compliance with EN 45545 Lineside/wayside: cable protection of equipment such as point machines, axle counters, heat tracing cables, balises, rail signalling systems etc
FCEN	Train applications: CCTV, door locking systems and passenger information systems etc Tunnels, Infrastructure & Lineside: cable protection in applications where an all metal conduit that presents no fire hazard is required such as lineside/wayside equipment in tunnels, as well as escalators, lifts, passenger information systems, CCTV installations in train stations etc
Anaflex Click	Train applications: air conditioning systems on trains for cooling water transport of HVAC systems, but also cable protection in non dynamic applications Infrastructure: air conditioning systems in rail stations
UI	Train applications: CCTV, door locking systems and passenger information systems etc Tunnels, Infrastructure & Lineside: cable protection in applications where an all metal conduit that presents no fire hazard is required such as lineside/wayside equipment in tunnels, as well as escalators, lifts, passenger information systems, CCTV installations in train stations etc

Anaconda Conduit & Fittings Combinations and their IP ratings

Anaconda conduits come with their own range of fittings. The range includes,

- Straight, 45˚& 90˚
- Swivel & 90˚swivels
- Cable hose fittings

The table below gives an overview of the program of conduits with their matching range of fittings

Product / Fittings	Straight, 45°, 90°	Swivel, 90° swivels *	Cable hose fittings **
Sealtite HFX-V0	IP 67	IP 65 / IP 67	IP 68
Sealtite ZHUA	IP 67	IP 65 / IP 67	IP 68
Sealtite HFX	IP 67	IP 65 / IP 67	IP 68
Sealite ZHLS	IP 67	IP 65 / IP 67	IP 68
Shieldtite Z1	IP 67	IP 65 / IP 67	IP 68
Multitite FCE-PU-V0	IP 54 / IP 65 / IP 68	IP 54 / IP 65 / IP 67	IP 68
Multitite FCE-LFH	IP 54 / IP 65 / IP 68	IP 54 / IP 65 / IP 67	IP 68
Multitite FCE-LFHB	IP 54 / IP 65 / IP 68	IP 54 / IP 65 / IP 67	IP 68
Hipro Jacket Aero	IP 67	-	IP 68
Ana-Quick PA6-V0	IP 65 / IP 68	-	IP 65 / IP 68
Multiflex Anaflex click	IP 69	-	-
Multiflex FCEN	IP 40	IP 40	IP 68
Multiflex UI	IP 40	IP 40	IP 68

Notes *) The swivels have an IP rating of 65 in dynamic applications and IP 67 in static applications
**) The IP rating for the cable hose fittings is the connection to the enclosure and not the conduit

Cadenas

The majority of our conduits and fittings are in the Cadenas Electronic Database, including:
Sealtite HFX-V0, HFX, ZHLS, ZHUA, Hiprojacket Aero, Mutiflex FCEN and UI along with their drawings.

CONDUIT TYPE HFX-V0

Robust, halogen-free, very flexible, wide temperature range and optimum flame properties.

This conduit complies in full with the smoke and fire requirements of EN 45545. It is a robust, but flexible conduit for protecting cables that are subject to frequent movement and vibration such as on bogies, brake sensor cables, jumper, autocoupler and pantograph cables etc. The conduit's ability to withstand stone splash, snow, ice and dirt ballast and maintain its flexibility at low temperatures and changing levels of humidity makes it suitable for use on all types of rolling stock in all types of environmental conditions. HFX-V0 is also suitable for use to protect cables on traction equipment and air conditioning systems onboard trains.

Square locked from 5/16"- 1.1/4"

Inter locked from 1.1/2"- 2"

Material & Construction:
Construction: Galvanised steel core, square-locked with cord packing, thick smooth thermoplastic cover (V0-rated Polyurethane).
Cover specifications: V0-rated Polyurethane, lead-free according to RoHS, sunlight and UV resistant, suitable for outside installation.
Special approvals, flame properties according to:
- EN 45545-2 (2013):
  R22 (interior equipment) class HL1 and HL2
  R23 (exterior equipment) class HL1 and HL2.
  (CITnlp = 0,19 , Ds max = 262 and LOI = 31,6).
- NF F 16-101: class I3/F1 (LOI = 31,6%, smoke index = 19)
- EN ISO 11925-2 : passes the Allumability test at 30 sec.

Flame property tests:
Official tests (VTEC Laboratories INc.) indicate that the polyuretane used in HFX-V0 meets the requirements for NFPA 130, ASTM E162, ASTM E662 and BSS 7239.
Temperature: -50 ºC to +105 ºC, intermittent up to +125 ºC.
Colour: Black.

Classification according to NEN-EN-IEC 61386:
Compression resistance: Class 4, Heavy (1250 N).
Impact resistance: Class 4, Heavy (6 J).
Tensile strength: Class 4, Heavy (1000 N).
Protection class: IP 67 (dust-proof, water-tight).

Sealtite	Diametre		Bending radius (cl)		Standard carton		Small carton		Reel		Weight
Size	Inside	Outside	Static	Dynamic	Metre	Article No.	Metre	Article No.	Metre	Article No.	(Kg/m)
(Inch)	(mm)	(mm)	(mm)	(mm)		Black		Black		Black	
5/16"	10,1	14,4	50	65	30	348.010.1	-	-	-	-	0,2
3/8"	12,6	17,8	60	85	30	348.012.1	-	-	-	-	0,3
1/2"	16,0	21,1	75	110	30	348.016.1	-	-	-	-	0,4
3/4"	21,0	26,4	90	140	30	348.020.1	-	-	-	-	0,6
1"	26,5	33,1	120	170	30	348.026.1	-	-	-	-	0,8
1.1/4"	35,1	41,8	135	215	15	348.035.1	-	-	-	-	1,1
1.1/2"	40,3	47,8	165	250	15	348.040.1	-	-	-	-	1,5
2"	51,6	59,9	210	300	15	348.050.1	-	-	-	-	2,0

The fittings for Sealtite are outlined in on pages 10 till 19

Sealtite	1/4"	5/16"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
ISO	M12-M16	M16-M20	M16-M20	M20	M25	M32	M40	M50	M63	M75	M90	M105
Pg	7	9 - 11	11 - 13,5	16	21	29	36	42	48	-	-	-
NPT	-	-	1/2"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"

CONDUIT TYPE ZHUA

Robust, UL approved, halogen-free, good flame properties (UL-94 V0).

Type ZHUA is the ultimate Sealtite conduit with integral grounding copper wire (till 1.1/4"). The ZHUA is UL approved and has a wide temperature range. Because of the integrated copper grounding wire the ZHUA also offers a fine EMI/EMP shielding, which makes it useable for applications where a high degree of electrical continuity is required. Another unique feature of the ZHUA is, that it is extremely flexible at both high as low temperatures. The ZHUA is often being applied in the subway-, train- and bus-building industry, in closed areas, airports, tunnels and (subway) stations, shipbuilding industry and navy. Especially for export projects outside Europe.

Square locked from 3/8"- 1.1/4"

Inter locked from 1.1/2"- 2"

Material & Construction:

Construction: Galvanised steel core, square-locked with integral copper grounding wire till 1.1/4", thick smooth thermoplastic cover (Polyurethane).

Cover specifications: Polyurethane, lead-free acc. to RoHS, sunlight and UV resistant, suitable for outside installation.

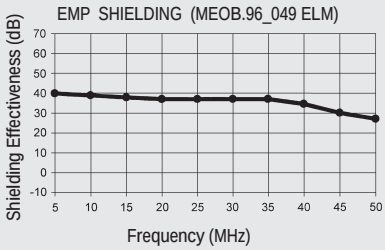
Special approvals: UL-360 (file # E18917), material classification UL-94 V0. Suitable for use in hazardous environments according to NEC:

- Article 501.10 (B) (2) Class I, Division 2, Article 502.10 (A) (2) and (B) (2) Class II, Division 1 and 2, Article 503.10 (A) (3) and (B) Class III, Division 1 and 2
- EN 45545-2: R22 (interior equipment) class HL1 and HL2, R23 (exterior equipment) class HL1 and HL2. (ITCpnl = 0,19 , Ds max = 262 and LOI = 31,6).
- EN ISO 11925-2 : passes the Allumability test at 30 sec.

Flame property tests:
Official tests (VTEC Laboratories Inc.) indicate that the polyuretane used in ZHUA meets the requirements for NFPA 130, ASTM E162, ASTM E662 and BSS 7239.

Temperature: -50 ºC to +105 ºC, intermittent up to +125 ºC.
(approved for UL -40 °C till +80 °C) **Colour:** Black.

RoHS GOST-R UL EN 45545 EMP/EMV NFF LOW SMOKE OIL



Sealtite	Diametre		Bending radius (cl)		Standard carton		Small carton		Reel		Weight
Size	Inside	Outside	Static	Dynamic	Metre	Article No.	Metre	Article No.	Metre	Article No.	(Kg/m)
(Inch)	(mm)	(mm)	(mm)	(mm)		Black		Black		Black	
3/8"	12,6	17,8	70	85	30	334.012.1	-	-	150	334.012.5	0,4
1/2"	16,1	21,1	90	110	30	334.016.1	-	-	150	334.016.5	0,5
3/4"	21,1	26,4	115	140	30	334.020.1	-	-	150	334.020.5	0,7
1"	26,8	33,1	145	170	30	334.026.1	-	-	120	334.026.5	1,1
1.1/4"	35,4	41,8	175	215	15	334.035.1	-	-	60	334.035.5	1,5
1.1/2"	40,3	47,8	205	250	15	334.040.1	-	-	45	334.040.5	1,7
2"	51,6	59,9	240	300	15	334.050.1	-	-	30	334.050.5	2,2

The fittings for Sealtite are outlined in on pages 10 till 19

Sealtite	1/4"	5/16"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
ISO	M12-M16	M16-M20	M16-M20	M20	M25	M32	M40	M50	M63	M75	M90	M105
Pg	7	9 - 11	11 - 13,5	16	21	29	36	42	48	-	-	-
NPT	-	-	1/2"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"

CONDUIT TYPE ZHLS

Robust, halogen-free, low smoke, excellent flame properties.

A halogen-free, “low smoke” conduit for use in public areas. The features of the ZHLS cover are necessary in the field of environment and safety, as the European guidelines state that materials used in certain areas must meet special requirements regarding toxic gas emission and smoke density in case of fire. Because of the BS approvas is type ZHLS optimal for use in the subway-, train- and bus-building industry, in closed areas, airports, tunnels, (subway) stations and other infra-structure projects, but also in hospitals, elevators, escalators and other public areas.

Square locked from 5/16”- 1.1/4”

Inter locked at 1/4”, 1.1/2” and 2”

Material & Construction:
Construction: Galvanised steel core, square-locked with cord packing, thick smooth thermoplastic cover (Polyolefin).
Cover specifications: Polyolefin, lead-free according to RoHS, sunlight and UV resistant, suitable for outside installation.
Special approvals, flame properties according to:
- EN 45545-2 (2013): R22 (interior equipment) class HL1, HL2 and HL3
  R23 (exterior equipment) class HL1, HL2 and HL3.
  (CITnlp = 0,09 , Ds max = 121 and LOI = 41,5).
- BS 6853 (1999) : Tabel 7 (Interior) Category 1b and II vehicle
  Tabel 8 (Exterior) Category 1a, 1b and II vehicle

Flame property tests:
- London Underground LUL 1-085 (2011) Tabel 4 : limited and dispersed usage

Temperature: -25 ºC to +80 ºC, intermittent up to +100 ºC.
Colour: Black.

RoHS GOST-R LOW SMOKE BS 6853 EN 45545

Classification according to NEN-EN-IEC 61386:
Compression resistance: Class 4, Heavy (1250 N).
Impact resistance: Class 4, Heavy (6 J).
Tensile strength: Class 4, Heavy (1000 N).
Protection class: IP 67 (dust-proof, water-tight).

Sealtite	Diametre		Bending radius (cl)		Standard carton		Small carton		Reel		Weight
Size	Inside	Outside	Static	Dynamic	Metre	Article No.	Metre	Article No.	Metre	Article No.	(Kg/m)
(Inch)	(mm)	(mm)	(mm)	(mm)		Black		Black		Black	
1/4”	6,4	11,5	40	50	30	309.006.1	-	-	-	-	0,2
5/16”	10,1	14,4	50	65	30	309.010.1	10	309.010.3	-	-	0,2
3/8”	12,6	17,8	60	85	30	309.012.1	10	309.012.3	250	309.012.5	0,3
1/2”	16,0	21,1	75	110	30	309.016.1	10	309.016.3	150	309.016.5	0,4
3/4”	21,0	26,4	90	140	30	309.020.1	10	309.020.3	120	309.020.5	0,6
1”	26,5	33,1	120	170	30	309.026.1	10	309.026.3	90	309.026.5	0,8
1.1/4”	35,1	41,8	135	215	15	309.035.1	-	-	60	309.035.5	1,1
1.1/2”	40,3	47,8	165	250	15	309.040.1	-	-	45	309.040.5	1,5
2”	51,6	59,9	210	300	15	309.050.1	-	-	22	309.050.5	2,0

The fittings for Sealtite are outlined in on pages 10 till 19

Sealtite	1/4”	5/16”	3/8”	1/2”	3/4”	1”	1 1/4”	1 1/2”	2”	2 1/2”	3”	4”
ISO	M12-M16	M16-M20	M16-M20	M20	M25	M32	M40	M50	M63	M75	M90	M105
Pg	7	9 - 11	11 - 13,5	16	21	29	36	42	48	-	-	-
NPT	-	-	1/2”	1/2”	3/4”	1”	1 1/4”	1 1/2”	2”	2 1/2”	3”	4”

CONDUIT TYPE SHIELDTITE Z1

Robust, EMI / EMP shielding and halogenfree.

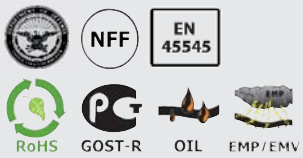
Shieldtite Z1 complies in full with the smoke and fire requirements of EN 45545. The conduit is designed to provide a high level of EMC/EMP for antennae and data cables on rolling stock. The conduit's bronze core and thick cover protects sensitive cables and wires from interference from equipment and apparatus both on and off the train. The Shieldtite Z1 conduit has been developed according to MIL-STD 1310D (military standard USA) and has a fully interlocked construction with a bronze core. This results in excellent shielding against electromagnetic fields, which is one of the most occurring disturbing factors of electronic equipment.

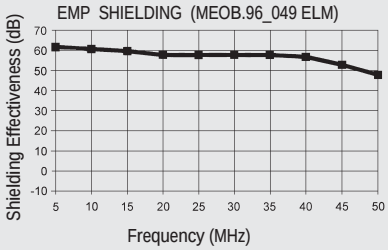
Inter locked

Material & Construction:

Construction: Bronze core, fully-interlocked, thick smooth thermoplastic (TPU) cover.
Cover specifications: V0-rated Polyurethane, lead-free according to RoHS, sunlight and UV resistant, suitable for outside installation. The cover is resistant against oil and grease.
Special approvals, flame properties according to:
- EN 45545-2 (2013):
  R22 (interior equipment) class HL1 and HL2
  R23 (exterior equipment) class HL1 and HL2.
  (CITnlp = 0,19 , Ds max = 262 and LOI = 31,6).
- NF F 16-101: class I3/F1 (LOI = 31,6%, smoke index = 19)
- EN ISO 11925-2 : passes the Allumability test at 30 sec.

Flame property tests:
Official tests (VTEC Laboratories Inc.) indicate that the polyuretane used in Shieldite Z1 meets the requirements for NFPA 130, ASTM E162, ASTM E662 and BSS 7239.
Temperature: -50 ºC to +105 ºC, intermittent up to +125 ºC.
Colour: Grey.





Sealtite	Diametre		Bending radius (cl)		Standard carton		Small carton		Reel		Weight
Size	Inside	Outside	Static	Dynamic	Metre	Article No.	Metre	Article No.	Metre	Article No.	(Kg/m)
(Inch)	(mm)	(mm)	(mm)	(mm)		Grey		Grey		Grey	
3/8"	12,6	17,8	80	100	30	304.212.1	-	-	-	-	0,3
1/2"	16,0	21,1	90	125	30	304.216.1	-	-	-	-	0,4
3/4"	21,0	26,4	110	160	30	304.220.1	-	-	-	-	0,6
1"	26,5	33,1	120	200	30	304.226.1	-	-	-	-	0,8
1.1/4"	35,1	41,8	135	240	15	304.235.1	-	-	-	-	1,1
1.1/2"	40,3	47,8	200	290	15	304.240.1	-	-	-	-	1,5
2"	51,6	59,9	275	380	15	304.250.1	-	-	-	-	2,0

The fittings for Sealtite are outlined in on pages 10 till 19

Sealtite	1/4"	5/16"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
ISO	M12-M16	M16-M20	M16-M20	M20	M25	M32	M40	M50	M63	M75	M90	M105
Pg	7	9 - 11	11 - 13,5	16	21	29	36	42	48	-	-	-
NPT	-	-	1/2"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"

CONDUIT TYPE HFX

Robust, halogen-free, very flexible, good flame properties and superior chemical resistant.

Sealtite HFX is a very flexible conduit designed for use in dynamic applications where frequent and erratic movement can take place. During movement and torque stress, the conduit retains its flexibility and integrity even at low operating temperatures, when other conduit's tend to stiffen. The conduit's halogen free, thermoplastic cover displays excellent flame properties and resistance to chemicals. As such, HFX meets the stringent requirements of the rail and subway infrastructure, train signaling, train and metro building , marine, petrochemical and chemical industries as well as the stringent requirements of closed areas like airports, tunnels and subway stations.

Square locked from 5/16"- 1.1/4"

Inter locked for size 1/4", 1.1/2", 2"

Material & Construction:

Construction: Galvanised steel core, square-locked with cord packing, thick smooth thermoplastic cover (Polyurethane). Size 1/4" and from 1.1/2" a fully inter-locked profile is used.

Cover specifications: Polyurethane, lead-free according to RoHS, sunlight and UV resistant, suitable for outside installation. The cover is resistant against oil and grease.

Temperature: -55 ºC to +105 ºC, intermittent up to +125 ºC.

Colour: Black.

RoHS GOST-R OIL LOW SMOKE

Classification according to NEN-EN-IEC 61386:

Compression resistance: Class 4, Heavy (1250 N).

Impact resistance: Class 4, Heavy (6 J).

Tensile strength: Class 4, Heavy (1000 N).

Protection class: IP 67 (dust-proof, water-tight).

