DATASHEET - 14100A6517



Retroflective sensing sensor, Sn=7600mm, 4L, 10-30VDC, NPN, PNP, M18, insulated material, line 2m



Part no. 14100A6517 Catalog No. 135643 Alternate Catalog 14100A6517

Delivery program

Basic function			Optical sensors
Product range			Comet Series
For connection of:			2 m connection cable
Design (outer dimensions)		mm	M18 x 1
Rated operational voltage	U _e		10 - 30 V DC
Rated switching distance	S_n	mm	7600
Description			for combination with reflector non-polarized Beam: straight
Connection			4-wire
Function			Reflex photoelectric sensor
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	7600
Range		mm	7.6
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	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)	n	mm	M18 x 1
For connection of:			2 m connection cable
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

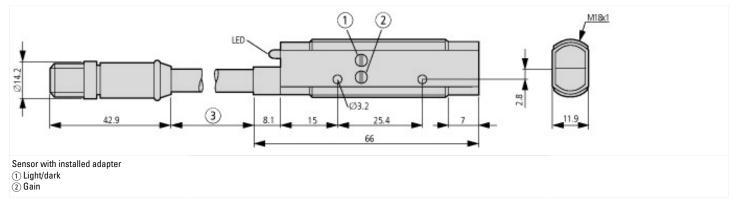
Technical data ETIM 7.0				
Sensors (EG000026) / Reflection light barrier (EC002717)				
Electric engineering, automation, process control engineering / Binary sensor to (ecl@ss10.0.1-27-27-09-02 [AKP251013])	chnology, safety-	related se	nsor technology / Optoelectronic sensor / Reflection light barrier	
Pre failure notice			No	
With time function			No	
Rated switching distance		mm	7600	
Max. switching distance		mm	0	
Max. output current		mA	100	
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				
Type of electric connection			Cable	
Type of switching output			PNP/NPN	
Type of switch function			Programmable/configurable	
Operation agent-safety class				
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	66	
Sensing mode			Light-/dark switching	
Material of optical surface			Plastic	
Material housing			Plastic	
-				

