



Proximity switch, optical, long range 10cm, 4L, 10-30VDC, NPN, M8

Part no. **E71-FFDP-M8**  
Article no. **100518**  
Catalog No. **E71-FFDP-M8**

## Delivery program

Basic function			Optical sensors
Product range			E71 NanoView Series
For connection of:			Plug-in connection M8 x 1
Design (outer dimensions)		mm	Rectangular (20 x 12 x 32)
Rated operational voltage	U <sub>e</sub>		10 - 30 V DC
Rated switching distance	S <sub>n</sub>	mm	100
Description			Beam: focused, forward viewing
Connection			4-wire
Function			Reflected-light beam
Type of light			Visible red
Material			Insulated material
Switching type			PNP
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

Ambient temperature			-25 - +55
Operation	θ	°C	-25 - +55
Storage	θ	°C	-25 - +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	500
Response time		ms	1
Switching state display		LED	Yellow
Operating voltage display		LED	Green
Protective functions			Short-circuit protective device Protection against polarity reversal
Connection			4-wire
Style			
Design (outer dimensions)		mm	Rectangular (20 x 12 x 32)

For connection of:		Plug-in connection M8 x 1
Material		Insulated material

## Design verification as per IEC/EN 61439

Technical data for design verification			
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	55

## Technical data ETIM 6.0

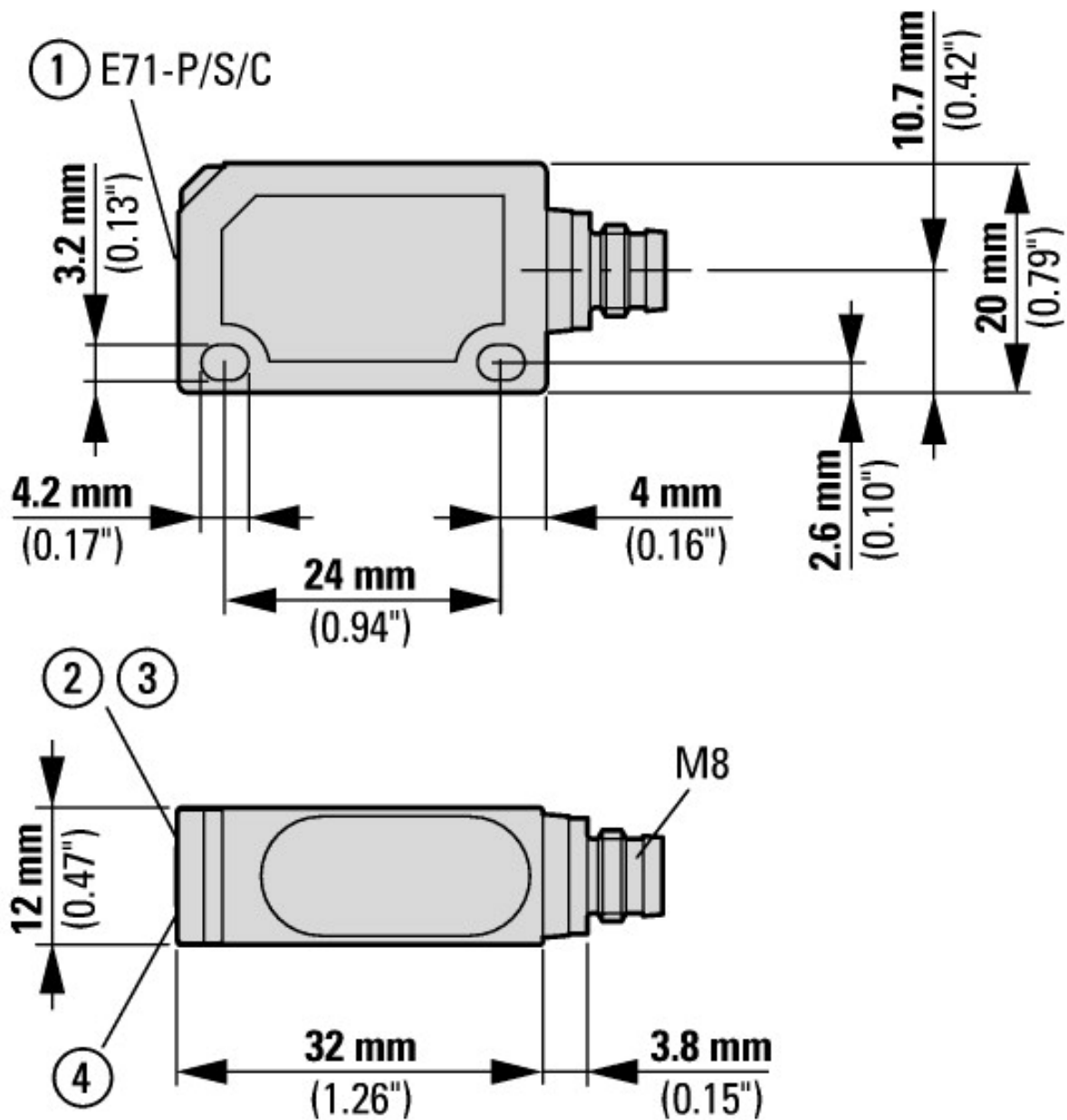
Sensors (EG000026) / Light scanner, energetic (EC001821)			
Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Optoelectronic sensor / Light scanner, energetic (ecI@ss8.1-27-27-09-03 [AKP252010])			
Operating distance		mm	0 - 100
Pre failure notice			No
With time function			No
Max. switching distance		mm	100
Max. output current		mA	100
Reflector included			No
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
With other analog output			No
Setting procedure			-
With communication interface analog			No
With communication interface AS-Interface			No
With communication interface CANOpen			No
With communication interface DeviceNet			No
With communication interface Ethernet			No
With communication interface INTERBUS			No
With communication interface PROFIBUS			No
With communication interface RS-232			No
With communication interface RS-422			No
With communication interface RS-485			No
With communication interface SSD			No
With communication interface SSI			No
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 interface for safety communication			-
Type of electric connection			Connector M8
Type of switching output			PNP
Type of switch function			-
Operation agent-safety class			-
Explosion safety category for gas			None
Explosion safety category for dust			None
Construction type housing			Cuboid
Width sensor		mm	12
Diameter sensor		mm	0
Height of sensor		mm	32
Length of sensor		mm	20
Switch function			Light-/dark switching
Material of optical surface			Plastic
Material housing			Plastic
Max. output current at protected output		mA	0

Min. reflector distance	mm	0
Time of reaction	ms	1
Transmission range of the safety field	m	0
Switching frequency	Hz	500
Type of safety acc. IEC 61496-1		-
Switching voltage of OSSD at state "high"	V	30
Voltage type		DC
With monitoring function downstream switching devices		No
Laser protection class		-
Wavelength of the sensor	nm	660
Type of light		Polarity free red light
Light dot	mm <sup>2</sup>	0
AWG-number		0
Material of cable sheath		-
With restart blockage		No
Suitable for safety functions		No
Degree of protection (IP)		IP67
Ambient temperature	°C	-25 - 55
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

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
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: -

## Dimensions



- ① Sensitivity potentiometer
- ② Stability LED
- ③ Power On LED
- ④ Output LED

## Additional product information (links)

IL05305006Z NanoView Optical Sensors

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[ftp://ftp.moeller.net/DOCUMENTATION/AWA\\_INSTRUCTIONS/IL05305006Z2016\\_07.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05305006Z2016_07.pdf)