Sealtite	Diametre		Bending radius (cl)		Standard carton		Small carton		Reel		Weight
Size	Inside	Outside	Static	Dynamic	Metre	Article No.	Metre	Article No.	Metre	Article No.	(Kg/m)
(Inch)	(mm)	(mm)	(mm)	(mm)		Black		Black		Black	
1/4"	6,4	11,5	40	50	30	331.006.1	-	-	-	-	0,2
5/16"	10,1	14,4	50	65	30	331.010.1	10	331.010.3	250	331.010.5	0,2
3/8"	12,6	17,8	60	85	30	331.012.1	10	331.012.3	250	331.012.5	0,3
1/2"	16,0	21,1	75	110	30	331.016.1	10	331.016.3	150	331.016.5	0,4
3/4"	21,0	26,4	90	140	30	331.020.1	10	331.020.3	120	331.020.5	0,6
1"	26,5	33,1	120	170	30	331.026.1	10	331.026.3	90	331.026.5	0,8
1.1/4"	35,1	41,8	135	215	15	331.035.1	-	-	60	331.035.5	1,1
1.1/2"	40,3	47,8	165	250	15	331.040.1	-	-	-	-	1,5
2"	51,6	59,9	210	300	15	331.050.1	-	-	-	-	2,0

The fittings for Sealtite are outlined in on pages 10 till 19

Sealtite	1/4"	5/16"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
ISO	M12-M16	M16-M20	M16-M20	M20	M25	M32	M40	M50	M63	M75	M90	M105
Pg	7	9 - 11	11 - 13,5	16	21	29	36	42	48	-	-	-
NPT	-	-	1/2"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"

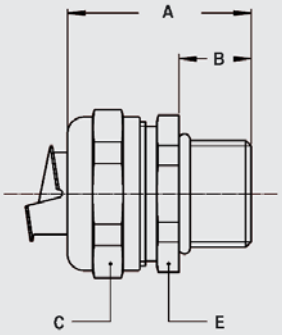
COMPACT FITTINGS IP 66 / IP 67

Anaconda *compact* fittings, UL & CSA, nickel plated brass, for Anaconda Sealtite.

Anaconda *compact* nickel plated brass fittings can be used with all types of Anaconda Sealtite (except CNP). This Anaconda fitting is a universal fitting with shorter design and a lower weight than the standard Anaconda fitting. All ferrules are flanged versions for a better fit. The high quality nickel plating offers excellent corrosion protection in combination with a nice appearance. The compact fittings have UL & CSA approval. The cable-hose fittings contain clamping rubbers that are approved for the train industry.

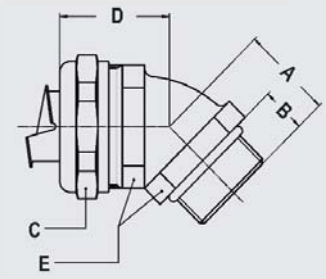
Construction: Nickel plated brass fitting, consisting of 4 parts (counter nut, clamping ring, ferrule and body).
Material: Counter nut and body are nickel plated brass. Clamping ring is made from PA6 and the ferrule is made from galvanised steel. The O-rings are from NBR rubber (black for ISO and blue for Pg). The clamping rubbers of the cable hose fittings are made from EPDM.
Special approvals: UL-514B and CSA C 22.2 (combined UL/CSA file # E 234207). Suitable for use in hazardous environments according to NEC:
- Article 501.10 (B) (2) Class I, Division 2
- Article 502.10 (A) (2) and (B) (2) Class II, Division 1 and 2
- Article 503.10 (A) (3) and (B) Class III, Division 1 and 2

Sizes 1/4" and 5/16" do not have UL/CSA approval. The cable-hose fittings have clamping rubbers from flame retardant V0-rated EPDM and are HL 1, HL 2 and HL 3 according EN 45545-2, R22 and R23.
Temperature: -45 °C till +105 ºC continuous
Protection class: IP 66, IP 67, NEMA 4X.
Cable hose fittings are IP 68 on the switchbox.
Colour: Metal



ISO straight fitting, compact, male, nickel plated brass.

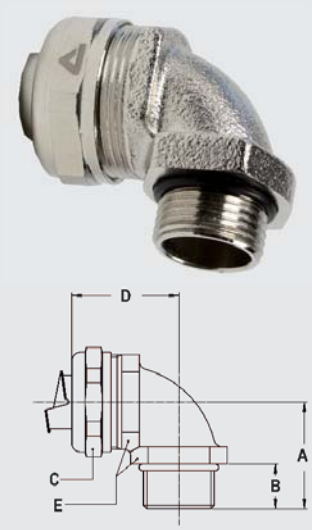
Thread ISO	Sealtite Size (NW)	Min. Internal Bore (mm)	Dimensions in mm A	B	C	D	E	Standard Package	Article Number	Weight (Kg/100)
M16 x 1,5	5/16"	8,3	31	10	26	-	24	10	712.015.0	3,9
M20 x 1,5	5/16"	8,3	31	10	26	-	24	10	712.014.0	4,0
M16 x 1,5	3/8"	11,0	31	10	26	-	24	10	712.016.1	3,9
M20 x 1,5	3/8"	11,0	31	10	26	-	24	10	712.017.1	4,0
M20 x 1,5	1/2"	14,5	32	10	29	-	27	10	712.020.1	4,4
M25 x 1,5	3/4"	19,4	33	10	35	-	33	5	712.025.1	6,6
M32 x 1,5	1"	24,7	36	12	45	-	42	5	712.032.1	11,7
M40 x 1,5	1.1/4"	33,3	40	13	53	-	50	2	712.040.1	16,0
M50 x 1,5	1.1/2"	38,0	46	14	62	-	58	2	712.050.1	25,3
M63 x 1,5	2"	49,0	52	16	76	-	72	2	712.063.1	38,6



ISO 45° fitting, compact, male, nickel plated brass.

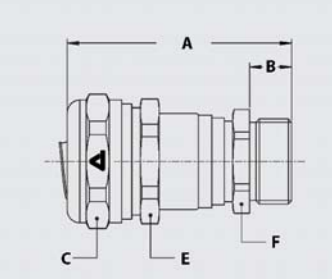
Thread ISO	Sealtite Size (NW)	Min. Internal Bore (mm)	Dimensions in mm A	B	C	D	E	Standard Package	Article Number	Weight (Kg/100)
M16 x 1,5	5/16"	8,3	19	10	26	27	22	10	712.416.1	6,3
M20 x 1,5	5/16"	8,3	20	10	26	28	24	10	712.417.1	7,2
M16 x 1,5	3/8"	11,0	19	10	26	27	22	10	712.416.1	6,3
M20 x 1,5	3/8"	11,0	20	10	26	28	24	10	712.417.1	7,2
M20 x 1,5	1/2"	14,5	21	10	29	30	27	10	712.420.1	8,3
M25 x 1,5	3/4"	19,4	23	10	35	33	33	5	712.425.1	12,8
M32 x 1,5	1"	24,7	28	12	45	38	42	5	712.432.1	22,5
M40 x 1,5	1.1/4"	33,3	33	13	53	39	52	2	712.440.1	34,5
M50 x 1,5	1.1/2"	38,0	35	14	62	46	60	2	712.450.1	50,0
M63 x 1,5	2"	49,0	40	16	76	53	72	2	712.463.1	80,5

COMPACT FITTINGS IP 66 / IP 67



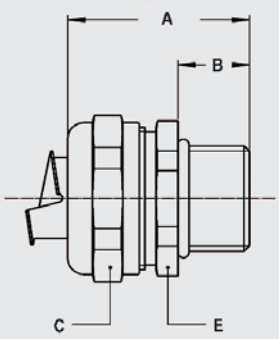
ISO 90° fitting, compact, male, nickel plated brass.

Thread ISO	Sealtite Size (NW)	Min. Internal Bore (mm)	Dimensions in mm A	B	C	D	E	Standard Package	Article Number	Weight (Kg/100)
M16 x 1,5	5/16”	8,3	26	10	26	31	22	10	712.915.0	6,6
M20 x 1,5	5/16”	8,3	26	10	26	32	24	10	712.914.0	7,9
M16 x 1,5	3/8”	11,0	26	10	26	31	22	10	712.916.1	6,6
M20 x 1,5	3/8”	11,0	26	10	26	32	24	10	712.917.1	7,9
M20 x 1,5	1/2”	14,5	28	10	29	34	27	10	712.920.1	9,2
M25 x 1,5	3/4”	19,4	32	10	35	40	33	5	712.925.1	16,2
M32 x 1,5	1”	24,7	40	12	45	49	42	5	712.932.1	27,8
M40 x 1,5	1.1/4”	33,3	46	13	53	53	52	2	712.940.1	40,1
M50 x 1,5	1.1/2”	38,0	52	14	62	57	60	2	712.950.1	57,5
M63 x 1,5	2”	49,0	62	16	76	68	72	2	712.963.1	90,6



ISO cable-hose fitting, compact, male, nickel plated brass, double seal according EN 45545-2, HL1 / HL2 / HL 3, table R22 and R23.

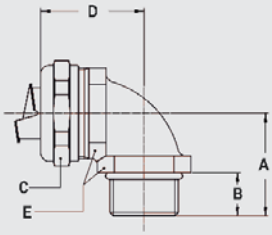
Thread ISO	Sealtite Size (NW)	Clamping range (mm)	Dimensions in mm A	B	C	E	F	Standard Package	Article Number	Weight (Kg/100)
M12 x 1,5	1/4”	1,0 - 5,2	46	9	19	17	14	10	712.712.2	4,0
M16 x 1,5	1/4”	1,0 - 5,2	47	10	19	17	18	10	712.713.2	4,7
M16 x 1,5	5/16”	4,0 - 8,3	50	10	22	20	18	10	712.715.2	5,7
M20 x 1,5	5/16”	4,0 - 8,3	50	10	22	20	22	10	712.714.2	6,4
M16 x 1,5	3/8”	4,0 - 9,5	50	10	26	24	18	10	712.716.1	6,8
M20 x 1,5	3/8”	4,0 - 9,5	50	10	26	24	22	10	712.717.1	7,4
M20 x 1,5	1/2”	6,0 - 13,0	53	10	29	27	22	10	712.720.1	7,6
M25 x 1,5	1/2”	6,0 - 13,0	54	10	29	27	27	5	712.722.1	9,0
M25 x 1,5	3/4”	10,0 - 18,0	56	10	35	33	27	5	712.725.1	11,7
M32 x 1,5	3/4”	10,0 - 18,0	58	12	35	33	35	5	712.728.1	15,0
M32 x 1,5	1”	16,0 - 25,0	61	12	45	42	35	5	712.732.1	20,3
M40 x 1,5	1”	16,0 - 25,0	63	13	45	42	43	2	712.735.1	24,5
M40 x 1,5	1.1/4”	22,0 - 32,0	69	13	53	50	43	2	712.740.1	28,6



Pg straight fitting, compact, male, nickel plated brass.

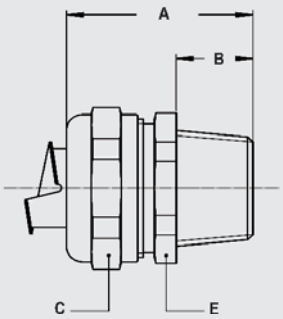
Thread Pg	Sealtite Size (NW)	Min. Internal Bore (mm)	Dimensions in mm A	B	C	D	E	Standard Package	Article Number	Weight (Kg/100)
Pg 11	5/16”	8,3	31	10	26	-	24	10	710.012.0	4,0
Pg 13,5	5/16”	8,3	31	10	26	-	24	10	710.014.0	4,2
Pg 11	3/8”	11,0	31	10	26	-	24	10	710.011.1	4,0
Pg 13,5	3/8”	11,0	31	10	26	-	24	10	710.013.1	4,2
Pg 16	1/2”	14,5	32	10	29	-	27	10	710.016.1	4,5
Pg 21	3/4”	19,4	33	10	35	-	33	5	710.021.1	6,5
Pg 29	1”	24,7	36	12	45	-	44	5	710.029.1	12,2
Pg 36	1.1/4”	33,3	40	13	53	-	52	2	710.036.1	16,4
Pg 42	1.1/2”	38,0	46	14	62	-	60	2	710.042.1	26,3
Pg 48	2”	49,0	52	16	76	-	72	2	710.048.1	38,6

COMPACT FITTINGS IP 66 / IP 67



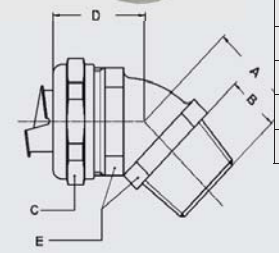
Pg 90° fitting, compact, male, nickel plated brass.

Thread	Sealtite	Min. Internal	Dimensions in mm					Standard	Article	Weight
Pg	Size (NW)	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
Pg 11	3/8”	11,0	26	10	26	32	24	10	710.911.1	7,7
Pg 13,5	3/8”	11,0	26	10	26	32	24	10	710.913.1	8,0
Pg 16	1/2”	14,5	28	10	29	34	27	10	710.916.1	9,2
Pg 21	3/4”	19,4	32	10	35	40	33	5	710.921.1	15,7
Pg 29	1”	24,7	40	12	45	49	42	5	710.929.1	28,6
Pg 36	1.1/4”	33,3	46	13	53	53	52	2	710.936.1	40,1
Pg 42	1.1/2”	38,0	52	14	62	57	60	2	710.942.1	57,5
Pg 48	2”	49,0	62	16	76	68	72	2	710.948.1	92,1



NPT straight fitting, compact, male, nickel plated brass.

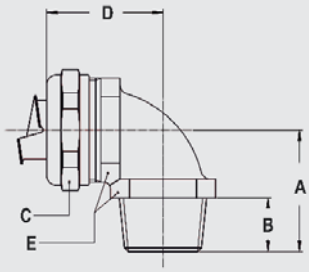
Thread	Sealtite	Min. Internal	Dimensions in mm					Standard	Article	Weight
NPT	Size (NW)	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
NPT 1/2”	3/8”	11,0	35	14	26	-	24	10	714.012.1	4,4
NPT 1/2”	1/2”	14,5	36	14	29	-	27	10	714.016.1	5,0
NPT 3/4”	3/4”	19,4	37	14	35	-	33	5	714.020.1	7,0
NPT 1”	1”	24,7	40	16	45	-	42	5	714.026.1	12,6
NPT 1.1/4”	1.1/4”	33,3	43	16	53	-	50	2	714.035.1	16,8
NPT 1.1/2”	1.1/2”	38,0	50	18	62	-	58	2	714.040.1	25,8
NPT 2”	2”	49,0	56	20	76	-	72	2	714.050.1	41,2



NPT 45° fitting, compact, male, nickel plated brass.

Thread	Sealtite	Min. Internal	Dimensions in mm					Standard	Article	Weight
NPT	Size (NW)	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
NPT 1/2”	3/8”	11,0	24	14	26	28	24	10	714.412.1	7,7
NPT 1/2”	1/2”	14,5	25	14	29	30	27	10	714.416.1	8,8
NPT 3/4”	3/4”	19,4	27	14	35	33	33	5	714.420.1	14,5
NPT 1”	1”	24,7	32	16	45	38	42	5	714.426.1	24,0
NPT 1.1/4”	1.1/4”	33,3	36	16	53	39	52	2	714.435.1	35,5
NPT 1.1/2”	1.1/2”	38,0	39	18	62	46	60	2	714.440.1	51,0
NPT 2”	2”	49,0	44	20	76	53	72	2	714.450.1	85,5

COMPACT FITTINGS IP 66 / IP 67



NPT 90° fitting, compact, male, nickel plated brass.

Thread	Sealtite	Min. Internal	Dimensions in mm					Standard	Article	Weight
NPT	Size (NW)	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
NPT 1/2”	3/8”	11,0	30	14	26	32	24	10	714.912.1	8,2
NPT 1/2”	1/2”	14,5	32	14	29	34	27	10	714.916.1	9,6
NPT 3/4”	3/4”	19,4	36	14	35	40	33	5	714.920.1	16,7
NPT 1”	1”	24,7	44	16	45	49	42	5	714.926.1	28,3
NPT 1.1/4”	1.1/4”	33,3	49	16	53	53	52	2	714.935.1	41,4
NPT 1.1/2”	1.1/2”	38,0	56	18	62	57	60	2	714.940.1	57,3
NPT 2”	2”	49,0	66	20	76	68	72	2	714.950.1	90,8

Grounding ferrule, galvanised steel

Thread	Sealtite	Min. Internal	Dimensions in mm					Standard	Article	Weight
	Size (NW)	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
-	3/8”	11,0	-	-	-	-	-	50	815.011.2	0,4
-	1/2”	14,5	-	-	-	-	-	50	815.016.2	0,5
-	3/4”	19,4	-	-	-	-	-	25	815.021.2	0,7
-	1”	24,7	-	-	-	-	-	25	815.029.2	1,1
-	1.1/4”	33,3	-	-	-	-	-	10	815.036.2	1,5
-	1.1/2”	38,0	-	-	-	-	-	10	815.042.2	2,1
-	2”	49,0	-	-	-	-	-	10	815.048.2	3,2

NPT locknut, galvanised steel

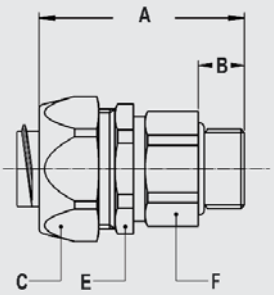
Thread	Sealtite	Min. Internal	Dimensions in mm					Standard	Article	Weight
	Size (NW)	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
NPT 1/2”	1/2”	-	-	-	-	-	-	100	880.316.0	0,5
NPT 3/4”	3/4”	-	-	-	-	-	-	50	880.320.0	0,8
NPT 1”	1”	-	-	-	-	-	-	50	880.326.0	1,3
NPT 1.1/4”	1.1/4”	-	-	-	-	-	-	20	880.335.0	1,8
NPT 1.1/2”	1.1/2”	-	-	-	-	-	-	20	880.340.0	2,2
NPT 2”	2”	-	-	-	-	-	-	20	880.350.0	2,8

SWIVEL FITTINGS IP 65 / IP 67

Anaconda swivel fittings, nickel plated brass, for Anaconda Sealtite.

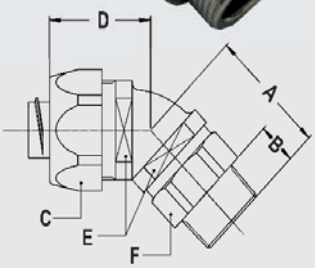
Anaconda swivel nickel plated brass fittings can be used with all types of Anaconda Sealtite (except CNP). This Anaconda fitting is a universal fitting with a special swivel mechanism for a higher tensile strength and a high water proof protection (IP65 / IP 67). All ferrules are turned nickel plated brass for a better fit. The high quality nickel plating offers excellent corrosion protection in combination with a nice appearance.

Construction: Nickel plated brass fitting, consisting of 4 parts (counter nut, clamping ring, ferrule and body).
Material: Counter nut and body are nickel plated brass. Clamping ring is made from PA6 and the ferrule is made from nickel plated brass. The O-rings are from NBR rubber (black for ISO).
Temperature: -45 °C till +105 ºC continuous
Protection class: IP 67 for static applications and IP 65 for dynamic applications.
Colour: Metal



ISO straight swivel fitting, male, nickel plated brass

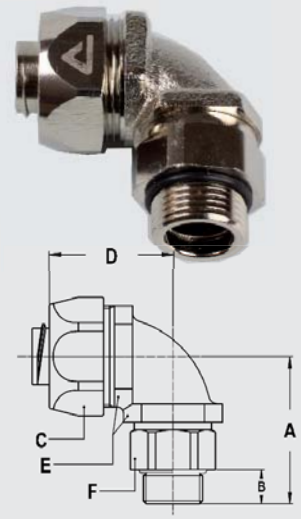
Thread ISO	Sealtite Size (NW)	Min. Internal Bore (mm)	Dimensions in mm A	B	C	E	F	Standard Package	Article Number	Weight (Kg/100)
M16 x 1,5	5/16”	8,3	48	10	26	24	21	10	813.015.0	8,1
M16 x 1,5	3/8”	10,4	48	10	26	24	21	10	813.016.0	8,1
M20 x 1,5	1/2”	13,8	49	10	29	27	25	10	813.020.0	10,2
M25 x 1,5	3/4”	17,4	49	10	35	33	31	5	813.025.0	13,8
M32 x 1,5	1”	23,4	55	12	45	42	38	5	813.032.0	32,5
M40 x 1,5	1.1/4”	29,4	58	14	54	50	48	2	813.040.0	53,0
M50 x 1,5	1.1/2”	36,9	65	14	62	58	55	2	813.050.0	74,0
M63 x 1,5	2”	47,9	74	16	76	72	68	2	813.063.0	130,0



ISO 45° swivel fitting, male, nickel plated brass.

