DATASHEET - E55CAL30T110



Proximity switch, inductive, 1N/O, Sn=10mm, 3L, 10-30VDC, NPN, M30, insulated material, line 2m



Part no. E55CAL30T110
Catalog No. 135830
Alternate Catalog E55CAL30T110
No.

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Desir function			Ladinatina Camana
Basic function			Inductive Sensors
Product range			E55 Limit Switch Style Series
Connection			3-wire
Design (outer dimensions)		mm	M30 x 1.5
Rated operational voltage	U _e		10 - 30 V DC
Rated switching distance	S_n	mm	10
Type of mounting			Flush
Switching type			NPN
For connection of:			2 m connection cable
Contacts			
N/O = Normally open			1 N/O
Material			Insulated material
Degree of Protection			IP66

Technical data

General Standards

Material

Standards			IEC/EN 60947-5-2
Ambient temperature			-25 - +70
Mechanical shock resistance		g	30 Shock duration 11 ms
Degree of Protection			IP66
Characteristics			
Rated switching distance			
Rated switching distance	S_n	mm	10
Repetition accuracy of S_n		%	10
Temperature drift of S_n		%	10
Switching hysteresis of S_n		%	20
Rated operational voltage	U _e		10 - 30 V DC
Supply frequency			50 - 60
Residual ripple of U_{e}		%	10
Maximum load current	l _e	mA	< 200
Operating current in the switched state at 24 V DC	I _b	mA	3
Voltage drop at I _e	U_{d}	V	8
Switching Frequency		Hz	300
Switching state display		LED	Red
Protective functions			Short-circuit protective device Protection against polarity reversal
Connection			3-wire
Contacts			
N/0 = Normally open			1 N/0
Style			
Design (outer dimensions)		mm	M30 x 1.5
For connection of:			2 m connection cable

Insulated material

Design verification as per IEC/EN 61439

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Technical data for design verification		
Operating ambient temperature min.	°C	-25
Operating ambient temperature max.	°C	70

