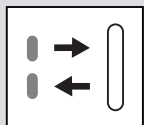




PHOTOELECTRIC SENSOR

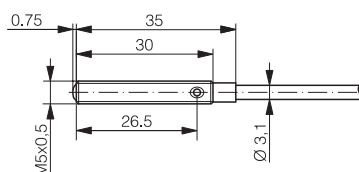
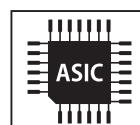
DIFFUSE

LTR-M05MA-NS

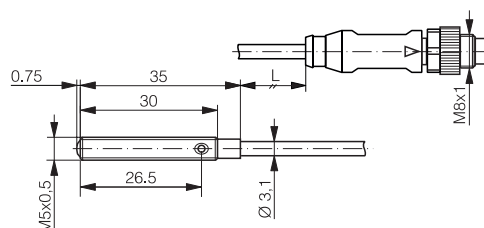


12 mm

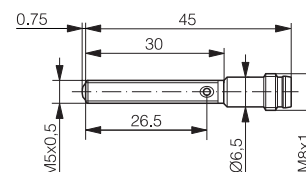
- ✓ M5 miniature housing
- ✓ Focus RED light source
- ✓ IO-Link
- ✓ Calibrated range
- ✓ Embeddable
- ✓ Immunity to mutual interferences



Cable type



Pigtail type



Connector type

OPTICAL DATA		INTERFACE	
Sensing range typ. max.	0...12 mm ¹	Sensitivity adjustment	none
Operating range	0...10 mm ¹	Indicator LED, green	Excess gain
Light source	LED, red 630 nm	Indicator LED, yellow	Sensing state
Light spot size (distance)	Ø 5 mm (10 mm)	IO-Link	✓

¹Object with 90% reflectance (standard white paper)

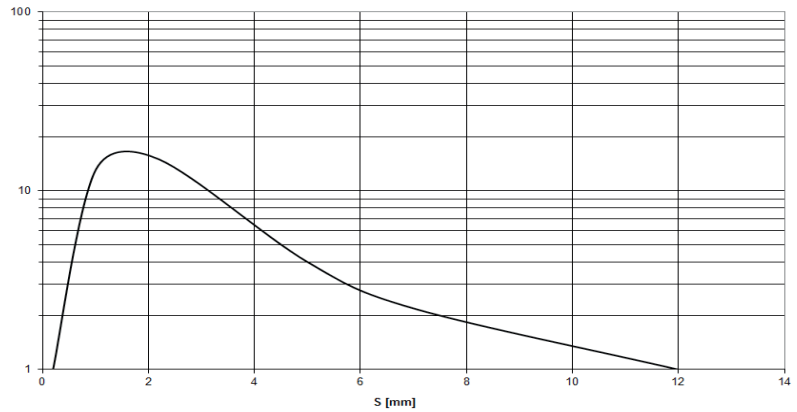
ELECTRICAL DATA		MECHANICAL DATA	
Supply voltage range (U _b)	10...30 VDC	Enclosure rating	IP67
Residual ripple	≤ 10% V _{pp}	Ambient temperature operation	-25...+65°C
Output current	≤ 100 mA	Shock and vibration	IEC 60947-5-2
Signal PNP high/low	≤ (U _b -2.0 V)/approx. 0 V	Weight (cable/connector/pigtail)	30 g / 4 g / 12 g
Signal NPN high/low	Approx. U _b /≤ 2.0 V	Housing material	V2A stainless steel
Power consumption (no load)	≤ 12 mA	Optics material	PBT / PMMA
Response time ¹	≤ 500 μs (normal)/≤ 1 ms/≤ 200 μs	Cable type	PUR, 2 m, 3-wire
Switching frequency ¹	≤ 1 kHz (normal)/≤ 500 Hz/≤ 2.5 kHz	Pigtail type	PUR, L=0.3 m, M8 3-pin
Short circuit protection	✓	Connector type	M8 3-pin
Voltage reversal protection	✓		

¹By default, "Normal" mode. "Fine" and "Fast" modes selectable via IO-Link.

SENSING RANGE

EXCESS GAIN

Target	Operating range	Sensing range max.
90%	0...10 mm	0...12 mm
18%	0.5...5 mm	0.3...6.5 mm
6%	0.8...2 mm	0.6...2.3 mm

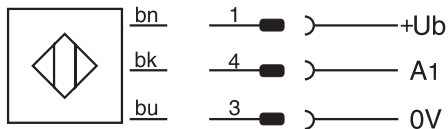


IO-LINK FUNCTIONALITIES

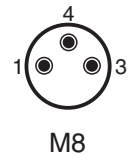
IO-Link version	1.0
SIO mode	Supported
Process data	Detection state & stability alarm
Baudrate	COM2 (38.4 kBaud)
Special functions	Output configuration, output timing, sensor mode, detection counter, event flags, maximum and actual sensor temperature

IO-Link specifications and IODD files may be downloaded from www.contrinex.com (Download section)

WIRING DIAGRAM



PIN ASSIGNMENT



AVAILABLE TYPES

Part number	Part reference	Polarity	Connection	Output (A1)
620-600-340	LTR-M05MA-NSK-403	PNP	PUR, 2 m, 3-wire	Light-on/IO-Link
620-600-351	LTR-M05MA-NSV-403	PNP	PUR, L=0.3 m, M8 3-pin	Light-on/IO-Link
620-600-384	LTR-M05MA-NSS-403	PNP	M8 3-pin	Light-on/IO-Link
620-600-337	LTR-M05MA-NSK-301	NPN	PUR, 2 m, 3-wire	Light-on
620-600-348	LTR-M05MA-NSV-301	NPN	PUR, L=0.3 m, M8 3-pin	Light-on
620-600-381	LTR-M05MA-NSS-301	NPN	M8 3-pin	Light-on

Note: additional suffix can appear to indicate a revision version or a special version.

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CONTRINEX AG Industrial Electronics

route du Pâqui 5 - P.O. Box - CH 1720 Corminboeuf - Switzerland - **Tel:** +41 26 460 46 46 -
Fax: +41 26 460 46 40 - **Internet:** www.contrinex.com - **E-mail:** info@contrinex.com