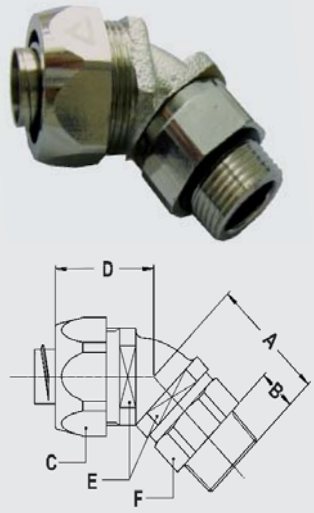
Thread ISO	Sealtite Size (NW)	Min. Internal Bore (mm)	Dimensions in mm A	B	C	D	E	F	Standard Package	Article Number	Weight (Kg/100)
M16 x 1,5	3/8”	10,4	34	10	26	28	22	21	10	813.416.0	9,5
M20 x 1,5	1/2”	13,8	34	10	29	30	27	25	10	813.420.0	13,5
M25 x 1,5	3/4”	17,4	37	10	35	32	33	31	5	813.425.0	21,5
M32 x 1,5	1”	23,4	41	12	45	37	42	38	5	813.432.0	36,5

SWIVEL FITTINGS IP 65 / IP 67



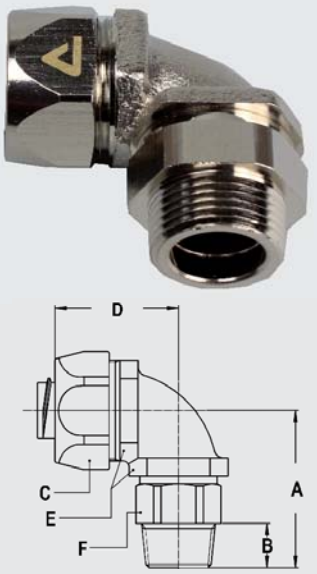
ISO 90° swivel fitting, male, nickel plated brass

Thread ISO	Sealtite Size (NW)	Min. Internal Bore (mm)	Dimensions in mm A	B	C	D	E	F	Standard Package	Article Number	Weight (Kg/100)
M16 x 1,5	5/16”	8,3	39	10	26	35	22	22	10	813.915.0	10,8
M16 x 1,5	3/8”	10,4	39	10	26	35	22	22	10	813.916.0	10,8
M20 x 1,5	1/2”	13,8	39	10	29	37	27	25	10	813.920.0	13,2
M25 x 1,5	3/4”	17,4	46	10	35	44	33	31	5	813.925.0	22,8
M32 x 1,5	1”	23,4	55	12	45	55	42	38	5	813.932.0	41,4



NPT 45° swivel fitting, male, nickel plated brass

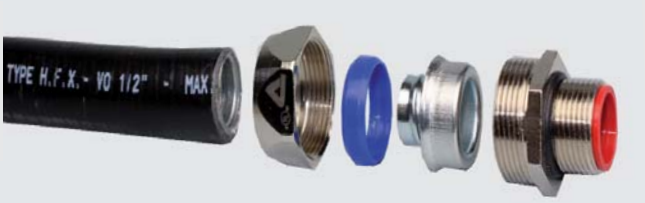
Thread ISO	Sealtite Size (NW)	Min. Internal Bore (mm)	Dimensions in mm A	B	C	D	E	F	Standard Package	Article Number	Weight (Kg/100)
NPT 1/2”	3/8”	10,4	36	12	26	28	22	22	10	819.412.0	11,5
NPT 1/2”	1/2”	13,8	36	12	29	30	27	25	10	819.416.0	14,0
NPT 3/4”	3/4”	17,4	39	12	35	32	33	31	5	819.420.0	22,0
NPT 1”	1”	23,4	42	13	45	37	42	38	5	819.426.0	37,0



NPT 90° swivel fitting, male, nickel plated brass

Thread NPT	Sealtite Size (NW)	Min. Internal Bore (mm)	Dimensions in mm A	B	C	D	E	F	Standard Package	Article Number	Weight (Kg/100)
NPT 1/2”	3/8”	10,4	41	12	26	35	22	22	10	819.912.0	12,0
NPT 1/2”	1/2”	13,8	41	12	29	37	27	25	10	819.916.0	14,0
NPT 3/4”	3/4”	17,4	48	12	35	44	33	31	5	819.920.0	23,5
NPT 1”	1”	23,4	56	13	45	55	42	38	5	819.926.0	42,0

STANDARD FITTINGS IP 67

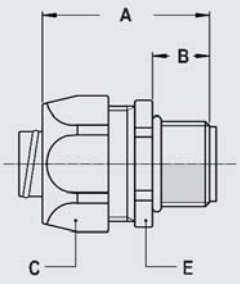


Anaconda nickel plated brass fittings for Anaconda Sealtite.

Anaconda standard nickel plated brass fittings can be used with all types of Anaconda Sealtite (except CNP). This Anaconda fitting is the most used universal fitting and offers excellent corrosion protection in combination with a nice appearance. Because of the UL & CSA approvals the fittings are also suitable for export projects outside Europe.

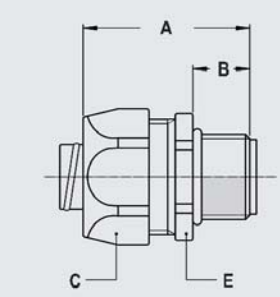
Construction: Nickel plated brass fitting, consisting of 4 parts (counter nut, clamping ring, ferrule and body).
Material: Counter nut, body and ferrule are nickel plated brass with exception of size 3/8" till 1" where the ferrule is from galvanised steel. Clamping ring and inserts are made from PA6 (red for ISO metric, blue for Pg and white for NPT).
Special approvals: UL-514B and CSA C 22.2 (combined UL/CSA file # E 234207). Suitable for use in hazardous environments according to NEC:
- Article 501.10 (B) (2) Class I, Division 2
- Article 502.10 (A) (2) and (B) (2) Class II, Division 1 and 2
- Article 503.10 (A) (3) and (B) Class III, Division 1 and 2

Sizes 1/4" and 5/16" do not have UL/CSA approv
Temperature: -45 °C till +105 ºC continuous (cable-hose-fittings are -40 °C till +100 °C).
Protection class: IP 67, with cable-hose fittings an IP 68 rate on the switchbox can be obtained.
Colour: Metal.



ISO straight fitting, compact, male, nickel plated brass.

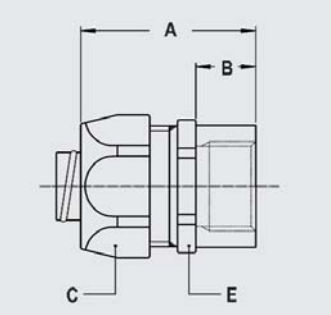
Thread ISO	Sealtite Size (NW)	Min. Internal Bore (mm)	Dimensions in mm A	B	C	D	E	Standard Package	Article Number	Weight (Kg/100)
M12 x 1,5	1/4"	5,2	33	10	22	-	20	10	812.012.1	4,8
M16 x 1,5	5/16"	8,3	35	12	26	-	24	10	812.015.1	4,8
M20 x 1,5	5/16"	8,3	36	13	26	-	24	10	812.014.1	5,1
M16 x 1,5	3/8"	10,2	35	12	26	-	24	10	812.016.1	4,8
M20 x 1,5	3/8"	10,2	36	13	26	-	24	10	812.017.1	5,1
M20 x 1,5	1/2"	13,9	37	13	29	-	27	10	812.020.1	5,9
M25 x 1,5	3/4"	18,5	40	15	35	-	33	5	812.025.1	7,9
M32 x 1,5	1"	23,8	46	15	45	-	43	5	812.032.1	17,5
M40 x 1,5	1.1/4"	31,8	52	16	54	-	52	2	812.040.1	27,9
M50 x 1,5	1.1/2"	36,8	56	18	63	-	60	2	812.050.1	42,3
M63 x 1,5	2"	47,8	66	20	77	-	74	2	812.063.1	73,5



ISO straight fitting, small design, male, nickel plated brass.

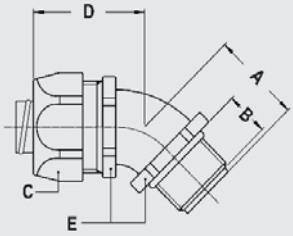
Thread ISO	Sealtite Size (NW)	Min. Internal Bore (mm)	Dimensions in mm A	B	C	D	E	Standard Package	Article Number	Weight (Kg/100)
M12 x 1,5	1/4"	5,2	33	10	19	-	17	10	812.012.2	2,8
M16 x 1,5	1/4"	5,2	35	12	19	-	19	10	812.013.2	3,4
M12 x 1,5	5/16"	8,3	33	10	22	-	20	10	812.011.2	3,6
M16 x 1,5	5/16"	8,3	35	12	22	-	20	10	812.015.2	3,8
M20 x 1,5	5/16"	8,3	36	13	22	-	24	10	812.014.2	4,2

STANDARD FITTINGS IP 67



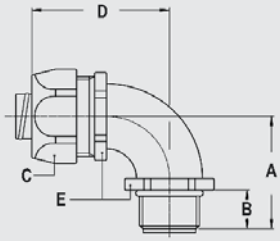
ISO straight fitting, female, nickel plated brass.

Thread	Sealtite	Min. Internal	Dimensions in mm					Standard	Article	Weight
ISO	Size (NW)	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
M16 x 1,5	5/16”	8,3	35	12	26	-	24	10	812.315.1	5,0
M16 x 1,5	3/8”	10,2	35	12	26	-	24	10	812.316.1	5,0
M20 x 1,5	1/2”	13,9	37	13	29	-	27	10	812.320.1	7,6
M25 x 1,5	3/4”	18,5	40	15	35	-	33	5	812.325.1	9,0
M32 x 1,5	1”	23,8	46	15	45	-	43	5	812.332.1	18,3
M40 x 1,5	1.1/4”	31,8	52	16	54	-	52	2	812.340.1	29,3
M50 x 1,5	1.1/2”	36,8	56	18	63	-	60	2	812.350.1	41,2
M63 x 1,5	2”	47,8	66	20	77	-	74	2	812.363.1	71,8
M50 x 1,5	1.1/2”	38,0	52	14	62	57	60	2	712.950.1	57,5
M63 x 1,5	2”	49,0	62	16	76	68	72	2	712.963.1	90,6



ISO 45° fitting, male, nickel plated brass.

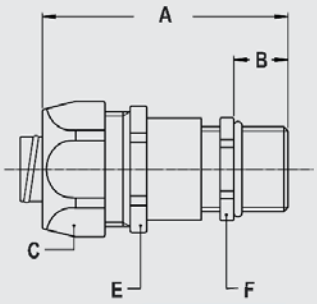
Thread	Sealtite	Min. Internal	Dimensions in mm					Standard	Article	Weight
ISO	Size (NW)	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
M16 x 1,5	5/16”	8,3	23	12	26	33	22	10	812.415.1	7,3
M20 x 1,5	5/16”	8,3	24	13	26	33	22	10	812.414.1	7,4
M16 x 1,5	3/8”	10,2	23	12	26	33	22	10	812.416.1	7,3
M20 x 1,5	3/8”	10,2	24	13	26	33	22	10	812.417.1	7,4
M20 x 1,5	1/2”	13,9	25	13	29	33	27	10	812.420.1	10,5
M25 x 1,5	3/4”	18,5	30	15	35	36	33	5	812.425.1	13,6
M32 x 1,5	1”	23,8	34	15	45	46	42	5	812.432.1	26,5
M40 x 1,5	1.1/4”	31,8	39	16	54	54	51	2	812.440.1	44,9
M50 x 1,5	1.1/2”	36,8	45	18	63	59	60	2	812.450.1	67,5
M63 x 1,5	2”	47,8	53	20	77	71	74	2	812.463.1	128,0



ISO 90° fitting, male, nickel plated brass.

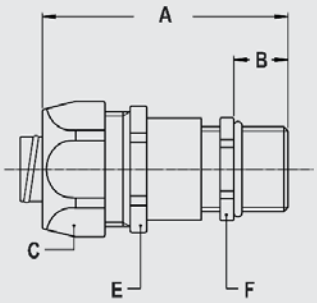
Thread	Sealtite	Min. Internal	Dimensions in mm					Standard	Article	Weight
ISO	Size (NW)	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
M16 x 1,5	5/16”	8,3	32	12	26	42	22	10	812.915.1	8,2
M20 x 1,5	5/16”	8,3	33	13	26	42	22	10	812.914.1	8,4
M16 x 1,5	3/8”	10,2	32	12	26	42	22	10	812.916.1	8,2
M20 x 1,5	3/8”	10,2	33	13	26	42	22	10	812.917.1	8,4
M20 x 1,5	1/2”	13,9	36	13	29	43	27	10	812.920.1	12,6
M25 x 1,5	3/4”	18,5	43	15	35	48	33	5	812.925.1	19,2
M32 x 1,5	1”	23,8	48	15	45	59	42	5	812.932.1	31,6
M40 x 1,5	1.1/4”	31,8	57	16	54	68	51	2	812.940.1	56,1
M50 x 1,5	1.1/2”	36,8	63	18	63	78	60	2	812.950.1	85,3
M63 x 1,5	2”	47,8	74	20	77	96	74	2	812.963.1	139,8

STANDARD FITTINGS IP 67



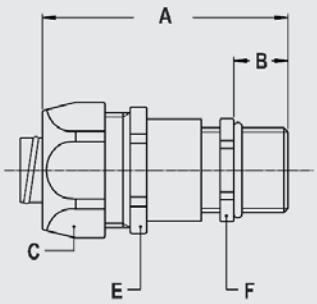
ISO cable-hose fitting, male, nickel plated brass.

Thread	Sealtite	Clamping	Dimensions in mm					Standard	Article	Weight
ISO	Size (NW)	range (mm)	A	B	C	E	F	Package	Number	(Kg/100)
M16 x 1,5	5/16”	4 - 8	57	12	26	24	18	10	812.715.2	5,2
M16 x 1,5	3/8”	4 - 8	57	12	26	24	18	10	812.716.1	7,8
M20 x 1,5	3/8”	6 - 10,2	57	12	26	24	22	10	812.717.1	9,5
M20 x 1,5	1/2”	6 - 12	59	12	29	27	22	10	812.720.1	9,7
M25 x 1,5	1/2”	10 - 13,9	62	12	29	27	27	10	812.722.1	11,7
M32 x 1,5	3/4”	13 - 18	70	15	35	33	34	5	812.728.1	20,2
M40 x 1,5	1”	18 - 23,5	83	15	45	43	43	2	812.735.1	32,6
M40 x 1,5	1.1/4”	22 - 31,5	96	15	54	52	43	2	812.740.1	46,0
M50 x 1,5	1.1/4”	22 - 31,8	96	15	54	52	55	2	812.745.1	60,0



ISO, EMC cable-hose fitting, male, nickel plated brass.

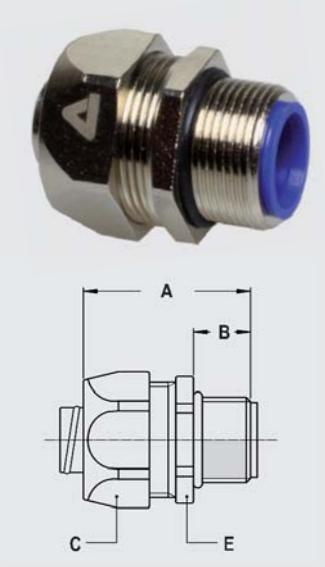
Thread	Sealtite	Clamping	Dimensions in mm					Standard	Article	Weight
ISO	Size (NW)	range (mm)	A	B	C	E	F	Package	Number	(Kg/100)
M16 x 1,5	5/16”	4 - 8	57	12	26	24	18	10	812.615.2	5,2
M16 x 1,5	3/8”	4 - 8	57	12	26	24	18	10	812.616.1	7,8
M20 x 1,5	3/8”	6 - 10,2	57	12	26	24	22	10	812.617.1	9,5
M20 x 1,5	1/2”	6 - 12	59	12	29	27	22	10	812.620.1	9,7
M25 x 1,5	1/2”	10 - 13,9	62	12	29	27	27	5	812.622.1	11,7
M32 x 1,5	3/4”	13 - 18	70	15	35	33	34	5	812.628.1	19,6
M40 x 1,5	1”	18 - 23,8	83	15	45	43	43	2	812.635.1	35,4



ISO cable-hose fitting, with extended clamping range, male, nickel plated brass.

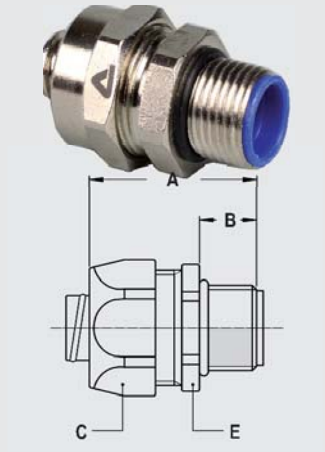
Thread	Sealtite	Clamping	Dimensions in mm					Standard	Article	Weight
ISO	Size (NW)	range (mm)	A	B	C	E	F	Package	Number	(Kg/100)
M16 x 1,5	3/8”	3 - 10,2	64	12	26	24	20	10	812.716.2	8,2
M20 x 1,5	1/2”	7 - 13,9	64	12	29	27	24	10	812.720.2	10,2
M25 x 1,5	3/4”	9 - 18,0	77	15	35	33	30	5	812.725.2	17,0
M32 x 1,5	1”	13 - 23,8	88	15	45	43	40	5	812.732.2	31,0
M40 x 1,5	1.1/4”	20 - 31,8	102	15	54	52	50	2	812.740.2	54,6
M50 x 1,5	1.1/2”	21 - 36,8	106	18	63	60	58	2	812.750.2	76,6
M63 x 1,5	2”	27 - 44,0	116	18	77	74	68	2	812.763.2	116,6

STANDARD FITTINGS IP 67



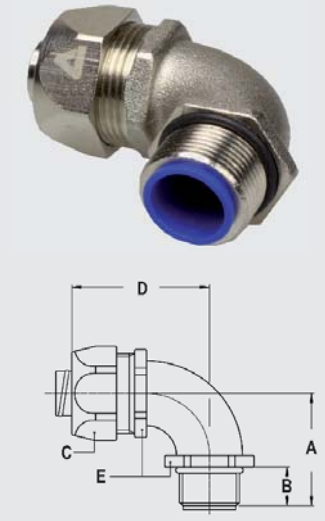
Pg straight fitting, compact, male, nickel plated brass.