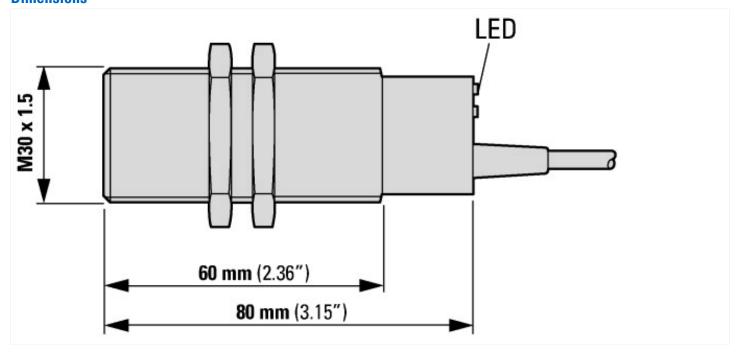
Technical data ETIM 7.0

Electric originatoring, anthonation, process control engineering / Binary sensor technology, safety-related sensor technology / Proximity switch / Inductive proximity switch (series Sensor 10 (and 5) (3) (3) (3) (3) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	oomiour data Erim 7.0			
Vestion 10.1-27-27-01-41 [A62270015]) Witth sensor	Sensors (EG000026) / Inductive proximity switch (EC002714)			
Height of sensor mm 0 Length of sensor mm 80 Dometer sensor mm 30 Mechanical menting condition for sensor mm 0 Suitable for safety functions mm 0 Suitable for safety functions mm 0 Type of switching untput mm 0 Type of switching untput mm 0 Type of switching untput mm 0 Number of protected cortic connection mm 0 Number of protected seniconductor outputs with signalling function mm 0 Number of protected cortact energized outputs with signalling function mm 0 Number of protected cortact energized outputs with signalling function mm 0 Number of protected cortact energized outputs mm Medility Target Type of interface for safety communication mm One Construction type housing mm One Cascadable mm No Cascadable mm No Cascadable mm	Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Proximity switch / Inductive proximity switch (ecl@ss10.0.1-27-27-01-01 [AGZ376015])			
Length of sansor nmm 30 Diameter sansor nmm 40 Mechanical mounting condition for sensor nmm 10 Switching distance nmm 10 Switching distance No Normally open contact Type of switching output When the contact content on the contact control of contact senergical outputs with signalling function 20 Calde Number of contact energized outputs with signalling function 4 4 4 Number of protected semiconducter outputs 4 6 4 Type of interface for safety communication 6 Metallic Target Costing housing 6 7 9 9 Costatution by pho housing 7 9 10 9 Stacecording to EN 954-1 8	Width sensor	mm	n	0
Diameter sensor nm 30 Mechanical mounting condition for sensor nm 10 Switching distance No 10 Switching distance No Nomally open contact Type of switching output NPN Type of switching output NPN Unamber of semiconductor outputs with signalling function 1 1 Number of protected semiconductor outputs with signalling function 2 0 Number of protected semiconductor outputs 4 0 Number of protected contact energized outputs with signalling function 4 0 Number of protected contact energized outputs 6 Metallic Target Number of protected semiconductor outputs 6 None Obosticution type of interface for safety communication 6 None You of interface for safety sample 8 None State according to EN 554-1 8 <td>Height of sensor</td> <td>mm</td> <td>n</td> <td>0</td>	Height of sensor	mm	n	0
Mechanical mounting condition for sensor mm 10 Switching distances mm 10 Suitable for safery functions mm 10 Type of switch function mm 10 Type of switch function mm Normally open contact Type of electric connection MPN Normally open contact Number of semiconductor outputs with signalling function 1 1 Number of protected semiconductor outputs 4 0 Number of protected semiconductor outputs 6 Menallic Target Type of interface of safety communication 6 None Construction type housing 6 One Cascadable 9 None Silk according to IEO 61508 9 None	Length of sensor	mm	n	80
Switching distance mm 10 Suitable for safety functions Mo Normally open contact Type of switch function MPN Type of switching output MPN Type of switching outputs Cable Number of semiconductor outputs with signalling function I 1 Number of protected semiconductor outputs I 0 Vipe of interface for safety communication I None Construction type housing I None Castageory according to EN 954-1 I None Sil. according to EN 954-1 I None Max. Output current at protected output I<	Diameter sensor	mm	n	30
Suitable for safety functions No Type of switch function Nomally open contact Type of switch function NPN Type of switching output Cable Number of somionductor outputs with signalling function 1 Number of protected semiconductor outputs with signalling function 0 Number of protected semiconductor outputs 0 Number of protected semiconductor outputs 0 Number of protected contact energized outputs 0 Number of protected contact energized outputs 0 Type of interface None Type of interface for safety communication 0 Construction Type housing 0 Costaging housing 0 Catagony according to EN 984-1 0 Sil. according to EN 984-1 None Sil. according to EC 91598 None Performance level acc. EN ISO 1884-1 None Sil. according to EC 91598 None Supply voltage Us at AC 50HZ V Rated control supply voltage Us at AC 50HZ V Rated control supply voltage Us at AC 50HZ V S	Mechanical mounting condition for sensor			Concise
Type of switch function NPN Type of switching output NPN Type of lettric connection Cable Number of semiconductor outputs with signalling function 1 Number of protected semiconductor outputs 0 Coating housing 0 Coating housing 0 Coating housing 0 Category according to EN 984-1 8 Stace cording to EN 984-1 8 Nace coutput current at protected output mA None 0 Rated control supply voltage Us at AC 50HZ <t< td=""><td>Switching distance</td><td>mm</td><td>n</td><td>10</td></t<>	Switching distance	mm	n	10
Type of switching output NPN Type of electric connection Cable Number of semiconductor outputs with signalling function 1 Number of contact energized outputs with signalling function 0 Number of protected semiconductor outputs with signalling function 0 Number of protected contact energized outputs 0 Number of protected contact energized outputs 0 Type of actuation Motallic Target Type of interface None Construction type bousing Other Coasing housing Other Cascadable None Category according to EN 954-1 B SIL according to EE 61508 None Performance level acc. EN ISO 18849-1 None Max. Output current at protected output mA 0 Supply voltage V 0-3 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 Rated control supply voltage Us at AC 60HZ V 0-	Suitable for safety functions			No
