

ANACONDA MULTIFLEX CONDUIT TYPE FCEN



Very flexible and robust

FCEN is a **galvanised steel square locked conduit**. This general purpose conduit is very flexible and has many applications in industrial applications, construction, underfloor wiring systems, industrial machines. Since FCEN is a conduit without a plastic cover, it is inherently fire retardant and is a good solution for tunnel, rail and underground applications, in situations where a high IP rating is not required. Type FCEN meets the requirements set for London Underground LUL 1-085 and EN45545.



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 °C till +300 °C.

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 (Kg/m)
	Size	Inside	Outside	Static	Dynamic	Metre	Article No.	Metre	Article No.	Metre	
DN	(mm)	(mm)	(mm)	(mm)							
10	7,0	9,0	20	30	-	-	-	-	50	370.010.5	0,10
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 1-03 till 1-09



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 FOR FCEN, IP 40, NICKEL PLATED BRASS



Anaconda nickel plated brass fittings for Multiflex FCEN

These nickel plated brass Anamet fittings are similar to the standard fittings for Multiite type FCE, only the caps are adjusted to be used with Multiflex type FCEN. The nickel plated brass FCEN fittings are a cost effective 2 piece fitting giving a strong fix into the conduit with IP40 rating. In addition to the mentioned straight fittings, other types or custom made solutions are also possible.

Material & Construction:

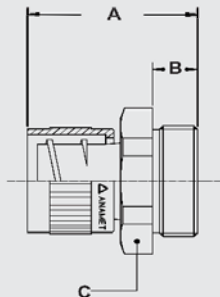
Construction: Nickel plated brass fitting, consisting of 2 parts (cap and body).

Material: Cap and body are nickel plated brass.

Temperature: -55 °C till +260 °C continuous.

Protection class: IP 40.

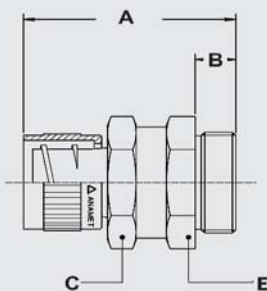
Colour: Metal coloured.



ISO straight fitting, fixed, male, nickel plated brass



Thread	FCEN Size (DN)	Min. Internal Bore (mm)	Dimensions in mm					Standard Package	Article Number	Weight (Kg/100)
			A	B	C	D	E			
M10 x 1,0	10	5,5	24	8	14	-	-	10	256.010.0	1,3
M12 x 1,5	10	5,5	24	8	14	-	-	10	256.011.0	1,4
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	-	-	1	256.040.0	15,0
M50 x 1,5	50	44,8	45	15	60	-	-	1	256.050.0	22,4
M63 x 1,5	50	44,8	46	16	70	-	-	1	256.060.0	28,6

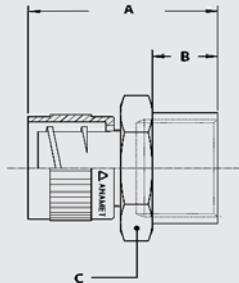


ISO straight fitting, swivel, male, nickel plated brass



Thread	FCEN Size (DN)	Min. Internal Bore (mm)	Dimensions in mm					Standard Package	Article Number	Weight (Kg/100)
			A	B	C	D	E			
M10 x 1,0	10	5,5	30	8	14	-	14	10	256.110.0	1,7
M12 x 1,5	10	5,5	30	8	14	-	14	10	256.111.0	1,9
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	1	256.140.0	25,1
M50 x 1,5	50	44,8	60	15	60	-	60	1	256.150.0	36,7
M63 x 1,5	50	44,8	61	16	60	-	70	1	256.160.0	47,1

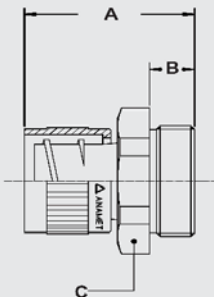
2 PIECE FITTINGS FOR FCEN, IP 40, NICKEL PLATED BRASS