Thread	Sealtite	Min. Internal	Dimensions in mm					Standard	Article	Weight
Pg	Size (NW)	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
Pg 7	1/4”	5,2	33	10	22	-	20	10	810.007.1	3,0
Pg 9	5/16”	8,3	35	12	26	-	24	10	810.009.1	4,8
Pg 11	5/16”	8,3	35	12	26	-	24	10	810.012.1	5,6
Pg 13,5	5/16”	8,3	35	12	26	-	24	10	810.014.1	5,6
Pg 9	3/8”	10,2	35	12	26	-	24	10	810.010.1	4,8
Pg 11	3/8”	10,2	35	12	26	-	24	10	810.011.1	5,6
Pg 13,5	3/8”	10,2	35	12	26	-	24	10	810.013.1	5,6
Pg 16	1/2”	13,9	37	13	29	-	27	10	810.016.1	6,3
Pg 21	3/4”	18,5	40	15	35	-	33	5	810.021.1	8,4
Pg 29	1”	23,8	46	15	45	-	43	5	810.029.1	25,0
Pg 36	1.1/4”	31,8	52	16	54	-	52	2	810.036.1	34,6
Pg 42	1.1/2”	36,8	56	18	63	-	60	2	810.042.1	47,2
Pg 48	2”	47,8	66	20	77	-	74	2	810.048.1	72,0



Pg straight fitting, small design, male, nickel plated brass.

Thread	Sealtite	Min. Internal	Dimensions in mm					Standard	Article	Weight
Pg	Size (NW)	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
Pg 7	1/4”	5,2	33	10	19	-	17	10	810.007.2	2,8
Pg 9	5/16”	8,3	35	12	22	-	20	10	810.009.2	3,8



Pg 90° fitting, male, nickel plated brass.

Thread	Sealtite	Min. Internal	Dimensions in mm					Standard	Article	Weight
Pg	Size (NW)	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
Pg 11	5/16”	8,3	32	12	26	42	22	10	810.912.1	8,9
Pg 13,5	5/16”	8,3	32	12	26	42	22	10	810.914.1	8,9
Pg 11	3/8”	10,2	32	12	26	42	22	10	810.911.1	8,9
Pg 13,5	3/8”	10,2	32	12	26	42	22	10	810.913.1	8,9
Pg 16	1/2”	13,9	36	13	29	43	27	10	810.916.1	15,3
Pg 21	3/4”	18,5	43	15	35	48	33	5	810.921.1	21,6
Pg 29	1”	23,8	48	15	45	59	42	5	810.929.1	35,3
Pg 36	1.1/4”	31,8	57	16	54	68	51	2	810.936.1	62,5
Pg 42	1.1/2”	36,8	63	18	63	78	60	2	810.942.1	88,1
Pg 48	2”	47,8	74	20	77	96	74	2	810.948.1	141,9

CONDUIT TYPE FCE-PU-V0

Flexible, extra robust, halogen free and superior chemical resistant.

This conduit complies in full with the smoke and fire requirements of EN 45545. It is a very flexible conduit with good bend radius characteristics and is suitable for protecting cables that are subject to frequent movement and vibration such as on bogies, brake sensor cables, jumper, autocoupler and pantograph cables on low to medium speed trains. The conduit's ability to withstand stone splash, snow, ice and dirt ballast and maintain its flexibility at low temperatures and changing levels of humidity makes it suitable for use in all types of environmental conditions as well as for protecting cables on traction equipment and air conditioning systems onboard trains. It can also be used to protect CCTV and passenger information system cables on trains.

Square locked

RoHS GOST-R EN 45545 OIL LOW SMOKE

Material & Construction:

Construction: Galvanised steel core, square-locked with thin wall convoluted thermoplastic (PU compound) cover.

Cover specifications: Polyurethane (V0 acc. UL94), halogen-free, leadfree according to RoHS, oil, sunlight and UV resistant.

Special approvals, flame properties according to:

- EN 45545-2 (2013):
  R22 (interior equipment) class HL1 and HL2
  R23 (exterior equipment) class HL1 and HL2.
  (CITnlp = 0,15 , Ds max = 239,8 and LOI = 30,5).

Flame property tests:
Official tests (VTEC Laboratories Inc.) indicate that the polyuretane used in FCE-PU-V0 meets the requirements for NFPA 130, ASTM E162, ASTM E662 and BSS 7239.

Temperature: -50ºC to +105ºC, intermittent up to +125ºC.

Colour: Black.

Multitite	Diametre		Bending radius (cl)		Small reel		Standard reel		Large reel		Weight
Size	Inside	Outside	Static	Dynamic	Metre	Article No.	Metre	Article No.	Metre	Article No.	(Kg/m)
DN	(mm)	(mm)	(mm)	(mm)		Black		Black		Black	
12	10,0	14,0	37	50	-	-	25	374.012.2	-	-	0,18
16	13,0	17,0	45	60	-	-	25	374.016.2	-	-	0,23
20	17,0	21,5	55	80	-	-	25	374.020.2	-	-	0,30
25	21,2	26,0	70	100	-	-	25	374.025.2	-	-	0,39
32	28,1	34,0	95	125	-	-	25	374.032.2	-	-	0,52
40	37,7	45,0	115	160	10	374.040.1	-	-	-	-	0,75
50	48,4	56,0	135	190	10	374.050.1	-	-	-	-	1,10

The fittings for Multitite are outlined in on pages 22 till 26

Multitite	10	12	16	18	20	25	32	40	50	-	-	-
ISO	M10 / M12	M12 / M16	M16 / M20	M20	M20	M25	M32	M40	M50 / M63	-	-	-
Pg	7	9	11 / 13,5	13,5	16	21	29	36	48	-	-	-
NPT	-	-	1/2"	-	1/2"	3/4"	1"	-	-	-	-	-

CONDUIT TYPE FCE-LFH

Flexible, extra robust, halogen free and low smoke.

A halogen-free, “low smoke” conduit for use in public areas. The features of the FCE-LFH cover are necessary in the field of environment and safety, as the European guidelines state that materials used in certain areas must meet special requirements regarding toxic gas emission and smoke density in case of fire. Because of the BS and London Underground approvals is type FCE-LFH optimal for use in the subway-, train- and bus-building industry, in closed areas, airports, tunnels, (subway) stations and other infra-structure projects, but also in hospitals, elevators, escalators and other public areas. Type FCE-LFH is delivered on convenient reels (card board reels with stamped metal core).

Material & Construction:

Construction: Galvanised steel core, square-locked with thin wall convoluted thermo-plastic cover (Polyolefin) cover.

Cover specifications: Polyolefin, lead-free according to RoHS, sunlight and UV resistant, suitable for outside installation.

Approvals:

- EN 45545-2 (2013): R22 (interior equipment) class HL1, HL2 and HL3. R23 (exterior equipment) class HL1, HL2 and HL3. (CITnlp = 0,09 , Ds max = 121 and LOI = 41,5).
- BS 6853 (1999) Tabel 7 (Interior) Category 1b and II vehicle. Tabel 8 (Exterior) Category 1a, 1b and II vehicle

Square locked

RoHS GOST-R LOW SMOKE BS 6853 EN 45545

- London Underground LUL 1-085 (2011) Tabel 4: limited and dispersed usage approval for sizes 20 and 25.

Temperature: -25 ºC to +80 ºC, intermittent up to +100 ºC.

Colour: Black.

Classification according to NEN-EN-IEC 61386:

Compression resistance: Class 4, Heavy (1250 N).

Impact resistance: Class 4, Heavy (6 J).

Tensile strength: Class 4, Heavy (1000 N).

Protection class: IP 67 (dust-proof, water-tight).

Multitite	Diametre		Bending radius (cl)		Small reel		Standard reel		Large reel		Weight
Size	Inside	Outside	Static	Dynamic	Metre	Article No.	Metre	Article No.	Metre	Article No.	(Kg/m)
DN	(mm)	(mm)	(mm)	(mm)		Black		Black		Black	
12	10,0	14,0	37	50	-	-	25	373.012.2	-	-	0,18
16	13,0	17,0	45	60	-	-	25	373.016.2	50	373.016.5	0,23
20	17,0	21,5	55	80	10	373.020.1	25	373.020.2	50	373.020.5	0,30
25	21,2	26,0	70	100	10	373.025.1	25	373.025.2	50	373.025.5	0,39
32	28,1	34,0	95	125	10	373.032.1	25	373.032.2	-	-	0,52
40	37,7	45,0	115	160	10	373.040.1	25	373.040.2	-	-	0,75
50	48,4	56,0	135	190	10	373.050.1	25	373.050.2	-	-	1,10

The fittings for Multitite are outlined in on pages 22 till 26

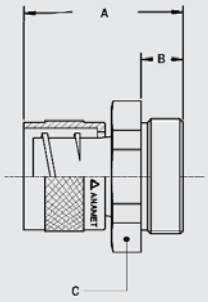
Multitite	10	12	16	18	20	25	32	40	50	-	-	-
ISO	M10 / M12	M12 / M16	M16 / M20	M20	M20	M25	M32	M40	M50 / M63	-	-	-
Pg	7	9	11 / 13,5	13,5	16	21	29	36	48	-	-	-
NPT	-	-	1/2”	-	1/2”	3/4”	1”	-	-	-	-	-

2 PIECE FITTINGS IP 54 FOR FCE

Anaconda IP 54 nickel plated brass fittings for Multitite type FCE.

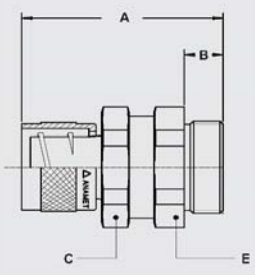
Anconda IP 54 nickel plated brass fittings are standard fittings which can be used with Anaconda Multitite type FCE. These 2-piece fittings are universal and offer excellent corrosion protection in combination with a good appearance.

Material & Construction:
Construction: Nickel plated brass fitting, consisting of 2 parts (body and cap).
Material: Body and cap are nickel plated brass.
Temperature: -55 °C till +260 ºC continuous.
Protection class: IP 54.
Colour: Metal.



ISO straight fitting, fixed, male, nickel plated brass.

Thread ISO	Multitite Size (DN)	Min. Internal Bore (mm)	Dimensions in mm A	B	C	D	E	Standard Package	Article Number	Weight (Kg/100)
M12 x 1,5	12	8,5	26	10	18	-	-	10	260.112.0	1,8
M16 x 1,5	12	8,5	26	10	18	-	-	10	260.115.0	2,0
M16 x 1,5	16	11,2	27	10	20	-	-	10	260.116.0	2,3
M20 x 1,5	16	11,2	27	10	22	-	-	10	260.117.0	2,6
M20 x 1,5	20	15,2	27	10	24	-	-	10	260.120.0	3,0
M25 x 1,5	25	19,2	32	12	30	-	-	5	260.125.0	5,4
M32 x 1,5	32	25,9	35	13	38	-	-	5	260.132.0	8,1
M40 x 1,5	40	34,8	41	14	48	-	-	2	260.140.0	15,0
M50 x 1,5	50	44,8	45	15	60	-	-	2	260.150.0	22,4
M63 x 1,5	50	44,8	46	16	70	-	-	2	260.160.0	28,6



ISO straight fitting, swivel, male, nickel plated brass.

Thread ISO	Multitite Size (DN)	Min. Internal Bore (mm)	Dimensions in mm A	B	C	D	E	Standard Package	Article Number	Weight (Kg/100)
M12 x 1,5	12	8,5	34	10	18	-	18	10	261.112.0	2,4
M16 x 1,5	12	8,5	34	10	18	-	18	10	261.115.0	3,1
M16 x 1,5	16	11,2	36	10	20	-	20	10	261.116.0	3,9
M20 x 1,5	16	11,2	36	10	20	-	22	10	261.117.0	4,2
M20 x 1,5	20	15,2	37	10	24	-	24	10	261.120.0	4,9
M25 x 1,5	25	19,2	43	12	30	-	30	5	261.125.0	8,8
M32 x 1,5	32	25,9	47	13	38	-	38	5	261.132.0	13,3
M40 x 1,5	40	34,8	56	14	48	-	48	2	261.140.0	25,1
M50 x 1,5	50	44,8	60	15	60	-	60	2	261.150.0	36,7
M63 x 1,5	50	44,8	61	16	60	-	70	2	261.160.0	47,1

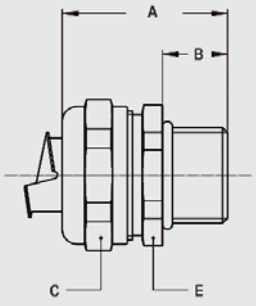
COMPACT FITTINGS IP 65 FOR FCE

Anaconda *compact* fittings, IP 65, nickel plated brass for Multitite FCE

Anaconda Compact IP 65 fittings can be used with FCE conduit. Anaconda Compact fitting offers good corrosion protection, a higher degree of protection (IP 65), and have a nice appearance. Because the design is universal up to 1", all types of Anaconda fittings are possible in this range.

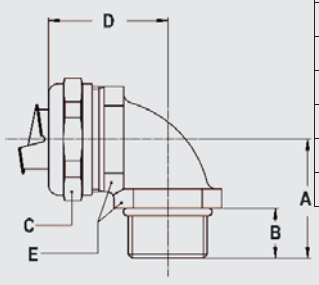
Material & Construction:
Construction: Nickel plated brass fitting, consisting of 4 parts (counter nut, clamping ring, ferrule and body).
Material: Counter nut and body are nickel plated brass. Ferrule is from passivated brass and clamping ring is from PA6.

The clamping rubbers of the cable hose fittings are made from EPDM.
Special approvals:
The cable-hose fittings have clamping rubbers from flame retardant V0-rated EPDM and are HL 1, HL 2 and HL 3 according EN 45545-2, R22 and R23.
Temperature: -45 °C till +105 ºC continuous
Protection class: IP 65. Cable hose fittings are IP 68 on the switchbox.
Colour: Metal



ISO straight fitting, compact, male, nickel plated brass (including connection set)

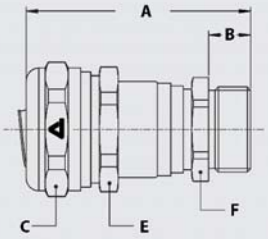
Thread	Multitite	Min. Internal	Dimensions in mm					Standard	Article	Weight
ISO	Size (DN)	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
M16 x 1,5	12	8,3	30	10	26	-	24	10	712.015.4	4,2
M20 x 1,5	12	8,3	30	10	26	-	24	10	712.014.4	4,4
M16 x 1,5	16	11,2	30	10	26	-	24	10	712.016.4	4,2
M20 x 1,5	16	11,2	30	10	26	-	24	10	712.017.4	4,4
M20 x 1,5	20	15,2	32	10	29	-	27	10	712.020.4	5,0
M25 x 1,5	25	19,2	33	10	35	-	33	5	712.025.4	7,4
M32 x 1,5	32	25,9	36	12	45	-	44	5	712.032.4	13,9
M40 x 1,5	40	35,1	40	13	56	-	54	2	712.040.4	18,0
M50 x 1,5	40	35,1	46	14	62	-	58	2	712.045.4	25,3
M50 x 1,5	50	45,4	46	14	62	-	58	2	712.055.4	25,3
M63 x 1,5	50	45,4	52	16	76	-	72	2	712.060.4	38,6



ISO 90° fitting, compact, male, nickel plated brass (including connection set)

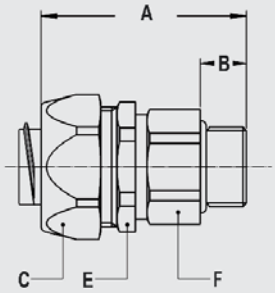
Thread	Multitite	Min. Internal	Dimensions in mm					Standard	Article	Weight
ISO	Size (DN)	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
M16 x 1,5	12	8,3	26	10	26	31	22	10	712.915.4	7,0
M20 x 1,5	12	8,3	26	10	26	32	24	10	712.914.4	7,2
M16 x 1,5	16	11,2	26	10	26	31	22	10	712.916.4	7,0
M20 x 1,5	16	11,2	26	10	26	32	24	10	712.917.4	7,2
M20 x 1,5	20	15,2	28	10	29	34	27	10	712.920.4	8,4
M25 x 1,5	25	19,2	32	10	35	40	33	5	712.925.4	17,5
M32 x 1,5	32	25,9	40	12	45	49	42	5	712.932.4	29,4
M50 x 1,5	40	35,1	52	14	62	57	60	2	712.945.4	57,5
M50 x 1,5	50	45,4	52	14	62	57	60	2	712.955.4	57,5
M63 x 1,5	50	45,4	62	16	76	68	72	2	712.960.4	90,6

COMPACT FITTINGS IP 65 FOR FCE



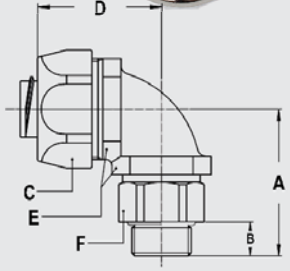
ISO cable-hose fitting, compact, male, nickel plated brass, double seal according EN 45545-2, HL1 / HL2 / HL 3, table R22 and R23 (incl. connection set).

Thread	Multitite	Clamping	Dimensions in mm					Standard	Article	Weight
ISO	Size (DN)	range (mm)	A	B	C	E	F	Package	Number	(Kg/100)
M16 x 1,5	12	4,0 - 8,3	50	10	26	24	18	10	712.715.4	6,8
M20 x 1,5	12	4,0 - 8,3	50	10	26	24	22	10	712.714.4	7,4
M16 x 1,5	16	4,0 - 9,5	50	10	26	24	18	10	712.716.4	6,8
M20 x 1,5	16	4,0 - 9,5	50	10	26	24	22	10	712.717.4	7,4
M20 x 1,5	20	6,0 - 13,0	53	10	29	27	22	10	712.720.4	7,6
M25 x 1,5	20	6,0 - 13,0	54	10	29	27	27	5	712.722.4	9,0
M25 x 1,5	25	10,0 - 18,0	56	10	35	33	27	5	712.725.4	11,7
M32 x 1,5	25	10,0 - 18,0	58	12	35	33	35	5	712.728.4	15,0
M32 x 1,5	32	16,0 - 25,0	61	12	45	42	35	5	712.732.4	20,3
M40 x 1,5	32	16,0 - 25,0	63	13	45	42	43	2	712.735.4	24,5



ISO straight swivel fitting, male, nickel plated brass (including connection set)

Thread	Multitite	Min. Internal	Dimensions in mm					Standard	Article	Weight
ISO	Size (DN)	Bore (mm)	A	B	C	E	F	Package	Number	(Kg/100)
M16 x 1,5	12	8,3	48	10	26	24	21	10	813.015.4	8,1
M16 x 1,5	16	11,2	48	10	26	24	21	10	813.016.4	8,1
M20 x 1,5	20	15,2	49	10	29	27	25	10	813.020.4	10,2
M25 x 1,5	25	19,2	49	10	35	33	31	5	813.025.4	13,8
M32 x 1,5	32	25,9	55	12	45	42	38	5	813.032.4	32,5
M50 x 1,5	40	35,1	65	14	62	58	55	2	813.045.4	74,0
M50 x 1,5	50	45,4	65	14	62	58	55	2	813.055.4	74,0
M63 x 1,5	50	45,4	74	16	76	72	68	2	813.060.4	130,0



ISO 90° swivel fitting, male, nickel plated brass (including connection set)

Thread	Multitite	Min. Internal	Dimensions in mm						Article	Weight	Weight
ISO	Size (DN)	Bore (mm)	A	B	C	D	E	F	Number	(Kg/100)	(Kg/100)
M16 x 1,5	12	8,3	39	10	26	35	22	22	10	813.915.4	10,8
M16 x 1,5	16	11,2	39	10	26	35	22	22	10	813.916.4	10,8
M20 x 1,5	20	15,2	39	10	29	37	27	25	10	813.920.4	13,2
M25 x 1,5	25	19,2	46	10	35	44	33	31	5	813.925.4	22,8
M32 x 1,5	32	25,9	55	12	45	55	42	38	5	813.932.4	41,4

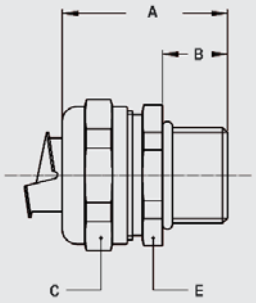
COMPACT FITTINGS IP 68 FOR FCE

Anaconda *compact* fittings, IP 68, nickel plated brass for Multitite FCE

Anaconda Compact IP 68 fittings are designed for use in combination with FCE conduit. Anaconda Compact fittings offer a good corrosion protection, a high degree of protection (IP 68), and have a nice appearance. Because the design is universal up to 1" all types of Anaconda Compact fittings are possible in this range.

