AVENTICS

Sensor technologies ► Proximity sensors

Series ST6

Brochure

ST6

Sensor, Series ST6
► 6 mm T-slot ► with cable ► open cable ends, 2-pin, open cable ends, 3-pin

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Sensor, Series ST6
► 6 mm T-slot ► with cable ► open cable ends, 3-pin ► ATEX certified

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Sensor, Series ST6
► 6 mm T-slot ► with cable ► Plug, M8, 3-pin, with knurled screw

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Sensor, Series ST6
► 6 mm T-slot ► with cable ► Plug, M8, 3-pin, with knurled screw ► ATEX certified

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Sensor, Series ST6
► 6 mm T-slot ► with cable ► Plug, M8, 3-pin

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Sensor, Series ST6
► 6 mm T-slot ► with cable ► Plug, M12, 3-pin, with knurled screw

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Sensor, Series ST6
► 6 mm T-slot ► with cable ► Plug, M12, 3-pin, with knurled screw ► ATEX certified

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Sensor, Series ST6
► 6 mm T-slot ► with cable ► open cable ends, 2-pin ► heat resistant

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Accessories

ST6

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

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Series ST6

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	Round plug connector, Series CN2	on line

Sensor, Series ST6

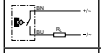
► 6 mm T-slot ► with cable ► open cable ends, 2-pin, open cable ends, 3-pin

24712

Certificates	CE declaration of conformity cULus
Ambient temperature min./max.	-22°F / +176°F
Protection class	IP65, IP67, IP69K
Switching point precision [mm]	±0,1
Switching logic	NO (make contact)
Switching capacity	Reed, 2-pin: max. 10 W Reed, 3-pin: max. 6 W
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Materials:	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

Technical Remarks

- No cULus certification for 230 V variant.

	Type of contact	Cable length	DC operating voltage min./max.	Operational voltage AC min./max.	Voltage drop U at Imax	DC switching current, max.	AC switching current, max.	Part No.
		[ft.]	[V]	[V]	[V]	[A]	[A]	
	Reed	9.84	10 / 230	10 / 230	I*Rs	0,13	0,13	**R412022866**
	Reed	9.84	10 / 30	10 / 30	I*Rs	0,3	0,5	**R412022869**
		16.4						**R412022870**
		32.81						**R412022871**
	electronic PNP	9.84	10 / 30	-	≤ 2,5	0,13	-	**R412022853**
		16.4						**R412022855**
		32.81						**R412022857**
	electronic NPN	9.84	10 / 30	-	≤ 2,5	0,13	-	**R412022849**
		16.4						**R412022850**

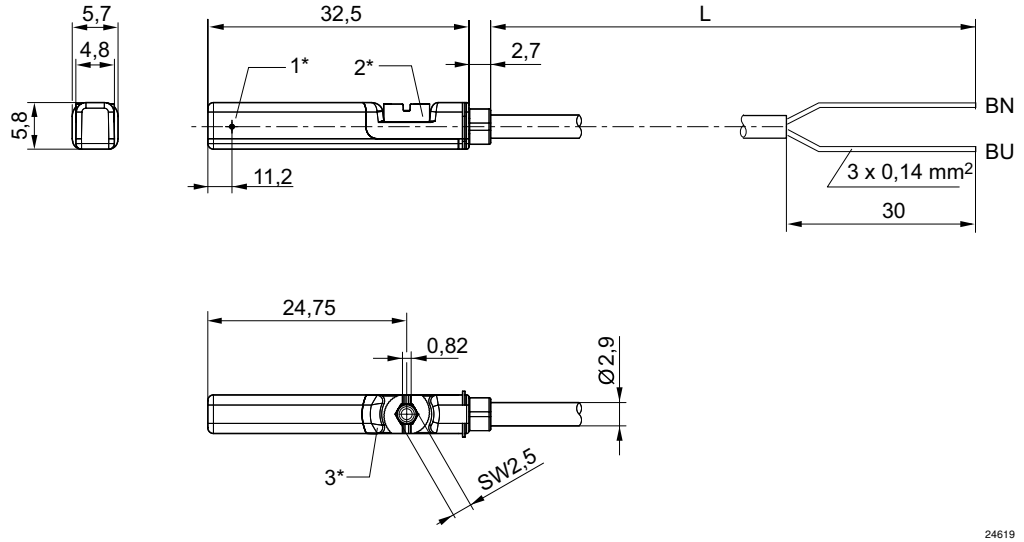
Part No.	Max. switching frequency	Operating current, not switched	Operating current, switched	Fig.	Note
	[kHz]	[mA]	[mA]		
R412022866	< 0,4	-	-	Fig. 1	1); 3)
R412022869	< 0,4	-	-	Fig. 2	2); 3)
R412022870					
R412022871					
R412022853	< 1,0	< 8 mA	< 30 mA	Fig. 2	2); 4)
R412022855					
R412022857					
R412022849	< 1,0	< 8 mA	< 30 mA	Fig. 2	2); 4)
R412022850					

1) interfaces: open cable ends; 2-pin
2) interfaces: open cable ends; 3-pin
3) Protected against polarity reversal
4) short circuit resistant / Protected against polarity reversal