ISO straight fitting, fixed, female, nickel plated brass



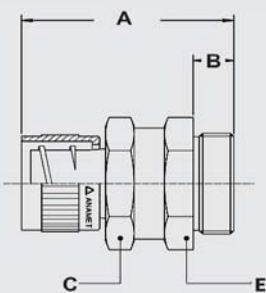
Thread	FCEN	Min. Internal	Dimensions in mm					Standard	Article	Weight
ISO	Size (DN)	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
M12 x 1,5	12	8,5	26	11	18	-	-	10	256.312.0	1,9
M16 x 1,5	12	8,5	28	13	20	-	-	10	256.315.0	2,1
M16 x 1,5	16	11,2	29	13	20	-	-	10	256.316.0	2,4
M20 x 1,5	16	11,2	30	13	24	-	-	10	256.317.0	3,0
M20 x 1,5	20	15,2	30	13	24	-	-	10	256.320.0	3,2
M25 x 1,5	25	19,2	34	15	30	-	-	5	256.325.0	5,9
M32 x 1,5	32	25,9	38	16	38	-	-	5	256.332.0	8,5
M40 x 1,5	40	34,8	43	16	48	-	-	1	256.340.0	16,6
M50 x 1,5	50	44,8	47	17	60	-	-	1	256.350.0	24,5



Pg straight fitting, fixed, male, nickel plated brass



Thread	FCEN	Min. Internal	Dimensions in mm					Standard	Article	Weight
Pg	Size (DN)	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
Pg 7	10	5,5	24	8	14	-	-	10	256.407.0	1,3
Pg 9	12	8,5	26	10	18	-	-	10	256.409.0	1,9
Pg 11	16	11,2	27	10	20	-	-	10	256.411.0	2,4
Pg 16	20	15,2	27	10	24	-	-	10	256.416.0	3,2
Pg 21	25	19,2	32	12	30	-	-	5	256.421.0	5,5
Pg 29	32	25,9	35	13	40	-	-	5	256.429.0	8,9
Pg 36	40	34,8	41	14	50	-	-	1	256.436.0	19,0
Pg 48	50	44,8	45	16	65	-	-	1	256.448.0	25,3

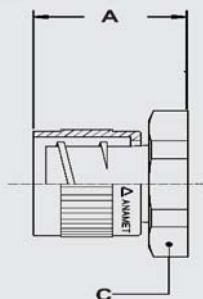


Pg straight fitting, swivel, male, nickel plated brass



Thread	FCEN	Min. Internal	Dimensions in mm					Standard	Article	Weight
Pg	Size (DN)	Bore (mm)	A	B	C	D	E	Package	Number	(Kg/100)
Pg 7	10	5,5	30	8	14	-	14	10	256.507.0	1,8
Pg 9	12	8,5	34	10	18	-	18	10	256.509.0	3,0
Pg 11	16	11,2	36	10	20	-	20	10	256.511.0	4,0
Pg 16	20	15,2	37	10	24	-	24	10	256.516.0	5,2
Pg 21	25	19,2	43	12	30	-	30	5	256.521.0	9,2
Pg 29	32	25,9	47	13	38	-	40	5	256.529.0	14,6
Pg 36	40	34,8	56	14	48	-	50	1	256.536.0	27,3
Pg 48	50	44,8	61	16	60	-	65	1	256.548.0	43,8

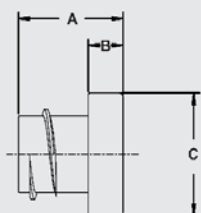
2 PIECE FITTINGS FOR FCEN, IP 40, NICKEL PLATED BRASS



Box connector, fixed, nickel plated brass



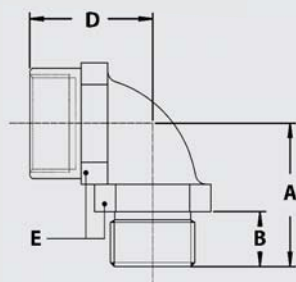
Thread	FCEN Size (DN)	Min. Internal Bore (mm)	Dimensions in mm					Standard Package	Article Number	Weight (Kg/100)
			A	B	C	D	E			
-	10	5,5	16	-	14	-	-	10	256.610.0	1,0
-	12	8,5	16	-	18	-	-	10	256.612.0	1,4
-	16	11,2	17	-	20	-	-	10	256.616.0	1,7
-	20	15,2	17	-	24	-	-	10	256.620.0	2,5
-	25	19,2	20	-	30	-	-	5	256.625.0	4,0
-	32	25,9	22	-	38	-	-	5	256.632.0	6,1
-	40	34,8	27	-	48	-	-	1	256.640.0	11,6
-	50	44,8	30	-	60	-	-	1	256.650.0	18,0



