



Sensor, contrast, M18, S<sub>n</sub>=10mm, 10-30VDC, NPN, M12

**Part no.** E76-CNT010N-M12  
**Catalog No.** 166929  
**Alternate Catalog No.** E76-CNT010N-M12

## Delivery program

Basic function			Optical sensors
Product range			E76 IntelliView Series
For connection of:			Plug-in connection M12 x 1
Design (outer dimensions)		mm	M18 x 1
Rated operational voltage	U <sub>e</sub>		10 - 30 V DC
Rated switching distance	S <sub>n</sub>	mm	100
Description			Contrast sensing
Connection			4-wire
Function			Reflected-light beam
Type of light			UV (white LED, 400 - 700 nm)
Material			Insulated material
Switching type			NPN
Switching principle			Adjustable bright/dark switching
<b>Information relevant for export to North America</b>			
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			
North America Certification UL listed, certified by UL for use in Canada			
Max. Voltage Rating 30 V DC			
Degree of Protection IEC: IP67; UL/CSA Type: -			

## Technical data

### General

Standards			IEC/EN 60947-5-2
Ambient temperature			-10 - +55
Operation	θ	°C	-10 - +55
Storage	θ	°C	-20 - +70
Mechanical shock resistance		g	30 Shock duration 11 ms
Degree of Protection			IP67
Vibration			Amplitude 0.5 mm: 10 - 55 Hz. IEC/EN 60068-2-6

### Characteristics

Rated switching distance			
Rated switching distance	S <sub>n</sub>	mm	100
Rated operational voltage	U <sub>e</sub>		10 - 30 V DC
Maximum load current	I <sub>e</sub>	mA	< 100
Switching Frequency		Hz	2700
Response time		ms	0.19
Switching state display		LED	Yellow
Operating voltage display		LED	Green
Protective functions			Short-circuit protective device
Connection			4-wire
Style			
Design (outer dimensions)		mm	M18 x 1
For connection of:			Plug-in connection M12 x 1

Material		Insulated material
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## Design verification as per IEC/EN 61439

Technical data for design verification		
Operating ambient temperature min.	°C	-10
Operating ambient temperature max.	°C	55