Sensor, Series ST6

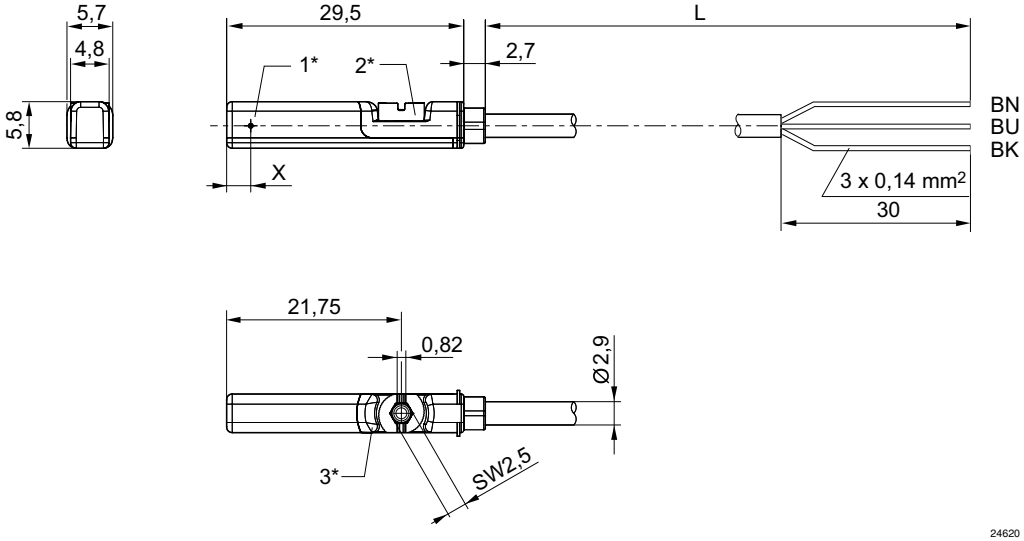
► 6 mm T-slot ► with cable ► open cable ends, 2-pin, open cable ends, 3-pin

Fig. 1



1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
BN=brown, BU=blue

Fig. 2



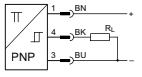
1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
BN = brown, BK = black, BU = blue
X = electronic: 11,6 mm, Reed: 8,3 mm

Sensor, Series ST6

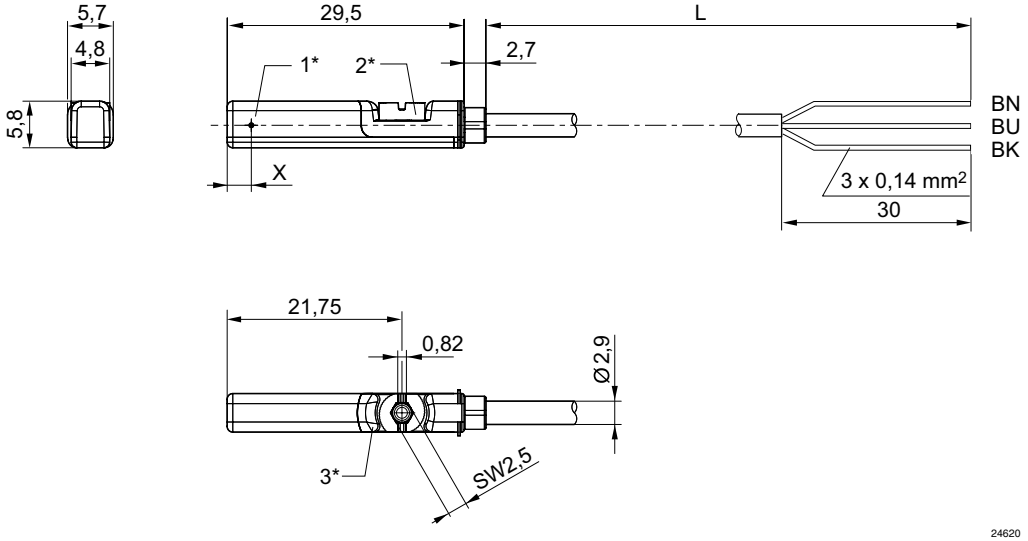
► 6 mm T-slot ► with cable ► open cable ends, 3-pin ► ATEX certified

24712

Certificates	CE declaration of conformity cULus
ATEX	II 3G Ex nA op is IIC T4 Gc X II 3D Ex tc IIIC T135°C Dc X
Ambient temperature min./max.	-4°F / +122°F
Protection class	IP67
Switching point precision [mm]	±0,1
Quiescent current (without load)	< 10 mA
DC operating voltage min./max.	10 V - 30 V
Switching logic	NO (make contact)
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Materials:	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

	Type of contact	Cable length	Voltage drop U at Imax	DC switching current, max.	Max. switching frequency	Part No.
		[ft.]	[V]	[A]	[kHz]	
	electronic PNP	9.84 16.4	≤ 2,5	0.1	< 1,0	**R412022854** **R412022856**
interfaces: open cable ends; 3-pin short circuit resistant / Protected against polarity reversal						

Dimensions



24620

1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
BN = brown, BK = black, BU = blue
X = electronic: 11.6 mm

All dimensions in mm, unless specified otherwise.
Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for more detailed information

Sensor, Series ST6

► 6 mm T-slot ► with cable ► Plug, M8, 3-pin, with knurled screw

24713

Certificates	CE declaration of conformity cULus
Ambient temperature min./max.	-22°F / +176°F
Protection class	IP65, IP67
Switching point precision [mm]	±0,1
DC operating voltage min./max.	10 V - 30 V
Switching logic	NO (make contact)
Switching capacity	Reed, 3-pin: max. 6 W
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Materials:	
Housing	Polyamide
Locking screw	Stainless steel

	Type of contact	Cable length	Operational voltage AC min./max.	Voltage drop U at Imax	DC switching current, max.	AC switching current, max.	Max. switching frequency	Part No.
		[ft.]	[V]	[V]	[A]	[A]	[kHz]	
	Reed	0.9842	10 / 30	I*Rs	0,3	0,5	< 0,4	**R412022873**
		0.9842						**R412022875**
		1.64						**R412022874**
	electronic PNP	0.9842	-	≤ 2,5	0,13	-	< 1,0	**R412022859**
		0.9842						**R412022862**
		1.64						**R412022861**
	electronic NPN	0.9842	-	≤ 2,5	0,13	-	< 1,0	**R412022852**