End cap, nickel plated brass



Thread	FCEN Size (DN)	Min. Internal Bore (mm)	Dimensions in mm					Standard Package	Article Number	Weight (Kg/100)
			A	B	C	D	E			
-	10	5,5	18	6	13	-	-	10	264.110.0	0,4
-	12	8,5	18	6	17	-	-	10	264.112.0	0,4
-	16	11,2	18	6	20	-	-	10	264.116.0	0,8
-	20	15,2	19	6	24	-	-	10	264.120.0	1,2
-	25	19,2	21	7	30	-	-	5	264.125.0	1,8
-	32	25,9	22	8	38	-	-	5	264.132.0	2,9
-	40	34,8	24	8	49	-	-	2	264.140.0	5,2
-	50	44,8	25	8	60	-	-	2	264.150.0	7,6



90° elbow, ISO, inside / outside thread, nickel plated brass



Outside Thread	Inside Thread	Min. Internal Bore (mm)	Dimensions in mm					Standard Package	Article Number	Weight (Kg/100)
			A	B	C	D	E			
M16 x 1,5	M16 x 1,5	-	26	10	-	24	22	10	783.016.0	6,0
M20 x 1,5	M20 x 1,5	-	26	10	-	25	24	10	783.020.0	10,0
M25 x 1,5	M25 x 1,5	-	32	10	-	34	33	5	783.025.0	16,0
M32 x 1,5	M32 x 1,5	-	40	12	-	40	42	5	783.032.0	26,0

COMPACT FITTINGS FOR FCEN, IP 40, NICKEL PLATED BRASS



Anaconda compact fittings, IP 40, nickel plated brass for Multiflex FCEN

These nickel plated brass Anaconda compact fittings are the same as used in chapter 5 (compact Sealtite). By replacing the standard polyamide clamping ring with a metal clamping ring and the ferrule (see connection sets below) they can be used with FCEN conduits. By using the FCEN connection set consisting of a special clamping ring and ferrule, a very high pull-out strength is achieved. The high quality finish of these nickel plated brass fittings protects them very well against corrosion and gives them a nicer appearance in comparison with the 2 piece fittings.

Material & Construction:

Construction: Nickel plated brass fitting, consisting of 4 parts (counter nut, clamping ring, ferrule and body). The ferrule and clamping ring are from pas-



sivated brass. 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 to EN 45545-2, R22 and R23.

Temperature: -55 °C till +260 °C continuous. Cable-hose fittings are from -55 °C till +125 °C continuous.

Protection class: IP 40.

Cable hose fittings are IP 68 on the switchbox.

Colour: Metal coloured.



Connection set, passivated brass, for combination with Multiflex type FCEN



Thread ISO	FCEN Size (DN)	Min. Internal Bore (mm)	Fitting thread size			Standard Package	Article Number	Weight (Kg/100)
			ISO	Pg	NPT			
-	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

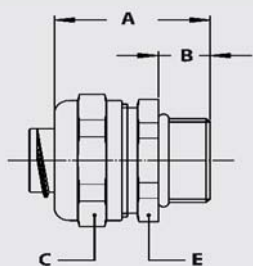
The above mentioned connection sets for FCEN can be used with all types of compact fittings, as outlined in chapter 5.



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



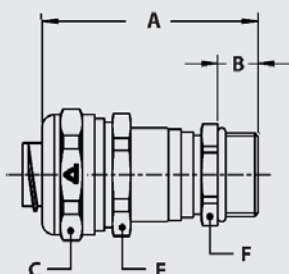
Thread ISO	FCEN Size (DN)	Min. Internal Bore (mm)	Dimensions in mm					Standard Package	Article Number	Weight (Kg/100)
			A	B	C	D	E			
M16 x 1,5	12	8,3	31	10	26	-	24	10	712.015.3	5,7
M20 x 1,5	12	8,3	31	10	26	-	24	10	712.014.3	5,8
M16 x 1,5	16	11,2	31	10	26	-	24	10	712.016.3	6,1
M20 x 1,5	16	11,2	31	10	26	-	24	10	712.017.3	6,2
M20 x 1,5	20	15,2	32	10	29	-	27	10	712.020.3	7,0
M25 x 1,5	25	19,2	33	10	35	-	33	5	712.025.3	10,4
M32 x 1,5	32	25,9	36	12	45	-	42	5	712.032.3	15,9



