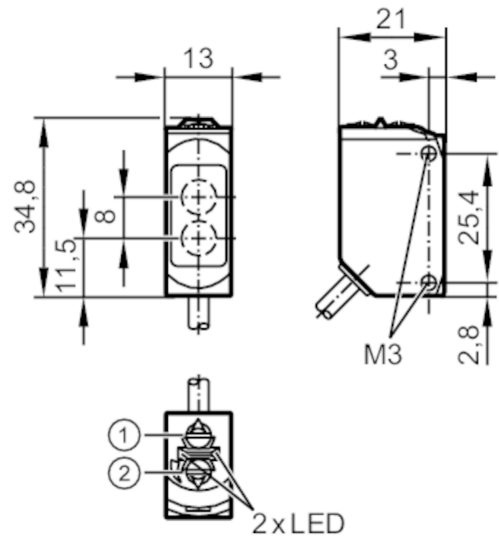# O6T405

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
Application	suited for use in the machine tool industry
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)

O6T405

Diffuse reflection sensor

O6T-FNKG/0,30m/US

Monitoring range		
Range	[mm]	5...500; (white paper 200 x 200 mm 90 % remission)
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; IP 68

Tests / approvals			
EMC		EN 60947-5-2	
MTTF	[years]	896	
UL approval		UL approval number	E020

Mechanical data		
Weight	[g]	51.4
Housing		rectangular
Dimensions	[mm]	34.8 x 13 x 21
Material		housing: stainless steel (1.4404 / 316L); plastics: PPSU; sealing: FKM
Lens material		PMMA
Lens alignment		Side sensing
Tightening torque	[Nm]	1; (screws)

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
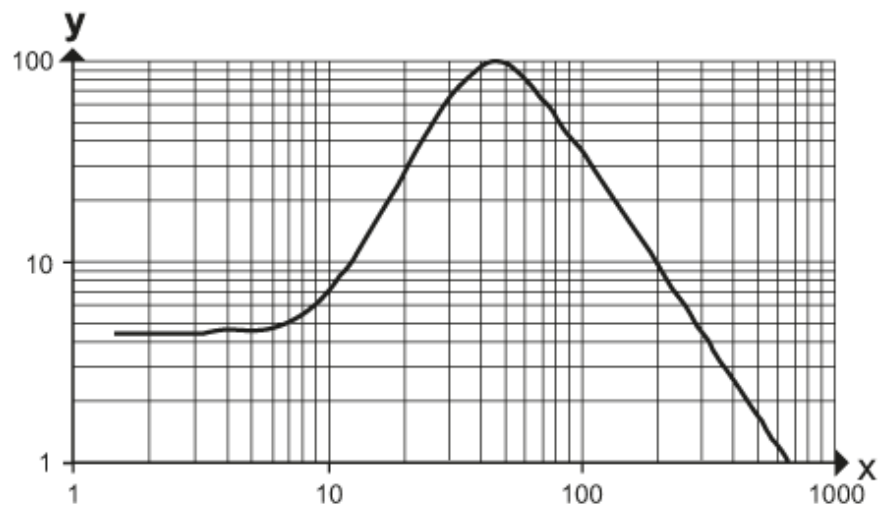
O6T405

Diffuse reflection sensor

O6T-FNKG/0,30m/US

Connection
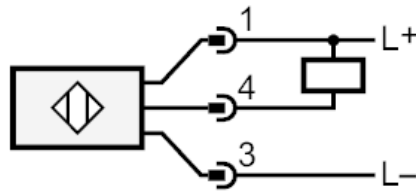
Diagrams and graphs

excess gain graph

x: distance [mm]

y: excess gain factor