



Photoelectric sensors  
ZoneControl, Photoelectric proximity sensor,  
Background suppression

RT-N2427



**Model Name** > [RT-N2427](#)  
**Part No.** > [1063154](#)

**At a glance**

- Wide range of output options: PNP/NPN/FET, light/dark switching, and ON or OFF delay
- Potentiometer integrated into the power and status LED
- Integrated with SICK's patented optical ASIC: SIRIC
- AC power options
- IP 67 housing for harsh wash down environments

**Your benefits**

- 30% lower current draw reduces the size of the power supply and the yearly electric costs
- Next-generation SIRIC optical ASIC provides ambient light immunity, which eliminates false trips and ensures high productivity
- Variety of features and choices ensure application requirements are met
- Background suppression reduces mounting effort since no reflector is required
- Mounting between the rollers prevents damage and sensor interference



*Illustration may differ*



**Features**

Sensor/detection principle:	Photoelectric proximity sensor, Background suppression
Dimensions (W x H x D):	20.6 mm x 99.2 mm x 48.9 mm
Sensing range:	60 mm ... 900 mm
Type of light:	Infrared light
Light source:	LED <sup>1)</sup>
Angle of dispersion:	7 °
Adjustment:	Potentiometer, 9 turns
Light spot size (distance):	Ø 20 mm (500 mm)
Max. number of sensors::	Ca. 30, Ca. 50 <sup>2) 3)</sup>

<sup>1)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C <sup>2)</sup> When powered from the end of the IR daisy chain <sup>3)</sup> When powered from center of the IR daisy chain

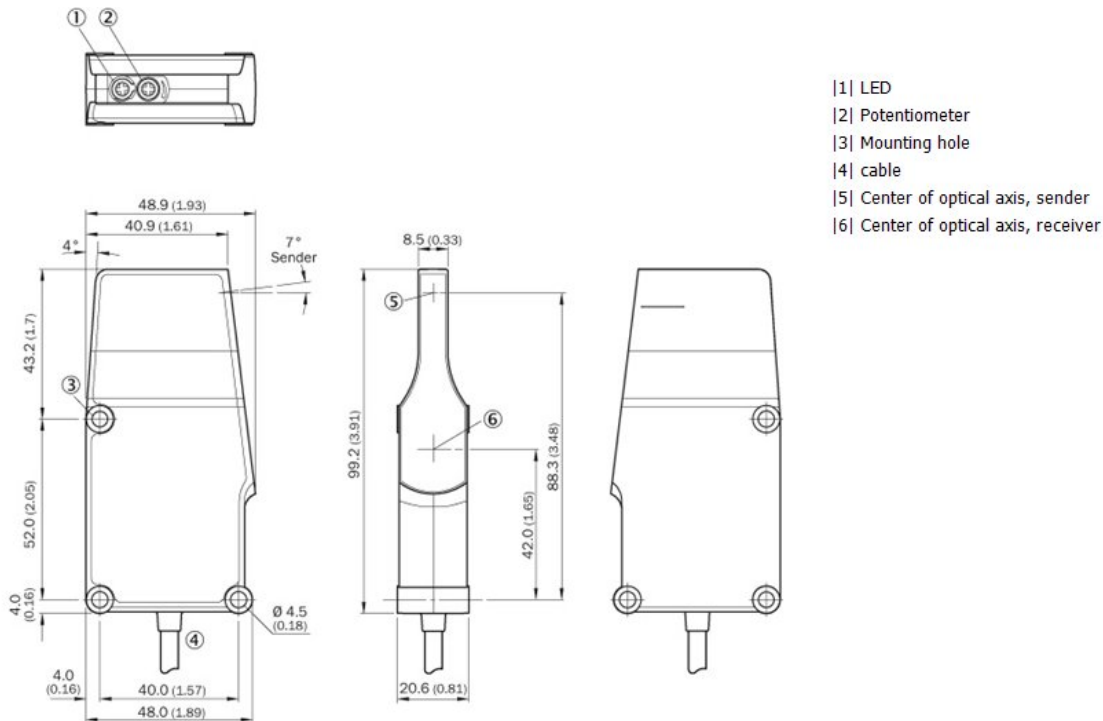
**Mechanics/electronics**

Supply voltage:	10 V DC ... 30 V DC <sup>1)</sup>
Ripple:	< 5 Vpp <sup>2)</sup>
Power consumption:	< 20 mA <sup>3)</sup>
Output type:	NPN
Switching mode:	Dark switching

