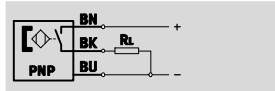
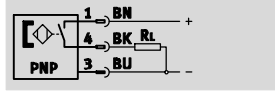


# Proximity sensors CRSMT-8M, for T-slot

Technical data – Magneto-resistive

**Function**

e.g. PNP, N/O contact, with plug



- Suitable for foodstuffs
- Acid resistant
- Alkali resistant
- Resistant to cooling lubricants



General technical data	
Design	For T-slot
Based on standard	EN 60947-5-2
Approval certificate	RCM trademark
Special characteristics	Acid resistant, alkali resistant, resistant to cooling lubricants
Suitable for use in the food industry <sup>1)</sup>	As per manufacturer's declaration
Note on materials	RoHS-compliant, halogen-free

1) Additional information [www.festo.com/sp](http://www.festo.com/sp) → Certificates.

Input signal/measuring element	
Measuring principle	Magneto-resistive
Measured variable	Position
Ambient temperature	[°C] -40 ... 85

Switching output	
Switching element function	N/O contact
Switching output	PNP
Switching output repetition accuracy	[mm] ± 0.1
Switch-on time	[ms] ≤ 1
Switch-off time	[ms] ≤ 1
Max. switching frequency	[Hz] 180
Max. output current	[mA] 100
Max. switching capacity DC	[W] 2.8
Voltage drop	[V] < 1.5
Residual current	[mA] < 0.05

Output, additional data	
Protection against short circuit	Pulsed
Overload protection	Yes

Electronic components	
Switching output	PNP
Rated operating voltage	[V DC] 24
Operating voltage range	[V DC] 5 ... 30
Reverse polarity protection	For all electrical connections

# Proximity sensors CRSMT-8M, for T-slot

Technical data – Magneto-resistive

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Electromechanical components	
Connection direction	In-line
Cable characteristics	Standard + energy chain
Cable test conditions	Energy chain: 5 million cycles, bending radius 75 mm
	Torsional strength: > 300,000 cycles, $\pm 270^\circ/0.1$ m
	Bending strength: according to Festo standard

Mechanical components			
Electrical connection	Cable, 3-wire	Cable with plug, rotatable thread M8D   M12	
Type of mounting	Screw-clamped Insertable in the slot from above		
Assembly position	Any		
Max. tightening torque [Nm]	0.6		
	–	0.3	0.5
Information on materials			
Housing	High-alloy stainless steel, PP		
Union nut	–	Nickel-plated brass	
Cable sheath	TPE-O		
Insulating sheath	PP		
Plug housing	–	PP	
Wire ends	Wire end sleeves	–	
Pin contacts	–	Nickel-plated and gold-plated brass	

Display/operation	
Switching status indication	Yellow LED
Operating reserve indication	Orange LED

Immissions/emissions	
Ambient temperature with flexible cable installation [°C]	–20 ... 85
Degree of protection	IP65
	IP68
	IP69K

ATEX	
ATEX category for gas	II 3G
Explosion ignition protection type for gas	Ex nA IIC T4 X Gc
ATEX category for dust	II 3D
Explosion ignition protection type for dust	Ex tc IIIC T120°C X Dc
Explosion-proof temperature [°C]	–40°C $\leq$ Ta $\leq$ +85°C
CE marking (see declaration of conformity)	To EU EMC Directive
	To EU Explosion Protection Directive (ATEX)

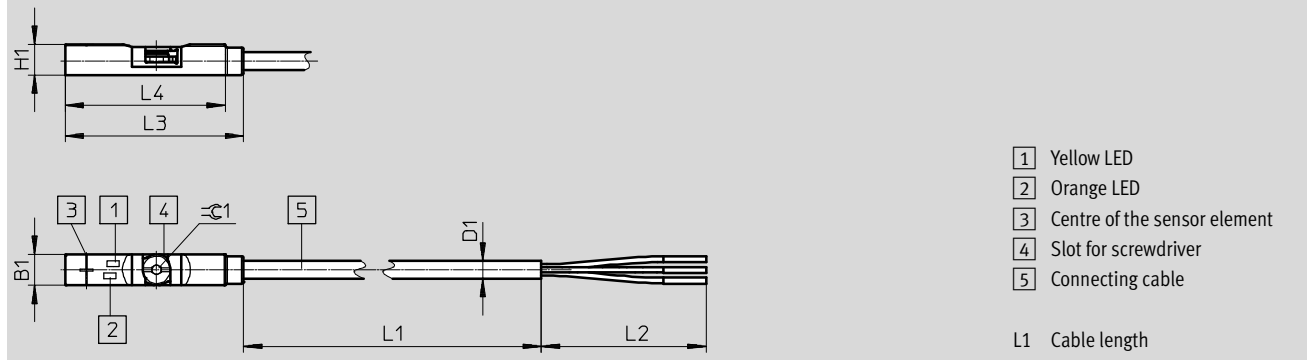
# Proximity sensors CRSMT-8M, for T-slot

