

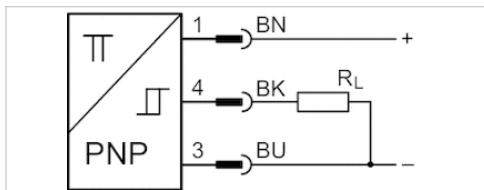
Sensor, Series ST6

- 6 mm T-slot
- with cable
- open cable ends, 3-pin
- ATEX
- UL certification, ATEX
- electronic PNP
- Direct mounting for series PRA, PRE, CCI, KPZ, SSI, GPC, CVI
- Indirect mounting for series TRB, ITS, CCL-IS, MNI, CSL-RD, ICM, KHZ, TRR



Certificates

ATEX class G	ATEX, CE declaration of conformity, cULus, RoHS
ATEX class D	II 3G Ex nA IIC T4 Gc X
Ambient temperature min./max.	II 3D Ex tc IIIC T135°C Dc X
Protection class	-20 ... 50 °C
Switching point precision	IP67
Quiescent current (without load)	±0,1 mT
Min./max. DC operating voltage	10 mA
Switching logic	10 ... 30 V DC
LED status display	NO (make contact)
Vibration resistance	Yellow
Shock resistance	10 - 55 Hz, 1 mm
	30 g / 11 ms



Technical data

Part No.	for	Type of contact	Cable length L
R412022854	PRA, PRE, CCI, KPZ, SSI, GPC, CVI	electronic PNP	3 m
R412022856	PRA, PRE, CCI, KPZ, SSI, GPC, CVI	electronic PNP	5 m

Part No.	Voltage drop U at I _{max}	DC switching current, max.
R412022854	≤ 2,5 V	0,1 A
R412022856	≤ 2,5 V	0,1 A

Part No.	Max. switching frequency
R412022854	1000 Hz
R412022856	1000 Hz

Part No.	Version
R412022854	short circuit resistant, Protected against polarity reversal

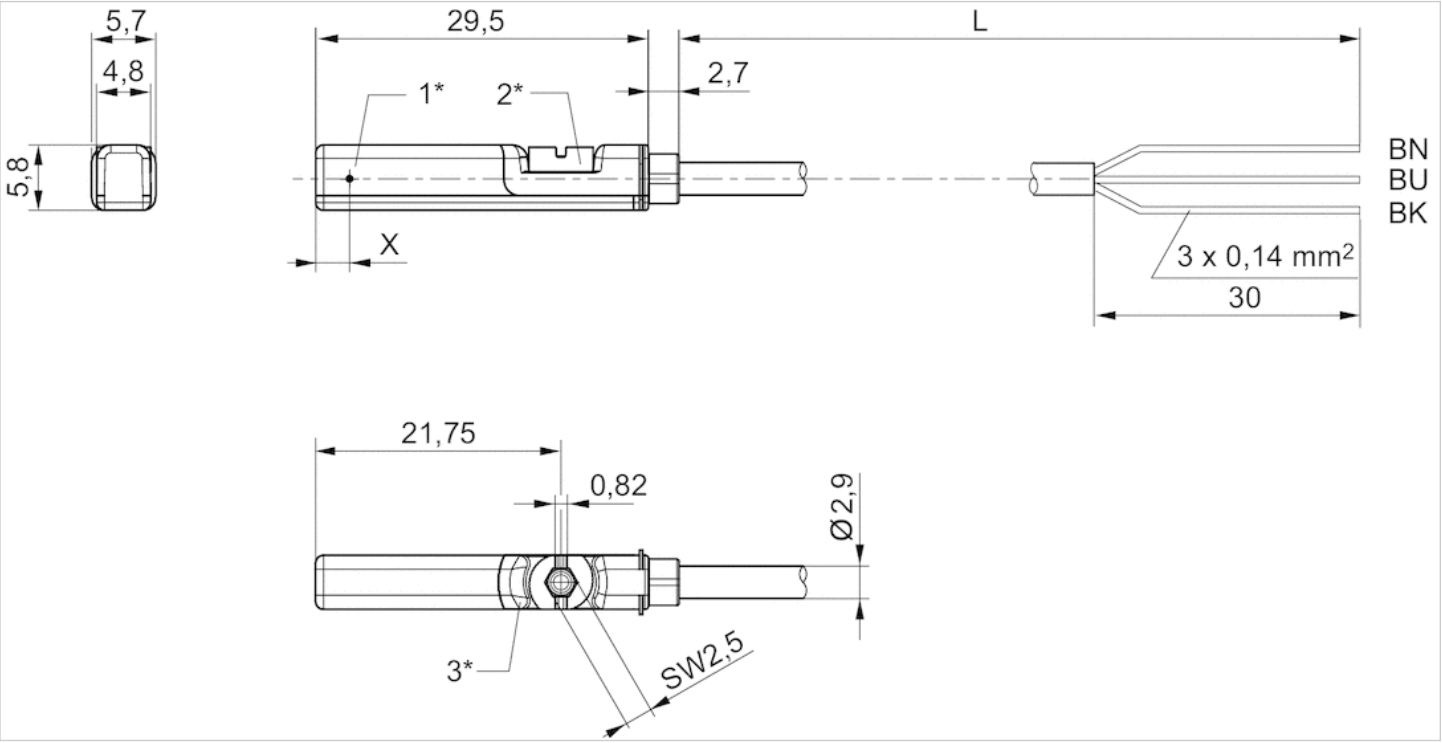
Part No.	Version
R412022856	short circuit resistant, Protected against polarity reversal

Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

Dimensions

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

Sensor, Series ST6

- 6 mm T-slot
- with cable
- open cable ends, 2-pin, open cable ends, 3-pin
- UL certification
- Reed, electronic PNP, electronic NPN
- Direct mounting for series PRA, PRE, CCI, KPZ, SSI, GPC, CVI
- Indirect mounting for series TRB, ITS, CCL-IS, MNI, CSL-RD, ICM, KHZ, TRR



Certificates	CE declaration of conformity, cULus, RoHS
Ambient temperature min./max.	-30 ... 80 °C
Protection class	IP65, IP67, IP69K
Switching point precision	±0,1 mT
Nominal current, actuated state	30 mA
Quiescent current (without load)	8 mA
Min./max. DC operating voltage	See table below
Min./max. AC operating voltage	See table below
Hysteresis	≥ 0,2 mT
Switching logic	NO (make contact)
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms

Technical data

Part No.		for	Type of contact
R412022866		PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Reed
R412022869		PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Reed
R412022870		PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Reed
R412022871		PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Reed
R412022853		PRA, PRE, CCI, KPZ, SSI, GPC, CVI	electronic PNP
R412022855		PRA, PRE, CCI, KPZ, SSI, GPC, CVI	electronic PNP
R412022857		PRA, PRE, CCI, KPZ, SSI, GPC, CVI	electronic PNP
R412022849		PRA, PRE, CCI, KPZ, SSI, GPC, CVI	electronic NPN
R412022850		PRA, PRE, CCI, KPZ, SSI, GPC, CVI	electronic NPN

Part No.	Cable length L	Min./max. DC operating voltage	Min./max. AC operating voltage
R412022866	3 m	10 ... 230 V DC	10 ... 230 V AC
R412022869	3 m	10 ... 30 V DC	10 ... 30 V AC
R412022870	5 m	10 ... 30 V DC	10 ... 30 V AC
R412022871	10 m	10 ... 30 V DC	10 ... 30 V AC
R412022853	3 m	10 ... 30 V DC	-
R412022855	5 m	10 ... 30 V DC	-
R412022857	10 m	10 ... 30 V DC	-
R412022849	3 m	10 ... 30 V DC	-
R412022850	5 m	10 ... 30 V DC	-

Part No.	Voltage drop U at I _{max}	DC switching current, max.
R412022866	≤ 3,5 V	0,13 A
R412022869	I*Rs	0,3 A
R412022870	≤ 0,1 V	0,3 A
R412022871	I*Rs	0,3 A
R412022853	≤ 2,5 V	0,13 A
R412022855	≤ 2,5 V	0,13 A
R412022857	≤ 2,5 V	0,13 A
R412022849	≤ 2,5 V	0,13 A
R412022850	≤ 2,5 V	0,13 A

Part No.	AC switching current, max.	Switching capacity
R412022866	0,13 A	Reed, 2-pin: max. 10 W, Reed, 3-pin: max. 6 W
R412022869	0,5 A	Reed, 2-pin: max. 10 W, Reed, 3-pin: max. 6 W
R412022870	0,5 A	Reed, 2-pin: max. 10 W, Reed, 3-pin: max. 6 W
R412022871	0,5 A	Reed, 2-pin: max. 10 W, Reed, 3-pin: max. 6 W
R412022853	-	-
R412022855	-	-
R412022857	-	-
R412022849	-	-

Part No.	AC switching current, max.	Switching capacity
R412022850	-	-

Part No.	Max. switching frequency	Operating current, not switched
R412022866	400 Hz	-
R412022869	400 Hz	-
R412022870	400 Hz	-
R412022871	400 Hz	-
R412022853	1000 Hz	8 mA
R412022855	1000 Hz	8 mA
R412022857	1000 Hz	8 mA
R412022849	1000 Hz	8 mA
R412022850	1000 Hz	8 mA

Part No.	Operating current, switched
R412022866	-
R412022869	-
R412022870	-
R412022871	-
R412022853	30 mA
R412022855	30 mA
R412022857	30 mA
R412022849	30 mA
R412022850	30 mA

Part No.	Version	Fig.	
R412022866	Protected against polarity reversal	Fig. 1	1)
R412022869	Protected against polarity reversal	Fig. 2	2)
R412022870	Protected against polarity reversal	Fig. 2	2)
R412022871	Protected against polarity reversal	Fig. 2	2)
R412022853	short circuit resistant, Protected against polarity reversal	Fig. 2	2)
R412022855	short circuit resistant, Protected against polarity reversal	Fig. 2	2)
R412022857	short circuit resistant, Protected against polarity reversal	Fig. 2	2)
R412022849	short circuit resistant, Protected against polarity reversal	Fig. 2	2)
R412022850	short circuit resistant, Protected against polarity reversal	Fig. 2	2)

1) open cable ends, 2-pin

2) open cable ends, 3-pin

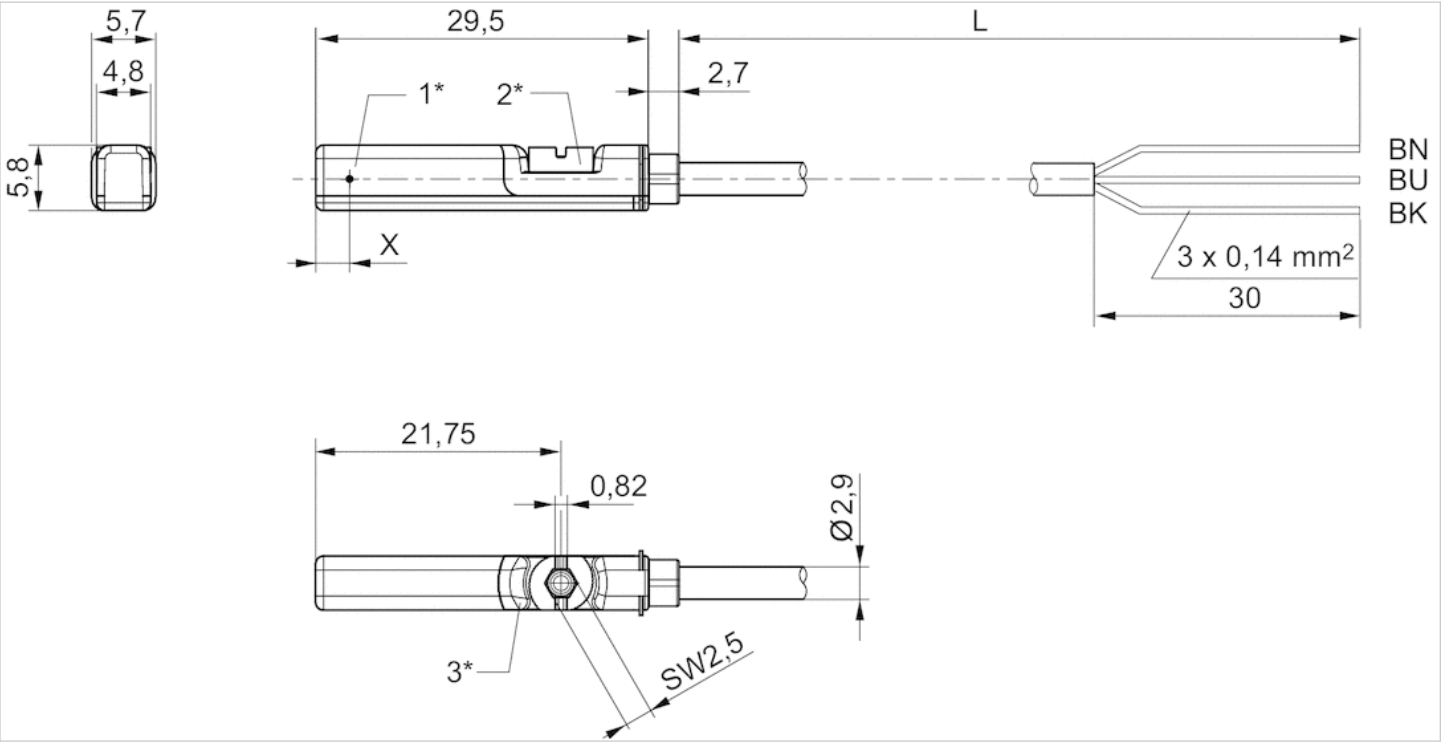
Technical information

No cULus certification for 230 V variant.

Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

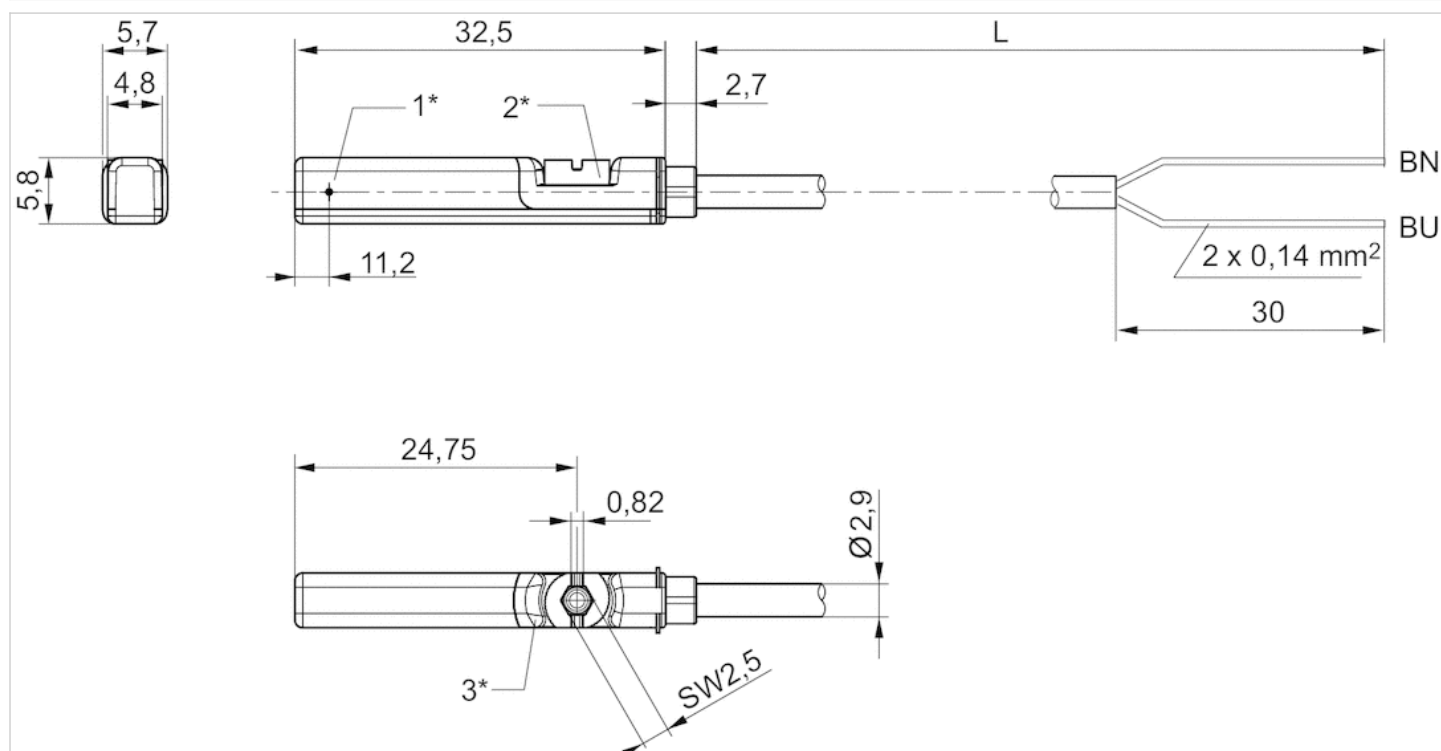
Fig. 2



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

Dimensions

Fig. 1



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

Sensor, Series ST6

- 6 mm T-slot
- with cable
- Plug, M8, 3-pin
- UL certification
- Reed, electronic PNP, electronic NPN
- Direct mounting for series PRA, PRE, CCI, KPZ, SSI, GPC, CVI
- Indirect mounting for series TRB, ITS, CCL-IS, MNI, CSL-RD, ICM, KHZ, TRR



Certificates

Ambient temperature min./max.

Protection class

Switching point precision

Nominal current, actuated state

Quiescent current (without load)

Min./max. DC operating voltage

Min./max. AC operating voltage

Hysteresis

Switching logic

Switching capacity

LED status display

Vibration resistance

Shock resistance

CE declaration of conformity, cULus, RoHS

-30 ... 80 °C

IP65, IP67

±0,1 mT

30 mA

8 mA

10 ... 30 V DC

See table below

≥ 0,2 mT

NO (make contact)

Reed, 2-pin: max. 10 W, Reed, 3-pin: max. 6 W

Yellow

10 - 55 Hz, 1 mm

30 g / 11 ms

Technical data

Part No.		for	Type of contact
R412022868		PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Reed
R412022872		PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Reed
R412022858		PRA, PRE, CCI, KPZ, SSI, GPC, CVI	electronic PNP
R412022851		PRA, PRE, CCI, KPZ, SSI, GPC, CVI	electronic NPN

Part No.	Cable length L	Min./max. AC operating voltage	Voltage drop U at I _{max}
R412022868	0,3 m	10 ... 30 V AC	≤ 3,5 V
R412022872	0,3 m	10 ... 30 V AC	≤ 0,1 V
R412022858	0,3 m	-	≤ 2,5 V
R412022851	0,3 m	-	≤ 2,5 V

Part No.	DC switching current, max.	AC switching current, max.
R412022868	0,13 A	0,13 A
R412022872	0,3 A	0,5 A
R412022858	0,13 A	-
R412022851	0,13 A	-

Part No.	Max. switching frequency	Operating current, not switched
R412022868	400 Hz	-
R412022872	400 Hz	-
R412022858	1000 Hz	8 mA
R412022851	1000 Hz	8 mA

Part No.	Operating current, switched
R412022868	-
R412022872	-
R412022858	30 mA
R412022851	30 mA

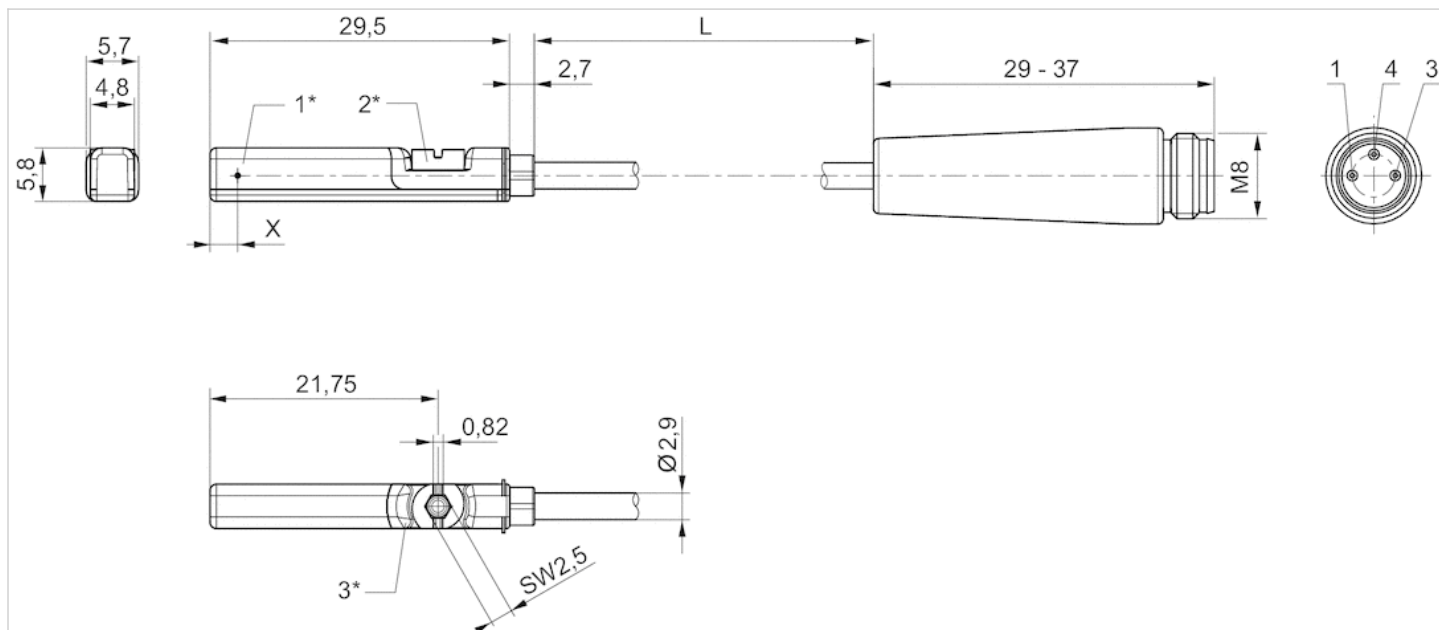
Part No.	Version
R412022868	Protected against polarity reversal
R412022872	Protected against polarity reversal
R412022858	short circuit resistant, Protected against polarity reversal
R412022851	short circuit resistant, Protected against polarity reversal

Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

Dimensions

Dimensions



1* = switching point 2* = locking screw 3* = LED window, transparent

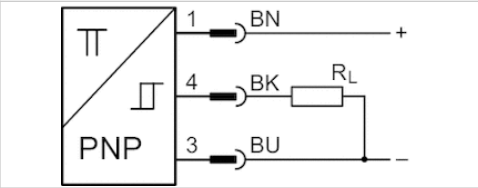
L = cable length

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
- ATEX
- UL certification, ATEX
- electronic PNP
- Direct mounting for series PRA, PRE, CCI, KPZ, SSI, GPC, CVI
- Indirect mounting for series TRB, ITS, CCL-IS, MNI, CSL-RD, ICM, KHZ, TRR



Certificates	ATEX, CE declaration of conformity, cULus, RoHS
ATEX class G	II 3G Ex nA IIC T4 Gc X
ATEX class D	II 3D Ex tc IIIC T135°C Dc X
Ambient temperature min./max.	-20 ... 50 °C
Protection class	IP67
Switching point precision	±0,1 mT
Quiescent current (without load)	10 mA
Min./max. DC operating voltage	10 ... 30 V DC
Switching logic	NO (make contact)
LED status display	Yellow, Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms

Technical data

Part No.	for	Type of contact	Cable length L
R412022864	PRA, PRE, CCI, KPZ, SSI, GPC, CVI	electronic PNP	0,3 m

Part No.	Voltage drop U at I _{max}	DC switching current, max.
R412022864	≤ 2,5 V	0,1 A

Part No.	Max. switching frequency
R412022864	1000 Hz

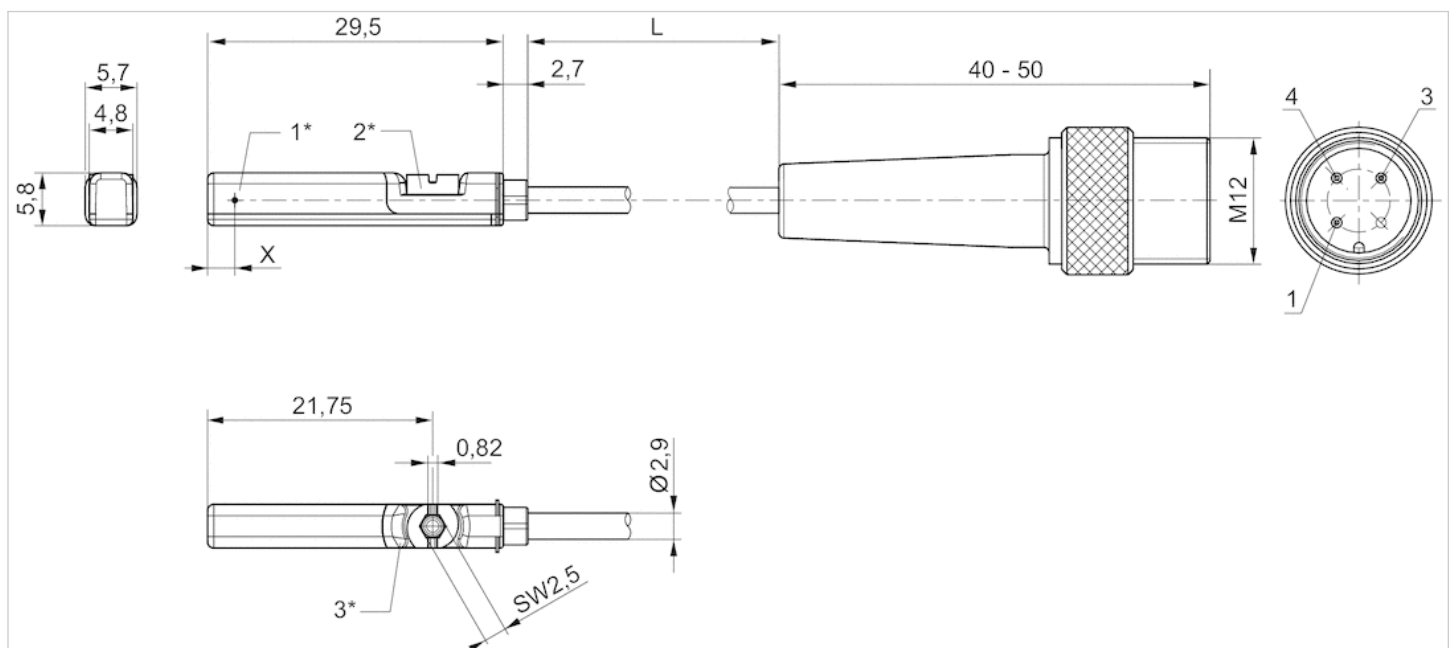
Part No.	Version
R412022864	short circuit resistant, Protected against polarity reversal

Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

Dimensions

Dimensions



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
- Plug, M12, 3-pin, with knurled screw
- UL certification
- Reed, electronic PNP
- Direct mounting for series PRA, PRE, CCI, KPZ, SSI, GPC, CVI
- Indirect mounting for series TRB, ITS, CCL-IS, MNI, CSL-RD, ICM, KHZ, TRR



Certificates

Ambient temperature min./max.