Part No.	Operating current, not switched	Operating current, switched	Note
	[mA]	[mA]	
R412022873			1); 3)
R412022875	-	-	2); 3)
R412022874			1); 3)
R412022859			1); 4)
R412022862	< 8 mA	< 30 mA	2); 4)
R412022861			1); 4)
R412022852	< 8 mA	< 30 mA	1); 4)

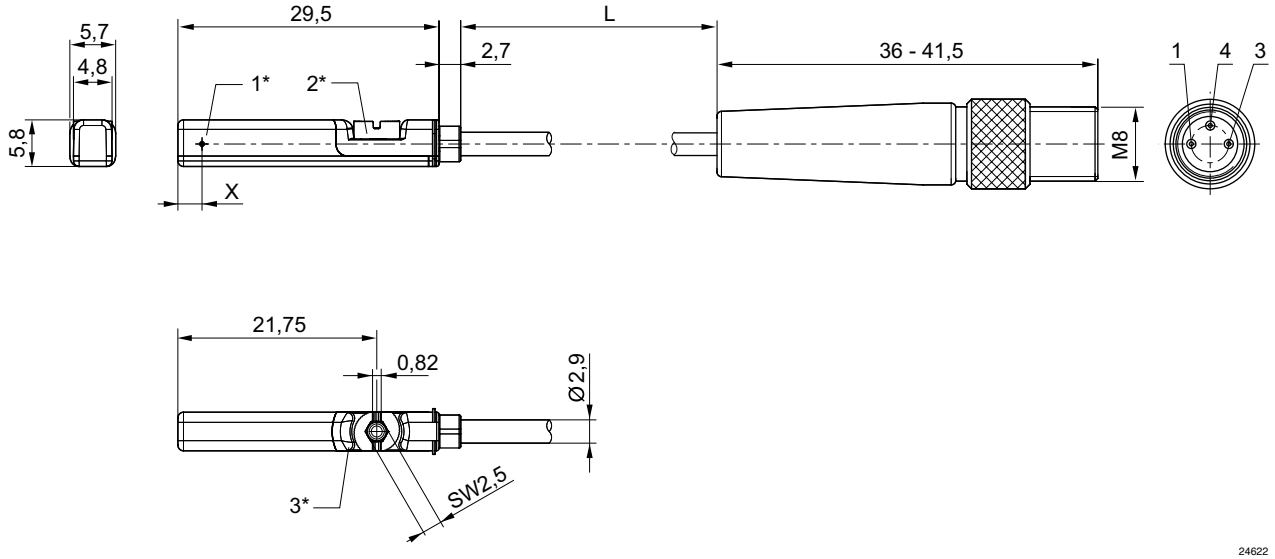
1) Material Cable sheath: Polyurethane
2) Material Cable sheath: Polyvinyl chloride
3) Protected against polarity reversal
4) short circuit resistant / Protected against polarity reversal
interfaces: Plug; M8; 3-pin; with knurled screw

All dimensions in mm, unless specified otherwise.
Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for more detailed information

Sensor, Series ST6

► 6 mm T-slot ► with cable ► Plug, M8, 3-pin, with knurled screw

Dimensions



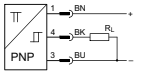
1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
X = electronic: 11,6 mm, Reed: 8,3 mm
Pin assignment: 1 = (+), 3 = (-), 4 = (OUT)

Sensor, Series ST6

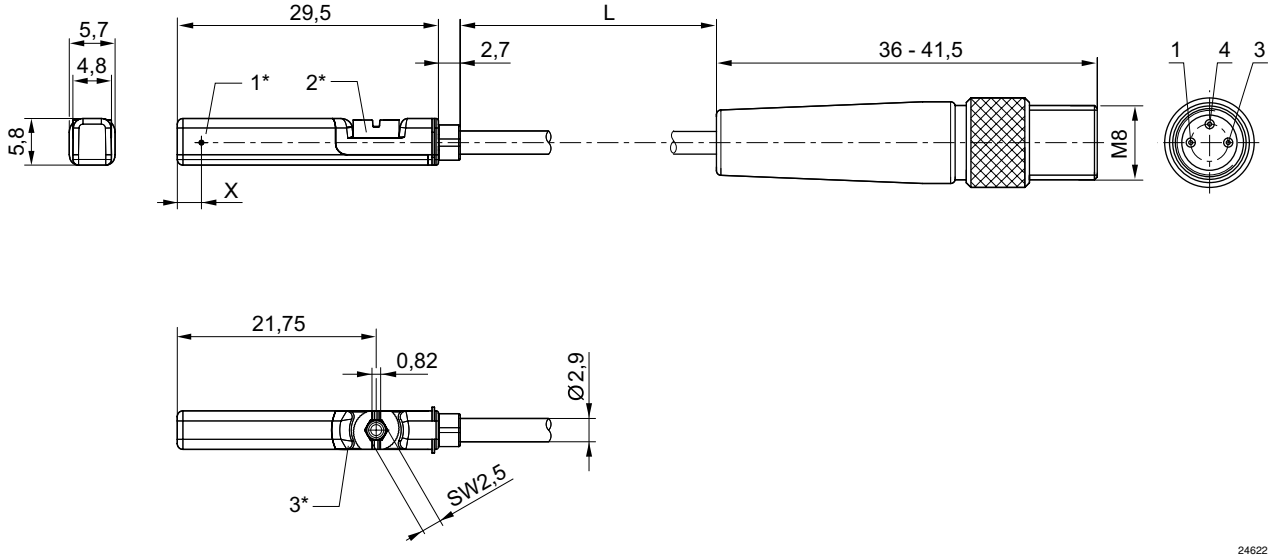
► 6 mm T-slot ► with cable ► Plug, M8, 3-pin, with knurled screw ► ATEX certified