Min. reflector distance mm 0 Ambient temperature *C 40 70 Time of reaction ms 0 Transmission range of the safety field m 0 Switching frequency tax 500 Type of safety acc. IEC 61496-1 Type of safety acc. IEC 61496-1 v 0 Switching voltage of OSSD at state "high" v 0 0 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 AC 60HZ v 0 0 With monitoring function downstream switching devices v 0 0 Laser protection class None 0 0 Wavelength of the sensor p 0 1 Type of light infrared light 1 1 With restart blockage p 0 0 Suitable for safety functions p 0 0 Degree of protection (IP) 0 0 0				
Ambient temperature C C 40-70 Time of reaction ms 0 Transmission range of the safety field mm 0 Switching frequency Type of safety acc. IEC 61496-1 "Switching voltage of OSSD at state "high"* Switching voltage Us at AC 50HZ Rated control supply voltage Us at AC 50HZ Rated control supply voltage Us at AC 60HZ Rated control supply voltage Us at AC 60HZ Roted control supply voltage Us at AC 50HZ Roted control supply voltage Us at AC 50HZ Roted control supply voltage Us at AC 60HZ Roted control supply voltage Us at AC 60HZ Roted control supply voltage Us at AC 60HZ Roted control supply voltage Us at AC 50HZ Roted control supply voltage Us at AC 60HZ Roted control su	Max. output current at protected output	m/	Α	0
Time of reaction ms 0 0 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 0-0 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 AC 60HZ V 0-0 With monitoring function downstream switching devices C V 0-0 With monitoring function class V 0-0 Wavelength of the sensor mm 0 0 Wavelength of the sensor mm 0 0 With restart blockage Mither Safety functions	Min. reflector distance	mr	m	0
Transmission range of the safety field me bound of the safety field me bound of safety acc. IEC 61496-1 "Switching voltage of OSSD at state "high"** "Switching voltage of OSSD at state "high"** Rated control supply voltage Us at AC 50HZ Rated control supply voltage Us at AC 60HZ Rated control supply voltage Us at AC 60HZ Rated control supply voltage Us at DC Voltage type Voltage type	Ambient temperature	°C	2	40 - 70
Switching frequency Type of safety acc. IEC 61496-1 "Switching voltage of OSSD at state "high"" "Switching voltage of OSSD at state "high"" "Switching voltage Us at AC 50HZ Rated control supply voltage Us at AC 60HZ Rated control supply voltage Us at AC 60HZ Rotage type With monitoring function downstream switching devices Laser protection class Wavelength of the sensor Type of light Light dot With restart blockage Suitable for safety functions Degree of protection (IP) Degree of protection (IP)	Time of reaction	ms	s	0
Type of safety acc. IEC 61496-1 "Switching voltage of OSSD at state "high"" "Rated control supply voltage Us at AC 50HZ Rated control supply voltage Us at AC 60HZ Rated control supply voltage Us at AC 60HZ Rated control supply voltage Us at AC 60HZ V 0 - 0 Rated control supply voltage Us at AC 60HZ Woltage type DC With monitoring function downstream switching devices Laser protection class None Wavelength of the sensor Type of light Light dot mm² 0 Infrared light With restart blockage Suitable for safety functions No No No No No No No No No N	Transmission range of the safety field	m		0
"Switching voltage of OSSD at state "high"" Rated control supply voltage Us at AC 50HZ Rated control supply voltage Us at AC 60HZ Rated control supply voltage Us at AC 60HZ Rated control supply voltage Us at AC 60HZ Rated control supply voltage Us at DC Voltage type DC With monitoring function downstream switching devices Laser protection class Wavelength of the sensor Type of light Light dot mm² 0 With restart blockage Suitable for safety functions No Degree of protection (IP)	Switching frequency	Hz	z	500
Rated control supply voltage Us at AC 50HZ Rated control supply voltage Us at AC 60HZ Rated control supply voltage Us at AC 60HZ V 0 - 0 Rated control supply voltage Us at AC 60HZ V 10 - 30 V 10 - 30 V With monitoring function downstream switching devices Laser protection class Wavelength of the sensor Type of light Light dot mm² 0 With restart blockage Suitable for safety functions Degree of protection (IP) V 0 - 0 0 - 0 0 - 0 0 - 0 0 - 0 0 - 0 0 - 0 0 - 0 0 - 0 0 - 0 0 - 0 0 - 0 In - 30 No No Infrared light No No No Ple7 No No Ple7 Ple7	Type of safety acc. IEC 61496-1			
Rated control supply voltage Us at AC 60HZ Rated control supply voltage Us at DC V 10 - 30 Voltage type DC With monitoring function downstream switching devices Laser protection class Wavelength of the sensor Type of light Light dot mm² 0 With restart blockage With restart blockage Suitable for safety functions Degree of protection (IP) V 0 - 0 0 - 0 0 - 0 10 - 30 No No No No No No PO Infrared light No No PO PO PO PO PO PO PO PO PO P	"Switching voltage of OSSD at state ""high"""	V		0
Rated control supply voltage Us at DC Voltage type DC With monitoring function downstream switching devices Laser protection class Wavelength of the sensor Type of light Light dot With restart blockage Suitable for safety functions Degree of protection (IP) V 10 - 30 No 10 - 30 No No No No No No No No No N	Rated control supply voltage Us at AC 50HZ	V		0 - 0
Voltage type With monitoring function downstream switching devices Laser protection class Wavelength of the sensor Type of light Light dot With restart blockage Suitable for safety functions Degree of protection (IP) Do Do Do Do Do Do Do Do Do D	Rated control supply voltage Us at AC 60HZ	V		0 - 0
With monitoring function downstream switching devices Laser protection class None Wavelength of the sensor Inm O Type of light Light dot Minterstart blockage Suitable for safety functions No Degree of protection (IP) No None None None None None None None N	Rated control supply voltage Us at DC	V		10 - 30
Laser protection class Wavelength of the sensor Type of light Light dot With restart blockage Suitable for safety functions Degree of protection (IP) None None Infrared light No No Pegree of protection (IP)	Voltage type			DC
Wavelength of the sensor Type of light Light dot With restart blockage Suitable for safety functions Degree of protection (IP) Infrared light O O O Degree of protection (IP) Infrared light O Inf	With monitoring function downstream switching devices			No
Type of light Light dot mm² 0 With restart blockage No Suitable for safety functions No Degree of protection (IP) Infrared light Infrared light No Infrared light No Infrared light Infrared light No Infrared light No Infrared light No Infrared light	Laser protection class			None
Light dot mm² 0 With restart blockage No Suitable for safety functions No Degree of protection (IP) IP67	Wavelength of the sensor	nn	n	0
With restart blockage No Suitable for safety functions No Degree of protection (IP) IP67	Type of light			Infrared light
Suitable for safety functions No Degree of protection (IP) IP67	Light dot	mr	m²	0
Degree of protection (IP)	With restart blockage			No
	Suitable for safety functions			No
Degree of protection (NEMA) 4	Degree of protection (IP)			IP67
	Degree of protection (NEMA)			4

Approvals

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

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