

1) Pulse extender, 2) LED Power indicator, 3) Switching function, 4) Object resolution, 5) LED warning indicator, 6) LED function indicator, 7) Optical axis



#### Basic features

##### Additional features

Static switching output with automatic readjustment of the switching threshold  
Contamination compensation up to 60% intensity loss and reduced object resolution depending on degree of contamination.

##### Approval/Conformity

CE  
UKCA  
WEEE

##### Basic standard

IEC 60947-5-2

##### Principle of operation

Optical window sensor

##### Series

B

##### Style

Frame

#### Display/Operation

##### Adjuster

Potentiometer 270° (3x)

##### Display

Output function- LED yellow  
LED green: Power  
Error - LED red

##### Setting

Pulse extension (On/Off)  
Object resolution (3 levels)  
Light-on/dark-on

#### Electrical connection

##### Connection

Connector, M8x1-Male, 4-pin

##### Contact, surface protection

Gold plated

##### Polarity reversal protected

yes

##### Short-circuit protection

yes

Photoelectric Sensors  
**BOW B-2828-DU-C-S75**  
Order Code: BOW003P

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**Electrical data**

No-load current $I_0$ max. at $U_e$	200 mA
Operating voltage $U_b$	15...30 VDC
Rated insulation voltage $U_i$	75 V DC
Rated operating current $I_e$	200 mA
Rated operating voltage $U_e$ DC	24 V
Ready delay $t_V$ max.	300 ms
Residual current $I_r$ max.	50 $\mu$ A
Ripple max. (% of $U_e$ )	15 %
Switching frequency	570 Hz
Turn-off delay $t_{off}$ max.	0.88 ms
Turn-on delay $t_{on}$ max.	0.88 ms
Voltage drop $U_d$ max. at $I_e$	3.5 V

**Environmental conditions**

Ambient temperature	-10...55 °C
IP rating	IP65

**Interface**

Duration of time function	$T = 50$ ms
Switching output	NPN static normally open/ normally closed (NO/NC) PNP static normally open/ normally closed (NO/NC)
Time function	switch-off delay

**Remarks**

Order accessories separately.  
For additional information, refer to user's guide.  
Do not route connection cable parallel to high voltage lines.  
Reference object (target): Steel ball, diameter 4.0 mm, lateral approach.  
The sensor is functional again after the overload has been eliminated.

**Material**

Housing material	Aluminium, anodized, black
Material sensing surface	PMMA
Surface protection	anodized, black

**Mechanical data**

Active window (PL x AL)	280 x 280 mm
Dimension	15 x 330 x 334 mm
Mounting part	Screw M6

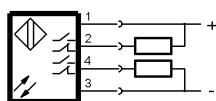
**Optical features**

Ambient light max.	2000 Lux
Beam characteristic	Divergent
Light type	infrared pulsed
Principle of optical operation	Through-beam sensor
Smallest part typ.	4.0 mm (resolution "High")
Switching function, optical	dark-on/light-on

**Connector Drawings**



**Wiring Diagrams**



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Opto Symbols