24713

Certificates	CE declaration of conformity cULus
ATEX	II 3G Ex nA op is IIC T4 Gc X II 3D Ex tc IIIC T135°C Dc X
Ambient temperature min./max.	-4°F / +122°F
Protection class	IP67
Switching point precision [mm]	±0,1
Quiescent current (without load)	< 10 mA
DC operating voltage min./max.	10 V - 30 V
Switching logic	NO (make contact)
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Materials:	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

	Type of contact	Cable length	Voltage drop U at Imax	DC switching current, max.	Max. switching frequency	Part No.
		[ft.]	[V]	[A]	[kHz]	
	electronic PNP	0.9842	≤ 2,5	0.1	< 1,0	**R412022860**
interfaces: Plug; M8; 3-pin; with knurled screw short circuit resistant / Protected against polarity reversal						

Dimensions



24622

1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
X = PNP: 11,6 mm
Pin assignment: 1 = (+), 3 = (-), 4 = (OUT)

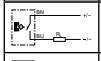
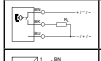
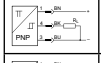
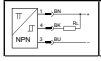
All dimensions in mm, unless specified otherwise.
Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for more detailed information

Sensor, Series ST6

► 6 mm T-slot ► with cable ► Plug, M8, 3-pin

24742

Certificates	CE declaration of conformity cULus
Ambient temperature min./max.	-22°F / +176°F
Protection class	IP65, IP67
Switching point precision [mm]	±0,1
DC operating voltage min./max.	10 V - 30 V
Switching logic	NO (make contact)
Switching capacity	Reed, 2-pin: max. 10 W Reed, 3-pin: max. 6 W
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Materials:	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

	Type of contact	Cable length	Operational voltage AC min./max.	Voltage drop U at Imax	DC switching current, max.	AC switching current, max.	Max. switching frequency	Part No.
		[ft.]	[V]	[V]	[A]	[A]	[kHz]	
	Reed	0.9842	10 / 30	I*Rs	0,13	0,13	< 0,4	**R412022868**
	Reed	0.9842	10 / 30	I*Rs	0,3	0,5	< 0,4	**R412022872**
	electronic PNP	0.9842	-	≤ 2,5	0,13	-	< 1,0	**R412022858**
	electronic NPN	0.9842	-	≤ 2,5	0,13	-	< 1,0	**R412022851**

Part No.	Operating current, not switched	Operating current, switched	Note
	[mA]	[mA]	
R412022868	-	-	1)
R412022872	-	-	1)
R412022858	< 8 mA	< 30 mA	2)
R412022851	< 8 mA	< 30 mA	2)

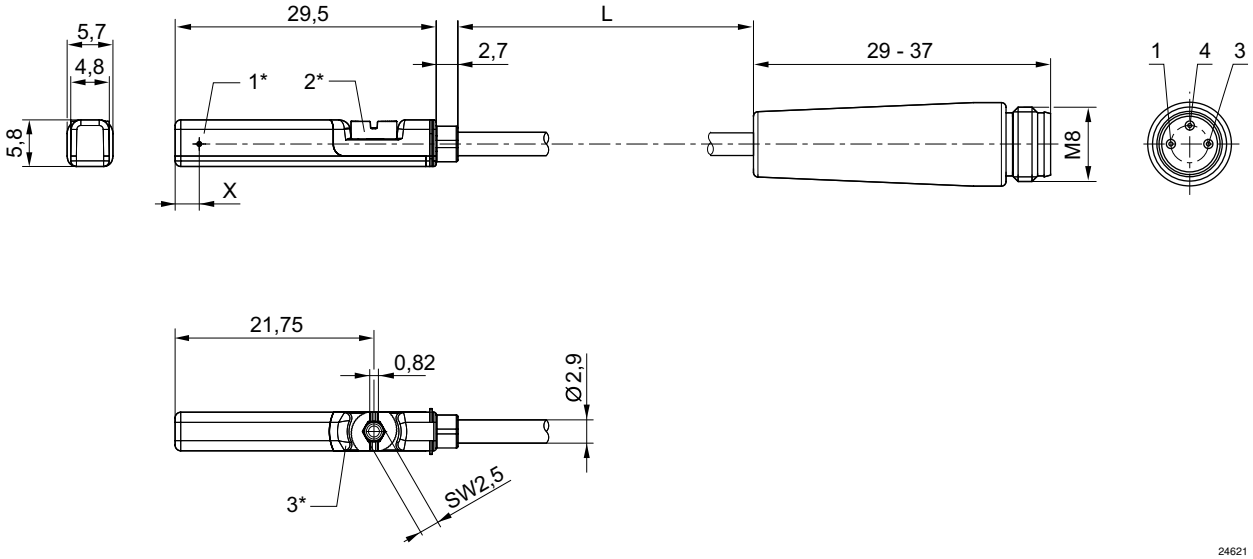
1) Protected against polarity reversal
2) short circuit resistant / Protected against polarity reversal
interfaces: Plug; M8; 3-pin

All dimensions in mm, unless specified otherwise.
Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for more detailed information

Sensor, Series ST6

► 6 mm T-slot ► with cable ► Plug, M8, 3-pin

Dimensions



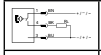
1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
X = electronic: 11,6 mm, Reed: 8,3 mm
Pin assignment: 1 = (+), 3 = (-), 4 = (OUT)

