



**Proximity switch, inductive, 1N/O, Sn=4mm, 4L, 6-48VDC, NPN, PNP, M12, metal**



**Part no.** E59-M12A105D01-D1  
**Catalog No.** 136207  
**Alternate Catalog No.** E59-M12A105D01-D1  
**EL-Nummer (Norway)** 0004315381

## Delivery program

Basic function			Inductive Sensors
Product range			iProx Series
Connection			3-wire
Design (outer dimensions)		mm	M12 x 1
Rated operational voltage	$U_e$		6 - 48 V DC
Rated switching distance	$S_n$	mm	4
Type of mounting			Flush
Switching type			NPN PNP
For connection of:			Plug-in connection M12 x 1
<b>Contacts</b>			
N/O = Normally open			1 N/O
Material			Stainless steel
Degree of Protection			IP67, IP69

## Technical data

### General

Standards			IEC/EN 60947-5-2
Ambient temperature			-40 - +70
Mechanical shock resistance		g	30 Shock duration 11 ms
Degree of Protection			IP67, IP69

### Characteristics

Rated switching distance			
Rated switching distance	$S_n$	mm	4
Repetition accuracy of $S_n$		%	1
Temperature drift of $S_n$		%	10
Switching hysteresis of $S_n$		%	15
Rated operational voltage	$U_e$		6 - 48 V DC
Maximum load current	$I_e$	mA	< 300
Operating current in the switched state at 24 V DC	$I_b$	mA	15
Voltage drop at $I_e$	$U_d$	V	2.5
Switching Frequency		Hz	580
Min. load current	$I_e$	mA	1
Residual current through the load in the blocked state at 230 V AC and 24 V DC	$I_r$	mA	0.15
Switching state display		LED	Red
Operating voltage display		LED	Green
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		Stainless steel

## 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

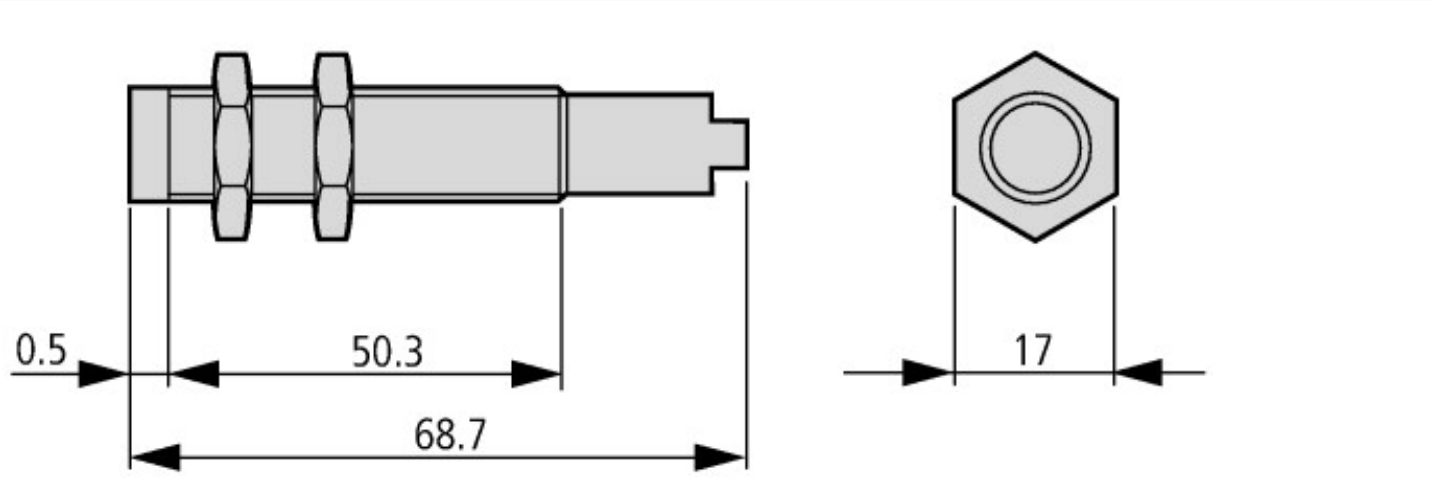
Sensors (EG000026) / Inductive proximity switch (EC002714)			
Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Proximity switch / Inductive proximity switch (ecI@ss10.0.1-27-27-01-01 [AGZ376015])			
Width sensor		mm	0
Height of sensor		mm	0
Length of sensor		mm	69
Diameter sensor		mm	12
Mechanical mounting condition for sensor			Concise
Switching distance		mm	4
Suitable for safety functions			No
Type of switch function			Normally open contact
Type of switching output			PNP/NPN
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	6 - 48
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	6 - 48
Voltage type			DC
Switching frequency		Hz	580
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.		E166051
UL Category Control No.		NRKH, NRKH7
CSA File No.		UL report applies to both Canada and US
CSA Class No.		—

North America Certification		UL listed, certified by UL for use in Canada
Max. Voltage Rating		48 V DC
Degree of Protection		IEC: IP67, IP69K; UL/CSA Type: 4, 4x, 6, 6P, 12, 13

Dimensions



Assets (links)

[Declaration of CE Conformity](#)  
00003158

[Instruction Leaflets](#)  
IL05301004Z2018\_05

Additional product information (links)

IL05301004Z iProx Series Inductive Sensors	
IL05301004Z iProx Series Inductive Sensors	<a href="ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05301004Z2018_05.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05301004Z2018_05.pdf</a>