

RODLESS CYLINDER with MAGNETIC SLIDING "MAGNETIC SLIDE" SERIES Ø 16, 20, 25

The magnetic-slide rodless cylinder operates pneumatically and is equipped with a piston and a slide with magnets. The slide runs freely along the liner, following the piston movements, thanks to the magnetic coupling force between the two. If an axial force exceeding the magnetic coupling force is applied to the slide, it disengages. It is therefore important to operate within the pressure, force and speed ranges shown in the catalogue. The load is fixed onto the slide using four threaded holes. The cylinder is secured at the ends by means of nuts, flanges and brackets.

This solution is recommended when there is limited space for assembly, there must be no air leaks or impurities must be prevented from entering. Available with three bores Ø16-20-25, in the basic or swinging versions, with adjustable pneumatic cushioning or non-adjustable cushioning. Designed for use with magnetic sensors.

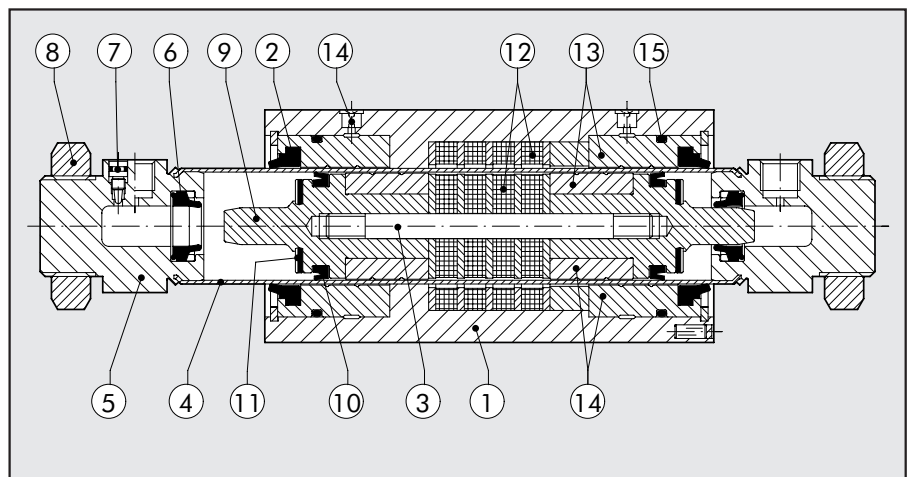
We always suggest to use flow microregulators. During the setup of the actuator, start with CLOSE flow microregulators, and open gradually till the achievement of the required speed.



TECHNICAL DATA		Ø16	Ø20	Ø25
Operating pressure	bar		2 ÷ 7	
	MPa		0,2 ÷ 7	
	psi		29 ÷ 101	
Temperature range	°C		-10 ÷ 60	
	°F		14 ÷ 140	
Fluid		Unlubricated 50 µm filtered air. Lubrication, if used, must be continuous		
Bores	mm	Ø 16, 20, 25		
Strokes		10 mm to 1000 mm with 1 mm intervals		
Versions		Magnetic uncushioned/cushioned		
		swinging magnet uncushioned/cushioned		
Design		Double-acting rodless cylinder, with magnetic coupling transmission system		
Position sensing		Magnet for limit switch sensor		
Fixing		Hex nuts (supplied standard) - Legs - Flanges		
Theoretic force at 6 bar		118	185	288
Magnetic coupling force (static condition)	N	200	300	500
Max speed	m/s		0,4	
Weight	0 mm stroke	490	795	1250
	for each mm of stroke	0,262	0,325	0,487
Notes		Lubricate the slide every 2000 km or once a year, through the lubricators		

