



Proximity switch, inductive, 1N/O, Sn=5mm, 3L, 10-30VDC, NPN, M12, metal, M12

**Part no.** E57-12GE05-CDB  
**Catalog No.** 135868  
**Eaton Catalog No.** E57-12GE05-CDB

## Delivery program

Basic function			Inductive Sensors
Product range			E57 Global Series
Connection			3-wire
Design (outer dimensions)		mm	M12 x 1
Rated operational voltage	$U_e$		10 - 30 V DC
Rated switching distance	$S_n$	mm	5
Type of mounting			Flush
Switching type			NPN
For connection of:			Plug-in connection M12 x 1
<b>Contacts</b>			
N/O = Normally open			1 N/O
Material			Metal
Degree of Protection			IP67, IP69K

## Technical data

### General

Standards			IEC/EN 60947-5-2
Ambient temperature			0 - +60
Mechanical shock resistance		g	30 Shock duration 11 ms
Degree of Protection			IP67, IP69K

### Characteristics

Rated switching distance			
Rated switching distance	$S_n$	mm	5
Repetition accuracy of $S_n$		%	1
Temperature drift of $S_n$		%	10
Switching hysteresis of $S_n$		%	15
Rated operational voltage	$U_e$		10 - 30 V DC
Residual ripple of $U_e$		%	10
Maximum load current	$I_e$	mA	< 100
Operating current in the switched state at 24 V DC	$I_b$	mA	10
Voltage drop at $I_e$	$U_d$	V	1.5
Switching Frequency		Hz	2000
Residual current through the load in the blocked state at 230 V AC and 24 V DC	$I_r$	mA	0.01
Switching state display		LED	Red
Protective functions			Short-circuit protective device Protection against polarity reversal Protection against wire breakage
Connection			3-wire
Contacts			
N/O = Normally open			1 N/O
Style			
Design (outer dimensions)		mm	M12 x 1
For connection of:			Plug-in connection M12 x 1
Material			Metal

## Design verification as per IEC/EN 61439

Technical data for design verification		
Operating ambient temperature min.	°C	0
Operating ambient temperature max.	°C	60

## Technical data ETIM 7.0

Sensors (EG000026) / Inductive proximity switch (EC002714)		
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])		
Width sensor	mm	0
Height of sensor	mm	0
Length of sensor	mm	69
Diameter sensor	mm	12
Mechanical mounting condition for sensor		Concise
Switching distance	mm	5
Suitable for safety functions		No
Type of switch function		Normally open contact
Type of switching output		NPN
Type of electric connection		Plug-in connection M12
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		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 DC	V	10 - 30
Voltage type		DC
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

Product Standards		UL 508; CSA-C22.2 No. 14; IEC60947-5-2; CE marking
UL File No.		CSA report applies to both Canada and US
UL Category Control No.		-
CSA File No.		224447
CSA Class No.		4652-04 / 4652-84
North America Certification		CSA certified, certified by CSA for use in the US

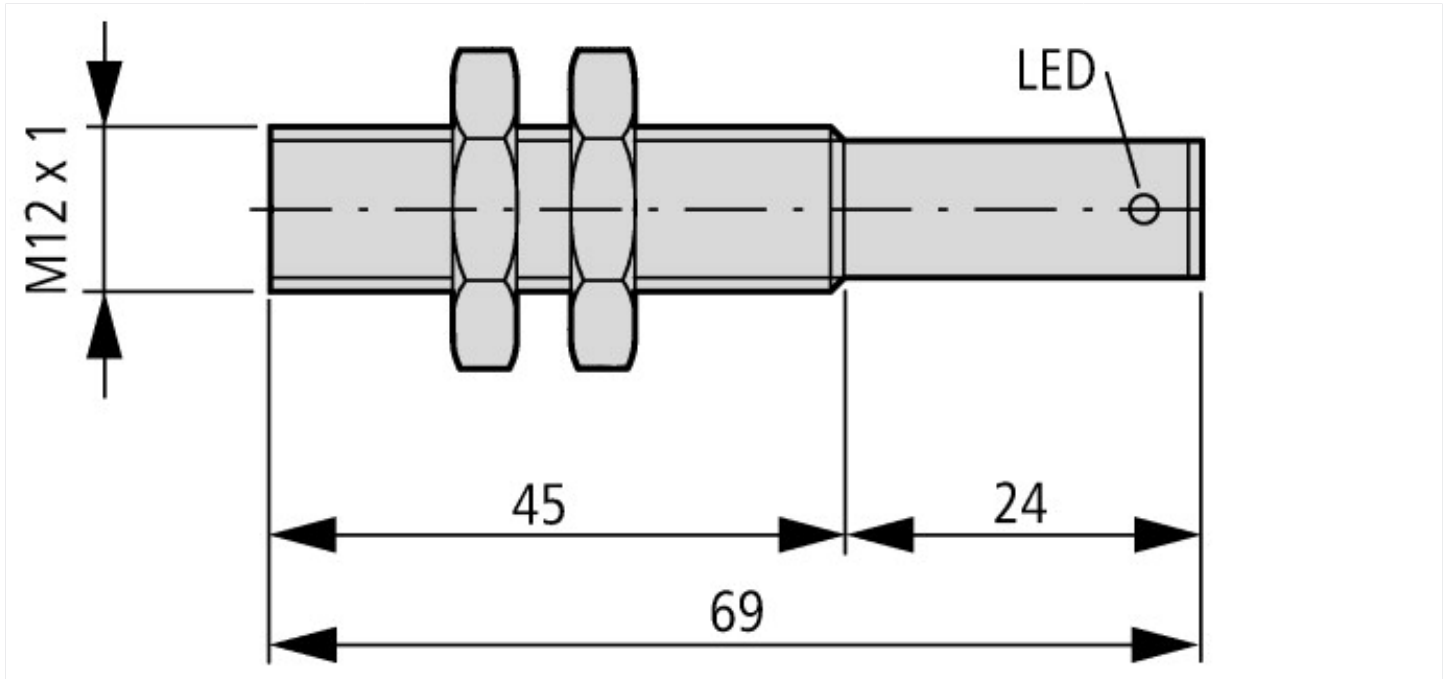
Max. Voltage Rating

30 V DC

Degree of Protection

IEC: IP67, IP69K; UL/CSA Type: -

## Dimensions



## Additional product information (links)

**IL05301002Z Global Series Inductive Sensors**

IL05301002Z Global Series Inductive Sensors [ftp://ftp.moeller.net/DOCUMENTATION/AWA\\_INSTRUCTIONS/IL05301002Z2018\\_05.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05301002Z2018_05.pdf)