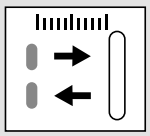
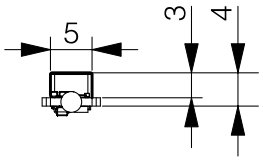
CONTRINEX

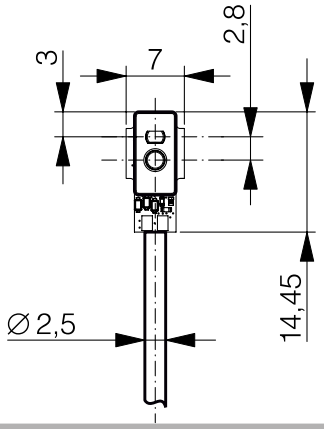
PHOTOELECTRIC SENSOR
DISTANCE
DTR-N01PA-NMx



35 mm

- ✓ Miniature size, no housing
- ✓ Analog output + adjustable PNP light-on output
- ✓ Red focused light





OPTICAL DATA		INTERFACE	
Measurement range	0.5…35 mm[1]	Adjustment	Through IO-Link (initial range is 0.5…30 mm on 90% white target for A1)
Resolution	60 µm (S_n=15 mm, 1 kHz)[1] 10 µm (S_n=15 mm, 10 Hz)[1] 130 µm (S_n=25 mm, 1 kHz)[1] 23 µm (S_n=25 mm, 10 Hz)[1]	Indicator LED, green	None
		Indicator LED, yellow	Sensing state
		IO-Link	Yes
Linearity	Refer to curve on page 2		
Repeatability	± 2 mm		
Light source	Pinpoint LED, red 650 nm		
Light spot size (distance)	∅5 mm (35 mm)		
Temperature drift	0.07% / °C		

[1]Object with 90% reflectance (standard white paper, 30×30 mm)

ELECTRICAL DATA		MECHANICAL DATA	
Supply voltage range (U_B)	10…30 VDC	Enclosure rating	–
Analog output (current version)	–	Ambient temperature operation	–25…+65°C
Analog output A2 (voltage version)	0.1…2.6 V	Shock and vibration	IEC 60947-5-2
Output current A1	≤ 50 mA	Housing material	PBT[1]
Output current A2	≤ 20 mA	Lens material	PMMA
Power consumption (no load)	≤ 10 mA	Weight (cable version)	17.5 g
Bandwidth	1 KHz	Connection cable	PUR, 2 m, 4-wire
Short circuit protection	Yes		
Voltage reversal protection	Yes		

[1]Integration into housing under customer responsability

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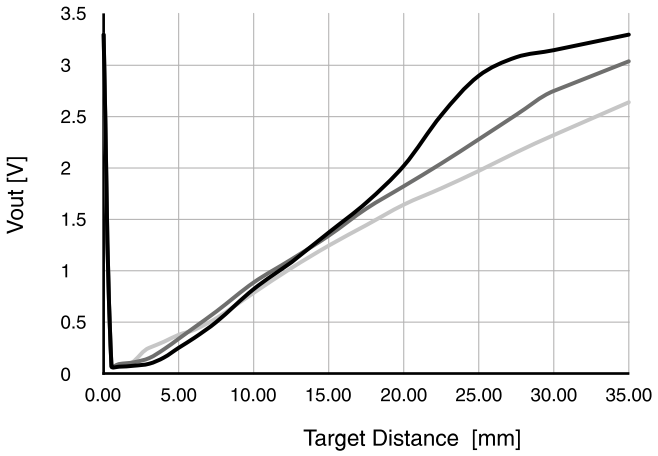
SENSING RANGE

Target (30×30 mm)	Typical measurement range
90%	0.5…35 mm
18%	0.5…28 mm
6%	0.5…23 mm

RESPONSE CURVE (TARGET 90%)

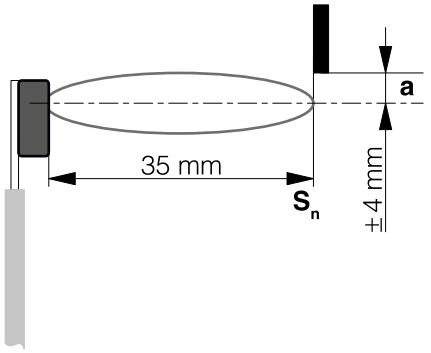


IO-LINK FUNCTIONALITIES

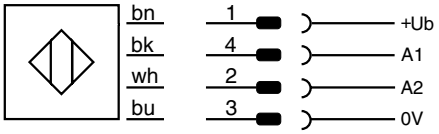
IO-Link version	1.0
SIO mode	Supported
Process data	Detection state & stability alarm
Baudrate	COM2 (38.4 kBaud)
Special functions	Output configuration, output timing, sensitivity, teach command, sensor mode, detection counter, event flags, maximum and actual sensor temperature

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

RESPONSE DIAGRAM



WIRING DIAGRAM



AVAILABLE TYPES

Part number	Part reference	Polarity	Connection	Output (A1)	Output (A2)
620-600-448	DTR-N01PA-NMK-139	PNP	PUR, 2 m, 4-wire	PNP, light-on/IO-Link	0.1…2.6 V

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

WARNING: the output has no protection and shall not be in contact with any power source.

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