Technical data – Magneto-resistive

Pin allocation to EN 60947-5-2				M12x1, 3-pin			
M8x1, 3-pin				N/O contact			
	Pin	Wire colour	Allocation		Pin	Wire colour	Allocation
	1	Brown	+		1	Brown	+
	3	Blue	-		3	Blue	-
	4	Black	Output		4	Black	Output

## Dimensions, open end

Download CAD data → [www.festo.com](http://www.festo.com)



Type	B1	D1	H1	L2	L3	L4	⌀ 1
CRSMT-8M-PS-24V-K-5,0-OE	5	2.9	5	50	29.3	26.3	1.5
CRSMT-8M-PS-24V-K-10,0-OE							

# Proximity sensors CRSMT-8M, for T-slot

Technical data – Magneto-resistive



**Dimensions with plug** Download CAD data → [www.festo.com](http://www.festo.com)

1 Yellow LED  
 2 Orange LED  
 3 Centre of the sensor element  
 4 Slot for screwdriver  
 5 Connecting cable  
 6 Plug module M8D

L1 Cable length

Type	B1	D1 - Ø	D2	D3	H1	L2	L3	L4	⌀ 1
CRSMT-8M-PS-24V-K-0,3-M8D	5	2.9	9.5	M8x1	5	41.1	29.3	26.3	1.5

**Dimensions with plug** Download CAD data → [www.festo.com](http://www.festo.com)

1 Yellow LED  
 2 Orange LED  
 3 Centre of the sensor element  
 4 Slot for screwdriver  
 5 Connecting cable  
 6 Plug module M12, 3-pin

L1 Cable length

Type	B1	D1 - Ø	D2 - Ø	D3	H1	L2	L3	L4	⌀ 1
CRSMT-8M-PS-24V-K-0,3-M12	5	2.9	15	M12x1	5	54.5	29.3	26.3	1.5

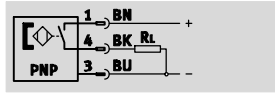
Ordering data							
	Switching output	Electrical connection		Cable length [m]	Weight [g]	Part No.	Type
		Cable	Cable with plug, rotatable thread				
N/O contact, corrosion resistant							
	PNP	3-wire	–	5	47.6	574380	CRSMT-8M-PS-24V-K-5,0-OE
	PNP	3-wire	–	10	93.4	574381	CRSMT-8M-PS-24V-K-10,0-OE
	PNP	3-pin	M12x1	0.3	9.1	574382	CRSMT-8M-PS-24V-K-0,3-M12
	PNP	3-pin	M8x1	0.3	16.1	574383	CRSMT-8M-PS-24V-K-0,3-M8D

# Proximity sensors CRSMT-8/SMT-8-SL, for T-slot

Technical data – Magneto-resistive

Function

e.g. PNP, N/O contact, with plug



- Magneto-resistive measuring principle
- Insertable in the slot lengthwise
- Corrosion-resistant designs

**SMT-8-SL**

- Sturdy thanks to long guides
- Plug directly on sensor



CRSMT



SMT-8-SL

General technical data		
Type	CRSMT	SMT-8-SL
Switching output	PNP	PNP
Design	For T-slot	For T-slot
Conforms to standard	EN 60947-5-2	–
Based on standard	–	EN 60947-5-2
Certification	RCM trademark	RCM trademark
	–	c UL us - listed (OL)
CE marking (see declaration of conformity)	To EU EMC Directive	To EU EMC Directive
Note on materials	Free of copper and PTFE	Free of copper and PTFE
	–	RoHS-compliant

Input signal/measuring element		
	CRSMT	SMT-8-SL
Measuring principle	Magneto-resistive	Magneto-resistive
Ambient temperature [°C]	–20 ... +60	–20 ... +70

Switching output		
Type	CRSMT	SMT-8-SL
Switching output	PNP	PNP
Switching output	PNP	PNP
Switching element function	N/O contact	N/O contact
Reproducibility of switching value [mm]	±0.1	–
Switch-on time [ms]	≤ 0.2	≤ 1
Switch-off time [ms]	≤ 0.5	3 ... 5
Max. switching frequency [Hz]	1,000	140
Max. output current [mA]	100	100
Max. switching capacity DC [W]	3	3
Voltage drop [V]	≤ 1.8	≤ 2
Residual current [µmA]	≤ 100	≤ 1.5

Output, additional data		
Type	CRSMT	SMT-8-SL
Switching output	PNP	PNP
Protection against short circuit	Yes	Yes
Overload protection	–	Yes

# Proximity sensors CRSMT-8/SMT-8-SL, for T-slot

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Technical data – Magneto-resistive

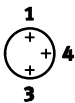
Electronic components		
Type	CRSMT	SMT-8-SL
Switching output	PNP	PNP
Rated operating voltage [V DC]	–	24
Operating voltage range [V DC]	10 ... 30	10 ... 30
Reverse polarity protection	For all electrical connections	