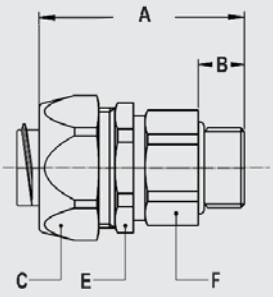
Material & Construction:
Construction: Nickel plated brass fitting, consisting of 5 parts (counter nut, filler ring, sealing sleeve, ferrule and body).
Material: Counter nut, filler ring, ferrule and body are nickel plated brass. Sealing sleeve is NBR-rubber.

The clamping rubbers of the cable hose fittings are made from EPDM.
Special approvals:
The cable-hose fittings have clamping rubbers from flame retardant V0-rated EPDM and are HL 1, HL 2 and HL 3 according EN 45545-2, R22 and R23.
Temperature: -45 °C till +105 ºC continuous
Protection class: IP 68, swivel fittings are IP 65 (dynamic applications) or IP 67 (static applications) .
Colour: Metal



ISO straight fitting, compact, male, nickel plated brass (including connection set)

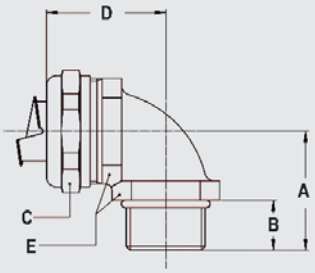
Thread	Multitite	Min. Internal	Dimensions in mm					Standard	Article	Weight
ISO	Size (DN)	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
M12 x 1,5	12	8,5	31	10	22	-	20	10	812.012.5	3,8
M16 x 1,5	16	11,2	30	10	26	-	24	10	712.016.5	4,2
M20 x 1,5	16	11,2	30	10	26	-	24	10	712.017.5	4,4
M20 x 1,5	20	15,2	32	10	29	-	27	10	712.020.5	5,0
M25 x 1,5	25	19,2	33	10	35	-	33	5	712.025.5	7,4
M32 x 1,5	32	25,9	36	12	45	-	44	5	712.032.5	13,9
M40 x 1,5	40	34,5	45	14	59	-	55	2	812.040.5	18,8
M32 x 1,5	32	25,9	36	12	45	-	44	5	712.032.5	13,9
M40 x 1,5	40	34,5	45	14	59	-	55	2	812.040.5	18,8



ISO straight swivel fitting, male, nickel plated brass, IP 65 / IP 67 (including connection set)

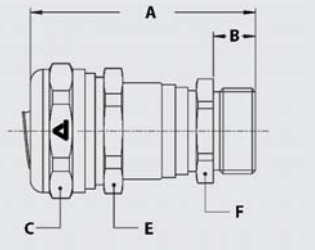
Thread	Multitite	Min. Internal	Dimensions in mm					Standard	Article	Weight
ISO	Size (DN)	Bore (mm)	A	B	C	E	F	Package	Number	(Kg/100)
M16 x 1,5	16	10,7	48	10	26	24	21	10	813.016.5	8,1
M20 x 1,5	20	13,9	49	10	29	27	25	10	813.020.5	10,2
M25 x 1,5	25	17,4	49	10	35	33	31	5	813.025.5	13,8
M32 x 1,5	32	23,4	55	12	45	42	38	5	813.032.5	32,5

COMPACT FITTINGS IP 68 FOR FCE



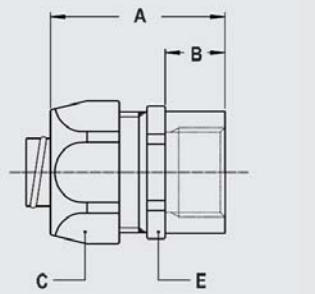
ISO 90° fitting, compact, male, nickel plated brass (including connection set)

Thread	Multitite	Min. Internal	Dimensions in mm					Standard	Article	Weight
ISO	Size (DN)	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
M16 x 1,5	12	8,3	26	10	26	31	22	10	712.915.5	7,0
M20 x 1,5	12	8,3	26	10	26	32	24	10	712.914.5	7,2
M16 x 1,5	16	11,2	26	10	26	31	22	10	712.916.5	7,0
M20 x 1,5	16	11,2	26	10	26	32	24	10	712.917.5	7,2
M20 x 1,5	20	15,2	28	10	29	34	27	10	712.920.5	8,4
M25 x 1,5	25	19,2	32	10	35	40	33	5	712.925.5	17,5
M32 x 1,5	32	25,9	40	12	45	49	42	5	712.932.5	29,4
M50 x 1,5	40	35,1	52	14	62	57	60	2	712.945.5	57,5
M50 x 1,5	50	45,4	52	14	62	57	60	2	712.955.5	57,5
M63 x 1,5	50	45,4	62	16	76	68	72	2	712.960.5	90,6



ISO cable-hose fitting, compact, male, nickel plated brass, double seal according EN 45545-2, HL1 / HL2 / HL 3, table R22 and R23 (incl. connection set).

Thread	Multitite	Clamping	Dimensions in mm					Standard	Article	Weight
ISO	Size (DN)	range (mm)	A	B	C	E	F	Package	Number	(Kg/100)
M16 x 1,5	16	4,0 - 9,5	50	10	26	24	18	10	712.716.5	6,8
M20 x 1,5	16	4,0 - 9,5	50	10	26	24	22	10	712.717.5	7,4
M20 x 1,5	20	6,0 - 13,0	53	10	29	27	22	10	712.720.5	7,6
M25 x 1,5	20	6,0 - 13,0	54	10	29	27	27	5	712.722.5	9,0
M25 x 1,5	25	10,0 - 18,0	56	10	35	33	27	5	712.725.5	11,7
M32 x 1,5	25	10,0 - 18,0	58	12	35	33	35	5	712.728.5	15,0
M32 x 1,5	32	16,0 - 25,0	61	12	45	42	35	5	712.732.5	20,3
M40 x 1,5	32	16,0 - 25,0	63	13	45	42	43	2	712.735.5	24,5



ISO straight fitting, female, nickel plated brass (including connection set).

Thread	Multitite	Min. Internal	Dimensions in mm					Standard	Article	Weight
ISO	Size (DN)	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
M16 x 1,5	16	11,0	35	12	26	-	24	10	812.316.5	5,0
M20 x 1,5	20	15,0	37	13	29	-	27	10	812.320.5	7,6
M25 x 1,5	25	19,2	40	15	35	-	33	5	812.325.5	9,0
M32 x 1,5	32	25,9	46	15	45	-	43	5	812.332.5	18,3

CONDUIT TYPE FCE-LFHB

Flexible, extra robust, halogen free and low smoke.

A halogen-free, “low smoke” conduit for use in public areas. The features of the FCE-LFHB cover are necessary in the field of environment and safety, as the European guidelines state that materials used in certain areas must meet special requirements regarding toxic gas emission and smoke density in case of fire. Because of the BS and London Underground approvals is type FCE-LFHB optimal for use in the subway-, train- and bus-building industry, in closed areas, airports, tunnels, (subway) stations and other infra-structure projects, but also in hospitals, elevators, escalators and other public areas. Type FCE-LFHB is delivered on convenient reels (card board reels with stamped metal core).

Square locked

Material & Construction:

Construction: Galvanised steel core, square-locked with thin wall convoluted thermo-plastic (Polyolefin) cover and stainless steel AISI-304 braiding.

Cover specifications: Polyolefin, lead-free according to RoHS, sunlight and UV resistant, suitable for outside installation.

Approvals:

- EN 45545-2 (2013): R22 (interior equipment) class HL1, HL2 and HL3.
  R23 (exterior equipment) class HL1, HL2 and HL3.
  (CITnlp = 0,09 , Ds max = 121 and LOI = 41,5).
- BS 6853 (1999) Tabel 7 (Interior) Category 1b and II vehicle.
  Tabel 8 (Exterior) Category 1a, 1b and II vehicle
- London Underground LUL 1-085 (2011)
  Tabel 4 : limited and dispersed usage only for sizes 20 and 25.

Temperature: -25 ºC to +80 ºC, intermittent up to +100 ºC.

Colour: Metal.

Classification according to NEN-EN-IEC 61386:

Compression resistance: Class 4, Heavy (1250 N).

Impact resistance: Class 4, Heavy (6 J).

Tensile strength: Class 4, Heavy (1000 N).

Protection class: IP 67 (dust-proof, water-tight).

FCE-LFHB	Diametre		Bending radius (cl)		Small reel		Standard reel		Large reel		Weight
Size	Inside	Outside	Static	Dynamic	Metre	Article No.	Metre	Article No.	Metre	Article No.	(Kg/m)
DN	(mm)	(mm)	(mm)	(mm)							
16	13,0	18,2	45	60	-	-	25	375.016.2*	-	-	0,38
20	17,0	22,7	55	80	-	-	25	375.020.2	-	-	0,49
25	21,2	27,2	70	100	-	-	25	375.025.2	-	-	0,62
32	28,1	35,2	95	125	-	-	25	375.032.2*	-	-	0,82

* Sizes 16 and 32 available on request without London Underground approval.

The fittings for Multitite FCE-LFHB are outlined on pages 28 till 31

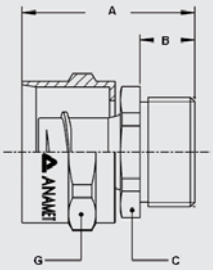
FCE-LFHB	10	12	16	18	20	25	32	40	50	-	-	-
ISO	M10 / M12	M12 / M16	M16 / M20	M20	M20	M25	M32	M40	M50 / M63	-	-	-
Pg	7	9	11 / 13,5	13,5	16	21	29	36	48	-	-	-
NPT	-	-	1/2”	-	1/2”	3/4”	1”	-	-	-	-	-

FITTINGS IP 54 FOR FCE-LFHB

Anaconda IP 54 nickel plated brass fittings for Multitite type FCE-LFHB.

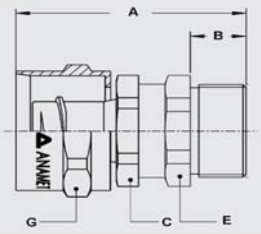
Anaconda Universal range of Multitite fittings are made of nickel plated brass. The IP 54 rated fitting are available in ISO and Pg thread and in fixed and swivel executions for use with Anaconda Multitite Type FCE-LFHB. The 2 piece fitting is designed to resist corrosion and handle tough operating conditions.

Material & Construction:
Construction: Nickel plated brass fitting, consisting of 2 parts (body and cap).
Material: Body and cap are nickel plated brass.
Temperature: -55 °C till +260 ºC continuous.
Protection class: IP 54.
Colour: Metal.



ISO straight fitting, fixed, male, nickel plated brass.

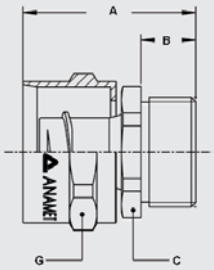
Thread	FCE-LFHB	Min. Internal	Dimensions in mm					Standard	Article	Weight
ISO	Size (DN)	Bore (mm)	A	B	C	G	E	Package	Number	(Kg/100)
M16 x 1,5	16	11,2	30	10	20	21	-	10	260.616.0	2,4
M20 x 1,5	16	11,2	30	10	22	21	-	10	260.617.0	2,8
M20 x 1,5	20	15,2	31	10	24	26	-	10	260.620.0	3,2
M25 x 1,5	25	19,2	37	12	30	30	-	5	260.625.0	5,7
M32 x 1,5	32	25,9	39	13	38	40	-	5	260.632.0	8,4



ISO straight fitting, swivel, male, nickel plated brass.

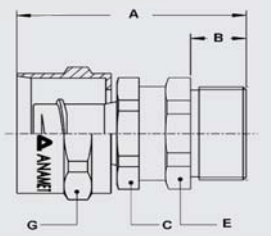
Thread	FCE-LFHB	Min. Internal	Dimensions in mm					Standard	Article	Weight
ISO	Size (DN)	Bore (mm)	A	B	C	G	E	Package	Number	(Kg/100)
M16 x 1,5	16	11,2	39	10	20	21	20	10	261.616.0	4,0
M20 x 1,5	16	11,2	39	10	20	21	22	10	261.617.0	4,4
M20 x 1,5	20	15,2	41	10	24	26	24	10	261.620.0	5,1
M25 x 1,5	25	19,2	48	12	30	30	30	5	261.625.0	9,1
M32 x 1,5	32	25,9	51	13	38	40	38	5	261.632.0	13,6

FITTINGS IP 54 FOR FCE-LFHB



Pg straight fitting, fixed, male, nickel plated brass.

Thread	FCE-LFHB	Min. Internal	Dimensions in mm					Standard	Article	Weight
Pg	Size (DN)	Bore (mm)	A	B	C	G	E	Package	Number	(Kg/100)
Pg 11	16	11,2	30	10	20	21	-	10	260.711.0	2,5
Pg 16	20	15,2	31	10	24	26	-	10	260.716.0	3,4
Pg 21	25	19,2	37	12	30	30	-	5	260.721.0	5,8
Pg 29	32	25,9	39	13	38	40	-	5	260.729.0	9,2



Pg straight fitting, swivel, male, nickel plated brass.

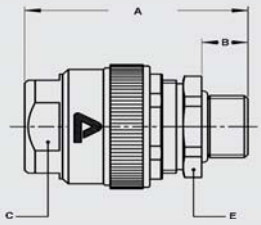
Thread	FCE-LFHB	Min. Internal	Dimensions in mm					Standard	Article	Weight
Pg	Size (DN)	Bore (mm)	A	B	C	G	E	Package	Number	(Kg/100)
Pg 11	16	11,2	39	10	20	21	20	10	261.711.0	4,1
Pg 16	20	15,2	41	10	24	26	24	10	261.716.0	5,4
Pg 21	25	19,2	48	12	30	30	30	5	261.721.0	9,5
Pg 29	32	25,9	51	13	38	40	40	5	261.729.0	14,9

FITTINGS IP 65 FOR FCE-LFHB

Anaconda IP 65 nickel plated brass fittings for Multitite type FCE-LFHB.

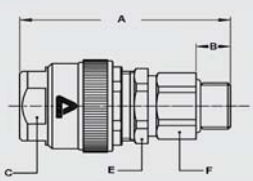
These fittings are made of nickel plated brass and specially for the Multitite type FCE-LFHB. The IP65 rated fitting is available in ISO and Pg thread sizes and in various executions (straight, swivel and conduit connector) for use with Anaconda Multitite Type FCE-LFHB. This 5 piece fitting is designed to resist corrosion and handle tough operating conditions. The gripping construction on the outside of the braid provides an optimum tensile strength and improved shielding characteristics.

Construction: Nickel plated brass fitting, consisting of 5 parts (Cap, intermediate body, clamping ring, ferrule and body)
Material: Cap, intermediate body and body are nickel plated brass. Ferrule is from passivated brass and clamping ring is from PA6.
Temperature: -45 °C till +105 ºC continuous.
Protection class: IP 65.
Colour: Metal.



ISO straight fitting, compact, male, nickel plated brass (including connection set)

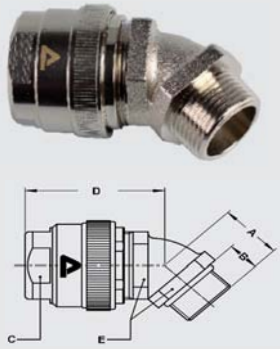
Thread	FCE-LFHB	Min. Internal	Dimensions in mm					Standard	Article	Weight
ISO	Size (DN)	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
M16 x 1,5	16	11,2	48	10	24	-	24	10	732.016.4	9,5
M20 x 1,5	16	11,2	48	10	24	-	24	10	732.017.4	9,8
M20 x 1,5	20	15,2	51	10	28	-	27	10	732.020.4	11,5
M25 x 1,5	25	19,2	52	10	34	-	33	5	732.025.4	16,0
M32 x 1,5	32	25,9	59	12	41	-	42	5	732.032.4	25.5



ISO straight swivel fitting, male, nickel plated brass (including connection set)

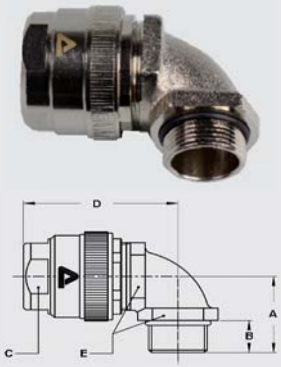
Thread	FCE-LFHB	Min. Internal	Dimensions in mm					Standard	Article	Weight
ISO	Size (DN)	Bore (mm)	A	B	C	E	F	Package	Number	(Kg/100)
M16 x 1,5	16	10,7	65	10	24	24	21	10	733.016.4	13,5
M20 x 1,5	20	13,9	68	10	28	27	25	10	733.020.4	16,0
M25 x 1,5	25	17,4	69	10	34	33	31	5	733.025.4	23,0
M32 x 1,5	32	23,4	78	12	41	42	38	5	733.032.4	35,5

FITTINGS IP 65 FOR FCE-LFHB



45° elbow fitting ISO, compact, male, nickel plated brass (including connection set)

Thread ISO	FCE-LFHB Size (DN)	Min. Internal Bore (mm)	Dimensions in mm A	B	C	D	E	Standard Package	Article Number	Weight (Kg/100)
M16 x 1,5	16	11,2	19	10	24	44	22	10	732.416.4	12,5
M20 x 1,5	16	11,2	20	10	24	45	24	10	732.417.4	13,5
M20 x 1,5	20	15,2	21	10	28	50	27	10	732.420.4	15,8
M25 x 1,5	25	19,2	23	10	34	53	33	5	732.425.4	23,5
M32 x 1,5	32	25,9	28	12	41	61	42	5	732.432.4	38,5



90° elbow fitting ISO, compact, male, nickel plated brass (including connection set)

Thread ISO	FCE-LFHB Size (DN)	Min. Internal Bore (mm)	Dimensions in mm A	B	C	D	E	Standard Package	Article Number	Weight (Kg/100)
M16 x 1,5	16	11,2	26	10	24	48	22	10	732.916.4	13,0
M20 x 1,5	16	11,2	26	10	24	49	24	10	732.917.4	14,0
M20 x 1,5	20	15,2	28	10	28	54	27	10	732.920.4	16,5
M25 x 1,5	25	19,2	32	10	34	61	33	5	732.925.4	24,0
M32 x 1,5	32	25,9	40	12	41	69	42	5	732.932.4	39,0

Conduit connector, nickel plated brass (including connection set)

Thread	FCE-LFHB Size (DN)	Min. Internal Bore (mm)	Dimensions in mm A	B	C	D	E	Standard Package	Article Number	Weight (Kg/100)
-	16	11,2	75	-	24	-	24	10	785.012.4	18,5
-	20	15,2	84	-	28	-	27	10	785.016.4	21,5
-	25	19,2	88	-	34	-	33	5	785.020.4	29,5
-	32	25,9	96	-	41	-	44	5	785.026.4	48,0

HIPROJACKET HEATPROTECTION

Braided sleeving, solid constructed acc. SAE AS1072, superior short term flame protection.

