



**Proximity switch, optical, long range 6m, 4L, 10-30VDC, NPN, cable**

**Part no. E71-TBRN-CA**  
**Article no. 100531**  
**Catalog No. E71-TBRN-CA**

**Delivery program**

Basic function			Optical sensors
Product range			E71 NanoView Series
For connection of:			2 m connection cable
Design (outer dimensions)		mm	Rectangular (20 x 12 x 32)
Rated operational voltage	$U_e$		10 - 30 V DC
Rated switching distance	$S_n$	mm	6000
Description			Detector (for combination with source)
Connection			4-wire
Function			Thru-beam photoelectric sensor
Type of light			Infra-red
Material			Insulated material
Switching type			NPN
Switching principle			Adjustable bright/dark switching

**Information relevant for export to North America**

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	$\theta$	°C	-25 - +55
Storage	$\theta$	°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	$S_n$	mm	6000
Rated operational voltage	$U_e$		10 - 30 V DC
Maximum load current	$I_e$	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:			2 m connection cable
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

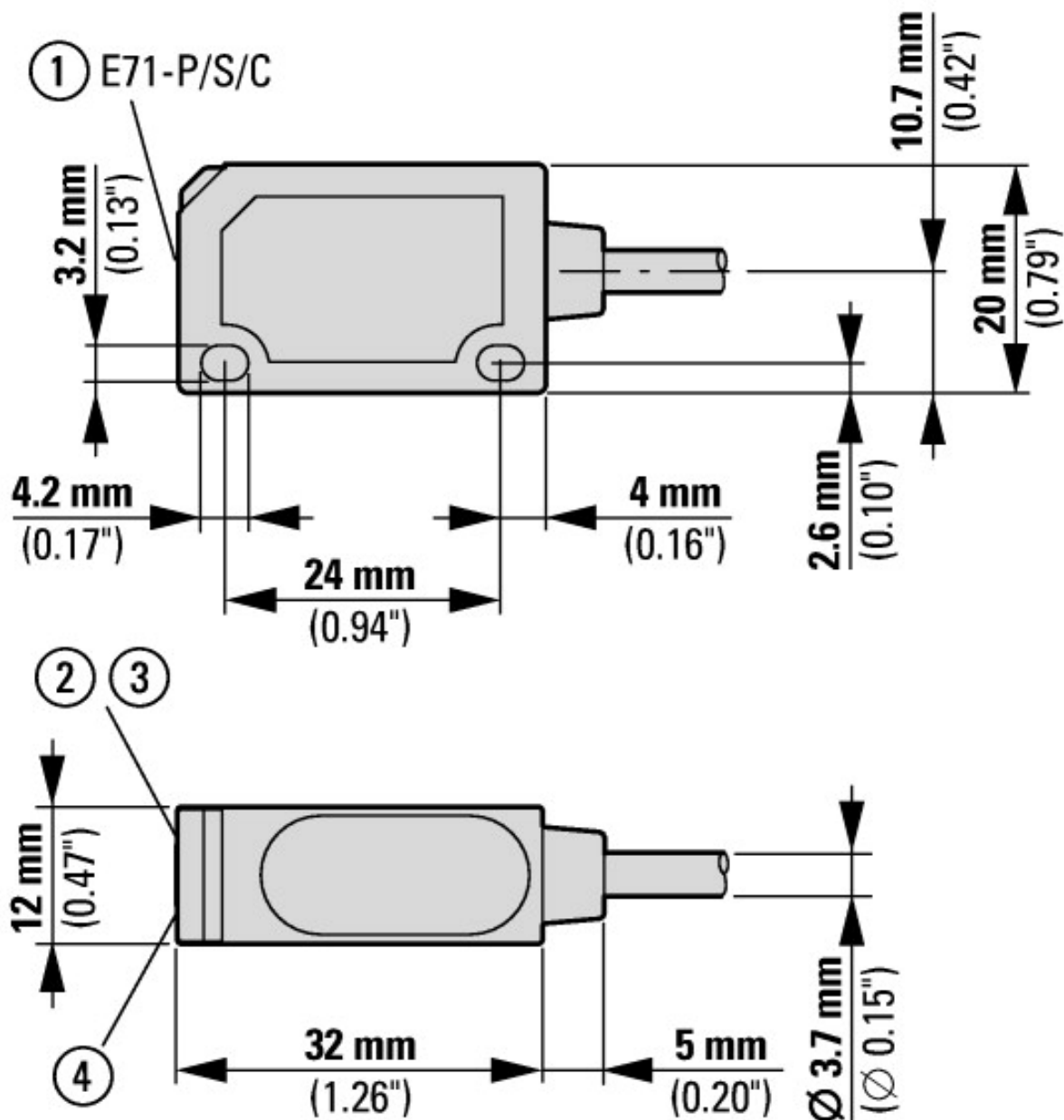
Sensors (EG000026) / One-way light barrier (EC002716)			
Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Optoelectronic sensor / One-way light barrier (ecl@ss8.1-27-27-09-01 [AKP250010])			
Scope of delivery of the one-way system			Receiver
Opening angle		°	0
Pre failure notice			No
With time function			No
Rated switching distance		mm	6000
Max. switching distance		mm	6000
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			Cable
Type of switching output			NPN
Type of switch function			-
Operation agent-safety class			Safety class 2
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

Ambient temperature	°C	-25 - 55
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
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
With monitoring function downstream switching devices		No
Laser protection class		None
Wavelength of the sensor	nm	880
Type of light		Infrared light
Light dot	mm <sup>2</sup>	0
AWG-number		22
Material of cable sheath		-
With restart blockage		No
Suitable for safety functions		No
Degree of protection (IP)		IP67

## 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)