Protection class

Switching point precision

Nominal current, actuated state

Quiescent current (without load)

Min./max. DC operating voltage

Min./max. AC operating voltage

Hysteresis

Switching logic

Switching capacity

LED status display

Vibration resistance

Shock resistance

CE declaration of conformity, cULus, RoHS

-30 ... 80 °C

See table below

±0,1 mT

30 mA

8 mA

10 ... 30 V DC

See table below

≥ 0,2 mT

NO (make contact)

Reed, 3-pin: max. 6 W

Yellow

10 - 55 Hz, 1 mm

30 g / 11 ms

Technical data

Part No.		for	Type of contact	Cable length L
R412022876		PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Reed	0,3 m
R412022879		PRA, PRE, CCI, KPZ, SSI, GPC, CVI	electronic PNP	0,1 m
R412022863		PRA, PRE, CCI, KPZ, SSI, GPC, CVI	electronic PNP	0,3 m
R412022877		PRA, PRE, CCI, KPZ, SSI, GPC, CVI	electronic PNP	3 m
R412022878		PRA, PRE, CCI, KPZ, SSI, GPC, CVI	electronic PNP	5 m

Part No.	Min./max. AC operating voltage	Voltage drop U at I _{max}
R412022876	10 ... 30 V AC	≤ 0,1 V
R412022879	-	≤ 2,5 V
R412022863	-	≤ 2,5 V
R412022877	-	≤ 2,5 V
R412022878	-	≤ 2,5 V

Part No.	DC switching current, max.	AC switching current, max.
R412022876	0,3 A	0,5 A
R412022879	0,13 A	-
R412022863	0,13 A	-
R412022877	0,13 A	-

Part No.	DC switching current, max.	AC switching current, max.
R412022878	0,13 A	-

Part No.	Max. switching frequency	Operating current, not switched
R412022876	400 Hz	-
R412022879	1000 Hz	8 mA
R412022863	1000 Hz	8 mA
R412022877	1000 Hz	8 mA
R412022878	1000 Hz	8 mA

Part No.	Operating current, switched	Protection class
R412022876	-	IP65, IP67
R412022879	30 mA	IP65, IP67
R412022863	30 mA	IP65, IP67, IP69K
R412022877	30 mA	IP65, IP67
R412022878	30 mA	IP65, IP67

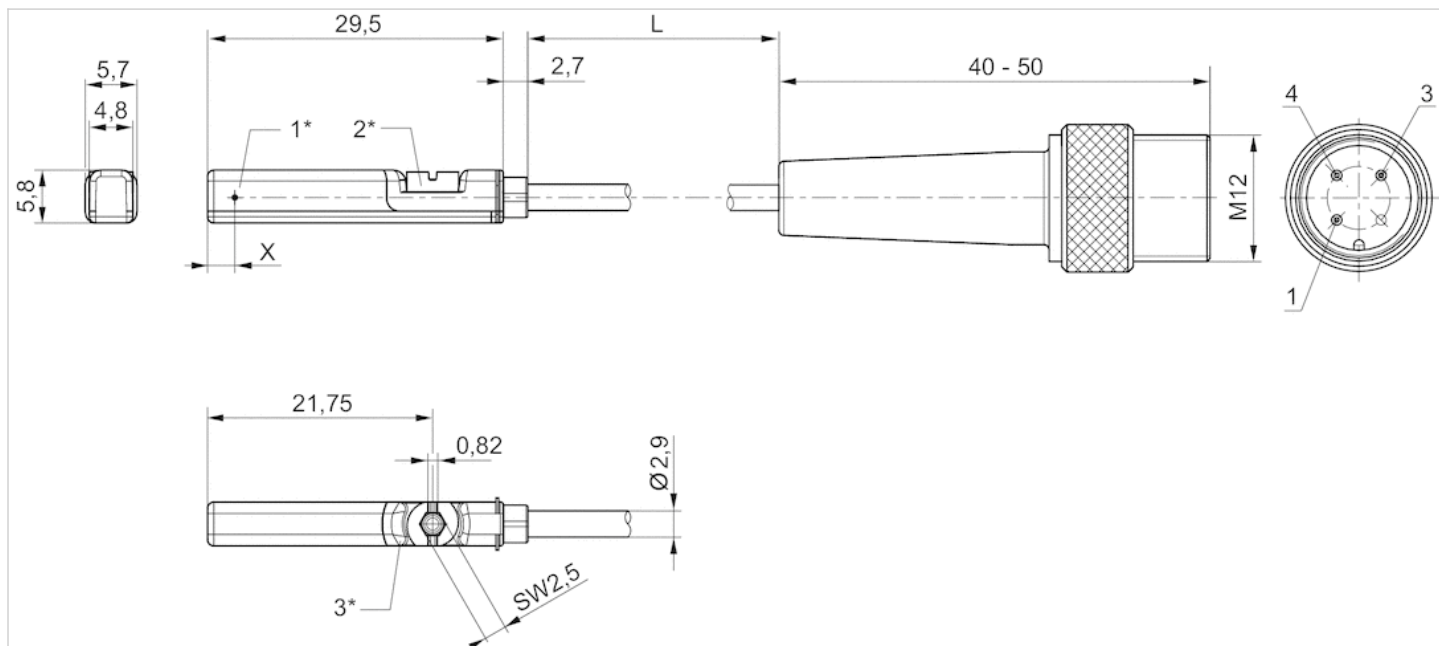
Part No.	Version
R412022876	Protected against polarity reversal
R412022879	short circuit resistant, Protected against polarity reversal
R412022863	short circuit resistant, Protected against polarity reversal
R412022877	short circuit resistant, Protected against polarity reversal
R412022878	short circuit resistant, Protected against polarity reversal

Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

Dimensions

Dimensions



1* = switching point 2* = locking screw 3* = LED window, transparent

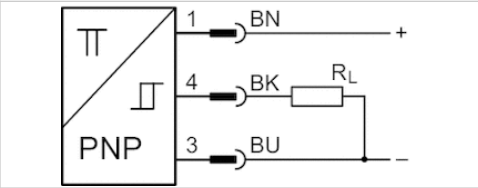
L = cable length

X = PNP: 11,6 mm

Pin assignment: 1 = (+) 3 = (-) 4 = (OUT)

Sensor, Series ST6

- 6 mm T-slot
- with cable
- Plug, M8, 3-pin, with knurled screw
- ATEX
- UL certification, ATEX
- electronic PNP
- Direct mounting for series PRA, PRE, CCI, KPZ, SSI, GPC, CVI
- Indirect mounting for series TRB, ITS, CCL-IS, MNI, CSL-RD, ICM, KHZ, TRR



Certificates	ATEX, CE declaration of conformity, cULus, RoHS
ATEX class G	II 3G Ex nA IIC T4 Gc X
ATEX class D	II 3D Ex tc IIIC T135°C Dc X
Ambient temperature min./max.	-20 ... 50 °C
Protection class	IP65, IP67
Switching point precision	±0,1 mT
Quiescent current (without load)	10 mA
Min./max. DC operating voltage	10 ... 30 V DC
Switching logic	NO (make contact)
LED status display	Yellow, Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms

Technical data

Part No.	for	Type of contact	Cable length L
R412022860	PRA, PRE, CCI, KPZ, SSI, GPC, CVI	electronic PNP	0,3 m

Part No.	Voltage drop U at I _{max}	DC switching current, max.
R412022860	≤ 2,5 V	0,1 A

Part No.	Max. switching frequency
R412022860	1000 Hz

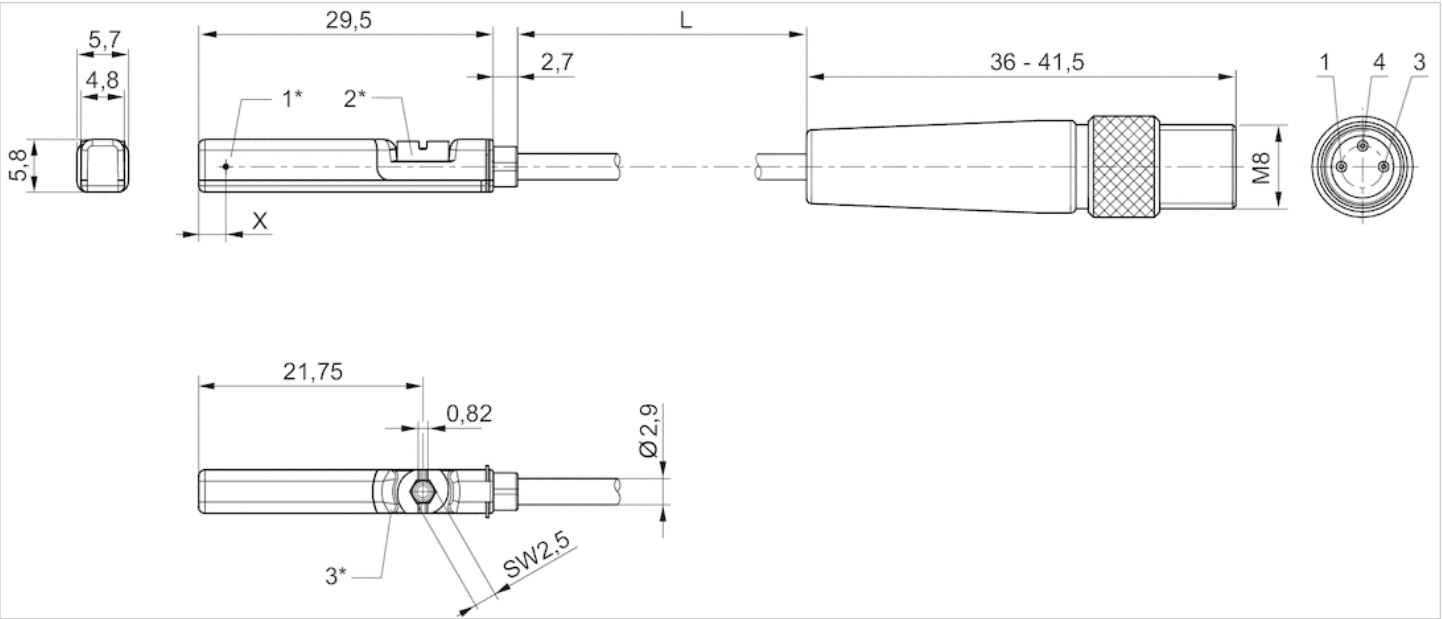
Part No.	Version
R412022860	short circuit resistant, Protected against polarity reversal

Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

Dimensions

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
- UL certification
- Reed, electronic PNP, electronic NPN
- Direct mounting for series PRA, PRE, CCI, KPZ, SSI, GPC, CVI
- Indirect mounting for series TRB, ITS, CCL-IS, MNI, CSL-RD, ICM, KHZ, TRR



Certificates

Ambient temperature min./max.

Protection class

Switching point precision

Nominal current, actuated state

Quiescent current (without load)

Min./max. DC operating voltage

Min./max. AC operating voltage

Hysteresis

Switching logic

Switching capacity

LED status display

Vibration resistance

Shock resistance

CE declaration of conformity, cULus, RoHS

-30 ... 80 °C

IP65, IP67

±0,1 mT

30 mA

8 mA

10 ... 30 V DC

See table below

≥ 0,2 mT

NO (make contact)

Reed, 3-pin: max. 6 W

Yellow

10 - 55 Hz, 1 mm

30 g / 11 ms

Technical data

Part No.		for	Type of contact
R412022873		PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Reed
R412022875		PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Reed
R412022874		PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Reed
R412022859		PRA, PRE, CCI, KPZ, SSI, GPC, CVI	electronic PNP
R412022862		PRA, PRE, CCI, KPZ, SSI, GPC, CVI	electronic PNP
R412022861		PRA, PRE, CCI, KPZ, SSI, GPC, CVI	electronic PNP
R412022852		PRA, PRE, CCI, KPZ, SSI, GPC, CVI	electronic NPN

Part No.	Cable sheath	Cable length L	Min./max. AC operating voltage
R412022873	Polyurethane	0,3 m	10 ... 30 V AC
R412022875	Polyvinyl chloride	0,3 m	10 ... 30 V AC
R412022874	Polyurethane	0,5 m	10 ... 30 V AC
R412022859	Polyurethane	0,3 m	-
R412022862	Polyvinyl chloride	0,3 m	-
R412022861	Polyurethane	0,5 m	-
R412022852	Polyurethane	0,3 m	-

Part No.	Voltage drop U at I _{max}	DC switching current, max.
R412022873	I*Rs	0,3 A
R412022875	I*Rs	0,3 A
R412022874	I*Rs	0,3 A
R412022859	≤ 2,5 V	0,13 A
R412022862	≤ 2,5 V	0,13 A
R412022861	≤ 2,5 V	0,13 A
R412022852	≤ 2,5 V	0,13 A

Part No.	AC switching current, max.	Max. switching frequency
R412022873	0,5 A	400 Hz
R412022875	0,5 A	400 Hz
R412022874	0,5 A	400 Hz
R412022859	-	1000 Hz
R412022862	-	1000 Hz
R412022861	-	1000 Hz
R412022852	-	1000 Hz

Part No.	Operating current, not switched	Operating current, switched
R412022873	-	-
R412022875	-	-
R412022874	-	-
R412022859	8 mA	30 mA
R412022862	8 mA	30 mA
R412022861	8 mA	30 mA
R412022852	8 mA	30 mA

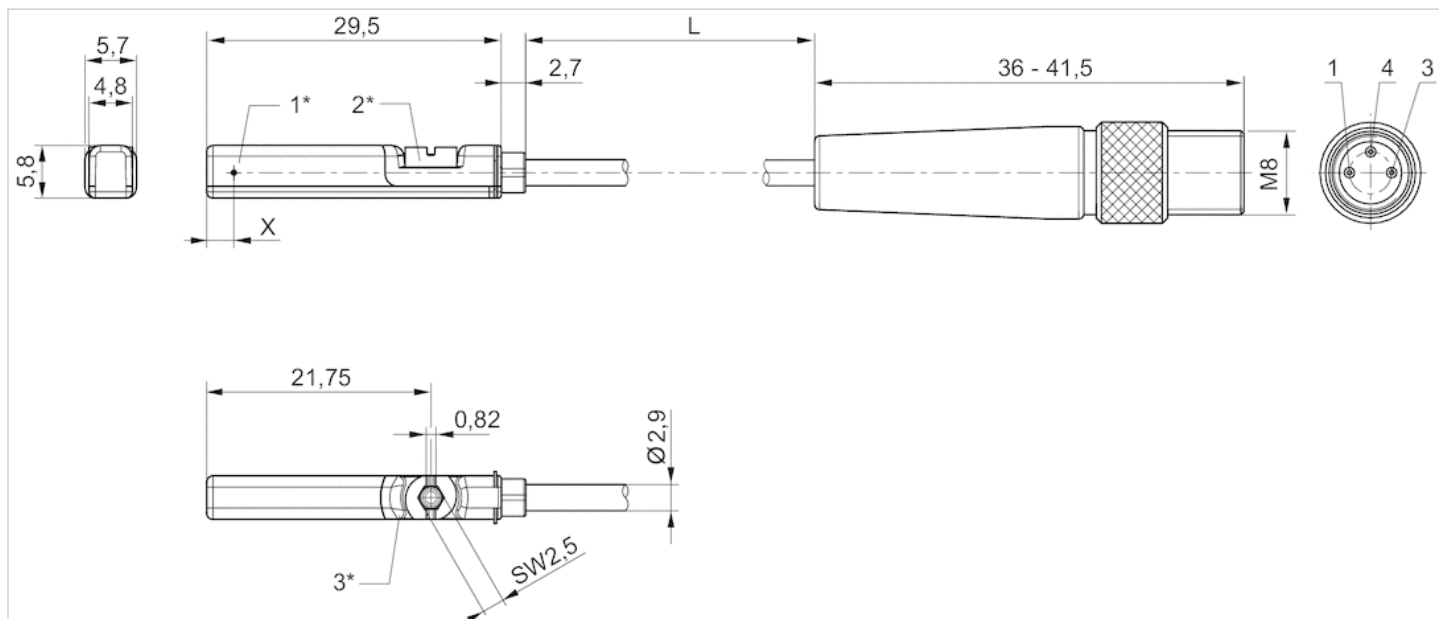
Part No.	Version
R412022873	Protected against polarity reversal
R412022875	Protected against polarity reversal
R412022874	Protected against polarity reversal
R412022859	short circuit resistant, Protected against polarity reversal
R412022862	short circuit resistant, Protected against polarity reversal
R412022861	short circuit resistant, Protected against polarity reversal
R412022852	short circuit resistant, Protected against polarity reversal

Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane, Polyvinyl chloride
Locking screw	Stainless steel

Dimensions

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-HT

- 6 mm T-slot
- with cable
- open cable ends, 2-pin
- Heat resistant
- UL certification
- Reed
- Direct mounting for series PRA, PRE, CCI, KPZ, SSI, GPC, CVI
- Indirect mounting for series TRB, ITS, CCL-IS, MNI, CSL-RD, ICM, KHZ, TRR



Certificates

Ambient temperature min./max.