COMPACT FITTINGS FOR FCEN, IP 40, NICKEL PLATED BRASS



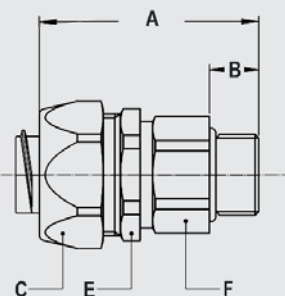
ISO cable-hose fitting, compact, male, double seal acc. EN 45545-2, HL1 / HL2 / HL 3, table R22 and R23 (incl. brass connection set)



Thread ISO	FCEN Size (DN)	Clamping range (mm)	Dimensions in mm					Standard Package	Article Number	Weight (Kg/100)
			A	B	C	E	F			
M16 x 1,5	12	4,0 - 8,3	50	10	26	24	18	10	712.715.3	8,6
M20 x 1,5	12	4,0 - 8,3	50	10	26	24	22	10	712.714.3	9,2
M16 x 1,5	16	4,0 - 9,5	50	10	26	24	18	10	712.716.3	9,0
M20 x 1,5	16	4,0 - 9,5	50	10	26	24	22	10	712.717.3	9,6
M20 x 1,5	20	6,0 - 13,0	53	10	29	27	22	10	712.720.3	10,2
M25 x 1,5	20	6,0 - 13,0	54	10	29	27	27	5	712.722.3	11,6
M25 x 1,5	25	11,0 - 18,0	56	10	35	33	27	5	712.725.3	15,5
M32 x 1,5	25	11,0 - 18,0	58	12	35	33	35	5	712.728.3	18,8
M32 x 1,5	32	16,0 - 25,0	61	12	45	42	35	5	712.732.3	24,5
M40 x 1,5	32	16,0 - 25,0	63	13	45	42	43	2	712.735.3	28,7



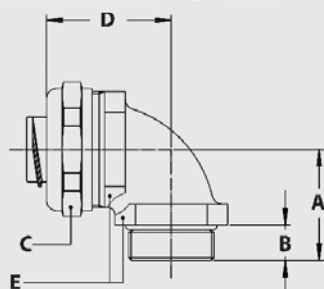
ISO straight swivel fitting, male, nickel plated brass (incl. brass connection set)



Thread ISO	FCEN Size (DN)	Min. Internal Bore (mm)	Dimensions in mm					Standard Package	Article Number	Weight (Kg/100)
			A	B	C	E	F			
M16 x 1,5	12	8,3	48	10	26	24	21	10	813.015.3	9,9
M16 x 1,5	16	10,7	48	10	26	24	21	10	813.016.3	10,3
M20 x 1,5	20	13,9	49	10	29	27	25	10	813.020.3	12,8
M25 x 1,5	25	17,4	49	10	35	33	31	5	813.025.3	17,6
M32 x 1,5	32	23,4	55	12	45	42	38	5	813.032.3	36,7



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



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

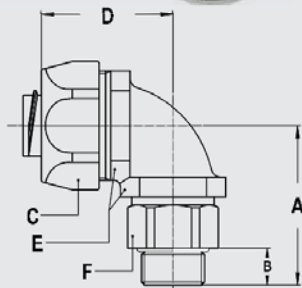
COMPACT FITTINGS FOR FCEN, IP 40, NICKEL PLATED BRASS



ISO 90° swivel fitting, compact, male, nickel plated brass
(incl. brass connection set)



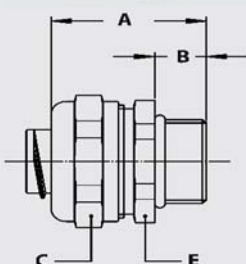
Thread	FCEN	Min. Internal Bore (mm)	Dimensions in mm						Standard Package	Article Number	Weight (Kg/100)
			A	B	C	D	E	F			
M16 x 1,5	12	8,3	39	10	26	35	22	21	10	813.915.3	12,6
M16 x 1,5	16	10,7	39	10	26	35	22	21	10	813.916.3	13,0
M20 x 1,5	20	13,9	39	10	29	37	27	25	10	813.920.3	15,8
M25 x 1,5	25	17,4	46	10	35	44	33	31	5	813.925.3	26,6
M32 x 1,5	32	23,4	55	12	45	55	42	38	5	813.932.3	45,6