COMPONENTS

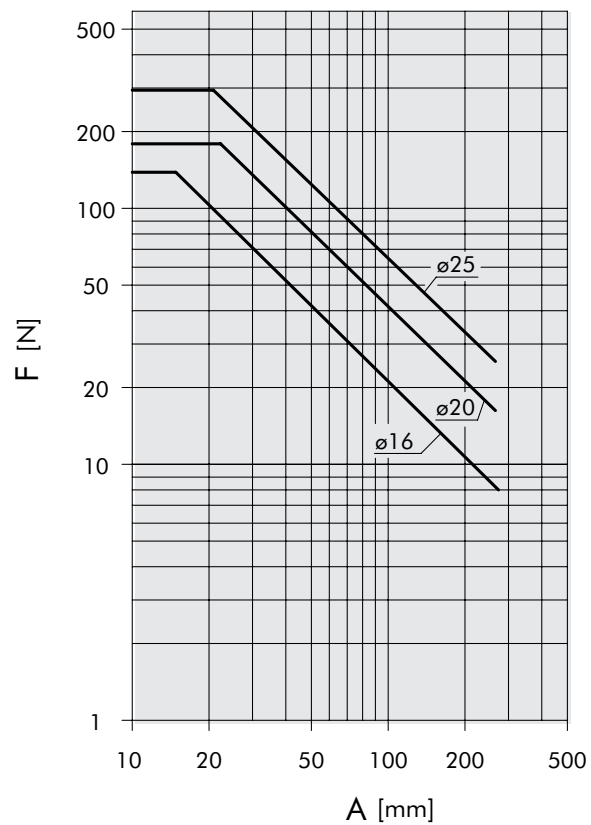
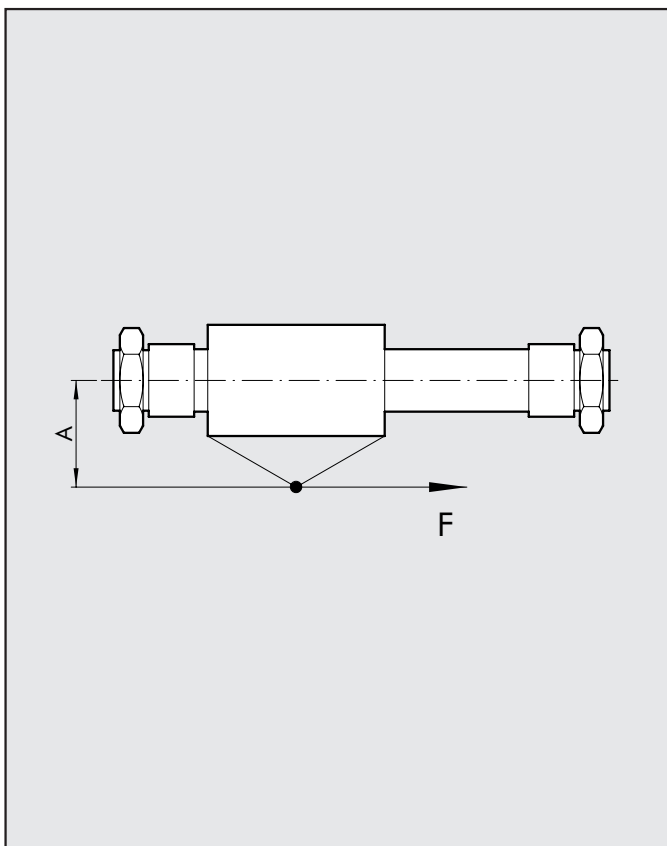
- ① SLIDE: anodized aluminium alloy
- ② WIPER RING: polyurethane
- ③ TIE ROD: stainless steel, thick-chromed
- ④ BARREL: AISI 304 stainless steel
- ⑤ HEAD: anodized aluminium alloy
- ⑥ CUSHIONING GASKET: NBR
- ⑦ NEEDLE: OT 58 with needle-out movement safety system, even when fully open
- ⑧ HEAD NUT: OT 58 nickel-plated
- ⑨ HALF-PISTON: aluminium alloy
- ⑩ PISTON GASKET: polyurethane
- ⑪ BUFFER: NBR
- ⑫ INT/EXT MAGNETS: neodymium
- ⑬ INT/EXT GUIDES: thermoplastic resin with lubricating additive
- ⑭ GREASE NIPPLE: steel
- ⑮ Static O-rings: NBR