Protection class

Switching point precision

Min./max. DC operating voltage

Min./max. AC operating voltage

Switching logic

Switching capacity

Vibration resistance

Shock resistance

CE declaration of conformity, RoHS

-20 ... 120 °C

IP65, IP67

±0,1 mT

0 ... 30 V DC

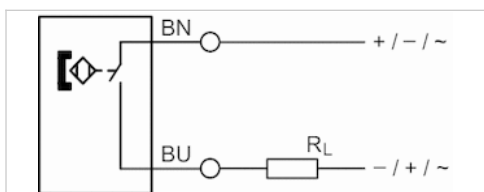
0 ... 30 V AC

NO (make contact)

Reed, 2-pin: max. 10 W

10 - 55 Hz, 1 mm

30 g / 11 ms



Technical data

Part No.	for	Type of contact	Cable length L
R412022865	PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Reed	3 m
R412022867	PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Reed	10 m

Part No.	Voltage drop U at I _{max}	DC switching current, max.
R412022865	≤ 3,5 V	0,13 A
R412022867	≤ 3,5 V	0,13 A

Part No.	AC switching current, max.	Max. switching frequency
R412022865	0,13 A	400 Hz
R412022867	0,13 A	400 Hz

Part No.	Version	Temperature resistance
R412022865	Protected against polarity reversal	Heat resistant

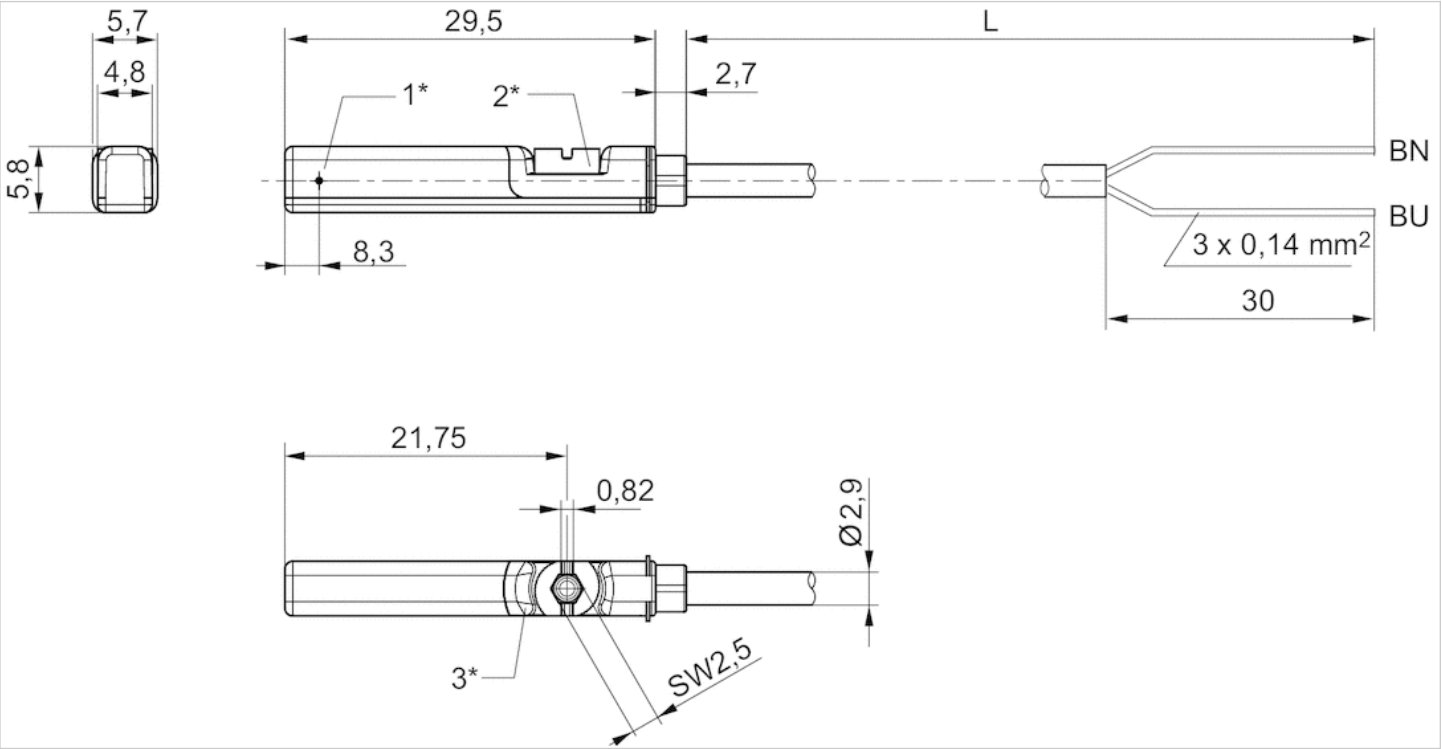
Part No.	Version	Temperature resistance
R412022867	Protected against polarity reversal	Heat resistant

Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

Dimensions

Dimensions



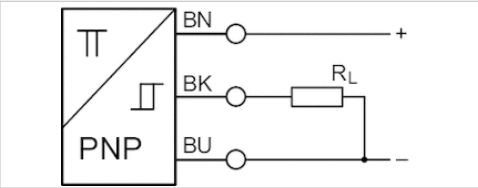
1* = switching point 2* = locking screw 3* = LED window, transparent
 L = cable length BN=brown, BU=blue

Sensor, Series ST6-LT

- 6 mm T-slot
- with cable
- open cable ends, 3-pin, Plug, M8x1, 3-pin, with knurled screw, Plug, M12x1, 3-pin, with knurled screw
- cold-resistant
- UL certification, cold-resistant
- electronic PNP
- Direct mounting for series PRA, PRE, CCI, KPZ, SSI, GPC, CVI
- Indirect mounting for series TRB, ITS, CCL-IS, MNI, CSL-RD, ICM, KHZ, TRR



Certificates	CE declaration of conformity, cULus, RoHS
Ambient temperature min./max.	-40 ... 80 °C
Protection class	IP65, IP67, IP68
Switching point precision	±0,1 mT
Quiescent current (without load)	10 mA
Min./max. DC operating voltage	10 ... 30 V DC
Hysteresis	≥ 0,2 mT
Switching logic	NO (make contact)
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms



Technical data

Part No.	for	Type of contact	Cable length L
R412024011	PRA, PRE, CCI, KPZ, SSI, GPC, CVI	electronic PNP	5 m
R412024669	PRA, PRE, CCI, KPZ, SSI, GPC, CVI	electronic PNP	0,3 m
R412024670	PRA, PRE, CCI, KPZ, SSI, GPC, CVI	electronic PNP	0,3 m

Part No.	Voltage drop U at Imax	DC switching current, max.
R412024011	≤ 2,5 V	0,2 A
R412024669	≤ 2,5 V	0,2 A
R412024670	≤ 2,5 V	0,2 A

Part No.	Max. switching frequency	Material Housing	Version
R412024011	1000 Hz	Polyurethane	short circuit resistant
R412024669	1000 Hz	Polyamide	short circuit resistant
R412024670	1000 Hz	Polyamide	short circuit resistant

Part No.	Temperature resistance	Fig.	
R412024011	cold-resistant	Fig. 1	1)
R412024669	cold-resistant	Fig. 2	2)
R412024670	cold-resistant	Fig. 3	3)

- 1) open cable ends, 3-pin
- 2) Plug M8x1, 3-pin, with knurled screw
- 3) plug M12, 3-pin, with knurled screw

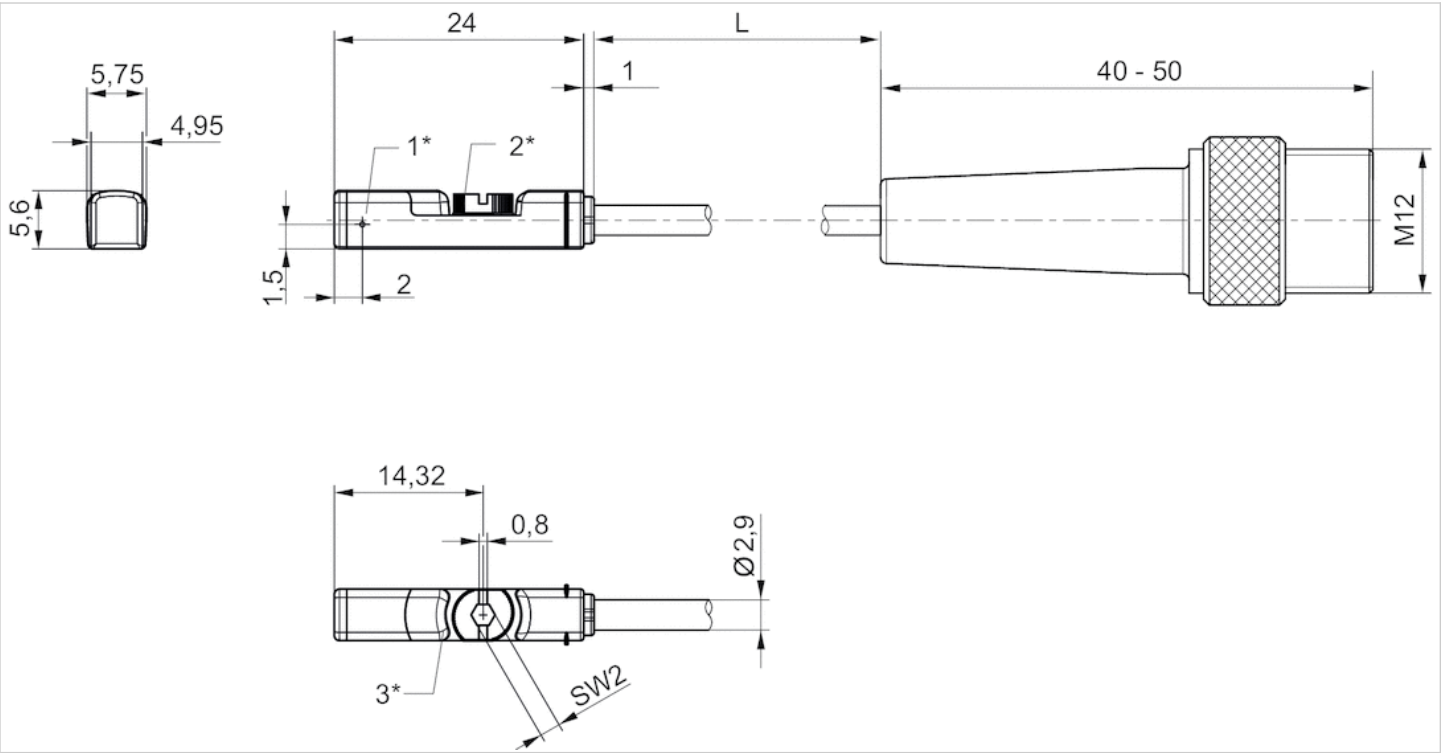
Technical information

Cables must be firmly installed at temperatures of - 40 °C ... - 20 °C .

Technical information

Material	
Housing	Polyurethane, Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

