



Diffuse reflection sensor

O6T-FNKG/0,30m/US



- 1: output function switch
 2: potentiometer sensitivity
 Receiver in upper lens
 transmitter in lower lens



Product characteristics

Type of light	red light
Housing	rectangular

Application

Function principle	Diffuse reflection sensor
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Electrical data

Operating voltage	[V]	10...30 DC
Current consumption	[mA]	16; ((24 V))
Protection class		III
Reverse polarity protection		yes
Type of light		red light
Wave length	[nm]	633

Outputs

Electrical design		NPN
Output function		light-on/dark-on mode; (selectable)
Max. voltage drop switching output DC	[V]	2.5
Permanent current rating of switching output DC	[mA]	100
Switching frequency DC	[Hz]	1000
Short-circuit protection		yes
Type of short-circuit protection		yes (non-latching)

Monitoring range

Range	[mm]	5...500; (white paper 200 x 200 mm 90 % remission)
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O6T205



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Setting range	[mm]	100...500
Range adjustable		yes
Max. light spot diameter	[mm]	15
Light spot dimensions refer to		at maximum range

Operating conditions

Ambient temperature	[°C]	-25...60
Protection		IP 65; IP 67

Tests / approvals

EMC	EN 60947-5-2	
MTTF	[years]	897
UL approval	Ta	-25...50 °C
	Enclosure type	Type 1
	voltage supply	Class 2
	UL approval number	E012

Mechanical data

Weight	[g]	33
Housing		rectangular
Dimensions	[mm]	35.4 x 13 x 21
Material		housing: ABS; PPSU; sealing: EPDM
Lens material		PMMA
Lens alignment		Side sensing
Tightening torque	[Nm]	0.5

Displays / operating elements

Display	Switching status	1 x LED, yellow
	Power	1 x LED, green

Remarks

Remarks	cULus - Class 2 source required
Pack quantity	1 pcs.

Electrical connection

Cable: 0.3 m, PUR; 3 x 0.25 mm²

Connector: 1 x M12; coding: A



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Connection



Diagrams and graphs

excess gain graph



x: distance [mm]

y: excess gain factor