This product complies in full with the smoke and fire requirements of EN 45545. The ultimate heat protection for cables and hoses. This solid braided glass fibre sleeving, with thick silicone cover, is constructed according to the Aerospace Standard SAE AS1072 and allows qualified hose assemblies to pass the AS1055 testing. Hiprojacket Aero is designed to protect cables and wires such as brake sensor cables from sparks and heat caused by wheel to track friction or for any cable on the train that is exposed to continuous or intermittent high temperatures from equipment such as a motor converter box.

Material & Construction:
Construction: Braided sleeving from E-glass yarns, solid constructed acc. Aerospace Standard SAE AS1072 type 2.
Cover specifications: Iron-oxide silicon rubber. Excellent resistance to oil, halogen-free, superior short term flame protection, excellent temperature reduction and withstands sparks and friction.
Special approvals / tests:
- Highly flame retardant acc. DIN 5510-2: S4/SR2/ST2.
- Flame retardant acc. UNI CEI 11170-3
- EN ISO 11925-2 (15 and 30 sec.).

OIL LOW SMOKE NFF BS 6853 EN 45545 GOST-R RoHS

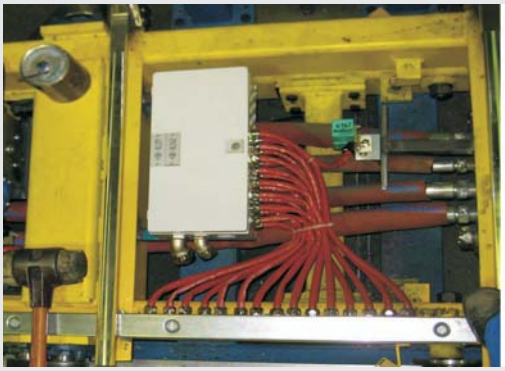
- EN 45545-2 (2013):
  R22 (interior equipment) class HL1, HL2 and HL3.
  R23 (exterior equipment) class HL1, HL2 and HL3.
  (CITnlp = 0,02 , Ds max = 87 and LOI = 39,2).
- BS 6853 (1999)
  Tabel 7 (Interior) Category 1a, 1b and II vehicle.
  Tabel 8 (Exterior) Category 1a, 1b and II vehicle
- London Underground LUL 1-085 (2011)
  Tabel 4 : limited and dispersed usage
- NFF 16-101 class I2 / F1

Temperature: -55 °C till +260 ºC continuous.
Under flame till +800 °C for approx. 20 minutes.
Radiation heat till +800 ºC for approx. 20 minutes.
Molten metal splash till +1640 °C for 15-30 seconds.
Colour: Red, other colours available on demand.

Hiprojacket Aero			Diametre		Standard carton		Small carton		Random Length		Weight
Size	Size	Type	Inside	Outside	Metre	Article No.	Metre	Article No.	Metre	Article No.	(Kg/m)
(mm)	(Inch)		(mm)	(mm)		Red		Red		Red	
6	1/4”	HJ-04	6	11	30	336.006.3	15	336.006.1	1	336.006.0	0,12
10	3/8”	HJ-06	10	15	30	336.010.3	15	336.010.1	1	336.010.0	0,16
13	1/2”	HJ-08	13	18	30	336.013.3	15	336.013.1	1	336.013.0	0,19
16	5/8”	HJ-10	16	22	30	336.016.3	15	336.016.1	1	336.016.0	0,21
19	3/4”	HJ-12	19	25	30	336.019.3	15	336.019.1	1	336.019.0	0,24
22	7/8”	HJ-14	22	28	30	336.022.3	15	336.022.1	1	336.022.0	0,28
25	1”	HJ-16	25	31	30	336.025.3	15	336.025.1	1	336.025.0	0,33
29	1.1/8”	HJ-18	29	35	30	336.029.3	15	336.029.1	1	336.029.0	0,35
32	1.1/4”	HJ-20	32	38	30	336.032.3	15	336.032.1	1	336.032.0	0,39
35	1.3/8”	HJ-22	35	41	30	336.035.3	15	336.035.1	1	336.035.0	0,45
38	1.1/2”	HJ-24	38	44	30	336.038.3	15	336.038.1	1	336.038.0	0,48
41	1.5/8”	HJ-26	41	47	30	336.041.3	15	336.041.1	1	336.041.0	0,52
44	1.3/4”	HJ-28	44	50	30	336.044.3	15	336.044.1	1	336.044.0	0,64
51	2”	HJ-32	51	57	30	336.051.3	15	336.051.1	1	336.051.0	0,67
57	2.1/4”	HJ-36	57	63	30	336.057.3	15	336.057.1	1	336.057.0	0,74
64	2.1/2”	HJ-40	64	70	30	336.064.3	15	336.064.1	1	336.064.0	0,75
70	2.3/4”	HJ-44	70	76	30	336.070.3	15	336.070.1	1	336.070.0	0,88
76	3”	HJ-48	76	82	30	336.076.3	15	336.076.1	1	336.076.0	1,03
83	3.1/4”	HJ-52	83	89	30	336.083.3	15	336.083.1	1	336.083.0	1,13
89	3.1/2”	HJ-56	89	95	30	336.089.3	15	336.089.1	1	336.089.0	1,18
95	3.3/4”	HJ-60	95	101	30	336.095.3	15	336.095.1	1	336.095.0	1,34
102	4”	HJ-64	102	108	30	336.102.3	15	336.102.1	1	336.102.0	1,41

The fittings for Hiprojacket are outlined on page 33

FITTINGS FOR HIPROJACKET IP 67



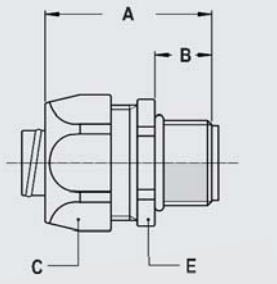
Anaconda nickel plated brass fittings for Hiprojacket®.

Anaconda standard fittings are also designed to be used in combination with Hiprojacket. These are basically the same fittings as for Anaconda Sealtite conduit. The difference is that the standard polyamide clamping rings are replaced by a special metal clamping ring.

Material & Construction:
Construction: Nickel plated brass fitting, consisting of 4 parts (counter nut, clamping ring, ferrule and body).
Material: Counter nut, body, clamping ring and ferrule are nickel plated brass with exception of size 3/8" till 1" where the ferrule is from galvanised steel. Inserts are made from PA6 (red for ISO metric, blue for Pg and white for NPT).
Temperature: -45 °C till +105 ºC continuous (cable-hose-fittings till +300 °C on request).
Protection class: IP 54 (dust-protected, splash water-proof), additionally sealed with Hiprosiltape, IP 67 is possible.
Colour: Metal.

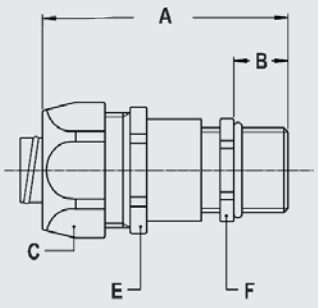
Clamping ring, zinc plated brass, for combination with Hiprojacket.

Hiprojacket type			Fitting thread size			Standard	Article	Weight
Size (mm)	Aero		ISO	Pg	NPT	Package	Number	(Kg/100)
13 / 10	HJ-08	-	M16 x 1,5	Pg 11	1/2" NPT	10	817.512.0	0,6
16 / 13	HJ-10	-	M20 x 1,5	Pg 16	1/2" NPT	10	817.516.0	0,6
22 / 19	HJ-14	-	M25 x 1,5	Pg 21	3/4" NPT	5	817.520.0	1,0
25	HJ-16	-	M32 x 1,5	Pg 29	1" NPT	5	817.526.0	1,2
35 / 32	HJ-22	-	M40 x 1,5	Pg 36	1.1/4" NPT	2	817.535.0	2,0
38	HJ-24	-	M50 x 1,5	Pg 42	1.1/2" NPT	2	817.540.0	4,2
51	HJ-32	-	M63 x 1,5	Pg 48	2" NPT	2	817.550.0	9,0



ISO straight fitting, male, nickel plated brass (without clamping ring).

Thread	Hiprojacket type		Dimensions in mm					Standard	Article	Weight
ISO	Aero		A	B	C	D	E	Package	Number	(Kg/100)
M16 x 1,5	HJ-08	-	35	12	26	-	24	10	812.016.1	4,7
M20 x 1,5	HJ-10	-	37	13	29	-	27	10	812.020.1	5,1
M25 x 1,5	HJ-14	-	40	15	35	-	33	5	812.025.1	11,7
M32 x 1,5	HJ-16	-	46	15	45	-	43	5	812.032.1	19,7
M40 x 1,5	HJ-22	-	52	16	54	-	52	2	812.040.1	35,0
M50 x 1,5	HJ-24	-	56	18	63	-	60	2	812.050.1	42,2
M63 x 1,5	HJ-32	-	66	20	77	-	74	2	812.063.1	52,8



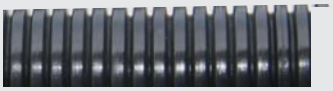
ISO cable-hose fitting, with extended clamping range, male, nickel plated brass.

Thread	Hiprojacket	Clamping	Dimensions in mm					Standard	Article	Weight
ISO	Aero	range (mm)	A	B	C	E	F	Package	Number	(Kg/100)
M16 x 1,5	HJ-08	3 - 10,2	64	12	26	24	20	10	812.716.2	8,2
M20 x 1,5	HJ-10	7 - 13,9	64	12	29	27	24	10	812.720.2	10,2
M25 x 1,5	HJ-14	9 - 18,0	77	15	35	33	30	5	812.725.2	17,0
M32 x 1,5	HJ-16	13 - 23,8	88	15	45	43	40	5	812.732.2	31,0
M40 x 1,5	HJ-22	20 - 31,8	102	15	54	52	50	2	812.740.2	54,6
M50 x 1,5	HJ-24	21 - 36,8	106	18	63	60	58	2	812.750.2	76,6
M63 x 1,5	HJ-32	27 - 44,0	116	18	77	74	68	2	812.763.2	116,6

ANA-QUICK CONDUIT TYPE PA6V0

Robust model with high mechanical strength and good flame-properties.

This product complies in full with the fire and smoke requirements of EN 45545. The conduit is suited for all interior applications on rolling stock including wall and floor applications, CCTV, passenger information systems, door locking systems etc. AnaQuick PA6 V0 is flexible and light with a good bend radius.



Normal profile “thick wall”

Material & Construction:
Construction: Corrugated conduit from modified polyamide PA6, UV resistant, halogen-free.
Flame properties: Self-extinguishing UL-94 V0.
Special approvals:
- Flame properties according to NF F 16-101 class I2 / F2.
- EN 45545-2 (2013): R22 (interior equipment) class HL1 and HL2. R23 (exterior equipment) class HL1, HL2 and HL3

Resistant against: Alcohol, grease, fuels, mineral oils, weak bases and weak acids.
Temperature range: -40 ºC till +120 ºC, intermittent up to +150 ºC.
Colour: Black.

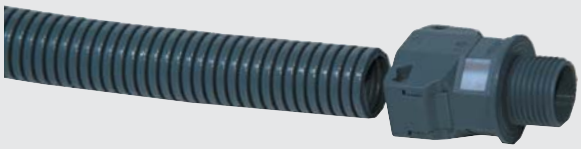
Classification according to NEN-EN-IEC 61386:
Compression resistance: Class 3, Medium (750 N).
Impact resistance: Class 3, Medium (2 J).
Tensile strength: Class 3, Medium (500 N).
Protection class: IP 67 (dust-proof, water-tight).

Ana-Quick	Diametre		Bending radius (cl)		Standard carton		Small carton		Reel		Weight
Size	Inside	Outside	Static	Dynamic	Metre	Article No.	Metre	Article No.	Metre	Article No.	(Kg/m)
DN	(mm)	(mm)	(mm)	(mm)		Black		Black		Black	
7,5	6,7	10,0	15	45	50	801.707.0	-	-	-	-	0,02
10	9,9	13,0	20	60	50	801.710.0	-	-	-	-	0,03
12	12,2	15,7	30	90	50	801.712.0	-	-	-	-	0,03
17	16,6	21,2	35	105	50	801.717.0	-	-	-	-	0,06
23	23,2	28,3	45	135	50	801.723.0	-	-	-	-	0,09
29	29,0	34,5	65	195	25	801.729.0	-	-	-	-	0,12
37	36,6	42,4	90	270	25	801.736.0	-	-	-	-	0,17
50	47,7	53,7	130	390	25	801.748.0	-	-	-	-	0,22

The fittings for Ana-Quick Profi are outlined on pages 35 and 36

UI	7,5	10	12	17	23	29	37	50	2”	-	-	-
ISO	M12	M12-M16	M16-M20	M20-M25	M25	M32	M40	M50-M63	M63	-	-	-
Pg	7	7 - 9 - 11	11 - 13,5	13,5 - 16	21	29	36	48	48	-	-	-
NPT	-	-	-	-	-	-	-	-	2”	-	-	-

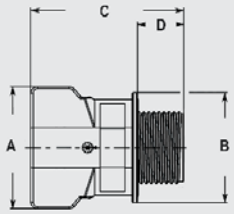
ANA-QUICK FITTINGS IP 65 / 68



Ana-Quick Profi Polyamide fittings.

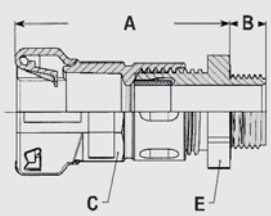
The universal Ana-Quick Profi fitting is available in a wide range of different threads to fit all types of Ana-Quick conduit. The Ana-Quick Profi fitting is easy to connect and due to the integrated release clips also very simple to disconnect. Also available in IP 68 execution (UL / CSA-approved).

Material & Construction:
Construction: 1 piece fitting with integrated release clips.
Material: Fitting and clips are made of halogen-free Polyamide PA6.
Temperature: -40°C till +120ºC continuous.
Protection class: IP 65 (dust-proof, water-protected). In case a special O-ring is mounted, in the first corrugation of the conduit, an IP 68 protection will be achieved.
Colour: Black or Grey.



ISO straight fitting, male, PA6, colour Black.

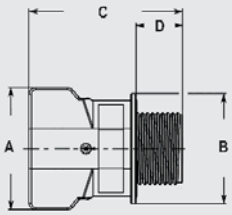
Thread	Ana-Quick	Min. Internal	Dimensions in mm					Standard	Article	Weight
ISO	DN	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
M12 x 1,5	7,5	7,5	19	18	34	11	-	50	268.112.1	0,4
M12 x 1,5	10	7,5	22	22	36	12	-	50	268.112.0	0,4
M16 x 1,5	10	11,0	22	22	36	12	-	50	268.116.1	0,5
M16 x 1,5	12	11,0	26	25	38	12	-	50	268.116.0	0,6
M20 x 1,5	12	15,2	26	25	38	12	-	50	268.120.1	0,6
M20 x 1,5	17	15,4	35	31	43	13	-	50	268.120.0	1,2
M25 x 1,5	17	19,1	35	31	43	13	-	50	268.125.1	1,3
M25 x 1,5	23	19,1	43	38	48	13	-	25	268.125.0	1,9
M32 x 1,5	29	25,5	50	46	52	15	-	20	268.132.0	2,8
M40 x 1,5	37	34,0	59	55	62	17	-	10	268.140.0	4,5
M50 x 1,5	50	43,5	72	72	68	19	-	5	268.150.0	7,3
M63 x 1,5	50	53,2	72	72	68	19	-	5	268.163.0	7,3



ISO straight cable-hose fitting, male, PA6, colour Black.

Thread	Ana-Quick	Clamping	Dimensions in mm					Standard	Article	Weight
ISO	DN	range (mm)	A	B	C	D	E	Package	Number	(Kg/100)
M16 x 1,5	10	2,5 - 8,0	47	10	17	19	-	50	267.016.1	-
M16 x 1,5	12	3,5 - 10,0	53	10	20	22	-	50	267.016.0	-
M20 x 1,5	12	5,0 - 12,0	53	10	20	24	-	50	267.020.1	-
M20 x 1,5	17	5,0 - 12,0	59	10	27	24	-	50	267.020.0	-
M20 x 1,5	17	7,0 - 14,0	59	10	27	27	-	50	267.020.2	-
M25 x 1,5	17	7,0 - 14,0	59	10	27	27	-	50	267.025.1	-
M25 x 1,5	23	9,0 - 18,0	69	10	34	33	-	25	267.025.0	-
M32 x 1,5	29	14,0 - 25,0	75	10	41	42	-	10	267.032.0	-

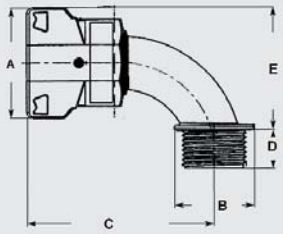
ANA-QUICK FITTINGS IP 65 / 68



ISO straight fitting, male, PA6, colour Black.

RoHS

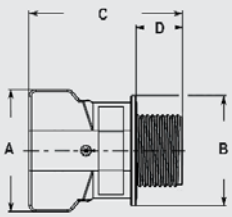
Thread	Ana-Quick	Min. Internal	Dimensions in mm					Standard	Article	Weight
ISO	DN	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
M16 x 1,5	10	10,8	22	22	38	12	-	30	265.116.1	1,0
M16 x 1,5	12	10,8	26	25	39	12	-	30	265.116.0	1,4
M20 x 1,5	12	10,6	26	25	39	12	-	30	265.120.1	1,4
M20 x 1,5	17	15,4	35	31	42	12	-	30	265.120.0	2,0
M25 x 1,5	17	17,7	35	31	44	14	-	30	265.125.1	2,0
M25 x 1,5	23	19,7	43	38	53	14	-	30	265.125.0	3,7
M32 x 1,5	29	26,9	50	46	54	14	-	20	265.132.0	5,3
M40 x 1,5	37	29,8	59	55	60	14	-	10	265.140.0	6,1
M50 x 1,5	50	35,5	72	72	70	18	-	10	265.150.0	10,4
M63 x 1,5	50	46,0	72	72	69	16	-	10	265.163.0	16,0



ISO straight fitting, male, PA6, colour Black.

RoHS

Thread	Ana-Quick	Min. Internal	Dimensions in mm					Standard	Article	Weight
ISO	DN	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
M16 x 1,5	10	8,7	22	20	50	11	29	30	265.316.1	1,2
M16 x 1,5	12	8,7	26	20	59	11	31	30	265.316.0	1,8
M20 x 1,5	12	11,9	26	25	55	12	34	30	265.320.1	1,2
M20 x 1,5	17	14,8	35	25	60	13	39	30	265.320.0	2,6
M25 x 1,5	17	16,7	35	31	66	13	45	30	265.325.1	2,6
M32 x 1,5	23	22,2	43	31	74	14	49	30	265.332.1	4,4
M32 x 1,5	29	23,2	50	38	77	14	55	20	265.332.0	7,1
M40 x 1,5	37	28,4	59	48	96	14	69	10	265.340.0	7,1
M50 x 1,5	37	36,2	59	56	105	14	75	10	265.350.1	10,6
M63 x 1,5	50	49,7	72	72	129	14	100	10	265.363.0	17,5



Pg straight fitting, male, PA6, colour Black.