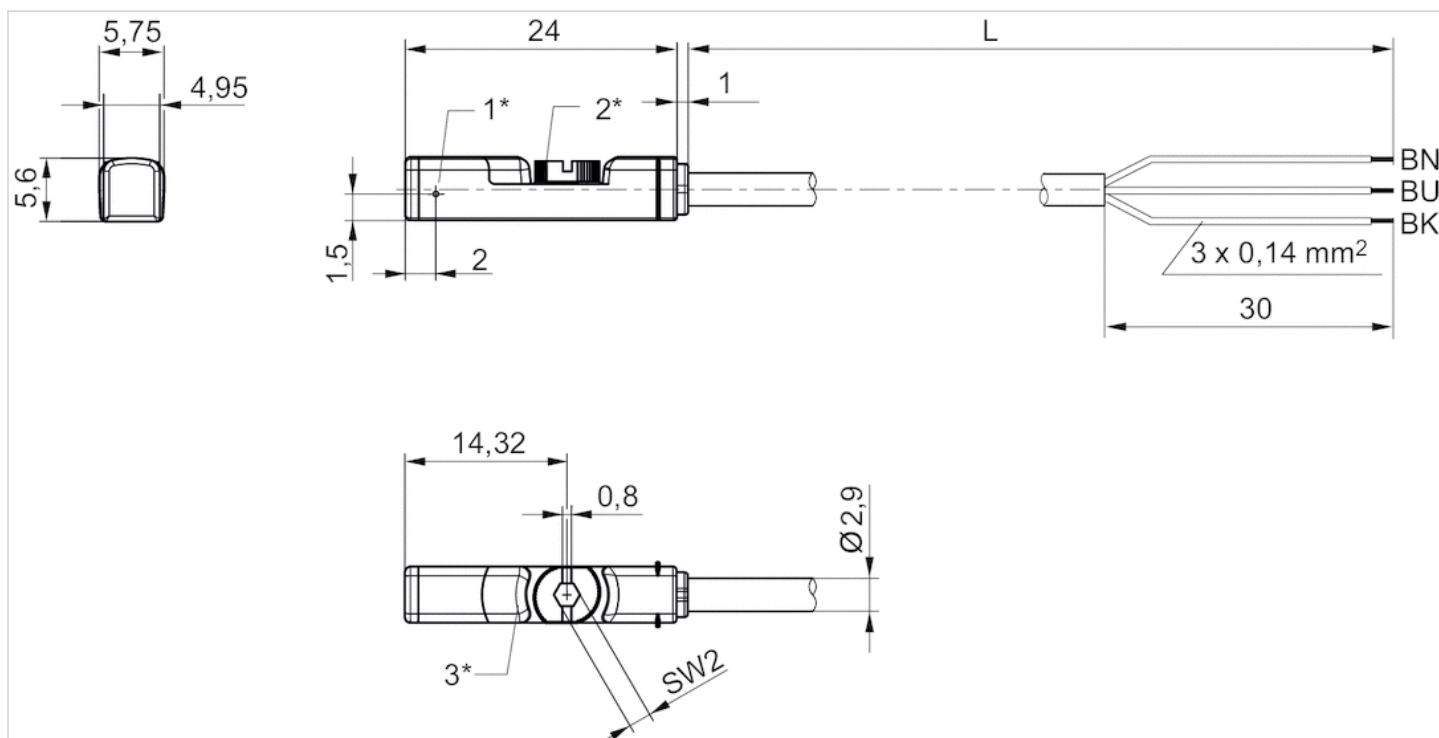
Fig. 3



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

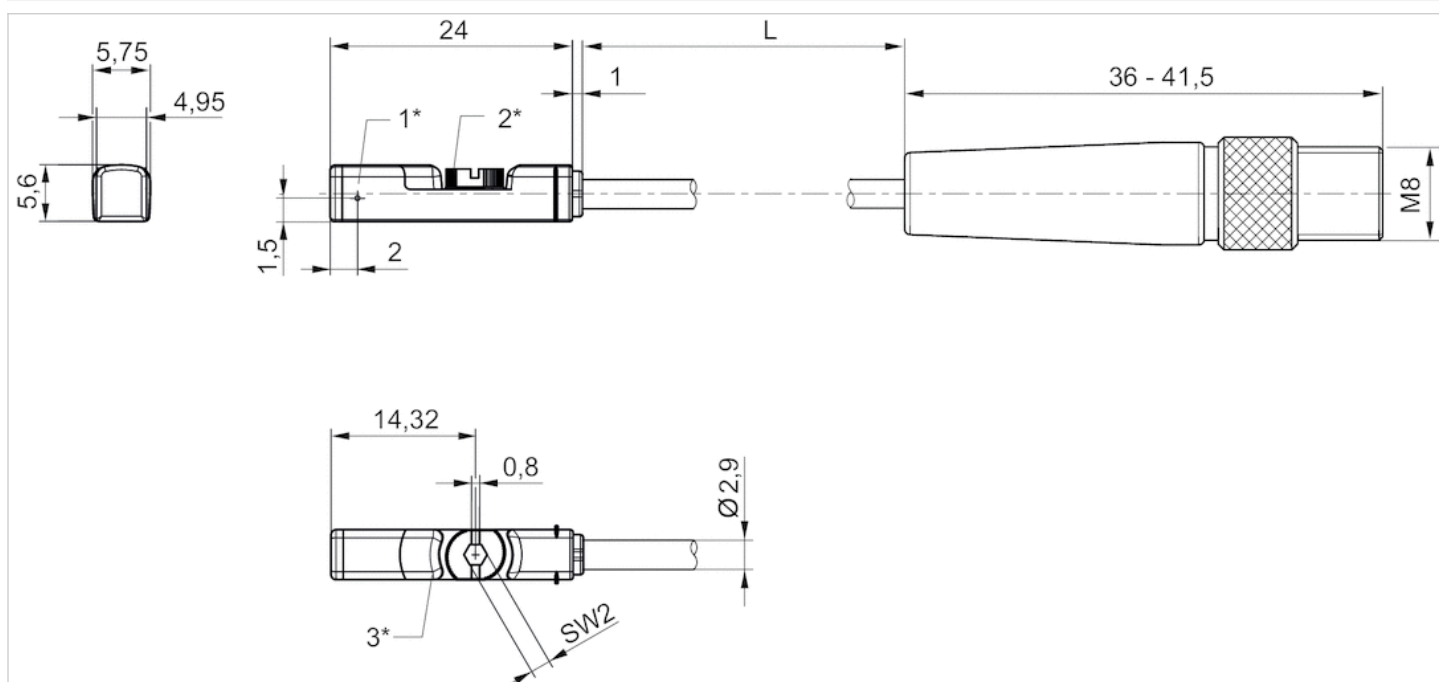
Dimensions

Fig. 1



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

Fig. 2



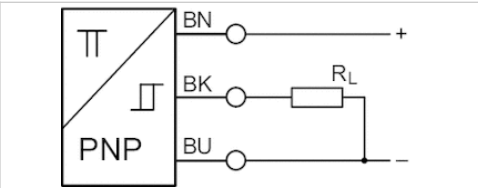
1* = switching point 2* = locking screw 3* = LED window, transparent
 L = cable length

Sensor, Series ST6

- 6 mm T-slot
- with cable
- open cable ends, 3-pin, Plug, M8, 3-pin, Plug, M12, 3-pin, with knurled screw
- UL certification, 1.6 mT response sensitivity
- electronic PNP
- Direct mounting for series CCL-IC



Certificates	CE declaration of conformity, cULus, RoHS
Ambient temperature min./max.	-30 ... 80 °C
Protection class	IP65, IP67, IP69K
Switching point precision	±0,1 mT
Min./max. DC operating voltage	10 ... 30 V DC
Switching logic	NO (make contact)
LED status display	Yellow, Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms



Technical data

Part No.	for	Type of contact	Cable length L	Voltage drop U at I _{max}
R412025609	CCL-IC	electronic PNP	5 m	≤ 2,5 V
R412025610	CCL-IC	electronic PNP	0,3 m	≤ 2,5 V
R412025611	CCL-IC	electronic PNP	0,3 m	≤ 2,5 V

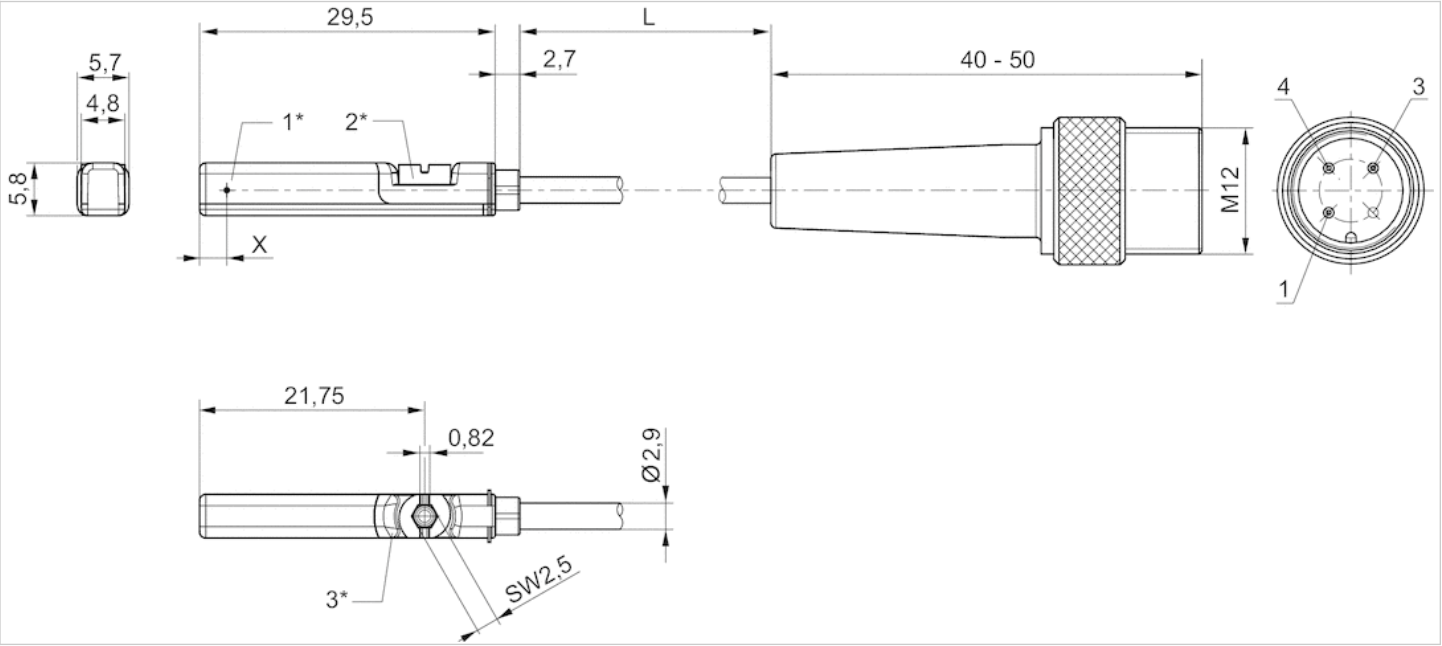
Part No.	DC switching current, max.	Max. switching frequency	Version
R412025609	0,13 A	1000 Hz	short circuit resistant
R412025610	0,13 A	1000 Hz	short circuit resistant
R412025611	0,13 A	1000 Hz	short circuit resistant

Part No.	Fig.
R412025609	Fig. 1
R412025610	Fig. 2
R412025611	Fig. 3

Technical information

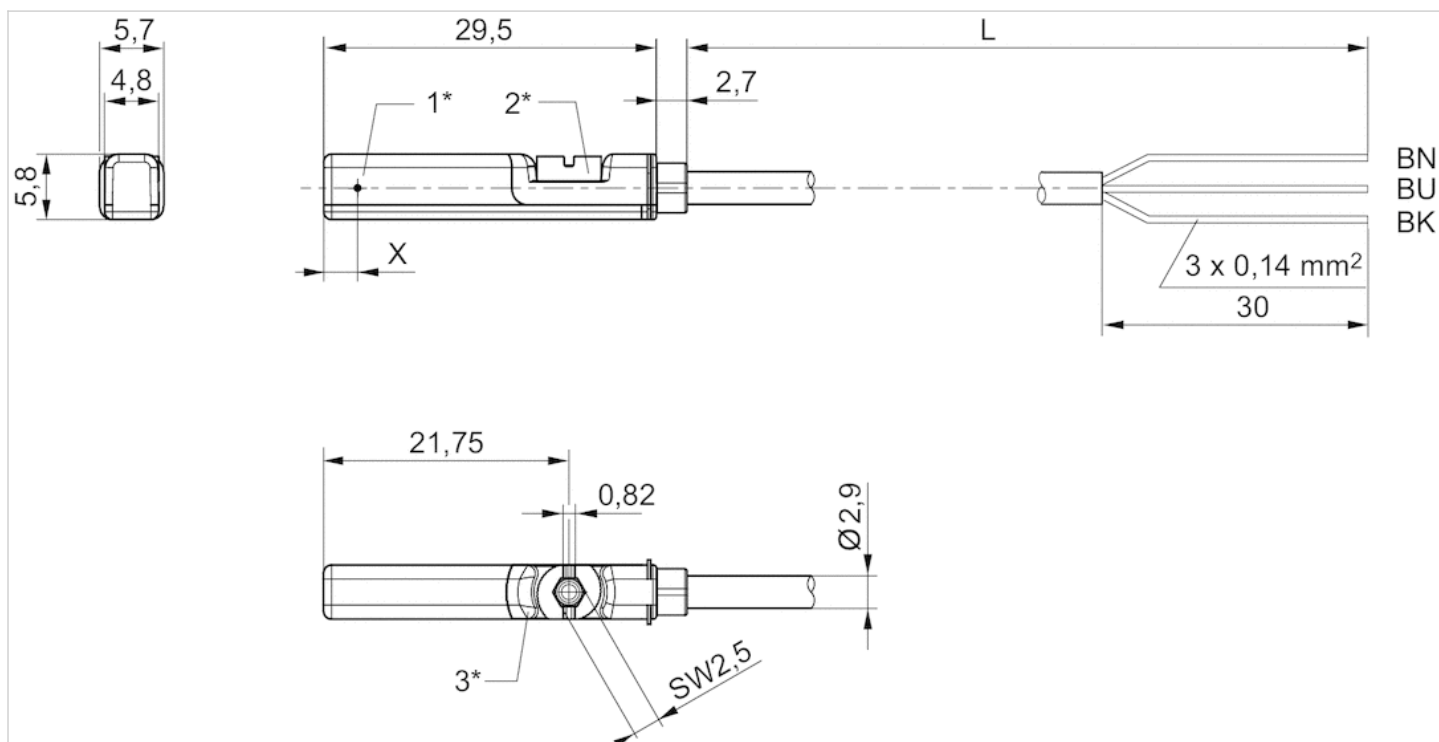
Material	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

Fig. 3



Dimensions

Fig. 1



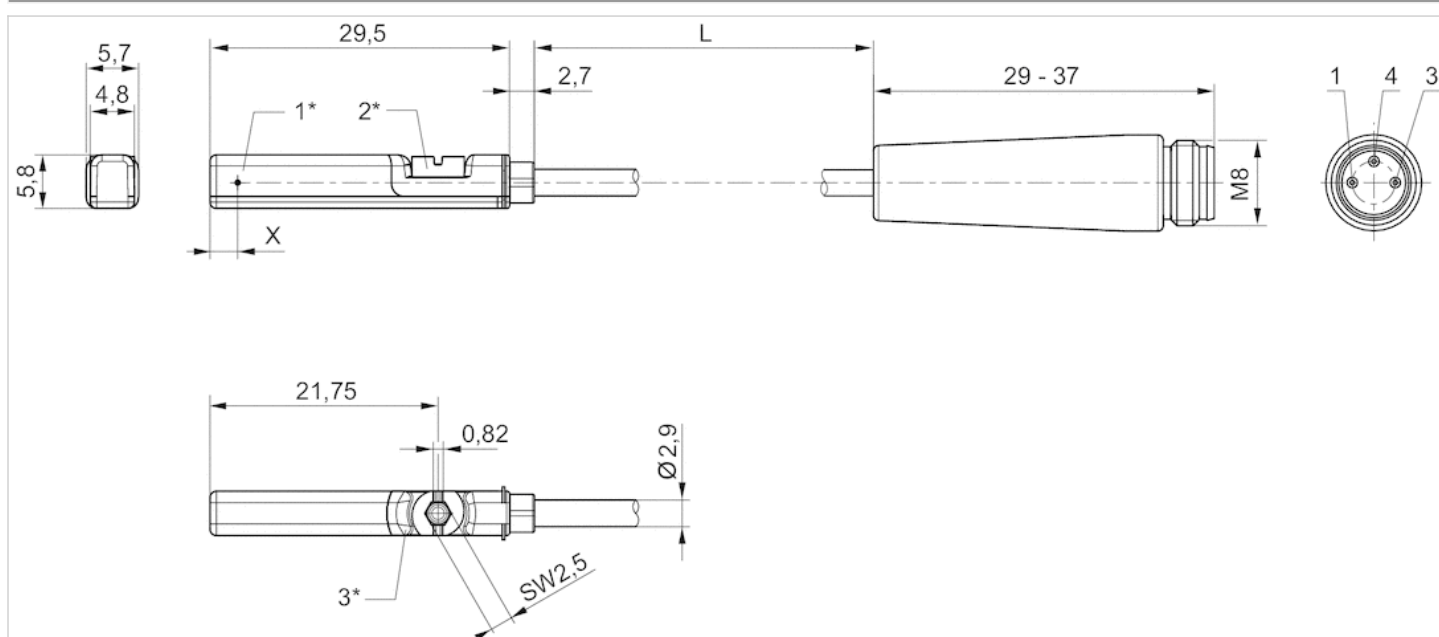
1* = switching point 2* = locking screw 3* = LED window, transparent