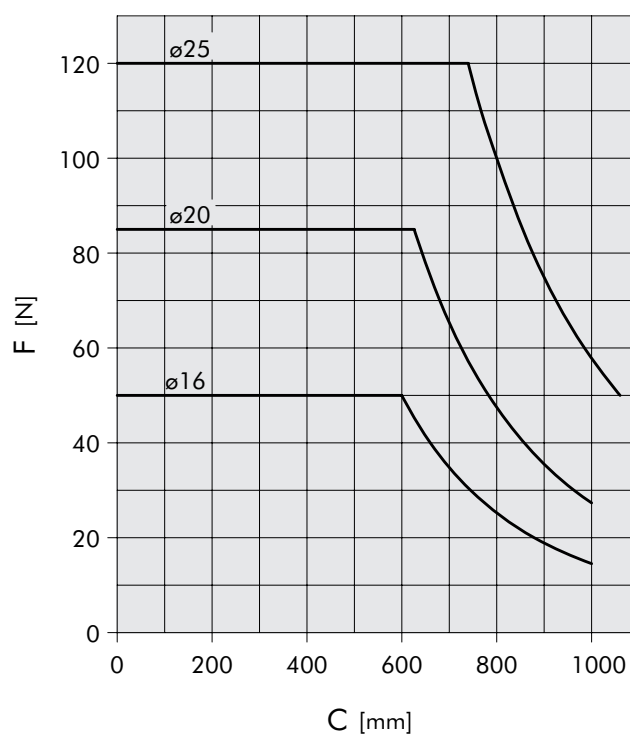
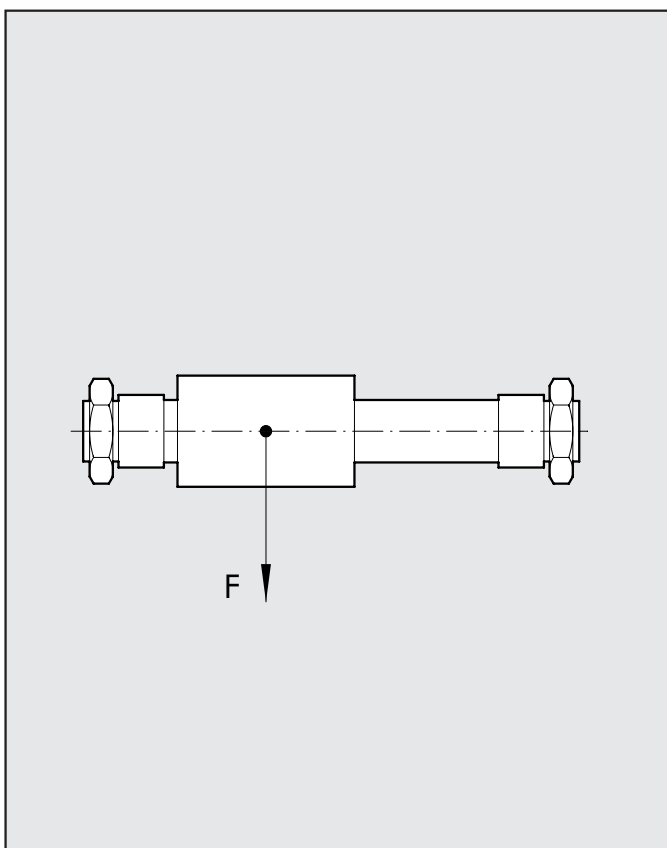


ADMISSIBLE AXIAL FORCE "F" AS A FUNCTION OF THE LEVER ARM "A"

