DATASHEET - E57EBL8T111ED



Proximity switch, E57 Miniatur Series, 1 NC, 3-wire, 10 - 30 V DC, M8 x 1 mm, Sn= 2 mm, Non-flush, PNP, Stainless steel, Plug-in connection M12 x 1



Part no. E57EBL8T111ED Catalog No. 136258

Alternate Catalog E57EBL8T111ED

No.

Delivery program

		Inductive Sensors
		E57 Miniatur Series
		3-wire
	mm	M8 x 1
U _e		10 - 30 V DC
S_n	mm	2
		Non-flush
		PNP
		Plug-in connection M12 x 1
		1 NC
		Stainless steel
		IP67
		U _e

Technical data

General

Ambient temperature Mechanical shock resistance Degree of Protection Characteristics Rated switching distance Rapetition accuracy of S _n Temperature drift of S _n Switching hysteresis of S _n Maximum load current drift switched state at 24 V DC Ib mA Degrating current in the switched state at 24 V DC Voltage drop at I ₀ Switching Frequency Residual current through the load in the blocked state at 230 V AC and 24 V DC Residual current through the load in the blocked state at 230 V AC and 24 V DC NC = Normally closed NC = Normally closed Style Design (outer dimensions) mm M8 x 1 For connection M12 x 1	General			
Machanical shock resistance g 30 shock duration 11 ms Degree of Protection 1967 Characteristics Rated switching distance 8 mm 2 Repetition accuracy of Sn 5 mm 2 Temperature drift of Sn 6 mm 10 Switching hysteresis of Sn 6 mm 15 Rated operational voltage 10 mm 2 Maximum load current 10 mm 200 Maximum load current in the switched state at 24 V DC 10 mm 10 Voltage drop at Ing Und V 1.5 Switching frequency 12 mm 12 mm 2000 Residual current through the load in the blocked state at 230 V AC and 24 V DC 1 mm 0.01 Switching frequency 1 mm 1 mm 0.01 Residual current through the load in the blocked state at 230 V AC and 24 V DC 1 mm 0.01 Switching frequency 1 mm 0.01 0.01 Residual current through the load in the blocked state at 250 V AC and 24 V DC 1 mm 0.01 0.01 Connection 1 mm </td <td>Standards</td> <td></td> <td></td> <td>IEC/EN 60947-5</td>	Standards			IEC/EN 60947-5
Degree of Protection Characteristics Rated switching distance Rated switching distance Repetition accuracy of Sn Rated switching distance Repetition accuracy of Sn Repetition	Ambient temperature			-25 - +70
Characteristics Rated switching distance Rated switching distance Repetition accuracy of Sn Repeti	Mechanical shock resistance		g	
Rated switching distance Rated switching distance Repetition accuracy of Sn Temperature drift of Sn Switching hysteresis of Sn Rated operational voltage Maximum load current Ue Ue Ua Voltage drop at Ie Switching Frequency Residual current through the load in the blocked state at 230 V AC and 24 V DC Switching state display Protective functions Connection Connection Contacts N/C = Normally closed N/C = Normally closed For connection of: mm M8 x 1 Plug-in connection M12 x 1	Degree of Protection			IP67
Related switching distance Repetition accuracy of Sn Temperature drift of Sn Temperature drift of Sn Switching hysteresis of Sn Rated operational voltage Ue To -30 V DC Maximum load current Ue The what is the switched state at 24 V DC Ue To -30 V DC Maximum load current in the switched state at 24 V DC Ue To -30 V DC Woltage drop at Ing Woltage drop at Ing Switching Frequency Residual current through the load in the blocked state at 230 V AC and 24 V DC To -30 V DC Residual current through the load in the blocked state at 230 V AC and 24 V DC To -30 V DC Residual current through the load in the blocked state at 230 V AC and 24 V DC To -30 V DC Residual current through the load in the blocked state at 230 V AC and 24 V DC To -30 V DC Residual current through the load in the blocked state at 230 V AC and 24 V DC To -30 V DC Residual current through the load in the blocked state at 230 V AC and 24 V DC To -30 V DC Residual current through the load in the blocked state at 230 V AC and 24 V DC To -30 V DC Residual current