



Proximity switch, inductive, 1N/O, Sn=2mm, 3L, 10-30VDC, NPN, M12, metal, M12

**Part no.** E57-12GS02-CDB  
**Catalog No.** 135882  
**Eaton Catalog No.** E57-12GS02-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	2
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			-25 - +70
Mechanical shock resistance		g	30 Shock duration 11 ms
Degree of Protection			IP67, IP69K

### Characteristics

Rated switching distance			
Rated switching distance	$S_n$	mm	2
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	-25
Operating ambient temperature max.		°C	70

## 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	2
Suitable for safety functions			No
Type of switch function			Normally open contact
Type of switching output			NPN
Type of electric connection			Connector M12
Type of electric connection			Plug-in connection 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

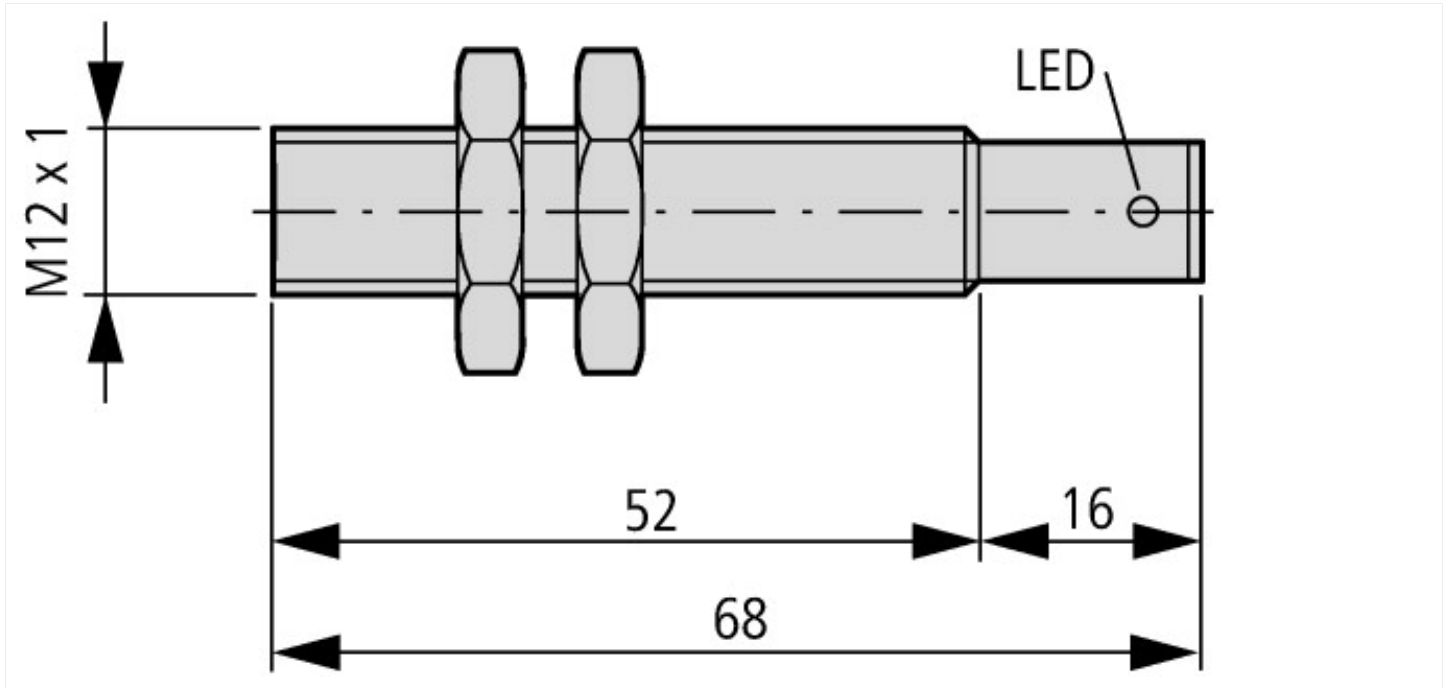
Max. Voltage Rating

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)