1

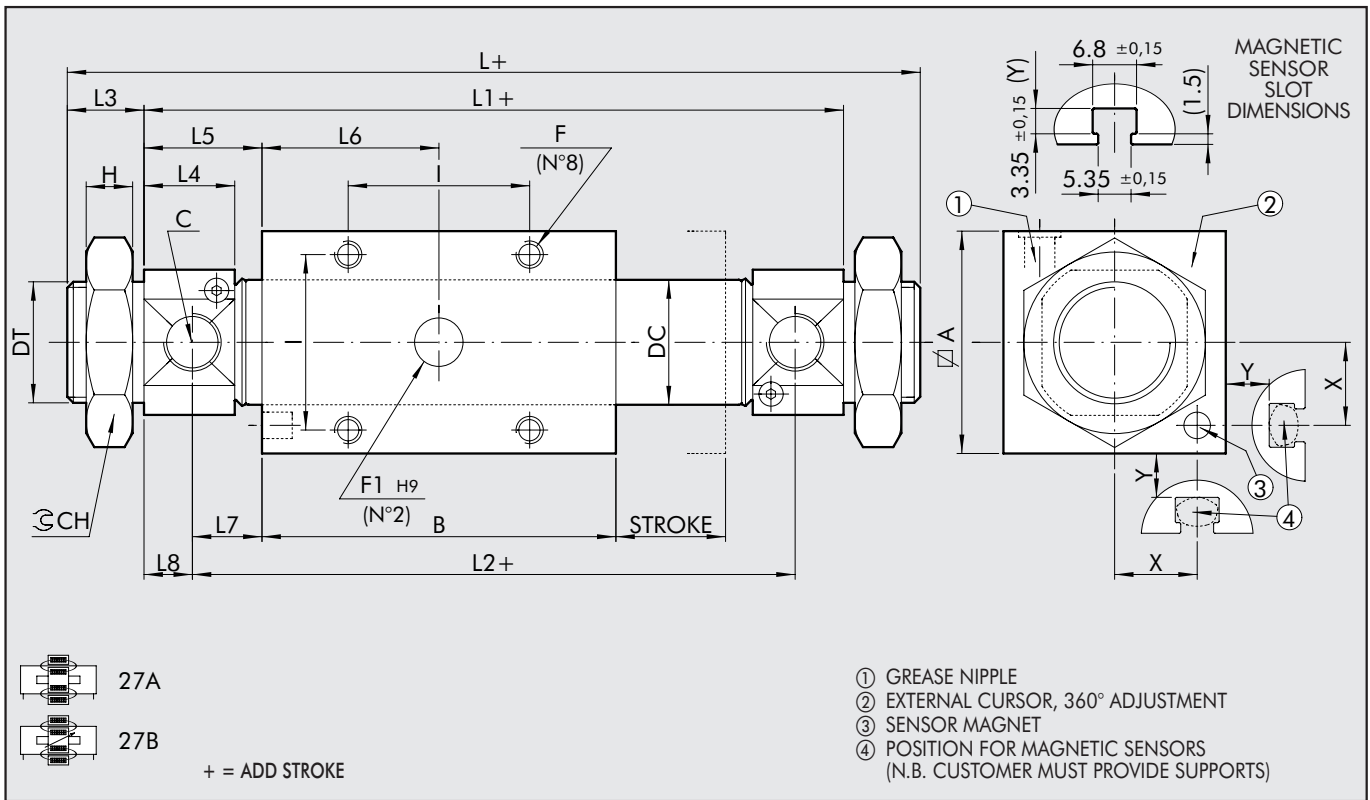


ADMISSIBLE AXIAL FORCE "F" AS A FUNCTION OF THE STROKE "L"



2

DIMENSIONS OF THE DEM-DEMA VERSION

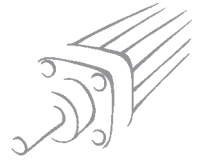


Ø	A	B	C	DC	DT	F	F1	I	L	L1	L2	L3	L4	L5	L6	L7	L8	CH	H	X	Y
16	35	125	M5	17.3	M16x1,5	M5x7	8x3	26	205	181	169	12	10	28	62.5	22	6	24	8	14	9
20	42	135	G1/8	21.3	M22x1,5	M5x10	8x3	32	217	185	169	16	15.5	25	67.5	17	8	32	7	17.5	9
25	50	150	G1/8	26.5	M22x1,5	M6x11	10x4	36	238	206	188	16	17.1	28	75	19	9	32	7	21.5	9

KEY TO CODES

CIL	2	7	A	0	1	6	0	0	5	0	X	P
	TYPE		VERSION		BORE		STROKE				CONFIGURATION	
27	Rodless cylinder		A	Magnetic sliding DEM	0	magnetic	16	For the maximum suppliable strokes, look at the technical data	X	stainless steel tie rod	P	polyurethane
		B	Magnetic sliding DEMA									
		C	Magnetic sliding swinging DEM									
		D	Magnetic sliding swinging DEMA									

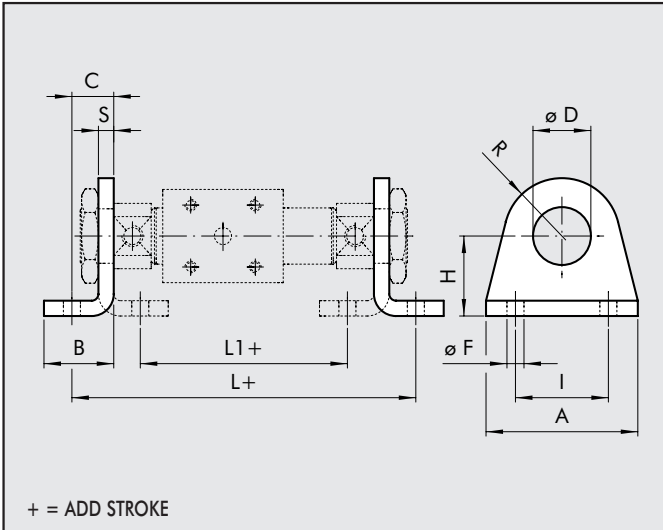
DEM: Magnetic double-acting (non-cushioned)
 DEMA: Magnetic double-acting (cushioned)