Sensor, Series ST6

► 6 mm T-slot ► with cable ► Plug, M12, 3-pin, with knurled screw

24714

Certificates	CE declaration of conformity cULus
Ambient temperature min./max.	-22°F / +176°F
Protection class	IP65, IP67
Switching point precision [mm]	±0,1
DC operating voltage min./max.	10 V - 30 V
Switching logic	NO (make contact)
Switching capacity	Reed, 3-pin: max. 6 W
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Materials:	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

	Type of contact	Cable length	Operational voltage AC min./max.	Voltage drop U at Imax	DC switching current, max.	AC switching current, max.	Max. switching frequency	Part No.
		[ft.]	[V]	[V]	[A]	[A]	[kHz]	
	Reed	0.9842	10 / 30	I*Rs	0,3	0,5	< 0,4	**R412022876**
	electronic PNP	0.328 0.9842 9.84 16.4	-	≤ 2,5	0,13	-	< 1,0	**R412022879** **R412022863** **R412022877** **R412022878**

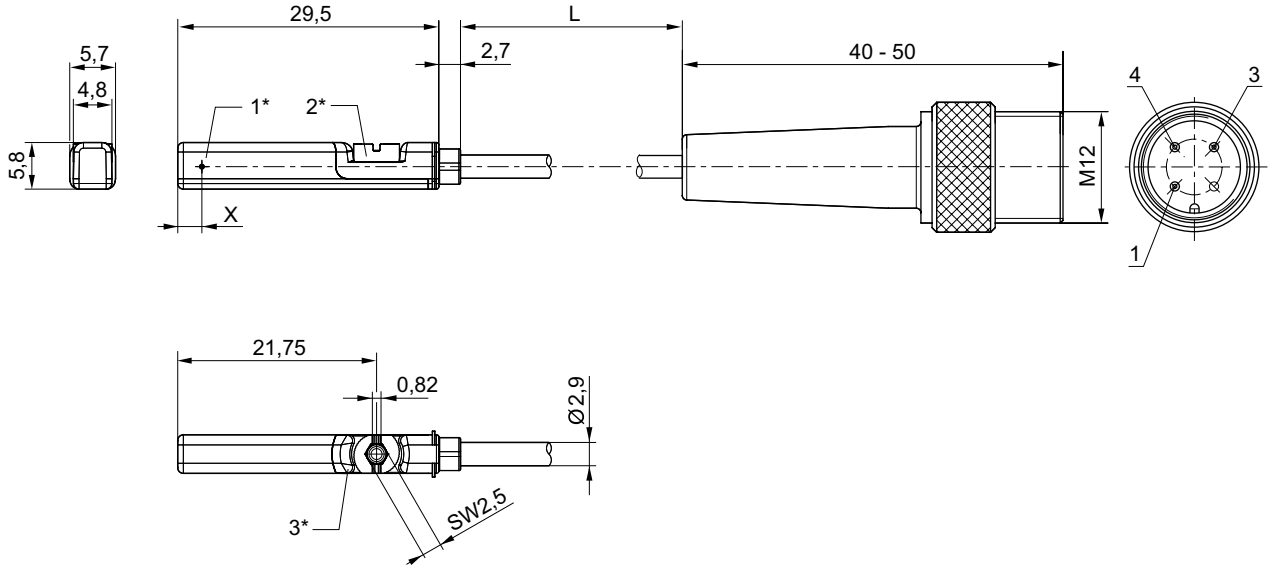
Part No.	Operating current, not switched	Operating current, switched	Note
	[mA]	[mA]	
R412022876	-	-	1)
R412022879 **R412022863** **R412022877** **R412022878**	< 8 mA	< 30 mA	2)

1) Protected against polarity reversal
2) short circuit resistant / Protected against polarity reversal
interfaces: Plug; M12; 3-pin; with knurled screw

Sensor, Series ST6

► 6 mm T-slot ► with cable ► Plug, M12, 3-pin, with knurled screw

Dimensions



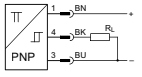
1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
X = PNP: 11,6 mm, reed: 8,3 mm
Pin assignment: 1 = (+), 3 = (-), 4 = (OUT)

Sensor, Series ST6

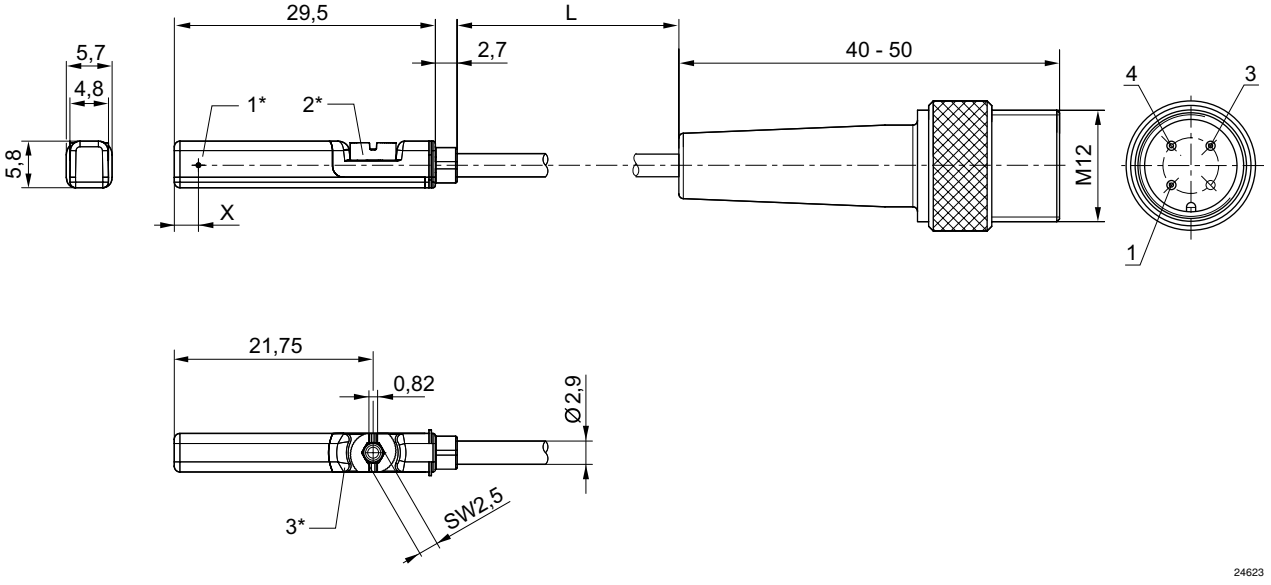
► 6 mm T-slot ► with cable ► Plug, M12, 3-pin, with knurled screw ► ATEX certified