Type of electric connection Cable Number of semiconductor outputs with signalling function 1 Number of contact energized outputs with signalling function 0 Number of protected semiconductor outputs 0 Number of protected contact energized outputs 0 Type of rinterface on protected contact energized outputs Metallic Target Type of interface for safety communication None Construction type housing Cylinder, screw-thread Coastaghousing Other Category according to EN 954-1 B Sil. according to EC 9558 None Performance level acc. EN ISO 13849-1 None Max. output current at protected output None Supply voltage No 0 Stated control supply voltage Us at AC 50HZ N 0 Rated control supply voltage Us at AC 50HZ V 0 Rated control supply voltage Us at AC 50HZ V 0 Rated control supply voltage Us at AC 50HZ V 0 Rated control supply voltage Us at AC 50HZ V 0 Rated control supply voltage Us at AC 50HZ V	Type of switch function			Normally open contact
Number of semiconductor outputs with signalling function Number of contact energized outputs with signalling function Number of protected semiconductor outputs Number of protected centact energized outputs Number of protected contact energized outputs Number of protected output Number of protected output Number of Protected Output Number of Number One Number	Type of switching output			NPN
Number of contact energized outputs with signalling function Number of protected semiconductor outputs Number of protected contact energized outputs Type of neturation Type of neturation Type of interface for safety communication Construction type housing Coating housing Coating housing Coating housing Coatedable Category according to EN 954-1 Stl. according to EC 81588 Reference level a.c. EN ISO 13849-1 Max. output current at protected output Supply voltage Rated control supply voltage Us at AC 50HZ Row With monitoring function downstream switching devices Material housing Compression-resistant Explosion safety category for dust Explosion safety category for dust Explosion safety category for dust	Type of electric connection			Cable
Number of protected semiconductor outputs 0 Number of protected contact energized outputs 0 Type of actuation Metallic Target Type of interface None Type of interface for safety communication Construction type housing Cylinder, screw-thread Coating housing Other Cascadable No Cascadable No Category according to EN 954-1 B SIL according to IEC 61508 None Performance level acc. EN ISO 13849-1 None Max. output current at protected output mA 0 Max. output current at protected output mA 0 Supply voltage V 0 - 0 Rated control supply voltage Us at AC 50HZ V 0 - 0 Rated control supply voltage Us at AC 50HZ V 0 - 0 Rated control supply voltage Us at DC V 0 - 0 Voltage type DC DC Switching frequency HZ 300 With monitoring function downstream switching devices No Material housing HZ	Number of semiconductor outputs with signalling function			1
Number of protected contact energized outputs Type of actuation Type of interface Type of interface Type of interface for safety communication Construction type housing Coating housing Caseadable Caseadable Category according to EN 954-1 SIL according to EC 61508 Performance level acc. EN ISO 13849-1 Max. output current at protected output Max. output current at p	Number of contact energized outputs with signalling function			0
Type of actuation Type of interface Type of interface Type of interface Type of interface for safety communication Construction type housing Coating housing Cascadable Cascadable Category according to EN 954-1 Stl. according to EC 9598 Performance level acc. EN ISO 13849-1 Max. output current at protected output W 10 - 30 Rated control supply voltage Us at AC 50HZ Rated control supply voltage Us at AC 50HZ Rated control supply voltage Us at AC 50HZ Rated control supply foltage Us at AC 60HZ With monitoring function downstream switching devices Material housing Compression-resistant Explosion safety category for gas Explosion safety category for dust Mone Max. output current at protected output Mone Material housing Compression-resistant Explosion safety category for dust Mone Mone Mone Mone Mone Mone Mone Mone Mone Explosion safety category for dust	Number of protected semiconductor outputs			0
Type of interface None Type of interface for safety communication None Construction type housing Cylinder, screw-thread Coating housing Other Cascadable No Category according to EN 954-1 B SIL according to IEC 61508 None Performance level acc. EN ISO 13849-1 None Max. output current at protected output mA 0 Supply voltage V 10 - 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 AC 60HZ V 0 - 0 Voltage type DC OC Switching frequency Hz 300 With monitoring function downstream switching devices No Material housing I Pastic Compression-resistant No Explosion safety category for gas No Explosion safety category for dust None	Number of protected contact energized outputs			0
Type of interface for safety communication None Construction type housing Cylinder, screw-thread Coating housing Other Cascadable No Category according to EN 954-1 B SIL according to IEC 61508 None Performance level acc. EN ISO 13849-1 None Max. output current at protected output mA 0 Supply voltage V 10 - 30 Rated control supply voltage Us at AC 50HZ V 0 - 0 Rated control supply voltage Us at AC 60HZ V 10 - 30 Voltage type DC C Switching frequency DC V With monitoring function downstream switching devices No No Material housing Plastic Plastic Compression-resistant No No Explosion safety category for gas None None	Type of actuation			Metallic Target
Coating housing Coating housing Coating housing Cascadable Category according to EN 954-1 SIL according to EN 954-1 SIL according to EN 954-1 SIL according to EN 150 13849-1 Max. output current at protected output Max. output current at protected output Max. output current at protected output Max. output current at protected output Max. output current at protected output V 10 - 30 Rated control supply voltage Us at AC 50HZ Rated control supply voltage Us at AC 60HZ Rated control supply voltage Us at AC 60HZ Rovitage type Covitage type With monitoring frequency With monitoring function downstream switching devices Material housing Compression-resistant Explosion safety category for gas Explosion safety category for dust Vier Covitage Us at Government Voltage Us at Government Value	Type of interface			None