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



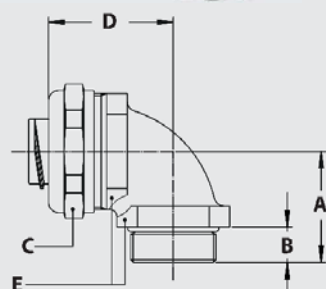
Thread	FCEN	Min. Internal Bore (mm)	Dimensions in mm					Standard Package	Article Number	Weight (Kg/100)
			A	B	C	D	E			
Pg 11	12	8,3	30	10	26	-	24	10	710.012.3	5,8
Pg 13,5	12	8,3	30	10	26	-	24	10	710.014.3	6,0
Pg 11	16	11,2	30	10	26	-	24	10	710.011.3	6,2
Pg 13,5	16	11,2	30	10	26	-	24	10	710.013.3	6,4
Pg 16	20	15,2	32	10	29	-	27	10	710.016.3	7,1
Pg 21	25	19,2	33	10	35	-	33	5	710.021.3	10,3
Pg 29	32	25,9	36	12	45	-	44	5	710.029.3	16,4



Pg 90° fitting, compact, male, nickel plated brass
(incl. brass connection set)



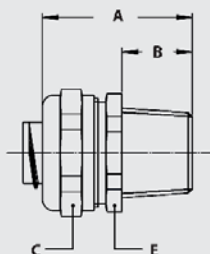
Thread	FCEN	Min. Internal Bore (mm)	Dimensions in mm					Standard Package	Article Number	Weight (Kg/100)
			A	B	C	D	E			
Pg 11	12	8,3	26	10	26	32	24	10	710.912.3	9,5
Pg 13,5	12	8,3	26	10	26	32	24	10	710.914.3	9,8
Pg 11	16	11,2	26	10	26	32	24	10	710.911.3	9,9
Pg 13,5	16	11,2	26	10	26	32	24	10	710.913.3	10,2
Pg 16	20	15,2	28	10	29	34	27	10	710.916.3	11,8
Pg 21	25	19,2	32	10	35	40	33	5	710.921.3	19,5
Pg 29	32	25,9	40	12	45	49	42	5	710.929.3	32,8



COMPACT FITTINGS FOR FCEN, IP 40, NICKEL PLATED BRASS



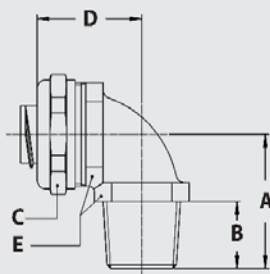
NPT straight compact fitting, male, nickel plated brass
(incl. brass connection set)



Thread	FCEN Size (DN)	Min. Internal Bore (mm)	Dimensions in mm					Standard Package	Article Number	Weight (Kg/100)
			A	B	C	D	E			
NPT 1/2"	16	11,2	35	14	26	-	24	10	714.012.3	6,6
NPT 1/2"	20	15,2	36	14	29	-	27	10	714.016.3	7,6
NPT 3/4"	25	19,2	37	14	35	-	33	5	714.020.3	10,8
NPT 1"	32	25,9	40	16	45	-	42	5	714.026.3	16,8



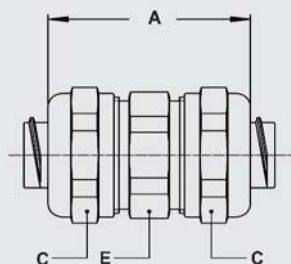
NPT 90° fitting, compact, male, nickel plated brass
(incl. brass connection set)



Thread	FCEN Size (DN)	Min. Internal Bore (mm)	Dimensions in mm					Standard Package	Article Number	Weight (Kg/100)
			A	B	C	D	E			
NPT 1/2"	16	11,2	30	14	26	32	24	10	714.912.3	10,4
NPT 1/2"	20	15,2	32	14	29	34	27	10	714.916.3	12,2
NPT 3/4"	25	19,2	36	14	35	40	33	5	714.920.3	20,5
NPT 1"	32	25,9	44	16	45	49	42	5	714.926.3	32,5



Conduit connector, nickel plated brass
(incl. brass connection set)



FCEN Size (DN)	FCEN Size (DN)	Min. Internal Bore (mm)	Dimensions in mm					Standard Package	Article Number	Weight (Kg/100)
A	B	C	D	E						
5/16"	12	8,3	41	-	26	-	24	10	784.010.3	11,0
3/8"	16	11,2	41	-	26	-	24	10	784.012.3	11,8
1/2"	20	15,2	45	-	29	-	24	10	784.016.3	14,0
3/4"	25	19,2	48	-	35	-	33	5	784.020.3	20,6
1"	32	25,9	53	-	45	-	44	5	784.026.3	33,6