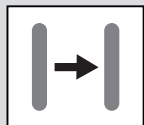




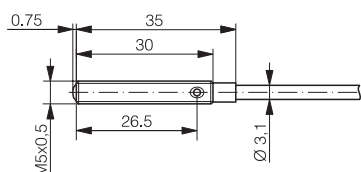
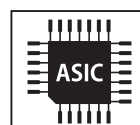
PHOTOELECTRIC SENSOR THROUGH-BEAM LLR-M05MA-NM



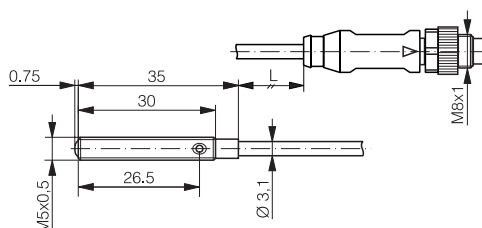
600 mm

- ✓ M5 miniature housing
- ✓ Focus RED light source
- ✓ IO-Link
- ✓ Embeddable

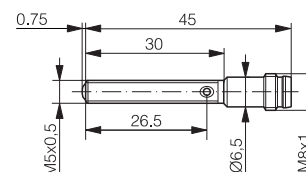
- ✓ Emitting sequence via IO-Link



Cable type



Pigtail type



Connector type

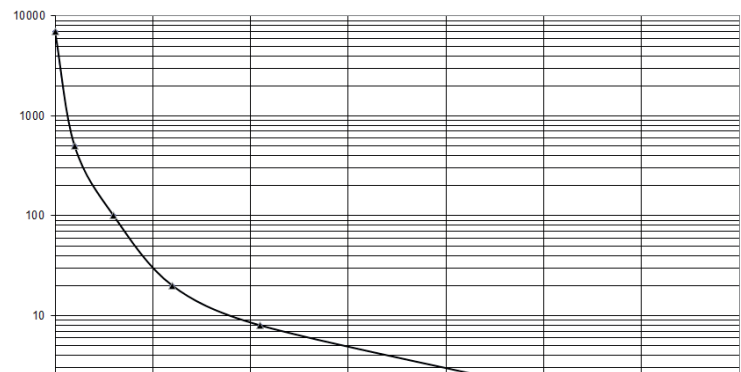
OPTICAL DATA		INTERFACE	
Sensing range typ. max.	0...600 mm ¹	Sensitivity adjustment	10...600 mm, IO-Link
Operating range	0...500 mm ¹	Indicator LED, green	Excess gain
Light source	LED, red 630 nm	Indicator LED, yellow	Sensing state
Light spot size (distance)	Ø 50 mm (200 mm)	IO-Link	✓

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)	≤ 8 mA (emitter)/≤ 10 mA (receiver)	Optics material	PBT / PMMA
Response time ¹	≤ 500 μs (normal)/≤ 1 ms/≤ 250 μs	Cable type	PUR, 2 m, 3-wire
Switching frequency ¹	≤ 1 kHz (normal)/≤ 500 Hz/≤ 2.0 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.

EXCESS GAIN

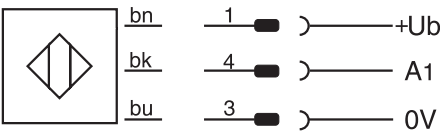


IO-LINK FUNCTIONALITIES

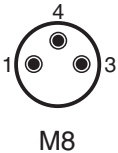
IO-Link version	1.0
SIO mode	Supported
Process data	None (emitter), Detection state & stability alarm (receiver)
Baudrate	COM2 (38.4 kBaud)
Special functions (receiver)	Output configuration, output timing, sensitivity, sequence choice, sensor mode, detection counter, event flags, maximum and actual sensor temperature
Special functions (emitter)	Sequence choice, sensor mode, 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)
620-600-335	LLR-M05MA-NMK-400	Emitter	PUR, 2 m, 3-wire	IO-Link
620-600-346	LLR-M05MA-NMV-400	Emitter	PUR, L=0.3 m, M8 3-pin	IO-Link
620-600-379	LLR-M05MA-NMS-400	Emitter	M8 3-pin	IO-Link
620-600-334	LLR-M05MA-NMK-404	PNP	PUR, 2 m, 3-wire	Dark-on/IO-Link
620-600-345	LLR-M05MA-NMV-404	PNP	PUR, L=0.3 m, M8 3-pin	Dark-on/IO-Link
620-600-378	LLR-M05MA-NMS-404	PNP	M8 3-pin	Dark-on/IO-Link
620-600-333	LLR-M05MA-NMK-302	NPN	PUR, 2 m, 3-wire	Dark-on
620-600-344	LLR-M05MA-NMV-302	NPN	PUR, L=0.3 m, M8 3-pin	Dark-on
620-600-377	LLR-M05MA-NMS-302	NPN	M8 3-pin	Dark-on

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

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