RoHS

Thread	Ana-Quick	Min. Internal	Dimensions in mm					Standard	Article	Weight
Pg	DN	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
Pg 9	10	10,5	22	22	38	12	-	30	265.509.0	0,9
Pg 11	12	13,4	26	25	39	12	-	30	265.511.0	1,4
Pg 13,5	17	15,4	35	31	42	12	-	30	265.513.0	1,9
Pg 16	17	17,5	35	31	42	12	-	30	265.516.0	2,0
Pg 21	23	22,4	43	38	53	14	-	30	265.521.0	3,7
Pg 29	29	30,2	50	46	54	14	-	20	265.529.0	5,3
Pg 36	37	36,0	59	55	64	17	-	10	265.536.0	8,4
Pg 48	50	47,0	72	72	69	17	-	10	265.548.0	15,2

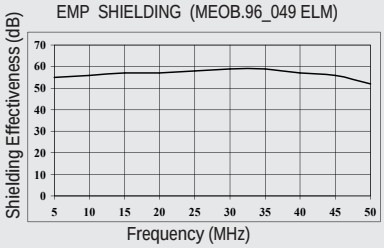
ANAFLEX CORRUGATED HOSE

Very flexible, halogen-free, non-smoke, wide temperature range, EMI/EMP shielding

The Anaflex click system consists of a highy quality flexible stainless steel AISI 316L hose with a nickle plated Anaflex Click fitting. The IP69 system retains it liquid tight rating up to +250° C. The Anaflex System is designed to resist oils, greases and solvents and because the system has no plastic parts fire, smoke and toxicity will not be an issue. The Anaflex sytem was initially designed as a self-mounting flexible piping system for HVAC installations but due to its continuous profiled tube it is also suitable for protecting cables, especially in applications where EMI/EMP shielding is required. These features make Anaflex System suitable for use elctrical and non-electrical applications in the subway-, train- and bus buiding industry, in closed areas, airports, tunnels and metro stations and in many other other areas.

Standard corrugation

RoHS GOST-R EN 45545 LOW SMOKE BS 6853



Material & Construction:
Construction: Flexible parallel corrugated hose, stainless steel AISI-316L.
Special flame properties:
- Because the Anaflex hose has no cover the flame properties according the following approvals are valid:
- EN 45545-2 (2013): R22 (interior equipment) class HL1, HL2 and HL3. R23 (exterior equipment) class HL1, HL2 and HL3.
- BS 6853 (1999) Tabel 7 (Interior) Category 1a, 1b and II vehicle Tabel 8 (Exterior) Category 1a, 1b and II vehicle
- London Underground LUL 1-085 (2011) Tabel 3 : Extensive and grouped usage Tabel 4 : limited and dispersed usage

Temperature: -70 ºC to +250 ºC.
Colour: Metal.

Classification according to NEN-EN-IEC 61386:
Compression resistance: Class 3, Medium (750 N).
Impact resistance: Class 3, Medium (2 J).
Tensile strength: Class 4, Heavy (1000 N).
Protection class: IP 69 (dust-free, water-proof).

Anaflex®	Diametre		Bending radius (cl)		Standard carton		Small carton		Reel		Weight
Size	Inside	Outside	Static	Dynamic	Metre	Article No.	Metre	Article No.	Metre	Article No.	(Kg/m)
DN	(mm)	(mm)	(mm)	(mm)							
DN 12	12,2	16,7	45	180	30	465.012.1	10	465.012.3	120	465.012.5	0,12
DN 16	16,2	21,5	60	180	30	465.016.1	10	465.016.3	90	465.016.5	0,20
DN 20	20,3	26,7	70	190	30	465.020.1	10	465.020.3	60	465.020.5	0,28
DN 25	25,4	32,3	100	215	30	465.025.1	10	465.025.3	-	-	0,39

The ANAFLEX® stainless steel hoses can be used in combination with the unique ANAFLEX®-CLICK fittings, as outlined on page 38

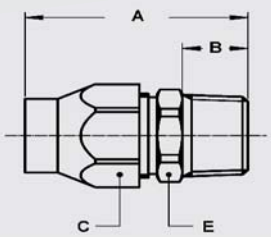
Anaflex	-	-	-	12	16	20	25	32	-	-	-	-
ISO		-	-	M16-M20	M20	M25	M32	M40	-	-	-	
Pg		-	-	-	-	-	-	-	-	-	-	-
NPT	-	-	-	1/2"	1/2"- 3/4"	3/4"	1"	1.1/4"	-	-	-	-

ANAFLEX CLICK FITTING IP 69

Quick mounting, reliable, high temperature resistance and very high protection class IP 69.

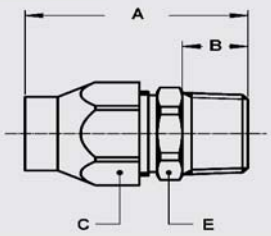
For the stainless steel ANAFLEX® hose, a special and unique fitting has been designed. The major advantage of these nickel plated brass ANAFLEX®-CLICK fittings is the easy click-on system (no need to dis-assemble the fitting first). After tightening the counter nut (2 till 3 full turns) a strong and fully liquid-tight connection is made (IP 69).
Anaflex click is available with male thread in NPT and ISO, but also in female thread BSPT and a clamping version for rigid pipes of Ø 15 mm till Ø 22 mm.

Material & Construction:
Construction: Nickel plated brass fitting, consisting of 6 parts (body, counter nut, retaining ring and filler ring are nickel plated brass, internal sealing sleeve is from PTFE and the internal flat seal is from silicone rubber).
Special approvals: Click system tested and approved by the "Institut für Solartechnik SPF" (Switzerland).
Temperature: -70 ºC till +250 ºC.
Colour: Metal.



ISO straight fitting, male, nickel plated brass.

Thread	Anaflex	Min. Internal	Dimensions in mm					Standard	Article	Weight
ISO	Size (DN)	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
M16 x 1,5	DN 12	10,0	47	12	24	-	22	10	842.016.0	5,9
M20 x 1,5	DN 12	10,0	48	13	24	-	22	10	842.017.0	6,1
M20 x 1,5	DN 16	14,0	54	13	29	-	27	10	842.020.0	9,0
M25 x 1,5	DN 20	18,0	60	15	36	-	34	5	842.025.0	15,6
M32 x 1,5	DN 25	24,0	60	15	42	-	40	5	842.032.0	21,6



ISO straight fitting, male, nickel plated brass.

Thread	Anaflex	Min. Internal	Dimensions in mm					Standard	Article	Weight
ISO	Size (DN)	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
NPT 1/2"	DN 12	10,0	50	15	24	-	22	10	844.012.0	6,3
NPT 1/2"	DN 16	14,0	58	17	29	-	27	10	844.016.0	9,7
NPT 3/4"	DN 16	14,0	59	17	29	-	27	5	844.018.0	10,5
NPT 3/4"	DN 20	18,0	62	17	36	-	34	5	844.020.0	16,0
NPT 1"	DN 25	24,0	63	18	42	-	40	5	844.026.0	22,8

CONDUIT TYPE FCEN

very flexible and robust

FCEN is a very flexible, multipurpose conduit that is made of galvanised steel. The areas of application are extensive. On rolling stock it can be used to protect cables on underfloor, roof and wall applications, CCTV, passenger information systems, door locking systems. The robust, galvanised steel construction makes it suitable for protecting cables in rail stations which are exposed to rodent and vandal attack.

Square locked

Material & Construction:
Construction: Galvanised steel core, square-locked.
Special flame properties:
Because the FCEN conduit hose has no cover the flame properties according the following standards are valid:
- EN 45545-2 (2013):
  R22 (interior equipment) class HL1, HL2 and HL3.
  R23 (exterior equipment) class HL1, HL2 and HL3.
- BS 6853 (1999) Tabel 7 (Interior) Category 1a, 1b and II vehicle
  Tabel 8 (Exterior) Category 1a, 1b and II vehicle
- London Underground LUL 1-085 (2011)
  Tabel 3 : Extensive and grouped usage
  Tabel 4 : Limited and dispersed usage

Temperature: -55 ºC to +300 ºC.
Colour: Metal coloured.

Classification according to NEN-EN-IEC 61386:
Compression resistance: Class 4, Heavy (1250 N).
Impact resistance: Class 4, Heavy (6 J).
Tensile strength: Class 4, Heavy (1000 N).
Protection class: IP 40.

FCEN	Diametre		Bending radius (cl)		Small reel		Standard reel		Large reel		Weight
Size	Inside	Outside	Static	Dynamic	Metre	Article No.	Metre	Article No.	Metre	Article No.	(Kg/m)
DN	(mm)	(mm)	(mm)	(mm)							
12	10,0	13,0	30	45	-	-	25	370.012.2	50	370.012.5	0,15
16	13,0	16,0	45	60	10	370.016.1	25	370.016.2	50	370.016.5	0,20
20	17,0	20,5	50	70	10	370.020.1	25	370.020.2	50	370.020.5	0,26
25	21,2	25,0	60	80	10	370.025.1	25	370.025.2	50	370.025.5	0,30
32	28,1	32,0	70	90	10	370.032.1	25	370.032.2	-	-	0,42
40	37,7	43,0	90	120	10	370.040.1	25	370.040.2	-	-	0,60
50	48,4	54,0	110	140	10	370.050.1	25	370.050.2	-	-	0,90

The fittings for FCEN are outlined in on pages 40 till 42

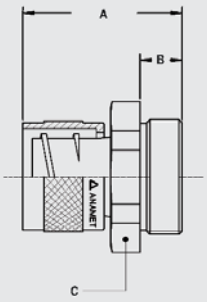
FCEN	10	12	16	18	20	25	32	40	50	-	-	-
ISO	M10 / M12	M12 / M16	M16 / M20	M20	M20	M25	M32	M40	M50 / M63	-	-	-
Pg	7	9	11 / 13,5	13,5	16	21	29	36	48	-	-	-
NPT	-	-	1/2"	-	1/2"	3/4"	1"	-	-	-	-	-

2 PIECE FITTINGS IP 40

Anaconda nickel plated brass fittings for Multiflex FCEN

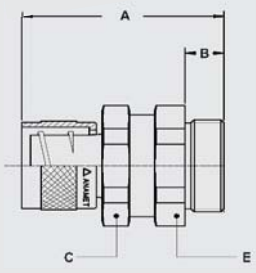
These nickel plated brass Anamet fittings are simular to thje standard fittings for Multitite type FCE, but are adjusted to be used with Multiflex type FCEN. The 2-piece fittings are universal, offer excellent corrosion protection in combination with a good appearance. In addition to the mentioned straight fittings, other types or custom made solutions are also possible.

Material & Construction:
Construction: Nickel plated brass fitting, consisting of 2 parts (cap and body).
Material: Cap and body are nickel plated brass.
Temperature: -55 °C till +260 ºC continuous.
Protection class: IP 40.
Colour: Metal.



ISO straight fitting, fixed, male, nickel plated brass.

Thread ISO	Multitite Size (DN)	Min. Internal Bore (mm)	Dimensions in mm A	B	C	D	E	Standard Package	Article Number	Weight (Kg/100)
M12 x 1,5	12	8,5	26	10	18	-	-	10	256.012.0	1,8
M16 x 1,5	12	8,5	26	10	18	-	-	10	256.015.0	2,0
M16 x 1,5	16	11,2	27	10	20	-	-	10	256.016.0	2,3
M20 x 1,5	16	11,2	27	10	22	-	-	10	256.017.0	2,6
M20 x 1,5	20	15,2	27	10	24	-	-	10	256.020.0	3,0
M25 x 1,5	25	19,2	32	12	30	-	-	5	256.025.0	5,4
M32 x 1,5	32	25,9	35	13	38	-	-	5	256.032.0	8,1
M40 x 1,5	40	34,8	41	14	48	-	-	2	256.040.0	15,0
M50 x 1,5	50	44,8	45	15	60	-	-	2	256.050.0	22,4
M63 x 1,5	50	44,8	46	16	70	-	-	2	256.060.0	28,6



ISO straight fitting, swivel, male, nickel plated brass.

Thread ISO	Multitite Size (DN)	Min. Internal Bore (mm)	Dimensions in mm A	B	C	D	E	Standard Package	Article Number	Weight (Kg/100)
M12 x 1,5	12	8,5	34	10	18	-	18	10	256.112.0	2,4
M16 x 1,5	12	8,5	34	10	18	-	18	10	256.115.0	3,1
M16 x 1,5	16	11,2	36	10	20	-	20	10	256.116.0	3,9
M20 x 1,5	16	11,2	36	10	20	-	22	10	256.117.0	4,2
M20 x 1,5	20	15,2	37	10	24	-	24	10	256.120.0	4,9
M25 x 1,5	25	19,2	43	12	30	-	30	5	256.125.0	8,8
M32 x 1,5	32	25,9	47	13	38	-	38	5	256.132.0	13,3
M40 x 1,5	40	34,8	56	14	48	-	48	2	256.140.0	25,1
M50 x 1,5	50	44,8	60	15	60	-	60	2	256.150.0	36,7
M63 x 1,5	50	44,8	61	16	60	-	70	2	256.160.0	47,1

COMPACT FITTINGS IP 40 FOR FCEN

Anaconda *compact* fittings, IP 40, nickel plated brass for Multitite FCEN

Anaconda *compact* nickel plated fittings are developed for Anaconda Sealtite conduits. They can however, be used with FCEN conduits by replacing the standard polyamide clamping ring with a metal clamping ring and the ferrule, as mentioned below. The high quality finish of the nickel plated brass fittings protects them against corrosion and gives them a good appearance.

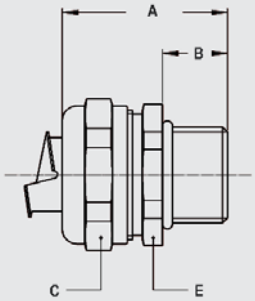
Material & Construction:
Construction: Nickel plated brass fitting, consisting of 4 parts (counter nut, clamping ring, ferrule and body).

The clamping rubbers of the cable hose fittings are made from EPDM.
Special approvals:
The cable-hose fittings have clamping rubbers from flame retardant V0-rated EPDM and are HL 1, HL 2 and HL 3 according EN 45545-2, R22 and R23.
Temperature: -55 °C till +260 ºC continuous. Cable-hose fiittings are from -55 °C till +125 ºC continuous.
Protection class: IP 40. Cable hose fittings are IP 68 on the switchbox.
Colour: Metal

Connection set, nickel plated brass, for combination with Multiflex type FCEN

RoHS GOST-R

Thread ISO	FCEN Size (NW)	Min. Internal Bore (mm)	Fitting thread size A	B	C	Standard Package	Article Number	Weight (Kg/100)
-	12	8,3	M16 x 1,5	Pg 11	1/2" NPT	10	817.112.0	1,8
-	16	11,2	M16 x 1,5	Pg 11	1/2" NPT	10	817.116.0	2,2
-	20	15,2	M20 x 1,5	Pg 16	1/2" NPT	10	817.120.0	2,6
-	25	19,2	M25 x 1,5	Pg 21	3/4" NPT	5	817.125.0	3,8
-	32	25,9	M32 x 1,5	Pg 29	1" NPT	5	817.132.0	4,2

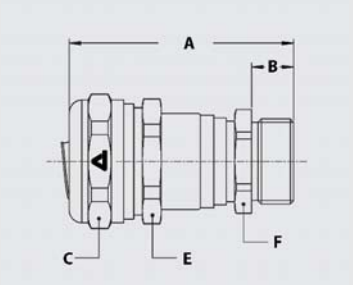


ISO straight compact fitting, male, nickel plated brass (incl. brass connection set)

RoHS GOST-R

Thread ISO	FCEN Size (DN)	Min. Internal Bore (mm)	Dimensions in mm A	B	C	D	E	Standard Package	Article Number	Weight (Kg/100)
M16 x 1,5	12	8,3	30	10	26	-	24	10	712.015.3	4,2
M20 x 1,5	12	8,3	30	10	26	-	24	10	712.014.3	4,4
M16 x 1,5	16	11,2	30	10	26	-	24	10	712.016.3	4,2
M20 x 1,5	16	11,2	30	10	26	-	24	10	712.017.3	4,4
M20 x 1,5	20	15,2	32	10	29	-	27	10	712.020.3	5,0
M25 x 1,5	25	19,2	33	10	35	-	33	5	712.025.3	7,4
M32 x 1,5	32	25,9	36	12	45	-	44	5	712.032.3	13,9

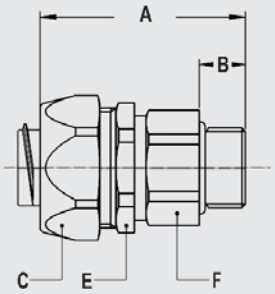
COMPACT FITTINGS IP 40 FOR FCEN



ISO cable-hose fitting, compact, male, double seal acc. EN 45545-2, HL1 / HL2 / HL 3, table R22 and R23. (incl. brass connection set).

RoHS GOST-R

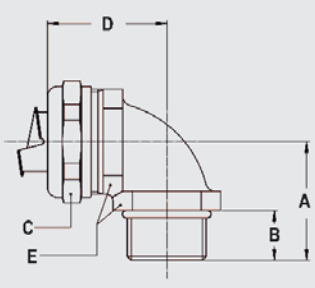
Thread	FCEN	Clamping	Dimensions in mm					Standard	Article	Weight
ISO	Size (DN)	range (mm)	A	B	C	E	F	Package	Number	(Kg/100)
M16 x 1,5	12	4,0 - 8,3	50	10	26	24	18	10	712.715.3	7,1
M20 x 1,5	12	4,0 - 8,3	50	10	26	24	22	10	712.714.3	7,7
M16 x 1,5	16	4,0 - 9,5	50	10	26	24	18	10	712.716.3	7,1
M20 x 1,5	16	4,0 - 9,5	50	10	26	24	22	10	712.717.3	7,7
M20 x 1,5	20	6,0 - 13,0	53	10	29	27	22	10	712.720.3	8,2
M25 x 1,5	20	6,0 - 13,0	54	10	29	27	27	5	712.722.3	9,6
M25 x 1,5	25	10,0 - 18,0	56	10	35	33	27	5	712.725.3	12,5
M32 x 1,5	25	10,0 - 18,0	58	12	35	33	35	5	712.728.3	15,8
M32 x 1,5	32	16,0 - 25,0	61	12	45	42	35	5	712.732.3	22,5
M40 x 1,5	32	16,0 - 25,0	63	13	45	42	43	2	712.735.3	26,7



ISO straight swivel fitting, male, nickel plated brass (incl. brass connection set)

RoHS GOST-R

Thread	FCEN	Min. Internal	Dimensions in mm					Standard	Article	Weight
ISO	Size (DN)	Bore (mm)	A	B	C	E	F	Package	Number	(Kg/100)
M16 x 1,5	12	8,3	48	10	26	24	21	10	813.015.3	8,1
M16 x 1,5	16	10,7	48	10	26	24	21	10	813.016.3	8,1
M20 x 1,5	20	13,9	49	10	29	27	25	10	813.020.3	10,2
M25 x 1,5	25	17,4	49	10	35	33	31	5	813.025.3	13,8
M32 x 1,5	32	23,4	55	12	45	42	38	5	813.032.3	32,5



ISO 90° fitting, compact, male, nickel plated brass (including brass connection set)

RoHS GOST-R

Thread	FCEN	Min. Internal	Dimensions in mm					Standard	Article	Weight
ISO	Size (DN)	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
M16 x 1,5	12	8,3	26	10	26	31	22	10	712.915.3	7,0
M20 x 1,5	12	8,3	26	10	26	32	24	10	712.914.3	7,2
M16 x 1,5	16	11,2	26	10	26	31	22	10	712.916.3	7,0
M20 x 1,5	16	11,2	26	10	26	32	24	10	712.917.3	7,2
M20 x 1,5	20	15,2	28	10	29	34	27	10	712.920.3	8,4
M25 x 1,5	25	19,2	32	10	35	40	33	5	712.925.3	17,5
M32 x 1,5	32	25,9	40	12	45	49	42	5	712.932.3	29,4

CONDUIT TYPE UI

very robust, extremely flexible and corrosion resistant

UI is a very flexible, multipurpose conduit that is made of stainless steel AISI-304. The areas of application are extensive. On rolling stock it can be used to protect cables on underfloor, roof and wall applications, CCTV, passenger information systems, door locking systems. The robust, stainless steel construction make it very suitable for protecting cables in tunnels, on tunnel equipment and areas in rail stations which are exposed to rodent and vandal attack.

