DATASHEET - 13103AQD07



Diffuse reflective sensor, Sn=225mm, 4L, 10-30VDC, NPN, PNP, M18, insulated material, M12



13103AQD07 Part no. Catalog No. 135597 **Alternate Catalog** 13103AQD07

No.

EL-Nummer 0004315337

(Norway)

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	225
Description			Beam: straight with background suppression (Perfect Prox)
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	225
Range		mm	0.23
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	l _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)	1	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.	0	°C	-40
Operating ambient temperature max.	0	°C	70

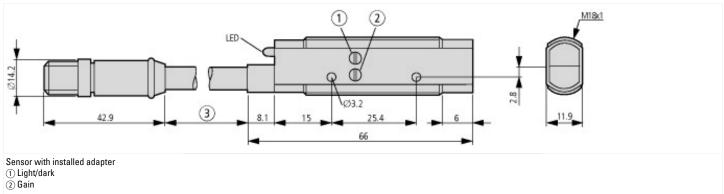
Uperating ambient temperature max.	۳	ن	70
Technical data ETIM 7.0			
Sensors (EG000026) / Light scanner with background masking (EC002719)			
Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Optoelectronic sensor / Light scanner w. background masking (ecl@ss10.0.1-27-27-09-04 [AKP253013])			
Adjustment range	m	ım	0 - 0
Operating distance	m	ım	0 - 0
riangulation			Background fade-out
Pre failure notice			No
Vith time function			No
Rated switching distance	m	ım	225
Max. switching distance	m	ım	225
Max. output current	m.	ıΑ	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
Vith other analogue output			No
etting procedure			Other
Vith communication interface analogue			No
/ith communication interface AS-Interface			No
/ith communication interface CANOpen			No
/ith communication interface DeviceNet			No
Vith communication interface Ethernet			No
Vith communication interface INTERBUS			No
Vith communication interface PROFIBUS			No
Vith communication interface RS-232			No
Vith communication interface RS-422			No
Vith communication interface RS-485			No
Vith communication interface SSD			No
Vith communication interface SSI			No
lumber of semiconductor outputs with signalling function			2
lumber of contact energized outputs with signalling function			0
lumber of protected semiconductor outputs			0
lumber of protected contact energized outputs			0
ype of interface for safety communication			Other
ype of electric connection			Connector M12
ype of switching output			PNP/NPN
ype of switch function			Programmable/configurable
peration agent-safety class			Safety class 2
xplosion safety category for gas			None
xplosion safety category for dust			None
onstruction type housing			Cylinder, screw-thread
Vidth sensor	m	ım	0
Diameter sensor	m	ım	18
leight of sensor	m	ım	0
ength of sensor	m	ım	66
-			

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
Ambient temperature	°C	-40 - 70
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	30
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	10 - 30
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	mm²	0
AWG-number		22
Material of cable sheath		Other
With restart blockage		No
Suitable for safety functions		No
Degree of protection (IP)		IP67

Approvals

- ipprovide	
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



Assets (links)

Declaration of CE Conformity

00002430

Instruction Leaflets

IL05305002Z2018_05

Additional product information (links)

IL05305002Z Comet Series Optical Sensors