through the load in the blocked state at 230 V AC and 24 V DC To -30 V DC Residual current through the load in the blocked state at 230 V AC and 24 V DC To -30 V DC Residual current through the load in the blocked state at 230 V AC and 24 V DC To -30 V DC Residual current through the load in the blocked state at 230 V AC and 24 V DC To -30 V DC Residual current through the load in the blocked state at 230 V AC and 24 V DC To -30 V DC Residual current through the load in the blocked state at 230 V AC and 24 V DC To -30 V DC Residual current through the load in the blocked state at 230 V AC and 24 V DC To -30 V DC Residual current through the load in the blocked state at 230 V AC and 24 V DC To -30 V DC Residual current through the load in the blocked state at 230 V AC and 24 V DC To -30 V DC Residual current through the load in the blocked state at 230 V AC and 24 V DC To -30	Characteristics			
Repetition accuracy of S _n Temperature drift of S _n Switching hysteresis of S _n Rated operational voltage Ve Maximum load current Voltage drop at I _e Voltage drop at	Rated switching distance			
Temperature drift of S _n Switching hysteresis of S _n Rated operational voltage U _e 10 - 30 V DC Maximum load current U _e MA 200 Operating current in the switched state at 24 V DC U _b MB 10 Voltage drop at I _e Voltage drop	Rated switching distance	S_{n}	mm	2
Switching hysteresis of Sn Rated operational voltage Ue 10 - 30 V DC Maximum load current Ue 10 mA 2000 Operating current in the switched state at 24 V DC 1b mA 10 Voltage drop at Ie Voltage drop at Ie Switching Frequency Residual current through the load in the blocked state at 230 V AC and 24 V DC Ir mA 0.01 Switching state display Protective functions Connection Contacts N/C = Normally closed N/C = Normally closed Design (outer dimensions) MB x 1 For connection of: MB x 1 For connection M12 x 1	Repetition accuracy of S_n		%	1
Rated operational voltage Maximum load current le mA <200 Operating current in the switched state at 24 V DC lb mA 10 Voltage drop at le Vd v 1.5 Switching Frequency Hz 2000 Residual current through the load in the blocked state at 230 V AC and 24 V DC lr mA 0.01 Switching state display LED Red Protective functions Schort-circuit protective device 3-wire Connection N/C = Normally closed N/C = Normally closed State at 230 V AC and 24 V DC V V V V V V V V V V V V V V V V V	Temperature drift of S _n		%	10
Maximum load current Derating current in the switched state at 24 V DC Derating current in the switched state at 24 V DC Ud Voltage drop at I _e Ud V 1.5 Switching Frequency Residual current through the load in the blocked state at 230 V AC and 24 V DC Switching state display LED Red Protective functions Connection Contacts N/C = Normally closed N/C = Normally closed Design (outer dimensions) Max 1 Plug-in connection M12 x 1	Switching hysteresis of S_n		%	15
Operating current in the switched state at 24 V DC Voltage drop at I _e Voltage drop at I _e Switching Frequency Residual current through the load in the blocked state at 230 V AC and 24 V DC Residual current through the load in the blocked state at 230 V AC and 24 V DC Voltage drop at I _e Mac 2000 Residual current through the load in the blocked state at 230 V AC and 24 V DC LED Red Protective functions Connection Connection N/C = Normally closed N/C = Normally closed Design (outer dimensions) mm M8 x 1 For connection of: Plug-in connection M12 x 1	Rated operational voltage	U _e		10 - 30 V DC
Voltage drop at I _e Switching Frequency Residual current through the load in the blocked state at 230 V AC and 24 V DC Switching state display Protective functions Connection Contacts N/C = Normally closed Design (outer dimensions) For connection of: Wd V 1.5 Hz 2000 Red Design (outer dimensions) Hz Apolic Condection In C Short-circuit protective device 3-wire 1 NC The Max 1 M8 x 1 Plug-in connection M12 x 1	Maximum load current	I _e	mA	< 200