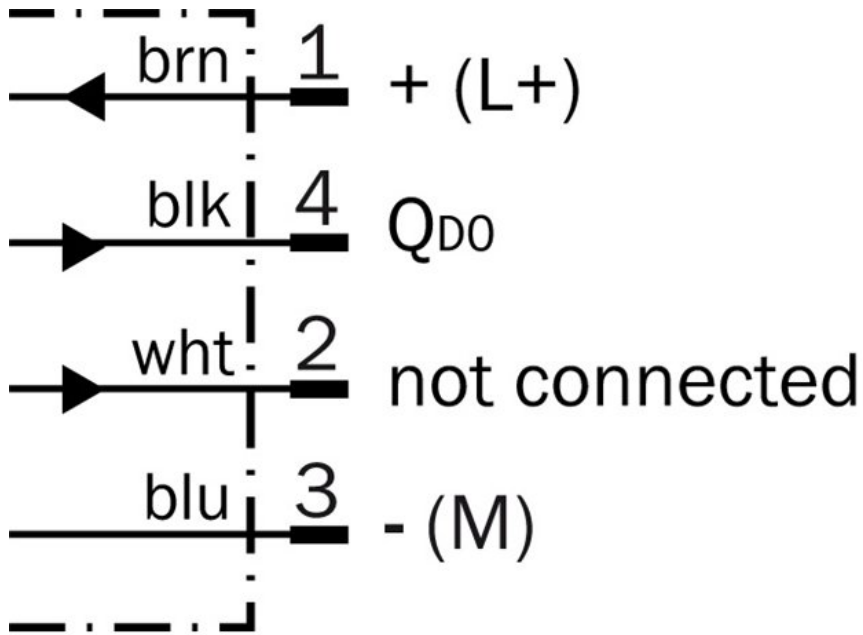
Output current I <sub>max</sub> ..:	≤ 100 mA
Response time:	2 ms
Switching frequency:	± 250 Hz
Connection type:	Cable with connector M8, 4-pin, 2 m <sup>4)</sup>
Circuit protection:::	A, C, D <sup>5) 6) 7)</sup>
Protection class:	III
Weight:	175 g
Enclosure rating:	IP 67
Ambient operating temperature:	-40 °C ... +60 °C
Ambient storage temperature:	-40 °C ... +75 °C
Shock/vibration:	According to IEC 68
UL File No.:	NRKH.E189383 & NRKH7.E189383
Signal voltage PNP HIGH/LOW:	Approx. VS - 0.5 V/0 V
Housing material:	ABS, Plastic

1) Limit values 2) May not exceed or fall short of V<sub>S</sub> tolerances 3) Without load and valve deenergized 4) Do not bend below 0 °C 5) A = V<sub>S</sub> connections reverse-polarity protected 6) C = interference suppression 7) D = outputs overcurrent and short-circuit protected