24714

Certificates	CE declaration of conformity cULus
ATEX	II 3G Ex nA op is IIC T4 Gc X II 3D Ex tc IIIC T135°C Dc X
Ambient temperature min./max.	-4°F / +122°F
Protection class	IP67
Switching point precision [mm]	±0,1
Quiescent current (without load)	< 10 mA
DC operating voltage min./max.	10 V - 30 V
Switching logic	NO (make contact)
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Materials:	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

	Type of contact	Cable length	Voltage drop U at Imax	DC switching current, max.	Max. switching frequency	Part No.
		[ft.]	[V]	[A]	[kHz]	
	electronic PNP	0.9842	≤ 2,5	0.1	< 1,0	**R412022864**
interfaces: Plug; M12; 3-pin; with knurled screw short circuit resistant / Protected against polarity reversal						

Dimensions



24623

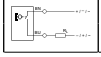
1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
X = PNP: 11,6 mm
Pin assignment: 1 = (+), 3 = (-), 4 = (OUT)

Sensor, Series ST6

► 6 mm T-slot ► with cable ► open cable ends, 2-pin ► heat resistant

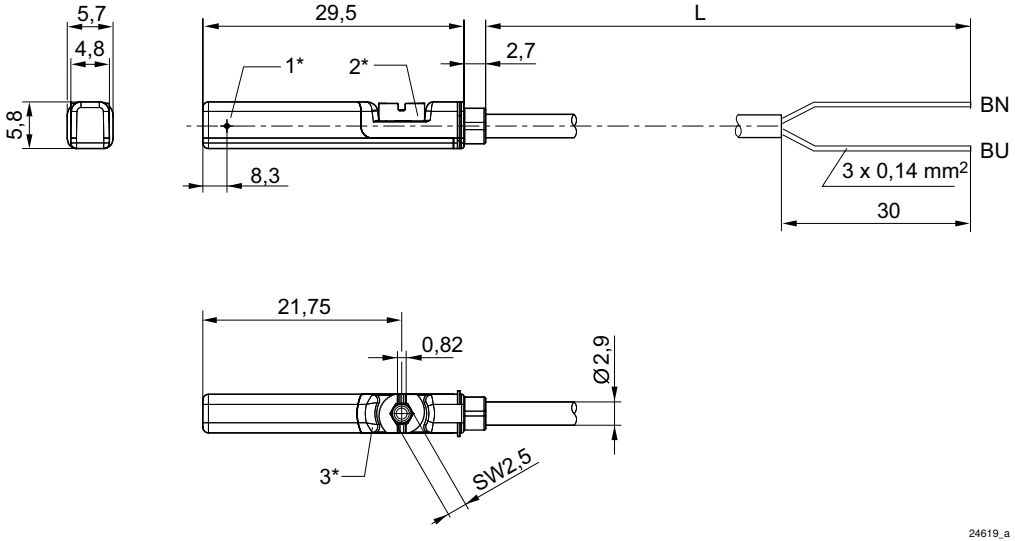
24712

Certificates	CE declaration of conformity
Ambient temperature min./max.	-4°F / +248°F
Protection class	IP65, IP67
Switching point precision [mm]	±0,1
Switching logic	NO (make contact)
Switching capacity	Reed, 2-pin: max. 10 W
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Materials:	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

	Type of contact	Cable length	DC operating voltage min./max.	Operational voltage AC min./max.	Voltage drop U at Imax	DC switching current, max.	AC switching current, max.	Part No.
		[ft.]	[V]	[V]	[V]	[A]	[A]	
	Reed	9.84 32.81	0 / 30	0 / 30	I*Rs	0,13	0,13	**R412022865** **R412022867**

Part No.	Max. switching frequency
	[kHz]
R412022865 **R412022867**	< 0,4
interfaces: open cable ends; 2-pin Protected against polarity reversal	

Dimensions



24619_a

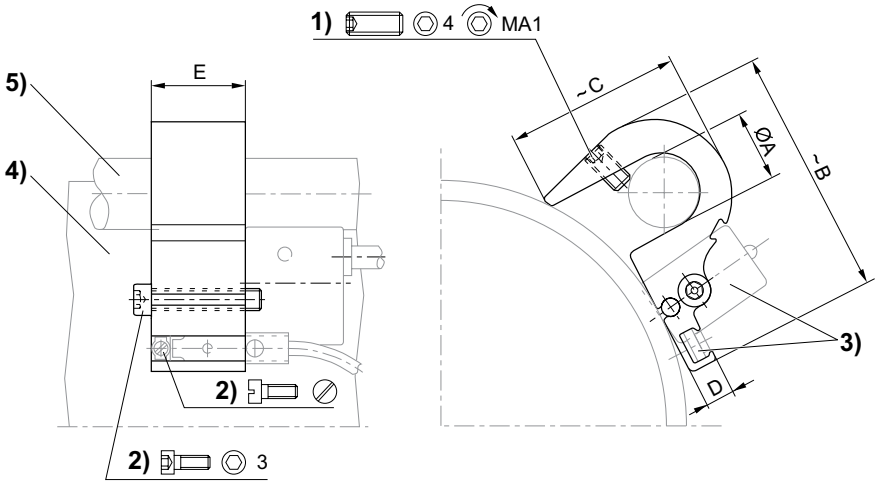
1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
BN=brown, BU=blue

