



Proximity switch, inductive, 1N/O, Sn=10mm, 4L, 6-48VDC, NPN, PNP, M12, metal

**Part no.** E59-M12C110C02-D1  
**Catalog No.** 136209  
**Alternate Catalog No.** E59-M12C110C02-D1

## 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	10
Type of mounting			Non-flush
Switching type			NPN PNP
For connection of:			2 m connection cable
<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	10
Repetition accuracy of $S_n$		%	3
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	300
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:			2 m connection cable

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

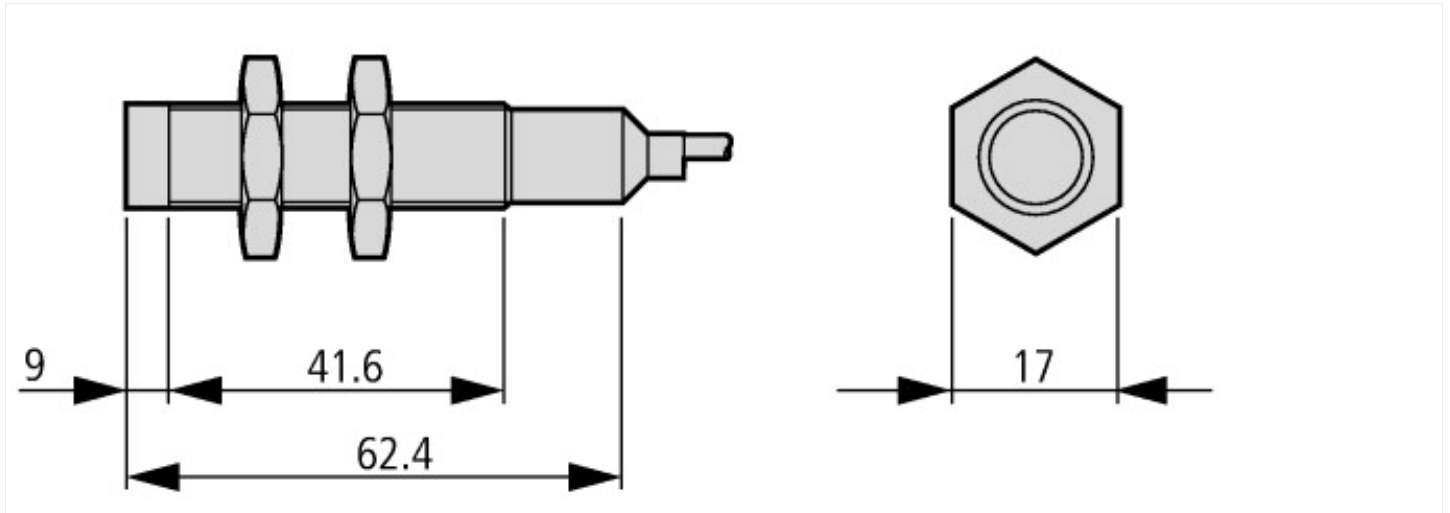
Sensors (EG000026) / Inductive proximity switch (EC002714)		
Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Proximity switch / Inductive proximity switch (ecl@ss10.0.1-27-27-01-01 [AGZ376015])		
Width sensor	mm	0
Height of sensor	mm	0
Length of sensor	mm	62
Diameter sensor	mm	12
Mechanical mounting condition for sensor		Not flat
Switching distance	mm	10
Suitable for safety functions		No
Type of switch function		Normally open contact
Type of switching output		PNP/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		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	300
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 [ftp://ftp.moeller.net/DOCUMENTATION/AWA\\_INSTRUCTIONS/IL05301004Z2018\\_05.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05301004Z2018_05.pdf)