Switching Frequency Residual current through the load in the blocked state at 230 V AC and 24 V DC Ir MA Switching state display LED Red Protective functions Connection Connection V/C = Normally closed N/C = Normally closed Design (outer dimensions) For connection of: Hz 2000 Red Short-circuit protective device Short-circuit protective device 1 N/C 3-wire 1 NC N/C = Normally closed M8 x 1 Plug-in connection M12 x 1	Operating current in the switched state at 24 V DC	I _b	mA	10
Residual current through the load in the blocked state at 230 V AC and 24 V DC Switching state display Protective functions Connection N/C = Normally closed New York of the load in the blocked state at 230 V AC and 24 V DC Design (outer dimensions) MA 0.01 Red Short-circuit protective device 3-wire 1 NC 1 NC Style Design (outer dimensions) MB x 1 For connection of: Plug-in connection M12 x 1	Voltage drop at I _e	U_{d}	V	1.5
Switching state display LED Red Protective functions Connection Connection N/C = Normally closed Ned Max 1 For connection of: LED Red Red Red Nort-circuit protective device 3-wire 1 NC NC N/C = Normally closed Plug-in connection M12 x 1	Switching Frequency		Hz	2000
Protective functions Connection Contacts N/C = Normally closed Design (outer dimensions) For connection of: Short-circuit protective device 3-wire 1 NC 1 NC M8 x 1 Plug-in connection M12 x 1	Residual current through the load in the blocked state at 230 V AC and 24 V DC	I _r	mA	0.01
Connection 3-wire Contacts 1 NC N/C = Normally closed 1 NC Style WM X 1 Design (outer dimensions) MM X 1 For connection of: Plug-in connection M12 x 1	Switching state display		LED	Red
Contacts INC N/C = Normally closed 1 NC Style WM Design (outer dimensions) MM M8 x 1 For connection of: Plug-in connection M12 x 1	Protective functions			Short-circuit protective device
N/C = Normally closed 1 NC Style Wmm M8 x 1 For connection of: Plug-in connection M12 x 1	Connection			3-wire
Style Design (outer dimensions) mm M8 x 1 For connection of: Plug-in connection M12 x 1	Contacts			
Design (outer dimensions) mm M8 x 1 For connection of: Plug-in connection M12 x 1	N/C = Normally closed			1 NC
For connection of: Plug-in connection M12 x 1	Style			
10 11 11	Design (outer dimensions)		mm	M8 x 1
Material Stainless steel	For connection of:			Plug-in connection M12 x 1
	Material			Stainless steel

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

Toomitour data ETIM 7.0			
Sensors (EG000026) / Inductive proximity switch (EC002714)			
Electric engineering, automation, process control engineering / Binary sensor (ecl@ss10.0.1-27-27-01-01 [AGZ376015])	technology, safety	-related s	ensor technology / Proximity switch / Inductive proximity switch
Width sensor		mm	0
Height of sensor		mm	0
Length of sensor		mm	70
Diameter sensor		mm	8
Mechanical mounting condition for sensor			Not flat
Switching distance		mm	2
Suitable for safety functions			No
Type of switch function			Breaker contact
Type of switching output			PNP
Type of electric connection			Connector M12
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 actuation			Metallic Target
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			В
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 DC		V	10 - 30
Voltage type			DC
Switching frequency		Hz	2000
With monitoring function downstream switching devices			No
Material housing			Metal
Compression-resistant			No
Explosion safety category for gas			None
Explosion safety category for dust			None
Interference resistance to magnetic fields			

Approvals

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Product Standards	CE marking
Max. Voltage Rating	30 V DC
Degree of Protection	IEC: IP67; UL/CSA Type: -

Assets (links)

Declaration of CE Conformity

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