ACCESSORIES

FOOT

Code \emptyset D A B C H(± 0.3) R F(± 0.2) I (Js) L L1 S Weight [g]

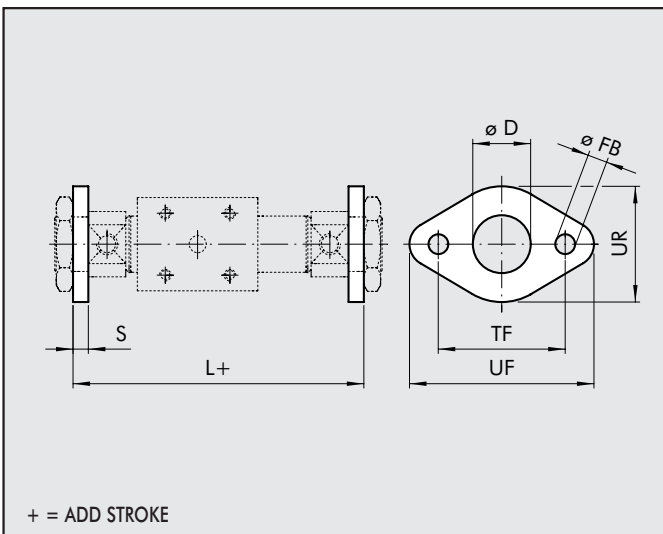


0950164040	16	16	42	20	14	27	13	5.5	32	209	161	4	50
0950204040	20	22	54	25	17	30	20	6.5	40	219	161	5	105
0950204040	25	22	54	25	17	30	20	6.5	40	240	182	5	105

Note: individually pocket

FLANGIA MOD. C

Code \emptyset D FB(H13) TF(Js14) UF UR L S Weight [g]

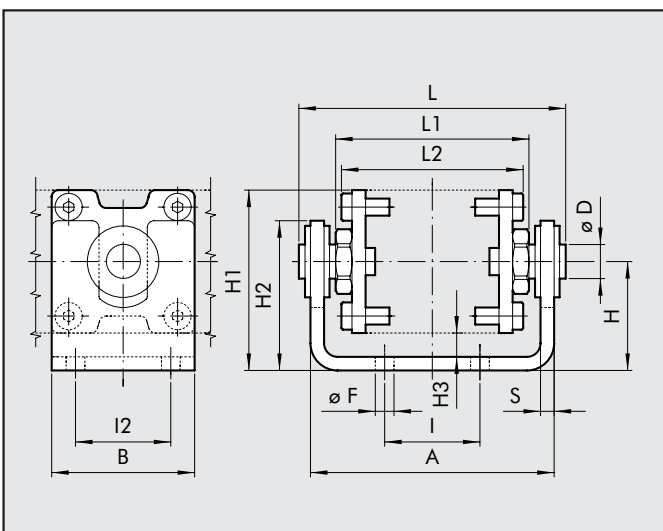


W0950120002	16	16	5.5	40	52	30	189	4	26
W0950200002	20	22	6.5	50	66	40	195	5	52
W0950200002	25	22	6.5	50	66	40	216	5	52

Note: individually pocket

KIT FOR SWING VERSION

Code \emptyset A B D F(± 0.1) H H1 H2 H3 I I2 L L1 L2 S Weight [g]



0950164050	16	67	40	10	5.5	28.5	46	40	7	26	26	73.5	53	52	4	288
0950204050	20	74	42	10	5.5	32	53	43	7	32	32	80.5	60	59	4	345
0950254050	25	87	50	12	6.5	38	63	50	8	36	36	96.5	68	68	5	576

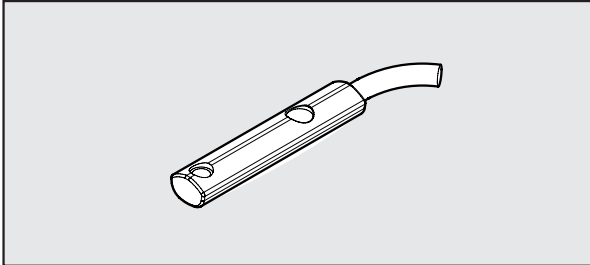
Note: individually pocket. Supplied with 8 screws

The swinging version kit can be used to avoid bending moments and lateral loads on the slide. It can also be used to compensate for misalignments with respect to the load guide. Max alignment error ± 1 mm.

