DATASHEET - 13100RQD07

Diffuse reflective sensor, Sn=610mm, 4L, 10-30VDC, NPN, PNP, M18, insulated material, M12

Powering Business Worldwide™

Part no. 13100RQD07
Catalog No. 13100RQD07

Delivery program

Basic function			Optical sensors
Product range			Comet Series
For connection of:			Plug-in connection M12 x 1
Design (outer dimensions)		mm	M18 x 1
Rated operational voltage	U_e		10 - 30 V DC
Rated switching distance	S_n	mm	610
Description			Beam: right-angled
Connection			4-wire
Function			Reflected-light beam
Type of light			Infra-red
Material			Insulated material
Switching type			NPN PNP
Switching principle			Adjustable bright/dark switching

Information relevant for export to North America

Product Standards UL 508; CSA-C22.2 No. 14; IEC60947-5-2; CE marking

UL File No. E117028

UL Category Control No. NRKH, NRKH7

CSA File No. 50513

CSA Class No. 3211-07

North America Certification UL listed, CSA certified

Max. Voltage Rating 30 V DC

Degree of Protection IEC: IP68, IP69K; UL/CSA Type: 1, 4, 6

Technical data

General

Standards			IEC/EN 60947-5-2
Ambient temperature			-40 - +70
Mechanical shock resistance		g	100 Shock duration 3 ms
Degree of Protection			IP67

Characteristics

Rated switching distance			
Rated switching distance	S_n	mm	610
Range		mm	0.6
Rated operational voltage	U_e		10 - 30 V DC
Operating current in the switched state at 24 V DC	I_b	mA	30
Maximum load current	I_e	mA	< PNP: 100 NPN: 250 (120 > 55 °C)
Response time		ms	1
Switching state display		LED	Red
Protective functions			Short-circuit protective device Protection against polarity reversal
Connection			4-wire
Style			
Design (outer dimensions)		mm	M18 x 1
For connection of:			Plug-in connection M12 x 1

Material			Insulated material

Design verification as per IEC/EN 61439

Technical data for design verification			
Operating ambient temperature min.		°C	-40
Operating ambient temperature max.		°C	70

Technical data ETIM 7.0

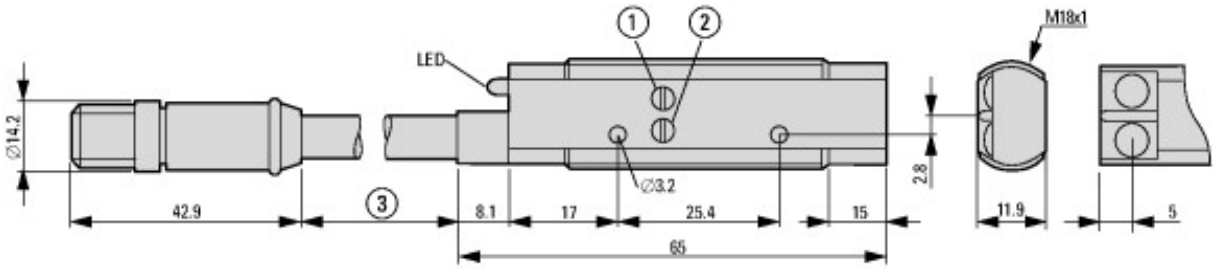
Sensors (EG000026) / Light scanner, energetic (EC001821)			
Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Optoelectronic sensor / Light scanner, energetic (ecl@ss10.0.1-27-27-09-03 [AKP252013])			
Operating distance		mm	0 - 0
Pre failure notice			No
With time function			No
Max. switching distance		mm	610
Max. output current		mA	250
Reflector included			No
Analogue output 0 V ... 10 V			No
Analogue output 0 mA ... 20 mA			No
Analogue output 4 mA ... 20 mA			No
Analogue output -10 V ... +10 V			No
With other analogue output			No
Setting procedure			Manual adjustment
With communication interface analogue			No
With communication interface AS-Interface			No
With communication interface CANOpen			No
With communication interface DeviceNet			No
With communication interface Ethernet			No
With communication interface INTERBUS			No
With communication interface PROFIBUS			No
With communication interface RS-232			No
With communication interface RS-422			No
With communication interface RS-485			No
With communication interface SSD			No
With communication interface SSI			No
Number of semiconductor outputs with signalling function			2
Number of contact energized outputs with signalling function			0
Number of protected semiconductor outputs			0
Number of protected contact energized outputs			0
Type of interface for safety communication			Other
Type of electric connection			Connector M12
Type of switching output			PNP/NPN
Type of switch function			Programmable/configurable
Operation agent-safety class			Safety class 2
Explosion safety category for gas			None
Explosion safety category for dust			None
Construction type housing			Cylinder, screw-thread
Width sensor		mm	0
Diameter sensor		mm	18
Height of sensor		mm	0
Length of sensor		mm	65
Sensing mode			Light-/dark switching
Material of optical surface			Plastic
Material housing			Plastic
Max. output current at protected output		mA	0
Min. reflector distance		mm	0

Time of reaction		ms	1
Transmission range of the safety field		m	0
Switching frequency		Hz	500
Type of safety acc. IEC 61496-1			
"Switching voltage of OSSD at state ""high"""		V	0
Voltage type			DC
With monitoring function downstream switching devices			No
Laser protection class			None
Wavelength of the sensor		nm	0
Type of light			Infrared light
Light dot		mm^2	0
AWG-number			22
Material of cable sheath			Polyvinyl chloride (PVC)
With restart blockage			No
Suitable for safety functions			No
Degree of protection (IP)			IP67
Degree of protection (NEMA)			6
Ambient temperature		°C	40 - 70
Rated control supply voltage Us at AC 50HZ		V	0 - 0
Rated control supply voltage Us at AC 60HZ		V	0 - 0
Rated control supply voltage Us at DC		V	0 - 30

Approvals

Product Standards			UL 508; CSA-C22.2 No. 14; IEC60947-5-2; CE marking
UL File No.			E117028
UL Category Control No.			NRKH, NRKH7
CSA File No.			50513
CSA Class No.			3211-07
North America Certification			UL listed, CSA certified
Max. Voltage Rating			30 V DC
Degree of Protection			IEC: IP68, IP69K; UL/CSA Type: 1, 4, 6

Dimensions



Sensor with installed adapter
① Light/dark
② Gain

Assets (links)

Declaration of CE Conformity

00002430

Instruction Leaflets

IL05305002Z2018_05

Additional product information (links)

IL05305002Z Comet Series Optical Sensors	
IL05305002Z Comet Series Optical Sensors	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05305002Z2018_05.pdf