L = cable length

BN = brown BK = black BU = blue

X = electronic: 11.6 mm

Fig. 2



Sensor mounting, Series CB1

- for series ST4, ST6
- to mount on cylinder MNI, ICM, CSL-RD



Ambient temperature min./max.
Weight

-30 ... 80 °C
0,007 kg

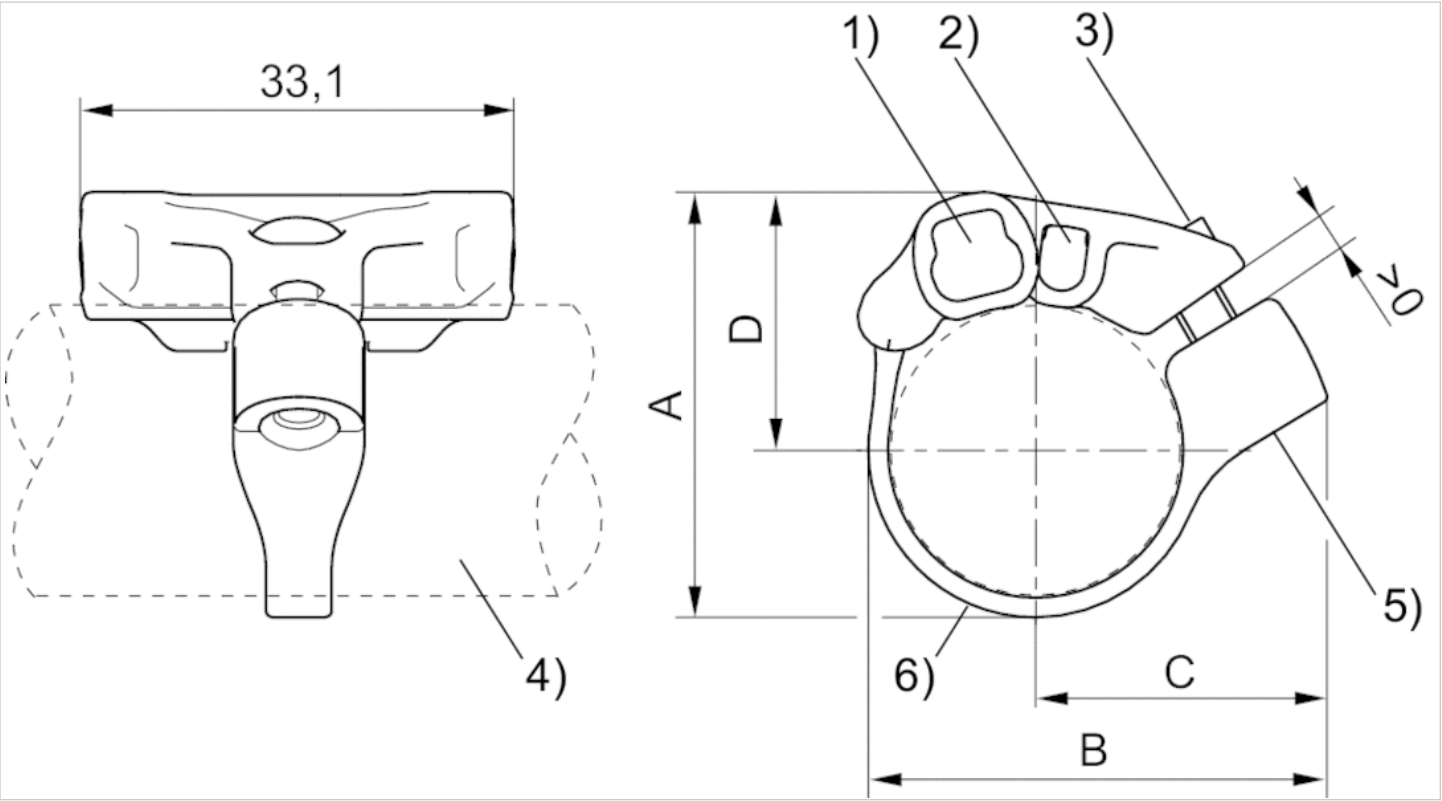
Technical data

Part No.	Cylinders Ø	for series	Scope of delivery
	min.		
R412021791	16 mm	ST4, ST6	1 piece
R412021792	20 mm	ST4, ST6	1 piece
R412021793	25 mm	ST4, ST6	1 piece

Technical information

Material	
	Polyamide, Stainless steel

Dimensions



1) Sensor slot for ST6 2) Sensor slot for ST4 3) Mounting screw (made of stainless steel) 4) Cylinder profile 5) Thread insert (made of stainless steel) 6) Tightening strap

Dimensions

Part No.	A	B	C	D
R412021791	27.7	32.5	22.1	17.3
R412021792	32.4	35	22.4	19.7
R412021793	37.4	39.5	24.3	22.2

Sensor mounting, Series CB1

- for series ST6, SN2, SN6, SN1, SM6, SM6-AL

- to mount on cylinder C12P, ITS



Weight

See table below

Technical data

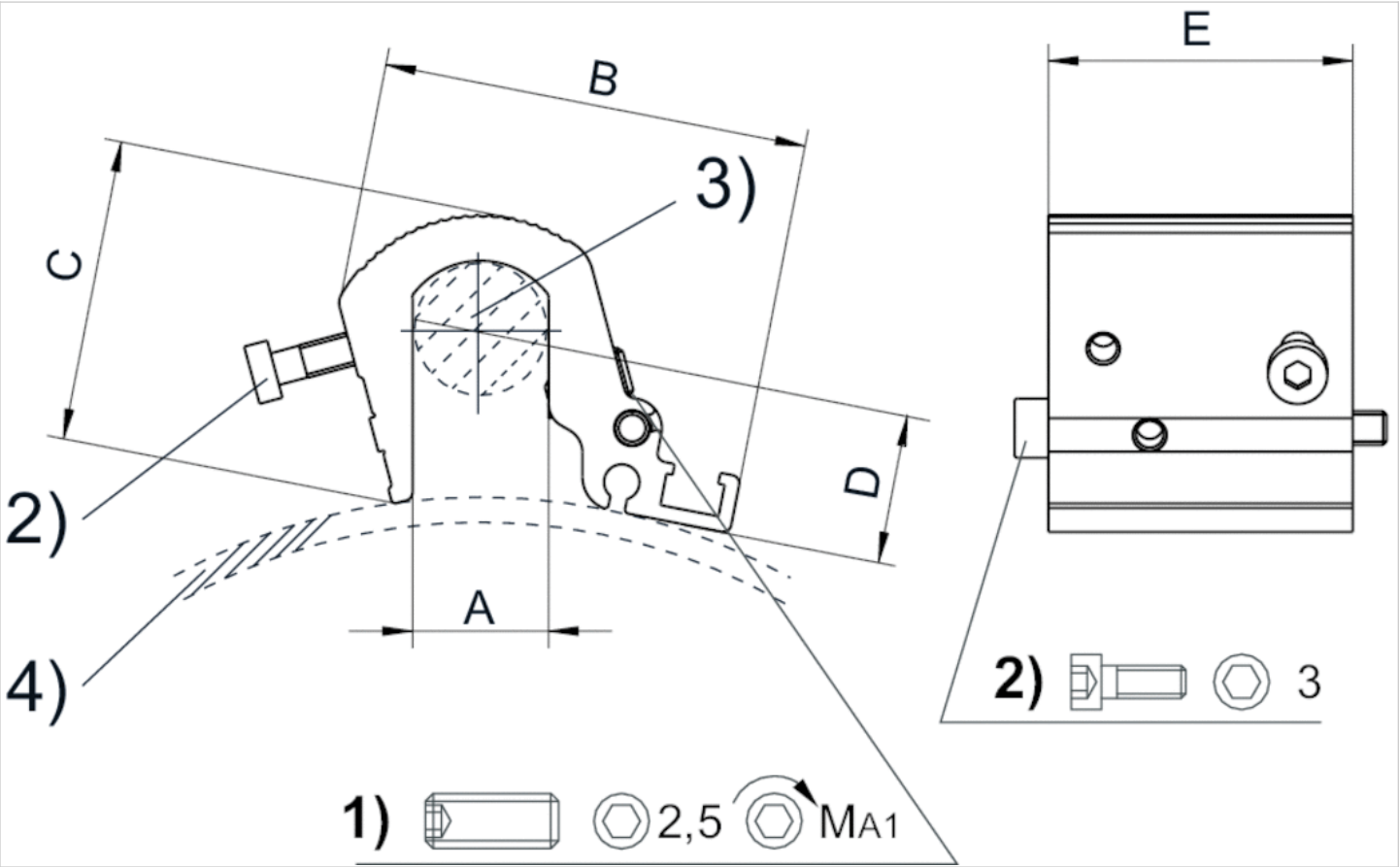
Part No.	Cylinders Ø	Cylinders Ø	for series	Weight
	min.	max.		
R412017979	160 mm	200 mm	ST6, SN2, SN6, SN1, SM6, SM6-AL	0,058 kg
R412017980	250 mm	320 mm	ST6, SN2, SN6, SN1, SM6, SM6-AL	0,073 kg

Scope of delivery: Incl. mounting screws

Technical information

Material	
	Aluminum

Dimensions



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

Dimensions

Part No.	Cylinders Ø	A	B	C	D	E	MA1 [Nm]
R412017979	200 mm	16	51	36	6.8	36	2
R412017980	320 mm	24	56	44.5	6.8	36	2