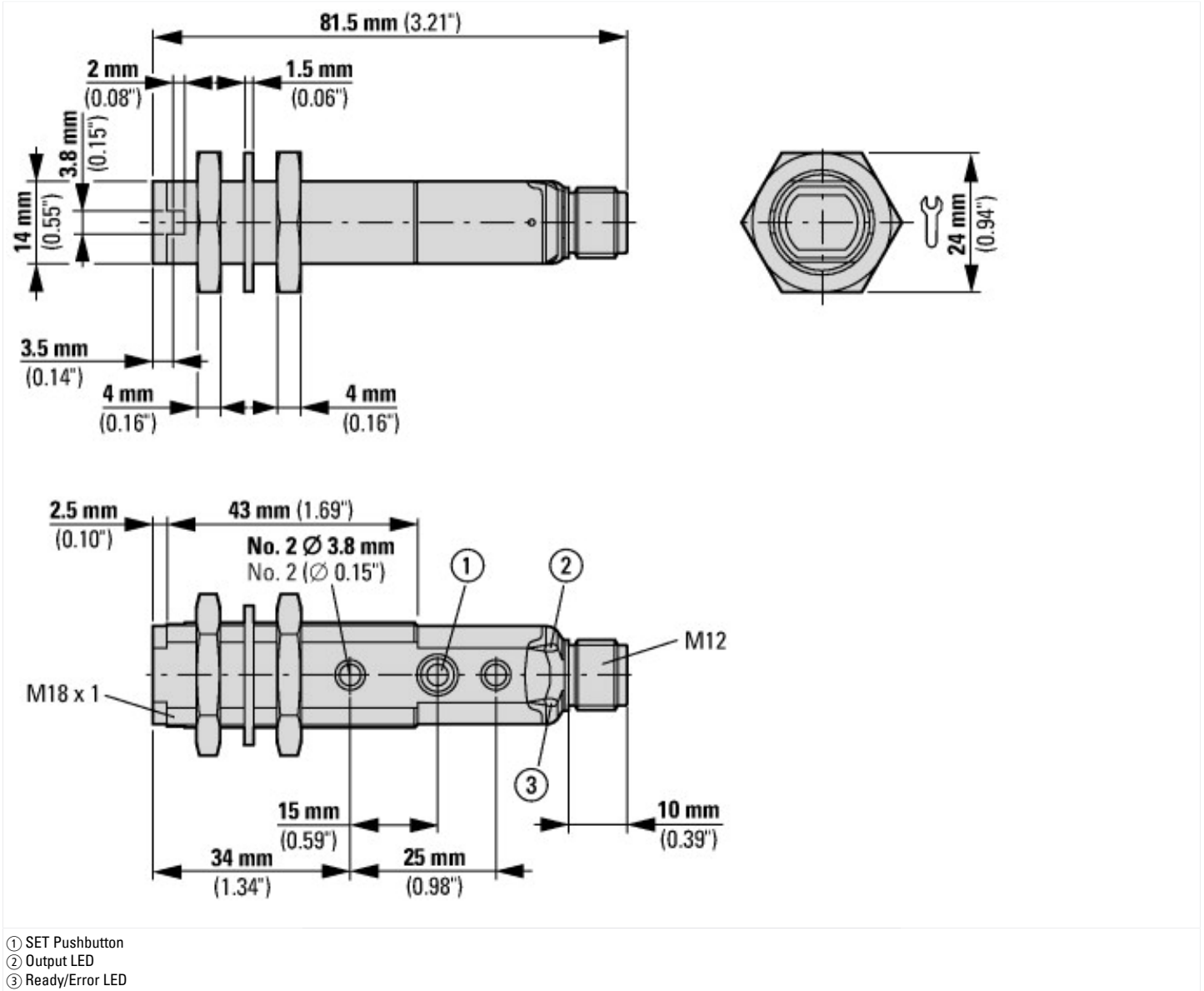
## Technical data ETIM 7.0

Sensors (EG000026) / Luminescence sensor (EC001822)		
Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Optoelectronic sensor / Luminescence scanner (ecl@ss10.0.1-27-27-09-08 [AKP257015])		
Lamp type		Other
Analogue output 0 V ... 10 V		No
Analogue output 0 mA ... 20 mA		No
Analogue output 4 mA ... 20 mA		No
Analogue output -10 V ... +10 V		No
Type of electric connection		Connector M12
Number of semiconductor outputs with signalling function		0
Number of contact energized outputs with signalling function		0
Type of switching output		NPN
Type of switch function		Programmable/configurable
With blanking function		No
Operation agent-safety class		Safety class 2
Width sensor	mm	0
Height of sensor	mm	0
Length of sensor	mm	81.5
Diameter sensor	mm	18
Setting procedure		Other
Type of frequency band of the receiving spectrum		Other
Construction type housing		Cylinder, screw-thread
Laser protection class		Other
No load current	mA	0
Type of light		White light
Light dot	mm <sup>2</sup>	0
With fibre optics connection		No
Max. output current	mA	100
Nominal operating distance	mm	10
Switching frequency	Hz	2700
Degree of protection (IP)		IP67
Degree of protection (NEMA)		4X
Voltage type		DC
Ambient temperature	°C	10 - 50
With exchange lens		No
Material of optical surface		Plastic
Material housing		Plastic
Material of cable sheath		Other
Material fibre optics core		Other
With time function		No
AWG-number		0

## 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

## Dimensions



## Additional product information (links)

### IL05305008Z IntelliView Contrast Measurement Optical Sensors

IL05305008Z IntelliView Contrast Measurement Optical Sensors [https://es-assets.eaton.com/DOCUMENTATION/AWA\\_INSTRUCTIONS/IL05305008Z2018\\_05.pdf](https://es-assets.eaton.com/DOCUMENTATION/AWA_INSTRUCTIONS/IL05305008Z2018_05.pdf)