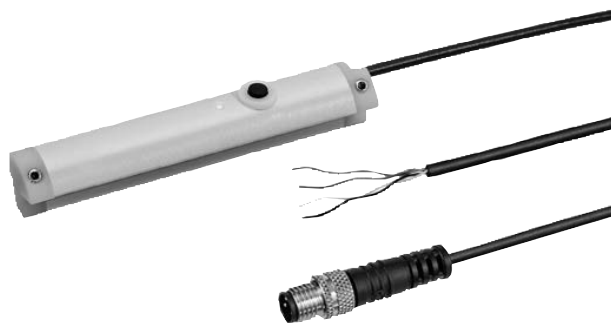


Sensor technologies ▶ Distance measuring sensors










Series SM6

Brochure



Sensor technologies ▶ Distance measuring sensors

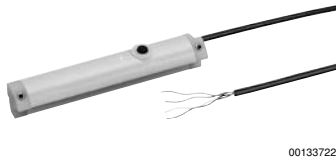
Series SM6

	<p>Sensors, Series SM6</p> <p>▶ 6 mm groove ▶ with cable ▶ without wire end ferrule, tin-plated, 4-pin ▶ with distance measuring sensor, measurement range 32 - 256 mm</p>	3
	<p>Sensors, Series SM6</p> <p>▶ 6 mm groove ▶ with cable ▶ Plug, M8x1, 4-pin, with knurled screw ▶ with distance measuring sensor, measurement range 32 - 256 mm</p>	5
Accessories		
	<p>Sensor mounting, Series CB1</p> <p>▶ for Series ST6, SM6 ▶ to mount on cylinder MNI, ICM</p>	7
	<p>Sensor mounting, Series CB1</p> <p>▶ for Series ST6, SN2, SN6, SN1, SM6, SM6-AL ▶ to mount on cylinder C12P, ITS</p>	8
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Sensor technologies ▶ Distance measuring sensors

Sensors, Series SM6

▶ 6 mm groove ▶ with cable ▶ without wire end ferrule, tin-plated, 4-pin ▶ with distance measuring sensor, measurement range 32 - 256 mm



00133722

Certificates	cULus
Ambient temperature min./max.	-20°C / +70°C
Protection class	IP67
Output signal	0 - 10 V DC, 4 - 20 mA
Quiescent current (without load)	< 25 mA
Current signal	4 - 20 mA
Maximum load (analog current output)	500 Ω
DC operating voltage min./max.	15 V DC - 30 V DC
Residual ripple	≤ 10 %
sampling interval	1 ms
Resolution max. measuring range	0,05 mm
Repetitive precision max. measuring range	0.1 mm
Linearity deviation	0,3 mm
Sampling speed	3 m/s
Display	LED
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Materials:	
Housing	Polyamide, fiber-glass reinforced
Cable sheath	Polyurethane

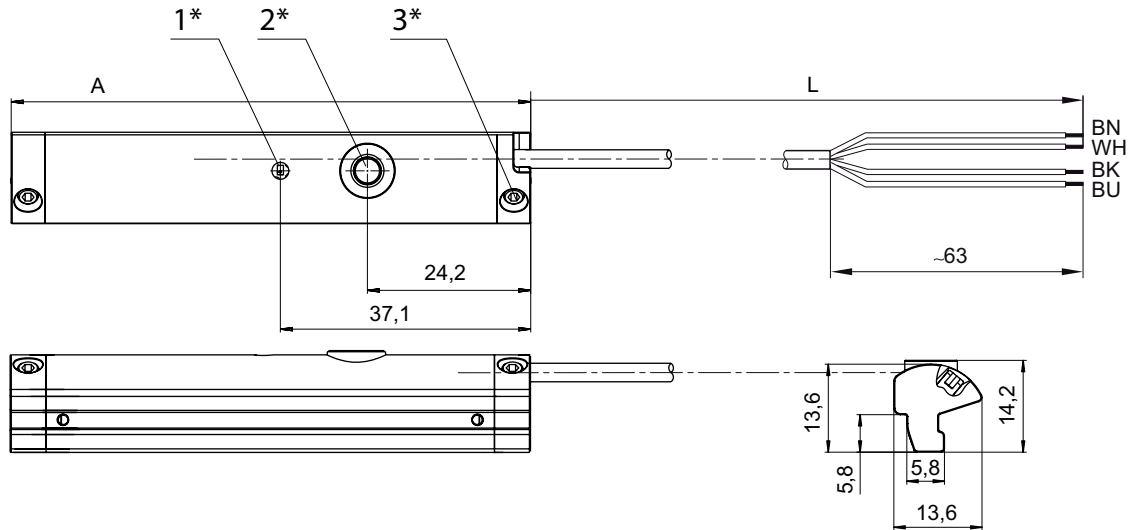
	Type of contact	Cable length	Measurement range Max.	Overall length Sensor A	Part No.
		[m]	[mm]	[mm]	
	Analog	2	32	45	R412010141
			64	77	R412010143
			96	109	R412010262
			128	141	R412010264
			160	173	R412010411
			192	205	R412010413
			224	237	R412010415
			256	269	R412010417