Scope of delivery: Incl. mounting screws

Sensor mounting, Series CB1

- for series ST6
- to mount on cylinder KHZ



Weight
0,034 kg

Technical data

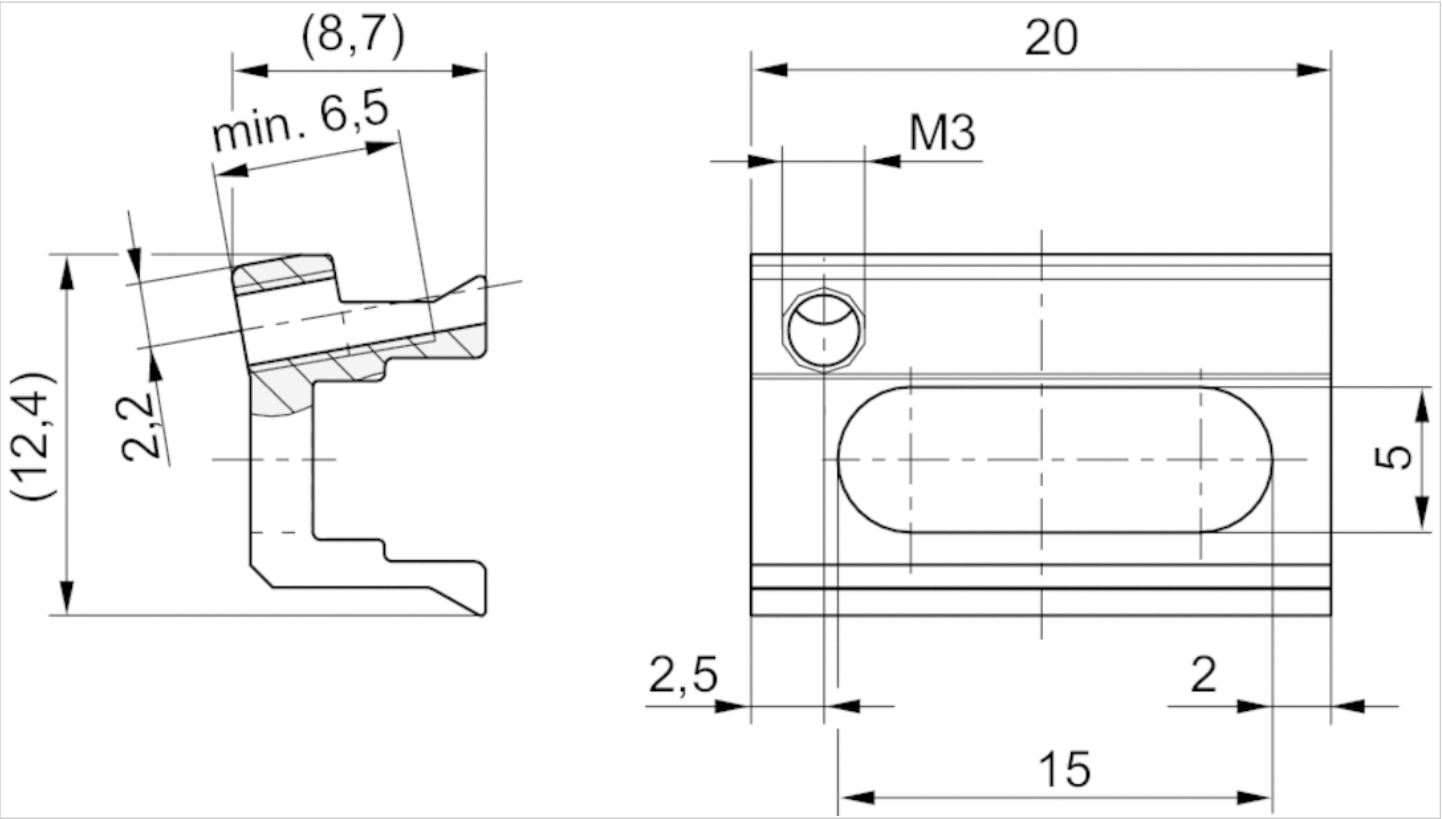
Part No.	for series
R422100250	ST6

Scope of delivery: incl. threaded pin

Technical information

Material
Aluminum, anodized

Dimensions



Dimensions

Part No.
R422100250

Scope of delivery: incl. threaded pin

Sensor mounting, Series CB1

- for series ST6, SM6
- to mount on cylinder MNI, ICM



Weight

See table below

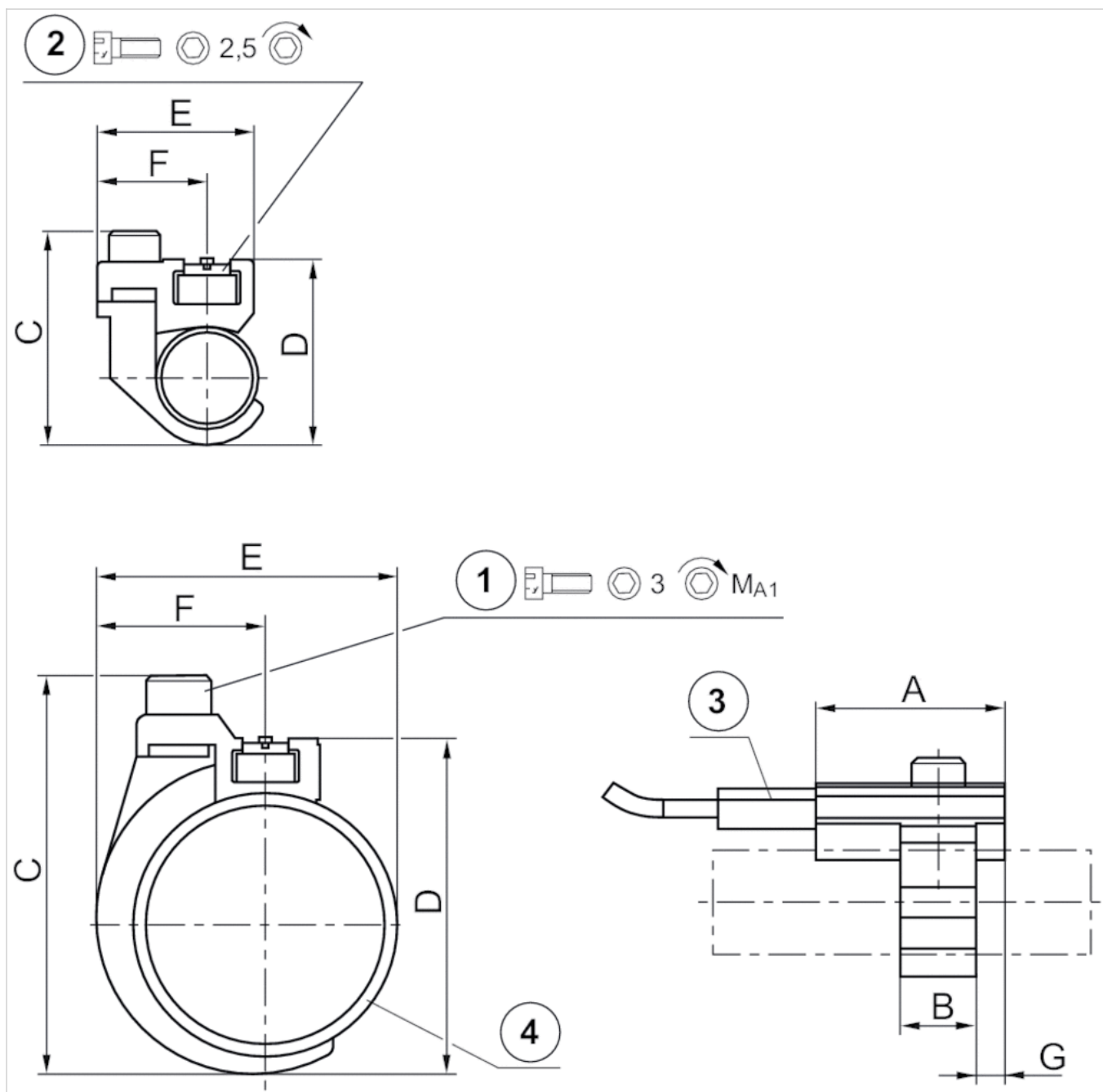
Technical data

Part No.	Cylinders Ø	for series	Weight
	min.		
1827020296	10 mm	ST6, SM6	0,009 kg
1827020297	12 mm	ST6, SM6	0,01 kg
1827020298	16 mm	ST6, SM6	0,014 kg
1827020299	20 mm	ST6, SM6	0,014 kg
1827020300	25 mm	ST6, SM6	0,015 kg

Technical information

Material	
	Aluminum

Dimensions



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

Dimensions

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

Sensor mounting, Series CB1

- for series ST6, SM6
- to mount on cylinder MNI, ICM



Weight

See table below

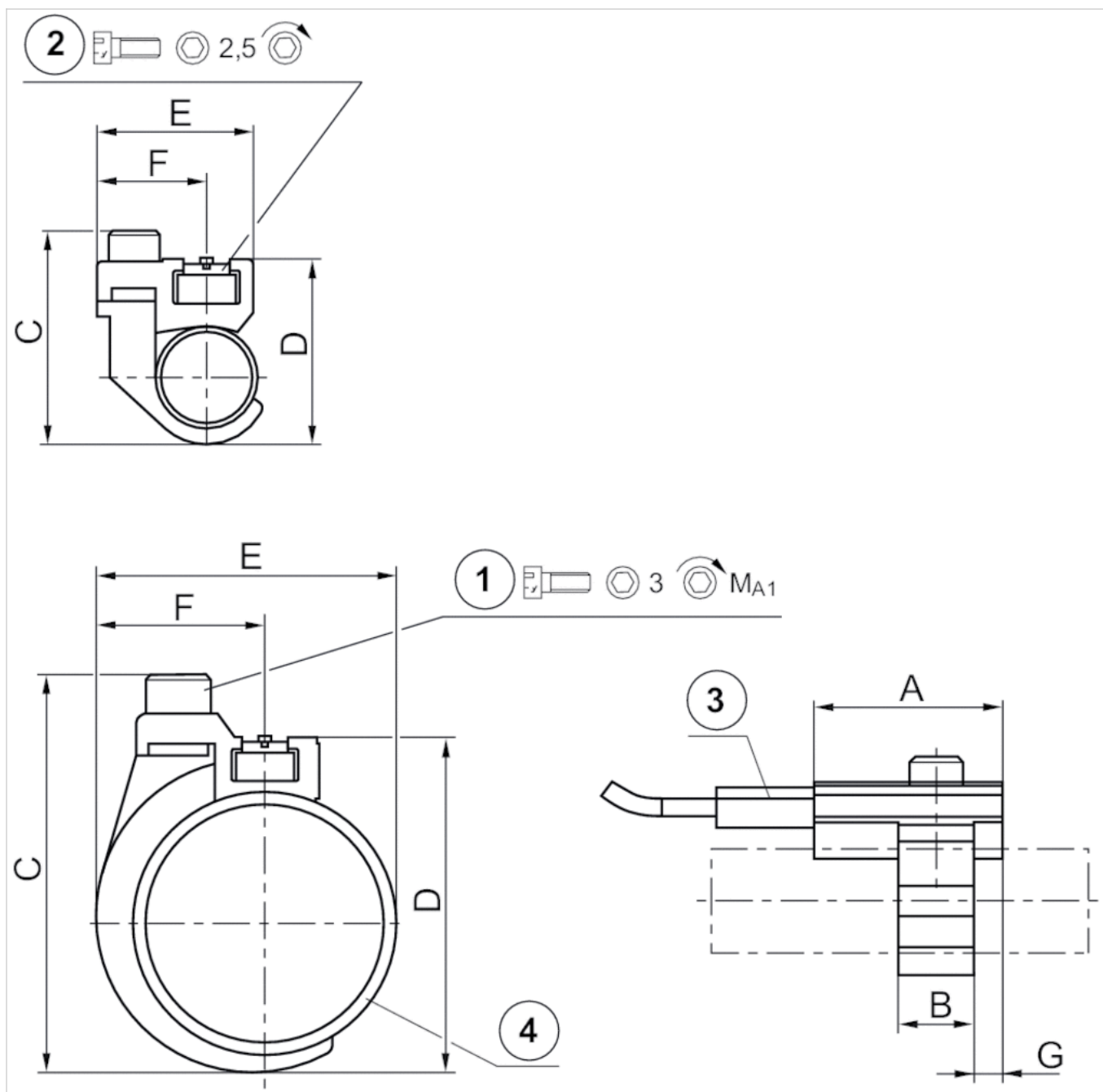
Technical data

Part No.	Cylinders Ø	for series	Weight
	min.		
1827020296	10 mm	ST6, SM6	0,009 kg
1827020297	12 mm	ST6, SM6	0,01 kg
1827020298	16 mm	ST6, SM6	0,014 kg
1827020299	20 mm	ST6, SM6	0,014 kg
1827020300	25 mm	ST6, SM6	0,015 kg

Technical information

Material	
	Aluminum

Dimensions



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

Dimensions

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

Sensor mounting, Series CB1

- for series ST6, SM6
- to mount on cylinder MNI, ICM



Weight

See table below

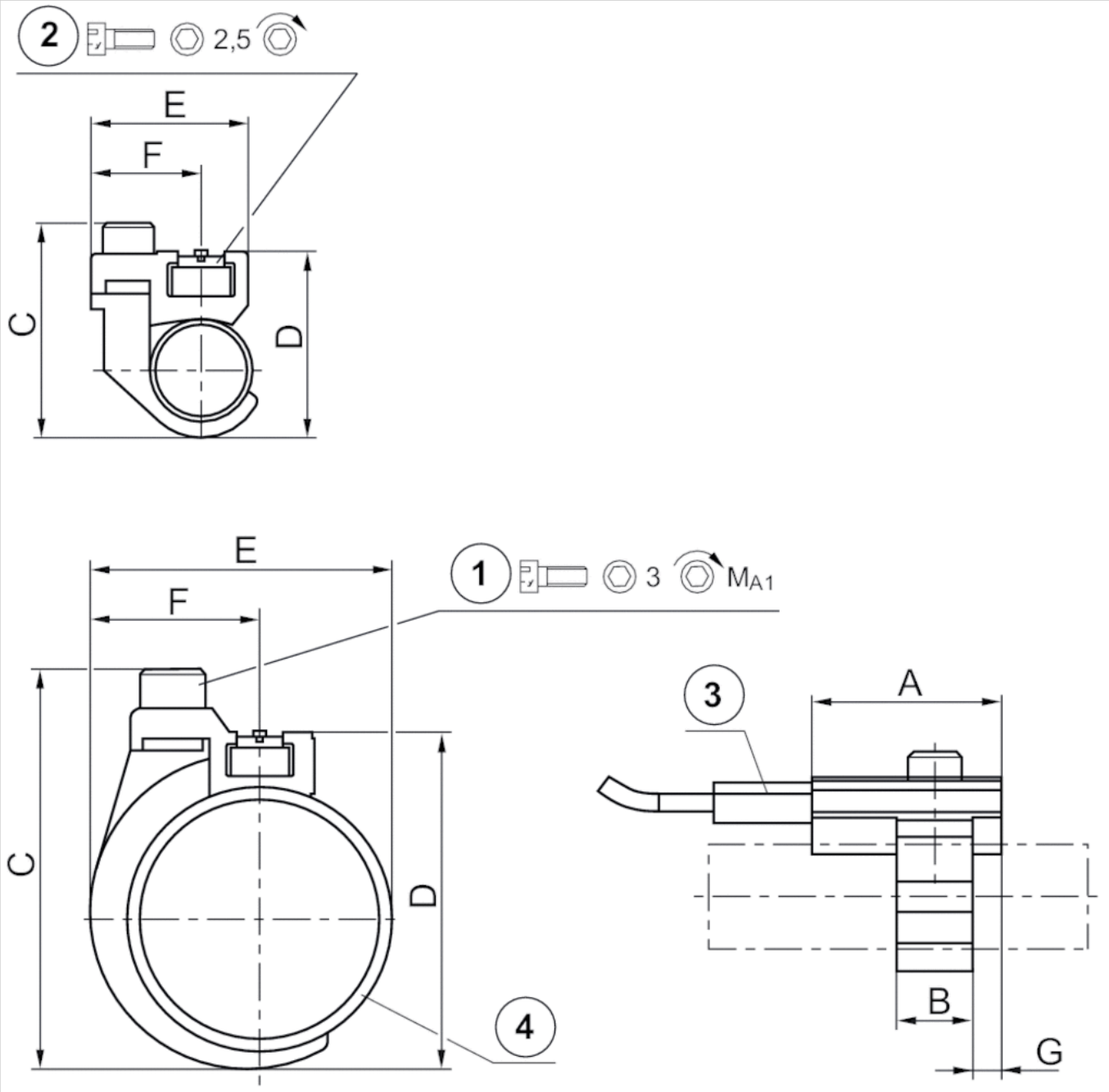
Technical data

Part No.	Cylinders Ø	for series	Weight
	min.		
1827020296	10 mm	ST6, SM6	0,009 kg
1827020297	12 mm	ST6, SM6	0,01 kg
1827020298	16 mm	ST6, SM6	0,014 kg
1827020299	20 mm	ST6, SM6	0,014 kg
1827020300	25 mm	ST6, SM6	0,015 kg

Technical information

Material	
	Aluminum

Dimensions



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

Dimensions

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

Sensor mounting, Series CB1

- for series ST6
- to mount on cylinder CSL-RD, ICM, ICS-D1, ICS-D2, RPC



Weight

See table below

Technical data

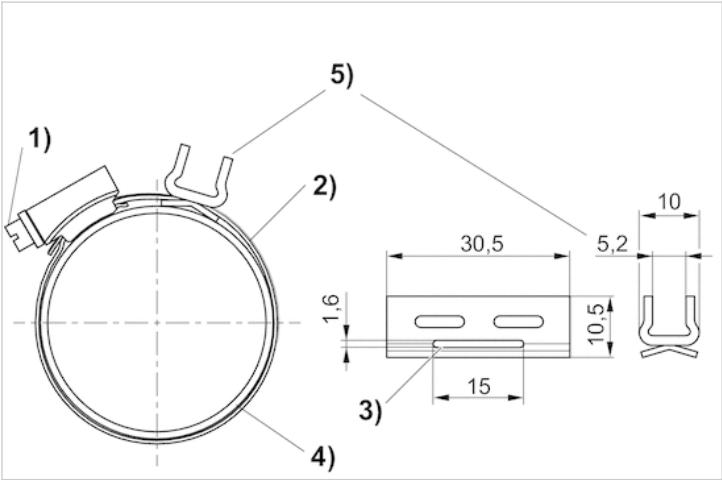
Part No.	Cylinders Ø	Cylinders Ø	for series	Weight	Fig.
	min.	max.			
R412024050	25 mm	32 mm	ST6	-	Fig. B
R412024051	40 mm	40 mm	ST6	-	Fig. B
R412024052	50 mm	50 mm	ST6	-	Fig. B
R412024053	63 mm	63 mm	ST6	-	Fig. B
R412024054	25 mm	63 mm	ST6	0,011 kg	Fig. A

Sensor holder (Fig. A) and tightening strap (Fig. B) must be ordered separately.

