

NT 8

Contrast Sensors



0.4 in (9 mm)
sensing distance



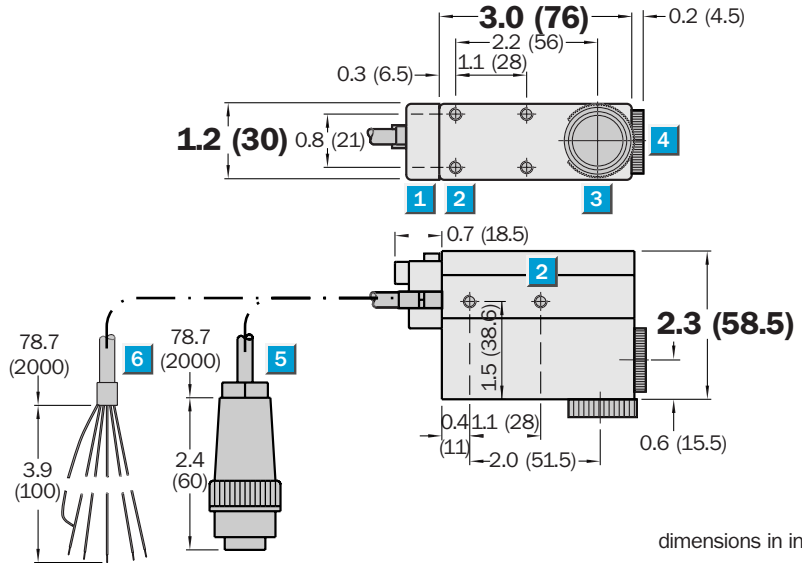
Highlights

- Rugged die cast metal housing
- White light source, filterable
- Switching frequency up to 10 kHz
- Analog output
- Selectable light and dark switching
- Status indicator
- Changeable lens position
- Adjustable switching threshold

NT 8

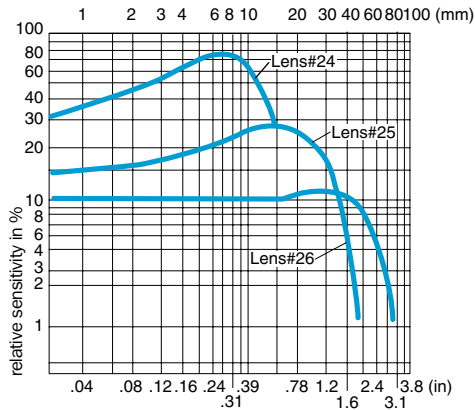


Dimensional Drawing



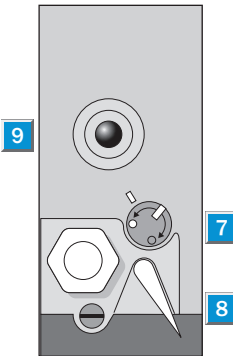
dimensions in inches (mm)

Relative Sensitivity



Adjustments

All types



- 1 Cover for adjuster
- 2 M5 threaded mounting hole, 5.5 mm deep
- 3 Dry cartridge with sight glass, can be replaced by Item 4
- 4 Lens, can be replaced by Item 3
- 5 2 m cable with 6-pin plug + PE
- 6 2 m cable
- 7 Control for switching threshold
- 8 Light/dark switch
- 9 Output indicator

Order Information

Type	Part no.
NT 8-01412	1 005 981
NT 8-02412	1 005 985

Accessories

	page
Cables and connectors	912
Cable	912
Lens	953, 954

Other models available. Consult www.sickusa.com or call 800-325-SICK.

Technical Data		NT 8-	01412	02412							
Sensing range from front edge of lens	0.4 in ±0.08 in (9 mm ±2 mm)										
Light	0.06 x 0.14 in (1.5 x 3.5 mm)										
Light source¹⁾, light type	Incandescent lamp, white										
Light spot orientation	Longitudinal										
	Transverse										
Supply voltage V_S	10...30 V DC ²⁾										
Ripple ³⁾	< 2 V										
Current consumption ⁴⁾	< 50 mA										
Supply voltage for lamp	4.5 V ± 10%										
Current consumption for lamp	840 mA										
Switching outputs	Light/dark switching, selectable via switch										
	PNP: HIGH = V _S - < 2 V / LOW = 0 V										
	NPN: HIGH = V _S / LOW = < 2 V										
Output current I _A max.	200 mA										
Response time ⁵⁾	50 μs										
Max. switching frequency ⁶⁾	10 kHz										
Connection types	Cable ⁷⁾ with 6-pin plug + PE										
	Cable ⁷⁾ without plug										
VDE protection class⁸⁾	<input type="checkbox"/>										
Enclosure rating	IP 67/NEMA 6										
Circuit protection⁹⁾	A, B, C										
Ambient temperature T_A	Operation 32...122°F (0...50°C)										
	Storage -13...185°F (-25...85°C)										
Shock/vibration	To IEC 68										
Approximate weight	10.5 oz (300 g)										
Housing material	Cast metal										

- 1) Average service life 10,000 h at T_A = 25°C
- 2) Limit values
- 3) May not exceed or fall short of V_S tolerances

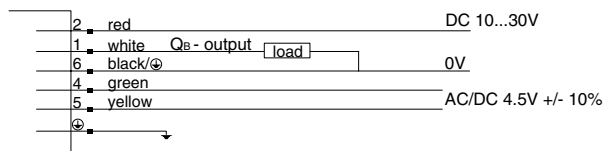
- 4) Without load
- 5) Signal transit time with resistive load
- 6) With light/dark ratio 1:1
- 7) Do not bend below 0°C
- 8) Reference voltage 50 V DC

- 9) A = V_S connections reverse-polarity protected
- B = Output Q short-circuit protected
- C = Interference pulse suppression

- 10) Part no. 1 001 324
- 11) Part no. 1 001 325
- 12) Part no. 1 001 326
- 13) Part no. 1 001 327

Connection Diagram

PNP Models



NPN Models