interfaces: without wire end ferrule, tin-plated; 4-pin
short circuit resistant / Protected against polarity reversal / Overload protection

Sensors, Series SM6

▶ 6 mm groove ▶ with cable ▶ without wire end ferrule, tin-plated, 4-pin ▶ with distance measuring sensor, measurement range 32 - 256 mm

Dimensions



1* = LED 2* = teach button 3* = threaded pin M3x11

L = cable length

(1) BN=brown

(2) WH=white

(3) BU=blue

(4) BK=black

A = sensor length

00133787

Sensor technologies ▶ Distance measuring sensors

Sensors, Series SM6

▶ 6 mm groove ▶ with cable ▶ Plug, M8x1, 4-pin, with knurled screw ▶ with distance measuring sensor, measurement range 32 - 256 mm



Certificates	cULus
Ambient temperature min./max.	-20°C / +70°C
Protection class	IP67
Output signal	0 - 10 V DC, 4 - 20 mA
Quiescent current (without load)	< 25 mA
Current signal	4 - 20 mA
DC operating voltage min./max.	15 V DC - 30 V DC
sampling interval	1 ms
Resolution max. measuring range	0,05 mm
Repetitive precision max. measuring range	0.1 mm
Linearity deviation	0,3 mm
Sampling speed	3 m/s
Display	LED
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms

Materials:	
Housing	Polyamide, fiber-glass reinforced
Cable sheath	Polyurethane

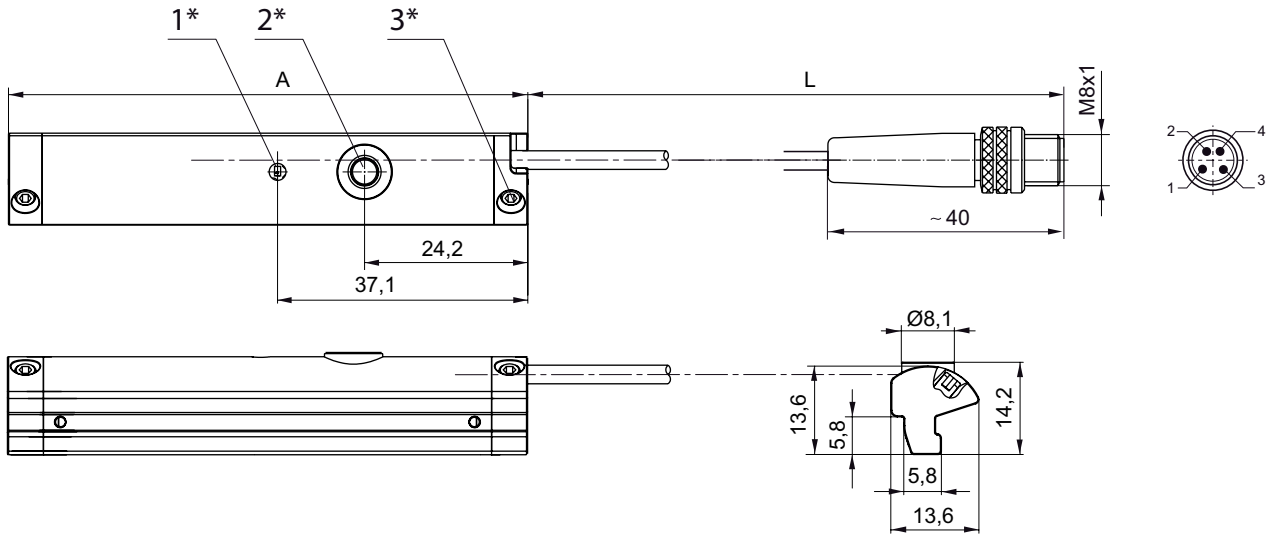
	Type of contact	Cable length	Measurement range Max.	Overall length Sensor A	Part No.
		[m]	[mm]	[mm]	
	Analog	0.3	32	45	R412010142
			64	77	R412010144
			96	109	R412010263
			128	141	R412010265
			160	173	R412010410
			192	205	R412010412
			224	237	R412010414
			256	269	R412010416

interfaces: Plug; M8x1; 4-pin; with knurled screw
 short circuit resistant / Protected against polarity reversal / Overload protection