All dimensions in mm, unless specified otherwise.
Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for more detailed information

Sensors, Series ST6
Accessories

Sensor mounting, Series CB1
► for Series ST6, SM6, SN1, SN2 ► to mount on cylinder TRB, CVI, 523


00105957



00105014

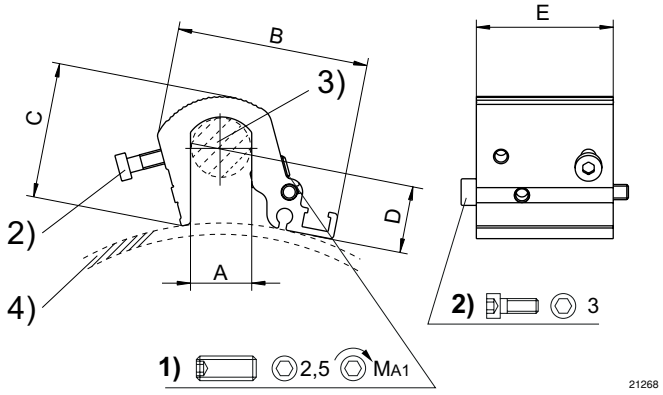
1) Clamping threaded pin 2) Mounting screw for sensor 3) Sensor 4) Cylinder profile 5) Tie rod

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 [lbs]								
1827020292	Aluminum	0.0683								

Sensor mounting, Series CB1
► for Series ST6, SN2, SN6, SN1, SM6, SM6-AL ► to mount on cylinder ITS


21464



21268

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

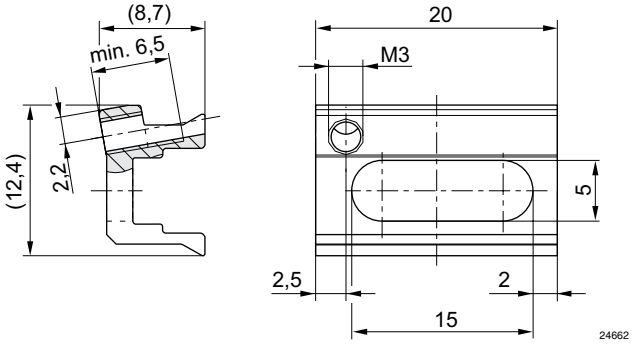
Sensors, Series ST6
Accessories

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 [lbs]											
R412017979	0.1278											
R412017980	0.1609											
Scope of delivery: Incl. mounting screws												

Sensor mounting, Series CB1
► for Series ST6 ► to mount on cylinder KHZ

24744



24662

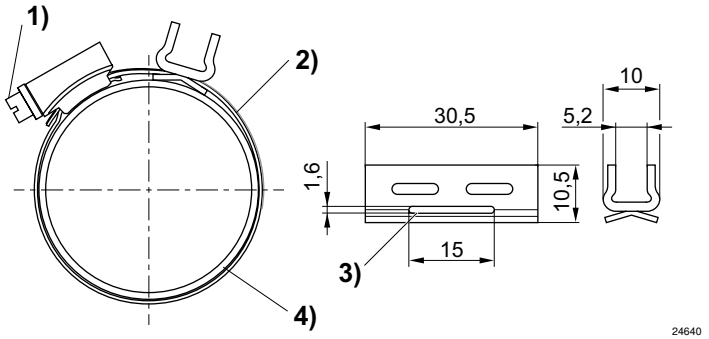
Part No.	For series	Material	Weight [lbs]							
R422100250	ST6	Aluminum	0.0749							
Scope of delivery: incl. threaded pin										

All dimensions in mm, unless specified otherwise.
Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for more detailed information

Sensors, Series ST6
Accessories

Sensor mounting, Series CB1
► for Series ST6 ► to mount on cylinder CSL-RD, ICM, ICS-D1, ICS-D2, RPC

24739



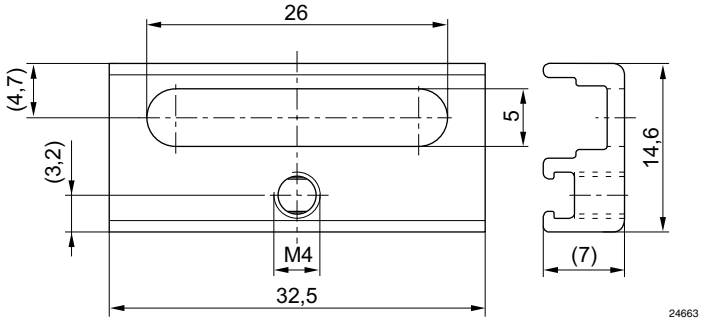
24640

1) Mounting screw 2) Tightening strap 3) Opening for tightening strap 4) Cylinder tube

