

# PHOTOELECTRIC SENSOR DISTANCE DTR-C02PA-NMx



# 35 mm

- ✓ Miniature housing
- ✓ Analog output + adjustable PNP light-on output
- ✓ Red focused light

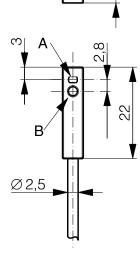


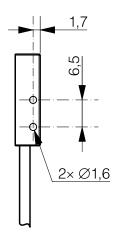












A: emitter axis B: receiver axis

OPTICAL DATA		INTERFACE	INTERFACE		
Measurement range	0.5 35 mm <sup>1</sup>	Adjustment	Through IO-Link (initial range is		
Resolution	60 $\mu$ m (S <sub>n</sub> =15 mm, 1 kHz) <sup>1</sup>		0.530 mm on 90% white target for A1)		
	10 $\mu$ m ( $S_n = 15$ mm, 10 Hz) <sup>1</sup>	Indicator LED, green	None		
	130 μm (S <sub>n</sub> =25 mm, 1 kHz) <sup>1</sup>	Indicator LED, yellow	Sensing state		
	23 μm (S <sub>n</sub> =25 mm, 10 Hz) <sup>1</sup>	IO-Link	Yes		
Linearity	Refer to curve on page 2				
Repeatability	± 2 mm				
Light source	Pinpoint LED, red 650 nm				
Light spot size (distance)	Ø5 mm (35 mm)				
Temperature drift	0.07% / °C				

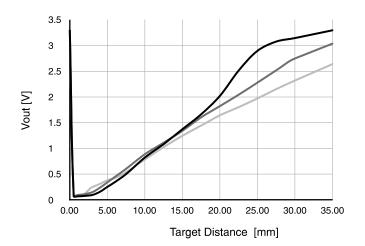
 $<sup>^1</sup>$ Object with 90% reflectance (standard white paper, 30×30 mm)

ELECTRICAL DATA		MECHANICAL DATA		
Supply voltage range (U <sub>B</sub> )	1030 VDC	Enclosure rating	IP67	
Analog output (current version)	-	Ambient temperature operation	−25+65°C	
Analog output A2 (voltage version)	0.12.6 V	Shock and vibration	IEC 60947-5-2	
Output current A1	≤ 50 mA	Housing material	PBT	
Output current A2	≤ 20 mA	Lens material	PMMA	
Power consumption (no load)	≤ 10 mA	Weight (cable version)	18 g	
Bandwidth	1 KHz	Connection cable	PUR, 2 m, 4-wire	
Short circuit protection	Yes			
Voltage reversal protection	Yes			

### **SENSING RANGE**

Target (30×30 mm)	Typical measurement range		
90%	0.5 35 mm		
<b>18%</b>	0.5 28 mm		
6%	0.5 23 mm		

# **RESPONSE CURVE (TARGET 90%)**

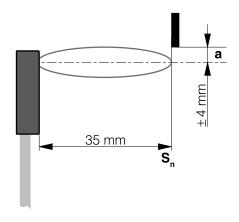


# **IO-LINK FUNCTIONALITIES**

IO-Link version	1.0		
SIO mode	Supported		
Process data	Detection state & stability alarm		
Baudrate	COM2 (38.4 kBaud)		
Special	Output configuration, output timing,		
functions	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)	
620-600-469	DTR-C02PA-NMK-139	PNP	PUR, 2 m, 4-wire	PNP, light-on/IO-Link	0.12.6 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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