Sensors, Series SM6

▶ 6 mm groove ▶ with cable ▶ Plug, M8x1, 4-pin, with knurled screw ▶ with distance measuring sensor, measurement range 32 - 256 mm

Dimensions



1* = LED 2* = teach button 3* = threaded pin M3x11

L = cable length

Pin assignment: 1 = (+), 2 = (OUT 1) 3 = (GND), 4 = (OUT 2), EN 60947-5-7

A = sensor length

00133788

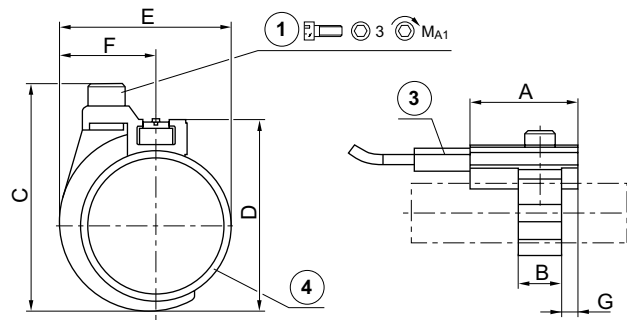
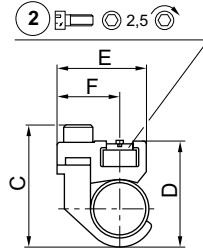
Sensors, Series SM6
Accessories

Sensor mounting, Series CB1

▶ for Series ST6, SM6 ▶ to mount on cylinder MNI, ICM



00110587



00111947

1) Mounting screw 2) Mounting screw for sensor 3) Sensor 4) Cylinder pipe

Part No.	Cylinders Ø [mm]	For series	A	B	C	D	E	F	G	1)	MA1 [Nm]
1827020296	10	ST6, SM6	20	8	24	19	17.5	11.8	3	M3x8	1 +0,2
1827020297	12	ST6, SM6	20	8	26	22	19	11.8	3	M3x8	1 +0,2
1827020298	16	ST6, SM6	20	12	34	30	23	13.8	4	M4x10	2 +0,3
1827020299	20	ST6, SM6	20	12	38	32	26	13.8	4	M4x10	2 +0,3
1827020300	25	ST6, SM6	20	12	43	37	31	13.8	4	M4x10	2 +0,3

Part No.	Material	Weight [kg]									
1827020296	Aluminum	0.009									
1827020297	Aluminum	0.01									
1827020298	Aluminum	0.014									
1827020299	Aluminum	0.014									
1827020300	Aluminum	0.015									

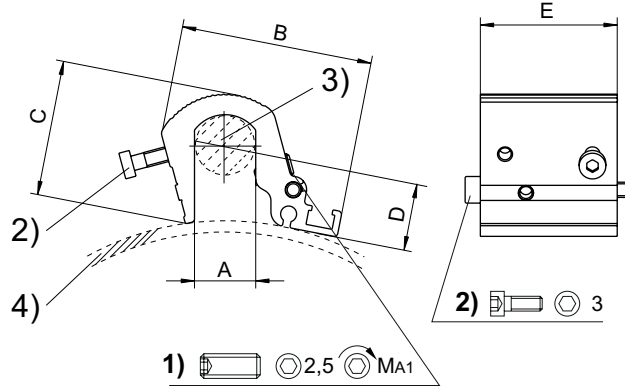
Sensors, Series SM6
Accessories

Sensor mounting, Series CB1

▶ for Series ST6, SN2, SN6, SN1, SM6, SM6-AL ▶ to mount on cylinder C12P, ITS



21464



21268

1) Clamping threaded pin 2) Mounting screws for sensor 3) Tie rod 4) Cylinder profile

Part No.	Cylinders Ø [mm]	For series	A	B	C	D	E	MA1 [Nm]	Material
R412017979	160 - 200	ST6, SN2, SN6, SN1, SM6, SM6-AL	16	51	36	6.8	36	2	Aluminum
R412017980	250 - 320	ST6, SN2, SN6, SN1, SM6, SM6-AL	24	56	44.5	6.8	36	2	Aluminum