Inter locked

Material & Construction:
Construction: Stainless steel core (AISI-304), fully inter-locked.
Special flame properties:
Because the UI conduit hose has no cover the flame properties according the following standards are valid:
- EN 45545-2 (2013):
  R22 (interior equipment) class HL1, HL2 and HL3.
  R23 (exterior equipment) class HL1, HL2 and HL3.
- BS 6853 (1999) Tabel 7 (Interior) Category 1a, 1b and II vehicle
  Tabel 8 (Exterior) Category 1a, 1b and II vehicle
- London Underground LUL 1-085 (2011)
  Tabel 3 : Extensive and grouped usage
  Tabel 4 : Limited and dispersed usage

Temperature: -100 ºC to +600 ºC.
Colour: Metal coloured.

Classification according to NEN-EN-IEC 61386:
Compression resistance: Class 5, Very Heavy (4000 N).
Impact resistance: Class 4, Heavy (6 J).
Tensile strength: Class 4, Heavy (1000 N).
Protection class: IP 40.

UI	Diametre		Bending radius (cl)		Standard carton		Small carton		Reel		Weight
Size	Inside	Outside	Static	Dynamic	Metre	Article No.	Metre	Article No.	Metre	Article No.	(Kg/m)
(Inch)	(mm)	(mm)	(mm)	(mm)							
5/16”	9,5	12,5	50	60	30	512.010.0	-	-	-	-	0,17
3/8”	13,0	16,0	65	80	30	512.012.0	-	-	-	-	0,27
1/2”	17,0	21,0	75	100	30	512.016.0	-	-	-	-	0,34
3/4”	22,0	26,0	90	125	30	512.022.0	-	-	-	-	0,37
1”	26,0	30,0	120	160	30	512.025.0	-	-	-	-	0,53
1.1/4”	34,0	39,0	175	220	30	512.034.0	-	-	-	-	0,73
1.1/2”	40,3	44,4	230	280	15	512.040.0	-	-	-	-	0,87
2”	51,6	55,7	285	340	15	512.050.0	-	-	-	-	1,34

The fittings for UI are outlined in on pages 45 till 46

UI	-	5/16”	3/8”	1/2”	3/4”	1”	1 1/4”	1 1/2”	2”	-	-	-
ISO	-	M16-M20	M16-M20	M20	M25	M32	M40	M50	M63	-	-	-
Pg	-	9 - 11	11 - 13,5	16	21	29	36	42	48	-	-	-
NPT	-	-	1/2”	1/2”	3/4”	1”	1 1/4”	1 1/2”	2”	-	-	-

COMPACT FITTINGS IP 40 FOR UI

Anaconda *compact* fittings, IP 40, nickel plated brass for Multitite UI

Anaconda *compact* nickel plated fitting are for Anaconda Sealtite conduits. By replacing the standard polyamide clamping ring and the metal ferrule with a metal adapter for UI they also fit perfectly. All ferrules have been machine turned to ensure a neat fit while the high quality finish of the nickel plated brass fittings protects them against corrosion and gives them a nice appearance.

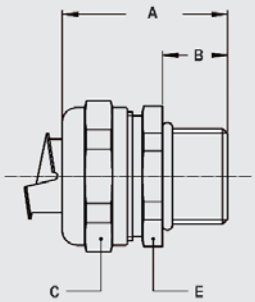
Material & Construction:
Construction: Nickel plated brass fitting, consisting of 4 parts (counter nut, clamping ring, ferrule and body).

The clamping rubbers of the cable hose fittings are made from EPDM.
Special approvals:
The cable-hose fittings have clamping rubbers from flame retardant V0-rated EPDM and are HL 1, HL 2 and HL 3 according EN 45545-2, R22 and R23.
Temperature: -55 °C till +260 ºC continuous. Cable-hose fiittings are from -55 °C till +125 ºC continuous.
Protection class: IP 40. Cable hose fittings are IP 68 on the switchbox.
Colour: Metal

Connection set, nickel plated brass, for combination with Multiflex type UI

Thread	UI	Min. Internal	Fitting thread size			Standard	Article	Weight
	Size (inch)	Bore (mm)	ISO	Pg	NPT	Package	Number	(Kg/100)
-	5/16”	6,8	M16 x 1,5	Pg 11	1/2” NPT	10	817.210.9	2,2
-	3/8”	9,8	M16 x 1,5	Pg 11	1/2” NPT	10	817.213.9	2,0
-	1/2”	13,9	M20 x 1,5	Pg 16	1/2” NPT	10	817.216.9	2,4
-	3/4”	18,5	M25 x 1,5	Pg 21	3/4” NPT	5	817.220.9	3,8
-	1”	22,8	M32 x 1,5	Pg 29	1” NPT	5	817.226.9	4,0
-	1.1/4”	30,8	M40 x 1,5	Pg 36	1.1/4” NPT	2	817.235.9	9,8
-	1.1/2”	36,9	M50 x 1,5	Pg 42	1.1/2” NPT	2	817.240.6*	4,2
-	2”	47,9	M63 x 1,5	Pg 48	2” NPT	2	817.250.6*	9,0

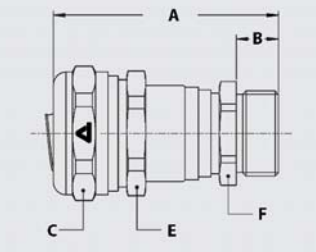
* Clamping ring only for size 1.1/2”and 2”



ISO straight compact fitting, male, nickel plated brass (including connection set)

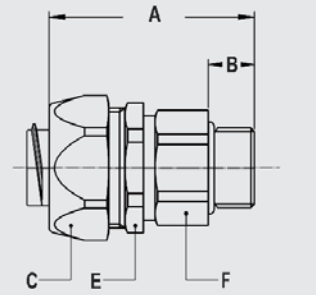
Thread	UI	Min. Internal	Dimensions in mm					Standard	Article	Weight
ISO	Size (inch)	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
M16 x 1,5	5/16”	6,8	30	10	26	-	24	10	712.015.7	4,4
M20 x 1,5	5/16”	6,8	30	10	26	-	24	10	712.014.7	4,5
M16 x 1,5	3/8”	9,8	30	10	26	-	24	10	712.016.7	4,4
M20 x 1,5	3/8”	9,8	30	10	26	-	24	10	712.017.7	4,5
M20 x 1,5	1/2”	13,9	32	10	29	-	27	10	712.020.7	5,3
M25 x 1,5	3/4”	18,5	33	10	35	-	33	5	712.025.7	7,8
M32 x 1,5	1”	22,8	36	12	45	-	44	5	712.032.7	14,4
M40 x 1,5	1.1/4”	30,8	40	13	53	-	50	2	712.040.7	19,1
M50 x 1,5	1.1/2”	36,9	46	14	62	-	58	2	712.050.7	28,0
M63 x 1,5	2”	47,9	52	16	76	-	72	2	712.063.7	43,4

COMPACT FITTINGS IP 40 FOR UI



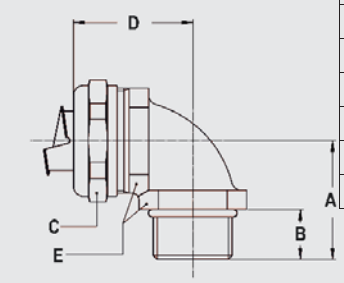
ISO cable-hose fitting, compact, male, double seal acc. EN 45545-2, HL1 / HL2 / HL 3, table R22 and R23. (incl. connection set).

Thread	UI	Clamping	Dimensions in mm					Standard	Article	Weight
ISO	Size (inch)	range (mm)	A	B	C	E	F	Package	Number	(Kg/100)
M16 x 1,5	5/16”	4,0 - 6,8	50	10	26	24	18	10	712.715.7	7,3
M20 x 1,5	5/16”	4,0 - 6,8	50	10	26	24	22	10	712.714.7	7,9
M16 x 1,5	3/8”	4,0 - 9,5	50	10	26	24	18	10	712.716.7	7,3
M20 x 1,5	3/8”	4,0 - 9,5	50	10	26	24	22	10	712.717.7	7,9
M20 x 1,5	1/2”	6,0 - 13,0	53	10	29	27	22	10	712.720.7	8,5
M25 x 1,5	1/2”	6,0 - 13,0	54	10	29	27	27	5	712.722.7	9,9
M25 x 1,5	3/4”	10,0 - 18,0	56	10	35	33	27	5	712.725.7	12,9
M32 x 1,5	3/4”	10,0 - 18,0	58	12	35	33	35	5	712.728.7	16,2
M32 x 1,5	1”	16,0 - 22,5	61	12	45	42	35	5	712.732.7	23,0
M40 x 1,5	1”	16,0 - 22,5	63	13	45	42	43	2	712.735.7	27,2



ISO straight swivel fitting, male, nickel plated brass (incl. connection set)

Thread	UI	Min. Internal	Dimensions in mm					Standard	Article	Weight
ISO	Size (inch)	Bore (mm)	A	B	C	E	F	Package	Number	(Kg/100)
M16 x 1,5	5/16”	6,8	48	10	26	24	21	10	813.015.7	10,1
M16 x 1,5	3/8”	9,8	48	10	26	24	21	10	813.016.7	10,1
M20 x 1,5	1/2”	13,9	49	10	29	27	25	10	813.020.7	12,6
M25 x 1,5	3/4”	17,4	49	10	35	33	31	5	813.025.7	17,6
M32 x 1,5	1”	22,8	55	12	45	42	38	5	813.032.7	36,5
M40 x 1,5	1.1/4”	29,4	58	14	54	50	48	2	813.040.7	66,6
M50 x 1,5	1.1/2”	36,9	65	14	62	58	55	2	813.050.7	74,0
M63 x 1,5	2”	47,9	74	16	76	72	68	2	813.063.7	130,0



ISO 90° fitting, compact, male, nickel plated brass (including connection set)

Thread	UI	Min. Internal	Dimensions in mm					Standard	Article	Weight
ISO	Size (inch)	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
M16 x 1,5	5/16”	6,8	26	10	26	31	22	10	712.915.7	6,6
M20 x 1,5	5/16”	6,8	26	10	26	32	24	10	712.914.7	7,9
M16 x 1,5	3/8”	9,8	26	10	26	31	22	10	712.916.7	6,6
M20 x 1,5	3/8”	9,8	26	10	26	32	24	10	712.917.7	7,9
M20 x 1,5	1/2”	13,9	28	10	29	34	27	10	712.920.7	9,2
M25 x 1,5	3/4”	18,5	32	10	35	40	33	5	712.925.7	16,2
M32 x 1,5	1”	22,8	40	12	45	49	42	5	712.932.7	27,8
M40 x 1,5	1.1/4”	30,8	46	13	53	53	52	2	712.940.7	40,1
M50 x 1,5	1.1/2”	36,9	52	14	62	57	60	2	712.950.7	57,5
M63 x 1,5	2”	47,9	62	16	76	68	72	2	712.963.7	90,6

COMPACT FITTINGS IP 40 FOR UI

Anaconda *compact* fittings, IP 40, stainless steel AISI-304 for Multitite UI

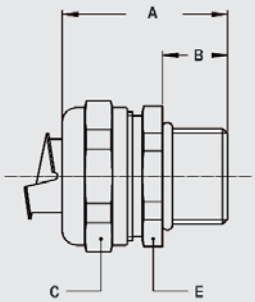
Anaconda *compact* nickel plated fittings are for Anaconda Sealtite conduits. By replacing the standard polyamide clamping ring and the metal ferrule with a metal adapter for UI they also fit perfectly. All ferrules have been machine turned to ensure a neat fit. The Anaconda stainless steel Compact fittings have a high quality finish as well as a high protection against corrosion.

Material & Construction:
Construction: Stainless steel AISI-304 fitting, consisting of 4 parts (counter nut, clamping ring, ferrule and body).
Temperature: -55 °C till +260 ºC continuous.
Protection class: IP 40.
Colour: Metal

Connection set, nickel plated brass, for combination with Multiflex type UI

Thread	UI	Min. Internal	Fitting thread size			Standard	Article	Weight
	Size (inch)	Bore (mm)	ISO	Pg	NPT	Package	Number	(Kg/100)
-	5/16”	6,8	M16 x 1,5	Pg 11	1/2” NPT	10	817.210.9	2,2
-	3/8”	9,8	M16 x 1,5	Pg 11	1/2” NPT	10	817.213.9	2,0
-	1/2”	13,9	M20 x 1,5	Pg 16	1/2” NPT	10	817.216.9	2,4
-	3/4”	18,5	M25 x 1,5	Pg 21	3/4” NPT	5	817.220.9	3,8
-	1”	22,8	M32 x 1,5	Pg 29	1” NPT	5	817.226.9	4,0
-	1.1/4”	30,8	M40 x 1,5	Pg 36	1.1/4” NPT	2	817.235.9	9,8
-	1.1/2”	36,9	M50 x 1,5	Pg 42	1.1/2” NPT	2	817.240.6*	4,2
-	2”	47,9	M63 x 1,5	Pg 48	2” NPT	2	817.250.6*	9,0

* Clamping ring only for size 1.1/2”and 2”



ISO straight compact fitting, male, stainless steel AISI-304 (including connection set)

Thread	UI	Min. Internal	Dimensions in mm					Standard	Article	Weight
ISO	Size (inch)	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
M16 x 1,5	5/16”	6,8	30	10	26	-	24	10	712.015.8	4,4
M20 x 1,5	5/16”	6,8	30	10	26	-	24	10	712.014.8	4,5
M16 x 1,5	3/8”	9,8	30	10	26	-	24	10	712.016.8	4,4
M20 x 1,5	3/8”	9,8	30	10	26	-	24	10	712.017.8	4,5
M20 x 1,5	1/2”	13,9	32	10	29	-	27	10	712.020.8	5,3
M25 x 1,5	3/4”	18,5	33	10	35	-	33	5	712.025.8	7,8
M32 x 1,5	1”	22,8	36	12	45	-	44	5	712.032.8	14,4
M40 x 1,5	1.1/4”	30,8	40	13	53	-	50	2	712.040.8	19,1
M50 x 1,5	1.1/2”	36,9	46	14	62	-	58	2	712.050.8	28,0
M63 x 1,5	2”	47,9	52	16	76	-	72	2	712.063.8	43,4

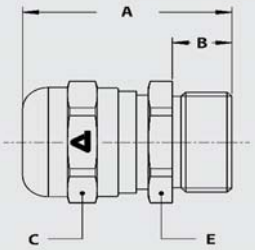
DOUBLE SEAL CABLE GLANDS

Anaconda double seal cable glands

The Anaconda double seal cable glands have a wide clamping range and can be used in a large variety of applications. The IP68 rated glands are available in ISO and NPT thread sizes. By using a double seal these cable glands have an extended clamping range. The cable glands contain clamping seals that are approved for the train industry.

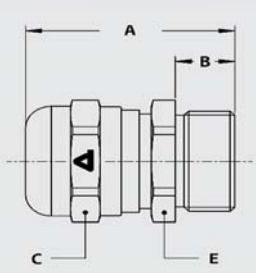
Material & Construction:
Construction: Nickel plated brass fitting, consisting of 3 parts (body, counter nut and double clamping seal)

Material: The body and counter nut are nickel plated brass. The clamping seals are made from EPDM rubber.
Special approvals:
The cable-hose fittings have clamping seals from flame retardant V0-rated EPDM rubber and are HL 1, HL 2 and HL 3 according EN 45545-2, R22 and R23.
Temperature: -55 °C till +125 ºC continuous.
Protection class: IP 68.
Colour: Metal



ISO cable gland, male, nickel plated brass (with double EPDM sealing)

Thread	Clamping range (mm)		Dimensions in mm					Standard	Article	Weight
ISO	S 1 + S 2	S 1	A	B	C	D	E	Package	Number	(Kg/100)
M12 x 1,5	1,0 - 4,0	4,0 - 6,5	34	9	14	-	14	10	726.712.1	1,9
M16 x 1,5	1,0 - 4,0	4,0 - 6,5	35	10	14	-	18	10	726.713.1	2,7
M16 x 1,5	4,0 - 6,5	6,5 - 9,5	37	10	17	-	18	10	726.716.1	3,0
M20 x 1,5	4,0 - 6,5	6,5 - 9,5	37	10	17	-	22	10	726.717.1	3,7
M20 x 1,5	6,0 - 9,0	9,0 - 13	39	10	22	-	22	10	726.720.1	3,8
M25 x 1,5	6,0 - 9,0	9,0 - 13	40	10	22	-	27	5	726.722.1	5,3
M25 x 1,5	10 - 14	14 - 18	41	10	27	-	27	5	726.725.1	5,8
M32 x 1,5	10 - 14	14 - 18	43	12	27	-	35	5	726.728.1	9,0
M32 x 1,5	16 - 20	20 - 25	46	12	35	-	35	5	726.732.1	9,9
M40 x 1,5	16 - 20	20 - 25	48	13	35	-	43	2	726.735.1	14,3
M40 x 1,5	22 - 27	27 - 32	50	13	43	-	43	2	726.740.1	15,2



NPT cable gland, male, nickel plated brass (with double EPDM sealing)

Thread	Clamping range (mm)		Dimensions in mm					Standard	Article	Weight
NPT	S 1 + S 2	S 1	A	B	C	D	E	Package	Number	(Kg/100)
NPT 1/2”	4,0 - 6,5	6,5 - 9,5	41	14	17	-	24	10	728.712.1	4,6
NPT 1/2”	6,0 - 9,0	9,0 - 13	43	14	22	-	24	10	728.716.1	5,1
NPT 3/4”	6,0 - 9,0	9,0 - 13	44	14	22	-	30	5	728.718.1	6,8
NPT 3/4”	10 - 14	14 - 18	45	14	27	-	30	5	728.720.1	7,3
NPT 1”	10 - 14	14 - 18	47	16	27	-	38	5	728.723.1	10,9
NPT 1”	16 - 20	20 - 25	50	16	35	-	38	5	728.726.1	11,8

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