Coating housing Cascadable Category according to EN 954-1 SIL according to IEC 61508 Performance level acc. EN ISO 13849-1 Max. output current at protected output Max. output current at protected output None Performance level acc. EN ISO 1000 None Max. output current at protected output None Performance level acc. EN ISO 1000 None None Performance level acc. EN ISO 1000 None None	Type of interface for safety communication			None
Cascadable Category according to EN 954-1 SIL according to IEC 61508 Performance level acc. EN ISO 13849-1 Max. output current at protected output Max. output output output output output Max. output output output output output Max. output output output output Max. output output output output output Max. output output output Max. output output output Max. output output output Max. output Max. output output Max. o	Construction type housing			Cylinder, screw-thread
Category according to EN 954-1 SIL according to IEC 61508 None Performance level acc. EN ISO 13849-1 Max. output current at protected output Max. output current at protected output Max. output current at protected output None 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 Noc Switching frequency With monitoring function downstream switching devices Material housing Compression-resistant Explosion safety category for gas Explosion safety category for dust	Coating housing			Other
SIL according to IEC 61508 Performance level acc. EN ISO 13849-1 Max. output current at protected output mA Supply voltage Rated control supply voltage Us at AC 50HZ Rated control supply voltage Us at AC 60HZ V 0 - 0 Rated control supply voltage Us at AC 60HZ V 0 - 0 Rated control supply voltage Us at DC V 010 - 30 Voltage type DC Switching frequency Hz 300 With monitoring function downstream switching devices Material housing Compression-resistant Explosion safety category for dust None	Cascadable			No
Performance level acc. EN ISO 13849-1 Max. output current at protected output Max. output current at Current at AC 60HZ Max. output current at AC 60HZ Max.	Category according to EN 954-1			В
Max. output current at protected output Supply voltage Supply voltage 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 DC V 10 - 30 Voltage type DC Switching frequency With monitoring function downstream switching devices Material housing Compression-resistant Explosion safety category for gas Explosion safety category for dust Max. output Current at protected output N 10 - 30 Compression-resistant No Noe None None	SIL according to IEC 61508			None
Supply voltage 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 DC Voltage type DC Switching frequency With monitoring function downstream switching devices Material housing Compression-resistant Compression-resistant Explosion safety category for dust V 10 - 30 N 10 - 30 V 10 - 30 N 10 - 30 V 10 - 30 N 10 - 30	Performance level acc. EN ISO 13849-1			None
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 Voltage type DC Switching frequency Hz 300 With monitoring function downstream switching devices Material housing Compression-resistant Compression-resistant No Explosion safety category for dust None None	Max. output current at protected output	mA	4	0
Rated control supply voltage Us at AC 60HZ Rated control supply voltage Us at DC V 10 - 30 Voltage type DC Switching frequency With monitoring function downstream switching devices Material housing Compression-resistant Explosion safety category for gas Explosion safety category for dust V 0 - 0 0 - 0 0 - 0 10 - 30 DC NO Plastic No No No No No No No No No N	Supply voltage	V		10 - 30
Rated control supply voltage Us at DC Voltage type DC Switching frequency Hz 300 With monitoring function downstream switching devices Material housing Compression-resistant Explosion safety category for gas Explosion safety category for dust V 10 - 30 No Plastic No No No No No No No No No N	Rated control supply voltage Us at AC 50HZ	V		0 - 0
Voltage type Switching frequency With monitoring function downstream switching devices Material housing Compression-resistant Explosion safety category for dust DC No No No No No No No No No N	Rated control supply voltage Us at AC 60HZ	V		0 - 0
Switching frequency With monitoring function downstream switching devices Material housing Compression-resistant Explosion safety category for dust Hz 300 No Plastic No Plastic No No None None	Rated control supply voltage Us at DC	V		10 - 30
With monitoring function downstream switching devices Material housing Compression-resistant Compression safety category for gas Explosion safety category for dust No None	Voltage type			DC
Material housing Plastic Compression-resistant No Explosion safety category for gas None Explosion safety category for dust None	Switching frequency	Hz		300
Compression-resistant Explosion safety category for gas None None None	With monitoring function downstream switching devices			No
Explosion safety category for gas Explosion safety category for dust None	Material housing			Plastic
Explosion safety category for dust None	Compression-resistant			No
	Explosion safety category for gas			None
Interference resistance to magnetic fields	Explosion safety category for dust			None
	Interference resistance to magnetic fields			

Approvals

Product Standards	CE marking
Max. Voltage Rating	30 V DC
Degree of Protection	IEC: IP66; UL/CSA: NEMA 4, 4X, 13

Dimensions



Assets (links)

Declaration of CE Conformity

00003158

Instruction Leaflets

IL05301005Z2018_05

Additional product information (links)

IL05301005Z E55 Series Barrel-Style Inductive Sensors

Sensors

IL05301005Z E55 Series Barrel-Style Inductive ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05301005Z2018_05.pdf