Part No.	Weight [kg]								
R412017979	0.058								
R412017980	0.073								

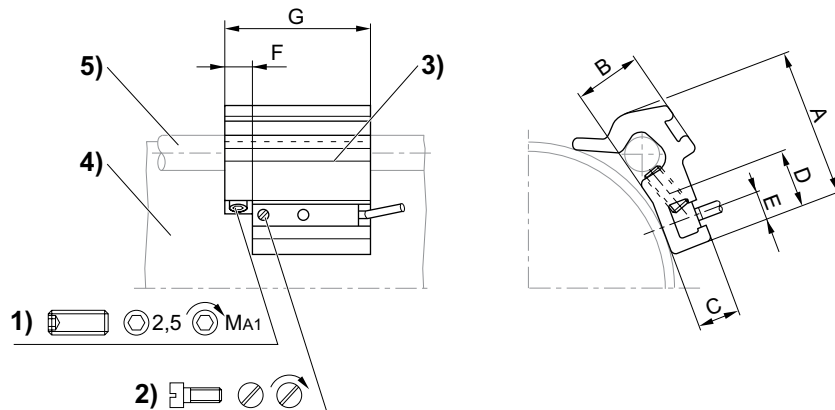
Scope of delivery: Incl. mounting screws

Sensor mounting, Series CB1

▶ for Series ST6, SM6 ▶ to mount on cylinder TRB, C12P, 167, CVI, TRR, 523



103627



00105013

1) Clamping threaded pin 2) Mounting screw for sensor 3) Sensor 4) Cylinder profile 5) Tie rod

Sensor technologies ▶ Distance measuring sensors

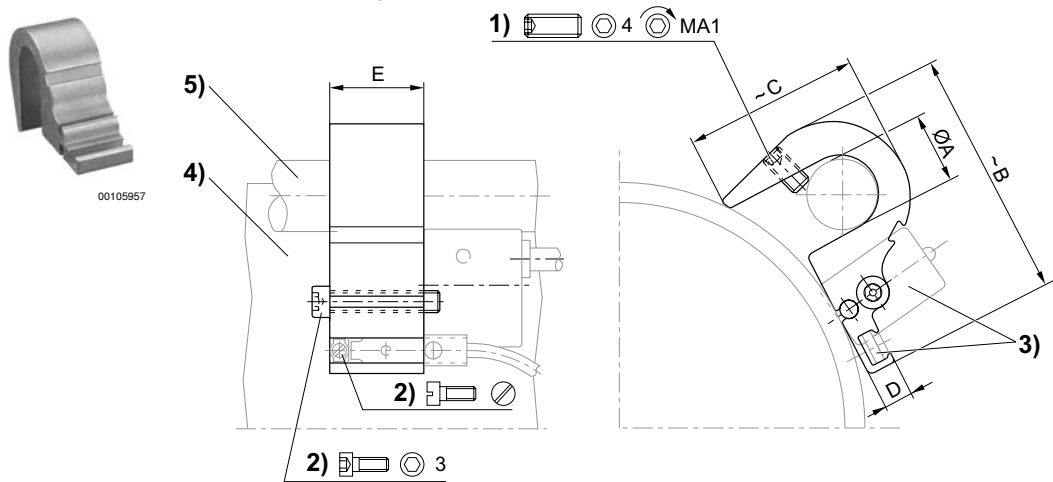
Sensors, Series SM6
Accessories

Part No.	Cylinders Ø [mm]	For series	A	B	C	D	E	F	G	1)	MA1 [Nm]
1827020282	32 - 40	ST6, SM6	26	10	7	14	5	8	40	M5x8	2 ±0,2
1827020283	50 - 63	ST6, SM6	32.5	15.5	7	14	5	8	40	M5x10	2 ±0,2
1827020284	80 - 100	ST6, SM6	43	17	6.9	14	5	8	40	M5x16	2 ±0,2

Part No.	Material	Weight [kg]									
1827020282	Aluminum	0.016									
1827020283	Aluminum	0.029									
1827020284	Aluminum	0.042									

Sensor mounting, Series CB1

▶ for Series ST6, SM6, SN1, SN2 ▶ to mount on cylinder TRB, C12P, CVI, 523



1) Clamping threaded pin 2) Mounting screw for sensor 3) Sensor 4) Cylinder profile 5) Tie rod

Part No.	Cylinders Ø [mm]	For series	Ø A	B	C	D	E	1)	MA1 [Nm]
1827020292	125 - 125	ST6, SM6, SN1, SN2	12	45	29	6.5	21	M5x10	2