Technical information

Material	
	Stainless steel

Dimensions



1) Mounting screw 2) Tightening strap 3) Opening for tightening strap 4) Cylinder tube 5) Sensor holder

Dimensions

Part No.	Cylinder tube Ø	For series	Fig.
R412024050	25, 40 mm	ST6	Fig. B
R412024051	32, 50 mm	ST6	Fig. B
R412024052	40, 60 mm	ST6	Fig. B
R412024053	50, 70 mm	ST6	Fig. B
R412024054	-	ST6	Fig. A

Sensor mounting, Series CB1

- for series ST6, SM6, SN1, SN2
- to mount on cylinder TRB, C12P, CVI, 523



Weight

0,031 kg

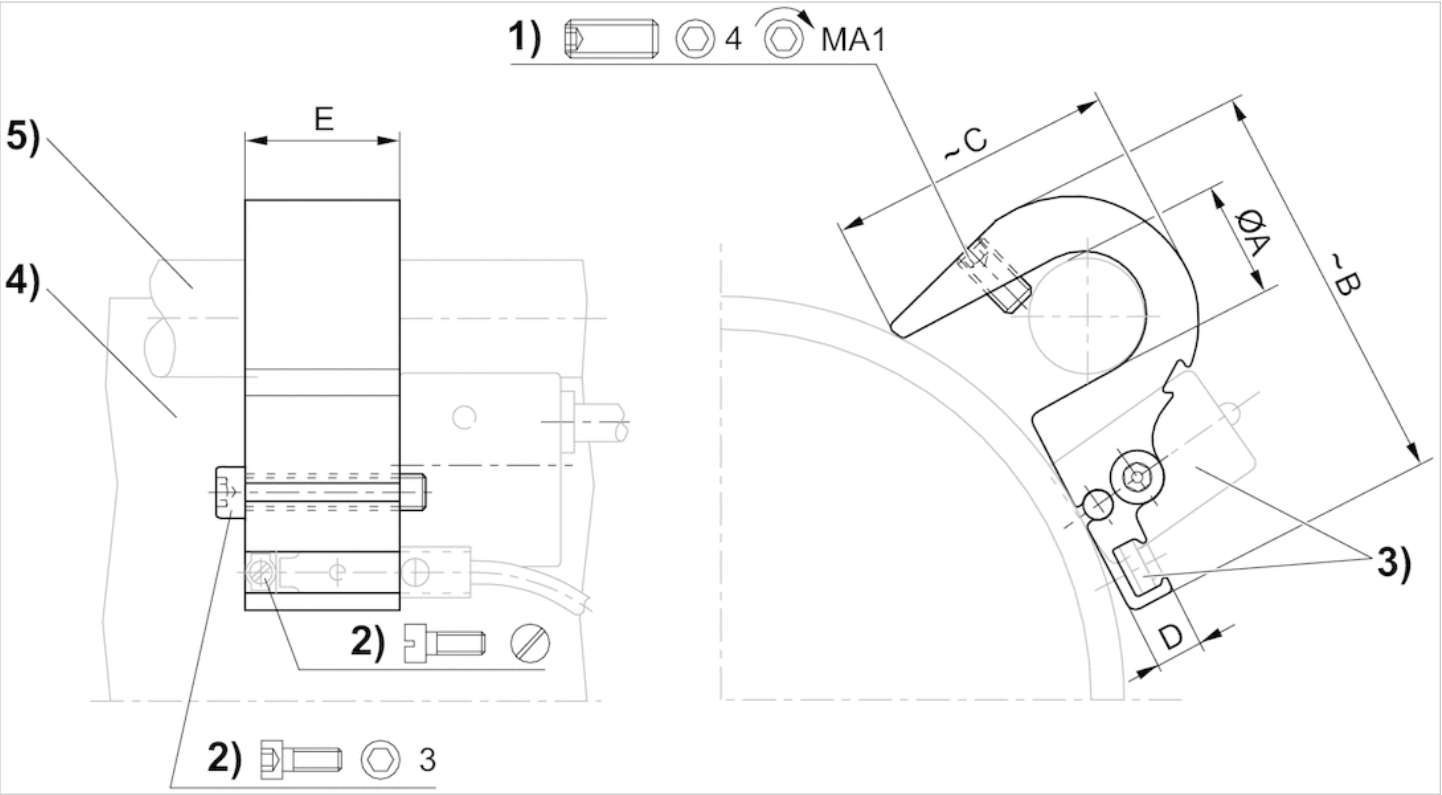
Technical data

Part No.	Cylinders Ø		for series
	min.	max.	
1827020292	125 mm	125 mm	ST6, SM6, SN1, SN2

Technical information

Material	
	Aluminum

Dimensions



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

Dimensions

Part No.	Ø A	B	C	D	E	1)	MA1 [Nm]
1827020292	12	45	29	6.5	21	M5x10	2

Sensor mounting, Series CB1

- for series ST6, SM6
- to mount on cylinder TRB, C12P, 167, CVI, TRR, 523



Weight

See table below

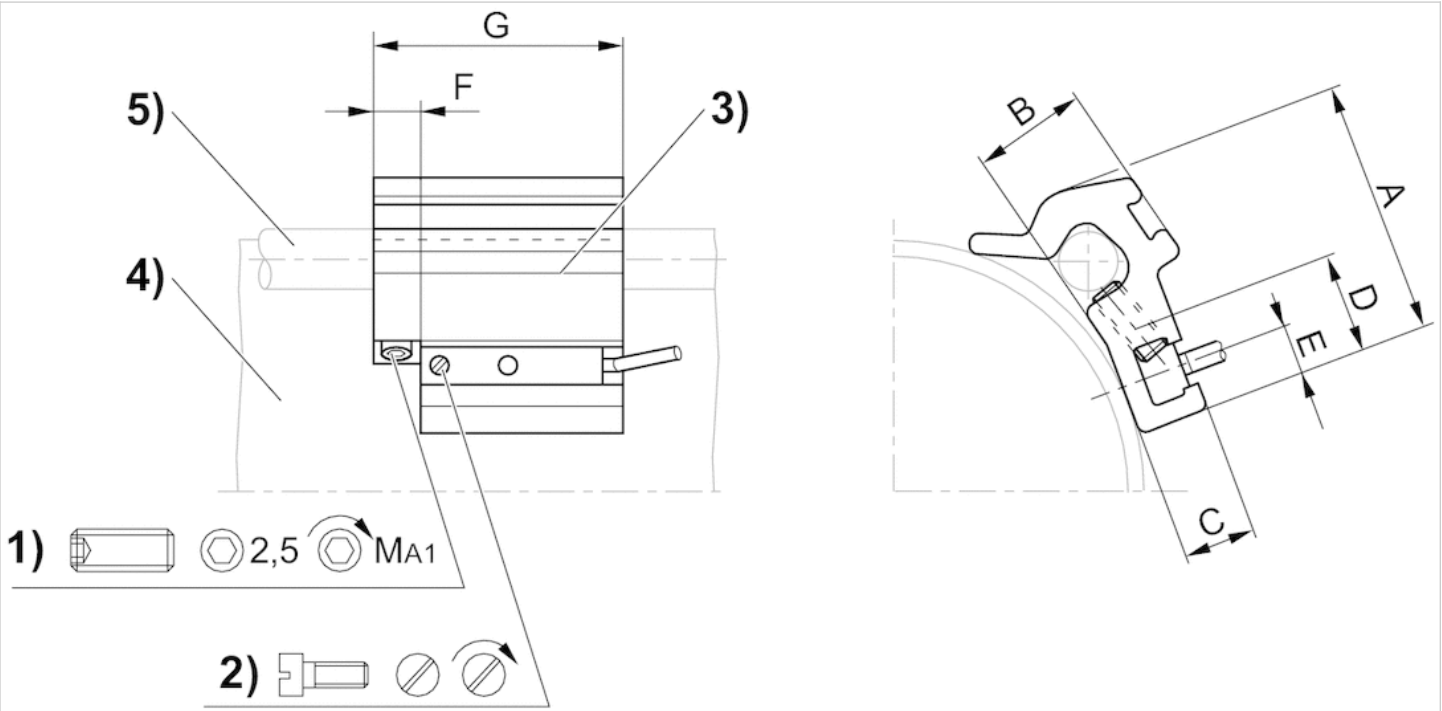
Technical data

Part No.	Cylinders Ø		for series	Weight
	min.	max.		
1827020282	32 mm	40 mm	ST6, SM6	0,016 kg
1827020283	50 mm	63 mm	ST6, SM6	0,029 kg
1827020284	80 mm	100 mm	ST6, SM6	0,042 kg

Technical information

Material	
	Aluminum

Dimensions



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

Dimensions

Part No.	A	B	C	D	E	F	G	1)	MA1 [Nm]
1827020282	26	10	7	14	5	8	40	M5x8	2 ±0,2
1827020283	32.5	15.5	7	14	5	8	40	M5x10	2 ±0,2
1827020284	43	17	6.9	14	5	8	40	M5x16	2 ±0,2

Sensor mounting, Series CB1

- for series ST6
- to mount on cylinder CCL-IS



Weight

0,006 kg

Technical data

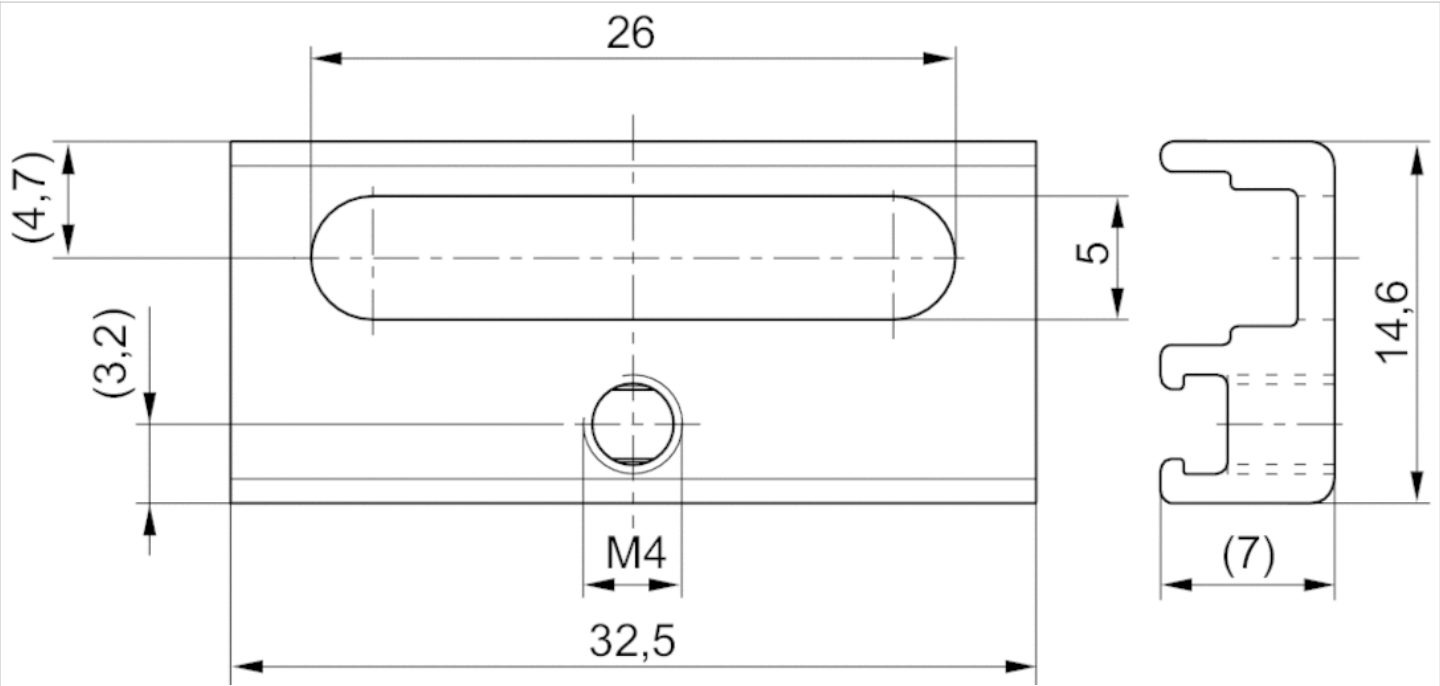
Part No.	for series
R402000040	ST6

Scope of delivery: incl. threaded pin

Technical information

Material
Aluminum

Dimensions



Sensor mounting, Series CB1

- for series ST6, SM6
- to mount on cylinder 167



Weight

0,01 kg

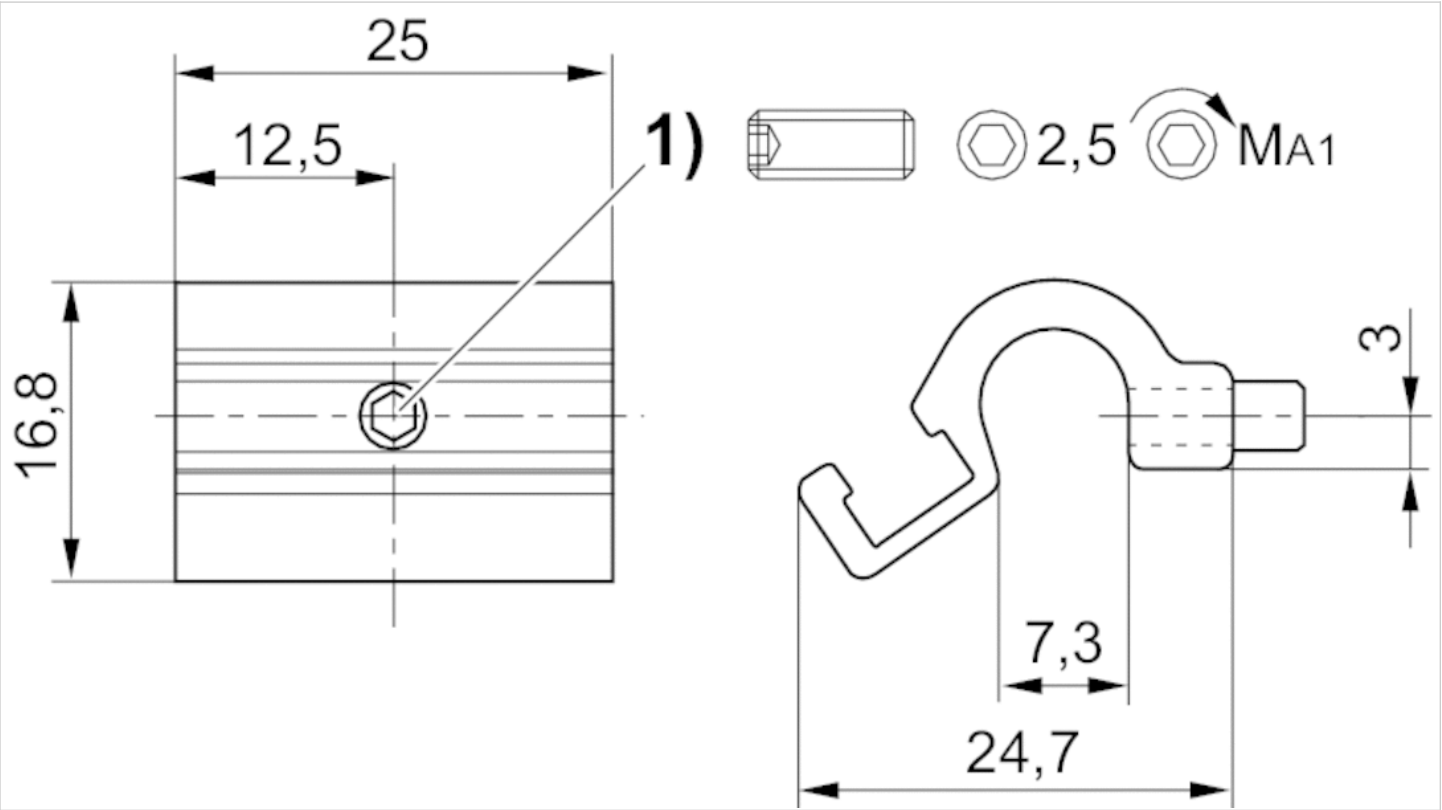
Technical data

Part No.	Cylinders Ø	for series	Scope of delivery
	max.		
R412022357	25 mm	ST6, SM6	1 piece

Technical information

Material	
	Aluminum

Dimensions



1) Mounting screw

Dimensions

Part No.	MA1 [Nm]
R412022357	1 + 0,3