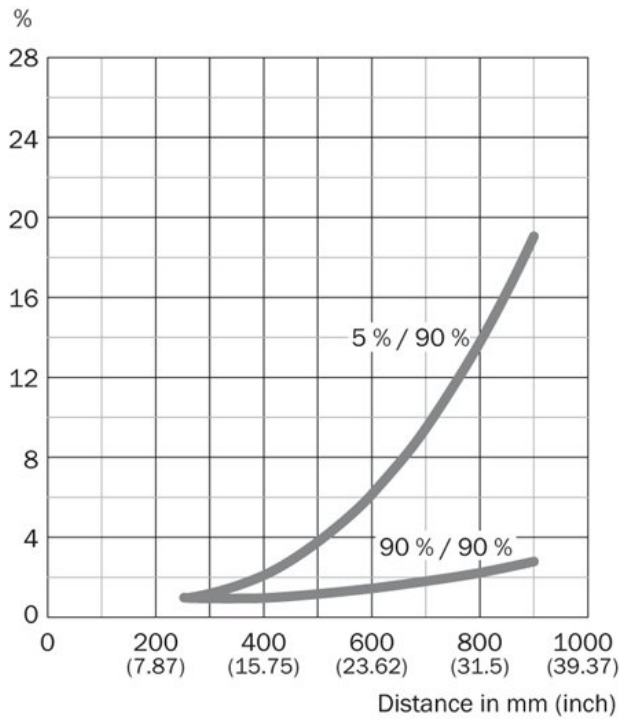
## Dimensional drawing



## Connection diagram

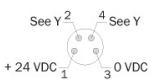


## Characteristic curve



## PIN assignment

M8



Y	Ro (P / N) 22x Ro (P / N) 42x P = PNP N = NPN		Ro (P / N) 22x Ro (P / N) 42x P = PNP N = NPN		Ro 8722x Ro 8722x Ro 8742x P = PNP N = NPN	
	PIN4	PIN2	PIN4	PIN2	PIN4	PIN2
1	Q <sub>0</sub>	not connected	not connected	Q <sub>0</sub>	Q <sub>0</sub>	Q <sub>0</sub>
2	Q <sub>0</sub>	not connected	not connected	Q <sub>0</sub>	Q <sub>0</sub>	Q <sub>0</sub>
3	Q <sub>0</sub>	Q <sub>0</sub>	Q <sub>0</sub>	Q <sub>0</sub>	-	-
4	Q <sub>0</sub>	Alarm	Alarm	Q <sub>0</sub>	-	-
5	Q <sub>0</sub>	Health	Health	Q <sub>0</sub>	-	-
6	Q <sub>0</sub>	Alarm	Alarm	Q <sub>0</sub>	-	-
7	Q <sub>0</sub>	Health	Health	Q <sub>0</sub>	-	-

**Australia**

Phone +61 3 9457 0600  
1800 33 48 02 – tollfree  
E-Mail sales@sick.com.au

**Belgium/Luxembourg**

Phone +32 (0)2 466 55 66  
E-Mail info@sick.be

**Brasil**

Phone +55 11 3215-4900  
E-Mail marketing@sick.com.br

**Canada**

Phone +1 905 771 14 44  
E-Mail information@sick.com

**Česká republika**

Phone +420 2 57 91 18 50  
E-Mail sick@sick.cz

**China**

Phone +86 4000 121 000  
E-Mail info.china@sick.net.cn  
Phone +852-2153 6300  
E-Mail ghk@sick.com.hk

**Danmark**

Phone +45 45 82 64 00  
E-Mail sick@sick.dk

**Deutschland**

Phone +49 211 5301-301  
E-Mail info@sick.de

**España**

Phone +34 93 480 31 00  
E-Mail info@sick.es

**France**

Phone +33 1 64 62 35 00  
E-Mail info@sick.fr

**Great Britain**

Phone +44 (0)1727 831121  
E-Mail info@sick.co.uk

**India**

Phone +91-22-4033 8333  
E-Mail info@sick-india.com

**Israel**

Phone +972-4-6881000  
E-Mail info@sick-sensors.com

**Italia**

Phone +39 02 27 43 41  
E-Mail info@sick.it

**Japan**

Phone +81 (0)3 5309 2112  
E-Mail support@sick.jp

**Magyarország**

Phone +36 1 371 2680  
E-Mail office@sick.hu

**Nederland**

Phone +31 (0)30 229 25 44  
E-Mail info@sick.nl

**Norge**

Phone +47 67 81 50 00  
E-Mail sick@sick.no

**Österreich**

Phone +43 (0)22 36 62 28 8-0  
E-Mail office@sick.at

**Polska**

Phone +48 22 837 40 50  
E-Mail info@sick.pl

**România**

Phone +40 356 171 120  
E-Mail office@sick.ro

**Russia**

Phone +7-495-775-05-30  
E-Mail info@sick.ru

**Schweiz**

Phone +41 41 619 29 39  
E-Mail contact@sick.ch

**Singapore**

Phone +65 6744 3732  
E-Mail sales.gsg@sick.com

**Slovenija**

Phone +386 (0)1-47 69 990  
E-Mail office@sick.si

**South Africa**

Phone +27 11 472 3733  
E-Mail info@sickautomation.co.za

**South Korea**

Phone +82 2 786 6321/4  
E-Mail info@sickkorea.net

**Suomi**

Phone +358-9-25 15 800  
E-Mail sick@sick.fi

**Sverige**

Phone +46 10 110 10 00  
E-Mail info@sick.se

**Taiwan**

Phone +886 2 2375-6288  
E-Mail sales@sick.com.tw

**Türkiye**

Phone +90 (216) 528 50 00  
E-Mail info@sick.com.tr

**United Arab Emirates**

Phone +971 (0) 4 88 65 878  
E-Mail info@sick.ae

**USA/México**

Phone +1(952) 941-6780  
1 (800) 325-7425 – tollfree  
E-Mail info@sickusa.com

More representatives and agencies  
at [www.sick.com](http://www.sick.com)