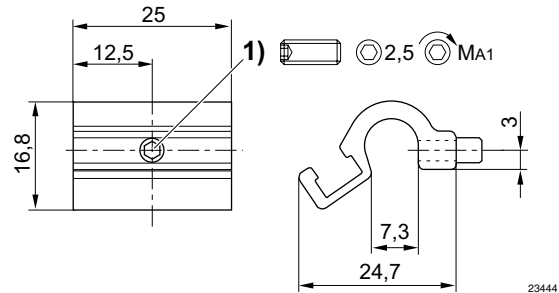
Part No.	Material	Weight [kg]								
1827020292	Aluminum	0.031								

Sensors, Series SM6
Accessories
Sensor mounting, Series CB1

▶ for Series ST6, SM6 ▶ to mount on cylinder Series 167



23683



1) Mounting screw

Part No.	Cylinders Ø [mm]	For series	MA1 [Nm]	Material	Weight [kg]	Delivery quantity [Piece]		
R412022357	25	ST6, SM6	1 + 0,3	Aluminum	0.01	1		

Connecting cable, Series CN2

▶ Socket, M8x1, 4-pin, straight ▶ open cable ends, 4-pin

Ambient temperature min./max.

-40°C / +85°C

Protection class

IP65

Wire cross-section

0.25 mm²

Materials:

Cable sheath

Polyurethane



00107009_b

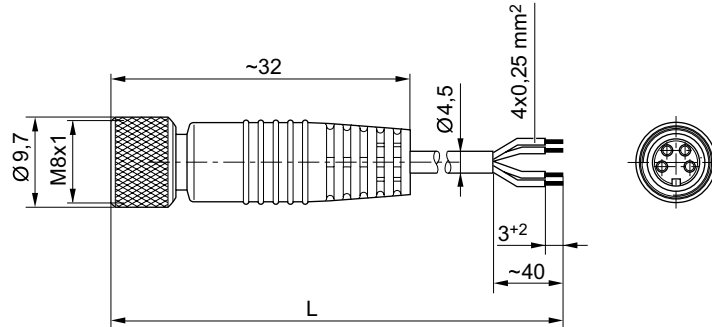
Technical Remarks

- The specified protection class is only valid in assembled and tested state.

	Operational voltage max.	Number of poles	Cable-Ø	Cable length L	Part No.
	[V DC]		[mm]	[m]	
1) ——— BN 2) ——— WH 3) ——— BU 4) ——— BK	24	4	4.5	3	1834484144
				5	1834484146

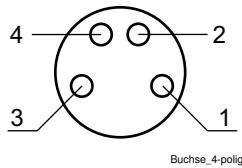
Sensors, Series SM6
Accessories

Dimensions



L = length

Pin assignment



- (1) BN=brown
- (2) WH=white
- (3) BU=blue
- (4) BK=black

Connecting cable, Series CN2

▶ Socket, M8x1, 4-pin, angled ▶ open cable ends, 4-pin



00107009_c

Ambient temperature min./max.	-40°C / +85°C
Protection class	IP65
Wire cross-section	0.25 mm²
Materials:	
Cable sheath	Polyurethane

Technical Remarks

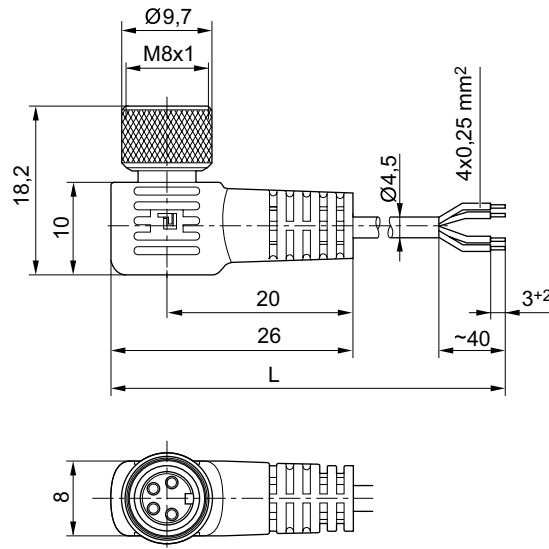
- The specified protection class is only valid in assembled and tested state.

Sensors, Series SM6

Accessories

	Operational voltage max.	Number of poles	Cable-Ø	Cable length L	Part No.
	[V DC]		[mm]	[m]	
	24	4	4.5	3	1834484145
				5	1834484147

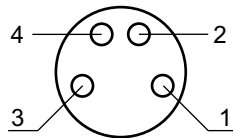
Dimensions



00127634_2

L = length

Pin assignment



Buchse_4-polig

- (1) BN=brown
- (2) WH=white
- (3) BU=blue
- (4) BK=black

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28-07-2016