Part No.	Cylinders Ø [mm]	For series	Material	Weight [lbs]	Fig.				
R412024050	25 - 32	ST6	Stainless steel	-	Fig. 2				
R412024051	40	ST6	Stainless steel	-	Fig. 2				
R412024052	50	ST6	Stainless steel	-	Fig. 2				
R412024053	63	ST6	Stainless steel	-	Fig. 2				
R412024054	-	ST6	Stainless steel	0.0242	Fig. 1				

Sensor mounting, Series CB1
► for Series ST6 ► to mount on cylinder ICL

24743



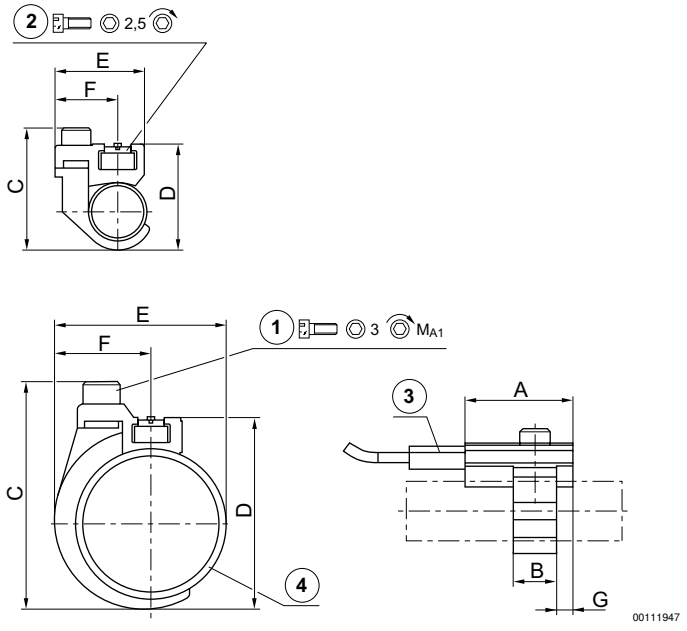
24663

Part No.	For series	Material	Weight [lbs]							
R402000040	ST6	Aluminum	0.0132							
Scope of delivery: incl. threaded pin										

Sensors, Series ST6
Accessories

Sensor mounting, Series CB1
► for Series ST6, SM6 ► to mount on cylinder MNI, ICM

00110587



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)
1827020296	10	ST6, SM6	20	8	24	19	17.5	11.8	3	M3x8
1827020297	12	ST6, SM6	20	8	26	22	19	11.8	3	M3x8
1827020298	16	ST6, SM6	20	12	34	30	23	13.8	4	M4x10
1827020299	20	ST6, SM6	20	12	38	32	26	13.8	4	M4x10
1827020300	25	ST6, SM6	20	12	43	37	31	13.8	4	M4x10

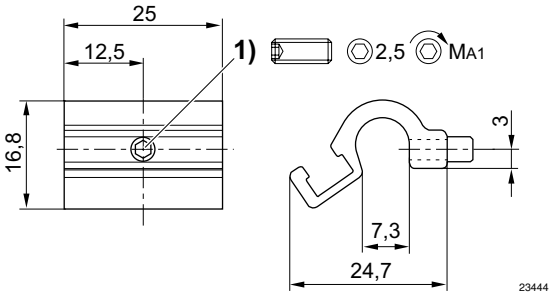
Part No.	MA1 [Nm]	Material	Weight [lbs]							
1827020296	1 +0,2	Aluminum	0.0198							
1827020297	1 +0,2	Aluminum	0.022							
1827020298	2 +0,3	Aluminum	0.0308							
1827020299	2 +0,3	Aluminum	0.0308							
1827020300	2 +0,3	Aluminum	0.033							

All dimensions in mm, unless specified otherwise.
Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for more detailed information

Sensors, Series ST6
Accessories

Sensor mounting, Series CB1
► for Series ST6, SM6 ► to mount on cylinder Series 167

23683

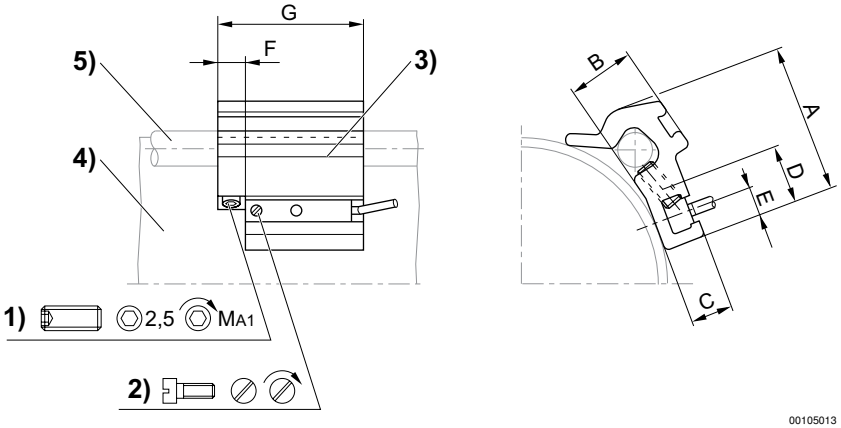


1) Mounting screw

Part No.	Cylinders Ø [mm]	For series	MA1 [Nm]	Material	Weight [lbs]	Delivery quantity [Piece]		
R412022357	25	ST6, SM6	1 + 0,3	Aluminum	0.022	1		

Sensor mounting, Series CB1
► for Series ST6, SM6 ► to mount on cylinder TRB, TRR, CVI, 523, 167

103627



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

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

Part No.	MA1 [Nm]	Material	Weight [lbs]							
1827020282	2 ±0,2	Aluminum	0.0352							
1827020283	2 ±0,2	Aluminum	0.0639							
1827020284	2 ±0,2	Aluminum	0.0925							

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16-01-2016