ACCESSORIES: MAGNETIC SENSOR

RETRACTABLE SENSOR WITH INSERTION FROM ABOVE

Code Description



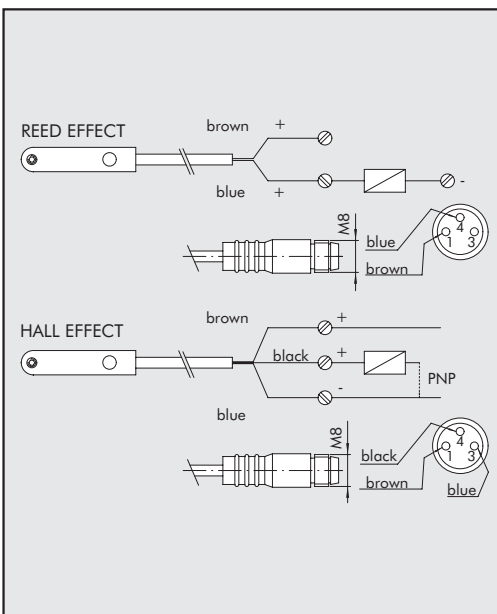
W0952025390	HALL N.O. SENSOR, VERTICAL INSERTION 2.5m
W0952029394	HALL N.O. SENSOR, VERTICAL INSERTION 300 mm M8
W0952022180	REED N.O. SENSOR, VERTICAL INSERTION 2.5m
W0952028184	REED N.O. SENSOR, VERTICAL INSERTION 300 mm M8
W0952125556	HALL N.O. SENSOR, VERTICAL INSERTION 2m ATEX

Note: Individually packed

WIRING DIAGRAM

TECHNICAL DATA

ATEX



	Reed	Effetto Hall	Effetto Hall
Type of contact	N.O.	N.O.	N.O.
Switch	-	PNP	PNP
Supply voltage (U _b)	V 10 ÷ 30 AC/DC	10 ÷ 30 DC	18 ÷ 30 DC
Power	W 3 (peak valve=6)	3	≤ 1.7
Voltage variation	-	≤ 10% di U _b	≤ 10% di U _b
Voltage drop	V -	≤ 2	≤ 2.2
Input current	mA -	≤ 10	≤ 10
Output current	mA ≤ 100	≤ 100	≤ 70
Switching frequency	Hz ≤ 400	≤ 5	1000
Short-circuit protection	-	Yes	Yes
Over-voltage suppression	-	Yes	Yes
Polarity inversion protection	-	Yes	Yes
EMC	EN 60 947-5-2	EN 60 947-5-2	EN 60 947-5-2
LED display	Yellow	Yellow	Yellow
Magnetic sensitivity	2,8 mT ±25%	2,8 mT ±25%	2.6
Repeatability	≤ 0,1 mT	≤ 0,1 mT	≤ 0,1 (U _b and ta fixed)
Degree of protection (EN 60529)	IP 67	IP 67	IP 68, IP 69K
Vibration and shock resistance	30 g, 11 ms, 10÷55 Hz, 1mm	30 g, 11 ms, 10÷55 Hz, 1mm	30 g, 11 ms, 10÷55 Hz, 1mm
Temperature range	°C -25 ÷ +75	-25 ÷ +75	-20 ÷ +45
Sensor capsule material	PA66 + PA6I/6T	PA66 + PA6I/6T	PA
2.5m/2m connecting cable	PVC; 2 x 0,12 mm ²	PVC; 3 x 0,14 mm ²	PVC; 3 x 0,12 mm ²
Connecting cable with M8x1	Polyurethane; 2 x 0,14 mm ²	Polyurethane; 3 x 0,14 mm ²	-
Wire NO.	2	3	3

NOTES

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The dimensions shown in this catalogue are subject to variations at any time without prior notice