Electromechanical components		
Type	CRSMT	SMT-8-SL
Switching output	PNP	PNP
Electrical connection	Cable, 3-wire	Plug M8x1, 3-pin
Connection direction	–	In-line
Cable length [m]	2.5	–
	5	
Cable sheath materials	TPE-O	–

Mechanical components		
Type	CRSMT	SMT-8-SL
Switching output	PNP	PNP
Electrical connection	Cable, 3-wire	Plug M8x1, 3-pin
Type of mounting	Clamped in T-slot	Screw-clamped
	–	Insertable in the slot lengthwise
Housing material information	High-alloy stainless steel	PA
	PP	–

Display/operation	
Switching status indication	Yellow LED

Immissions/emissions		
Type	CRSMT	SMT-8-SL
Ambient temperature with flexible cable installation [°C]	–5 ... +60	–
Degree of protection	IP65	IP65
	IP68	IP68
	IP69K	–
Insulation voltage [V]	500	–
Degree of contamination	3	–
Corrosion resistance class CRC	4	3

Pin allocation to EN 60947-5-2			
PS/NS			
Plug, 3-pin			
M8x1	Pin	Wire colour	Allocation
	1	Brown	+
	3	Blue	–
	4	Black	Output

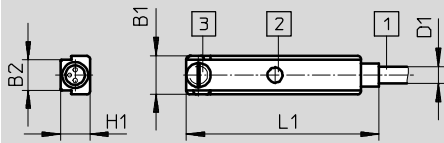
# Proximity sensors CRSMT-8/SMT-8-SL, for T-slot

Technical data – Magneto-resistive

## Dimensions

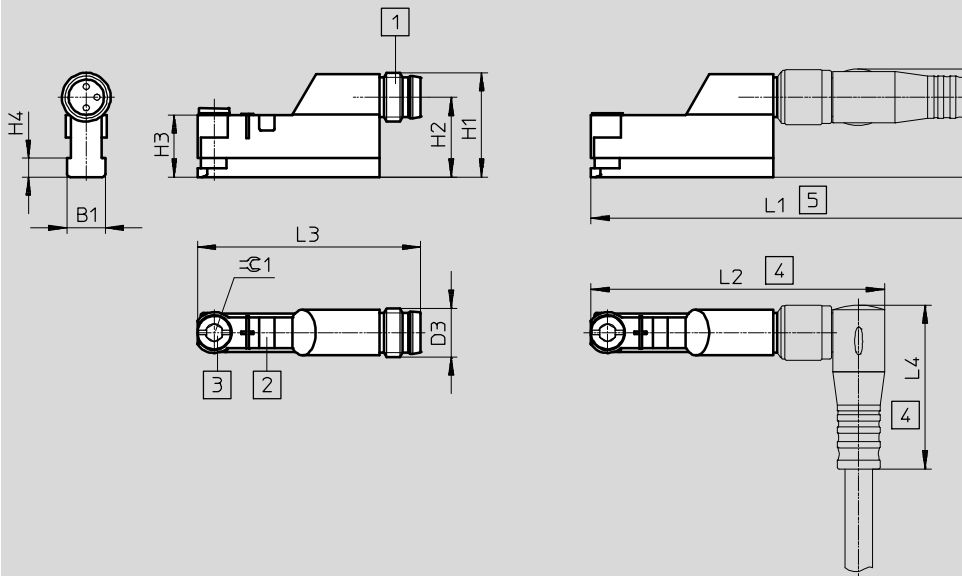
Download CAD data → [www.festo.com](http://www.festo.com)

### CRSMT



- 1 Connecting cable
- 2 Yellow LED
- 3 Clamping component

### SMT-8-SL




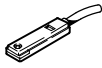
- 1 Plug to fit connecting cable NEBU-M8
- 2 Yellow LED
- 3 Clamping component
- 4 Installation space for connecting cable NEBU-M8W3
- 5 Installation space for connecting cable NEBU-M8G3

Type	B1	B2	D1	D3	H1	H2	H3	H4	H5	L1	L2	L3	L4
CRSMT	6.3	5	2.9	-	4.9	-	-	-	-	32.4	-	-	-
SMT-8-SL	6.7	-	-	M8x1	17.1	13.1	10.2	3.1	17.6	66	48.4	36.6	25

# Proximity sensors CRSMT-8/SMT-8-SL, for T-slot



Technical data – Magneto-resistive

Ordering data							
	Switching output	Electrical connection			Cable length [m]	Part No.	Type
		Cable	Cable with plug M8x1	Plug M8x1			
N/O contact, basic version							
	PNP	–	–	3-pin	–	<b>562019</b>	<b>SMT-8-SL-PS-LED-24-B</b>
N/O contact, corrosion resistant							
	PNP	3-wire	–	–	2.5	<b>525563</b>	<b>CRSMT-8-PS-K-LED-24</b>
					5.0	<b>525564</b>	<b>CRSMT-8-PS-K5-LED-24</b>