

BS - BV Series

Rectangular Photoelectric Sensors

- Wide range of models: diffuse, retro-reflective, polarised
- Multifunctional DECOUT® output & logic connection possibilities (DC types)
- Multivoltage 20-253 VAC & T_{RIAC} output with NO/NC selectable (AC types)
- Sensitivity adjustment
- Standard cable exit or M12 plug exit
- LED status indicator
- Resin filled
- High sensing range



Options & Ordering Codes

		BS	2	/	0	0	-	0	C		
Series										Cable Exit	
DC - rectangular photoelectric sensor		BS								C	Right angle cable
AC - rectangular multivoltage photoelectric sensor		BV								E	Right angle M12 plastic plug
Type										Housing	
100mm diffuse reflection			2							0	Plastic
200mm diffuse reflection			4								
400mm diffuse reflection			6								
1600mm diffuse reflection			8								
8m retro-reflective			C								
										NPN/PNP	
										0	NPN/PNP selectable output DC Triac output AC
										NO/NC	
										0	NO/NC selectable

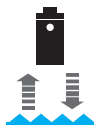
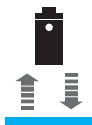
Available Models

Model	Distance	Output	DC - DECOUT®	AC - TRIAC
Diffuse Reflection	100mm	Cable	BS2/00-0C	BV2/00-0C
		M12	BS2/00-0E	BV2/00-0E
	200mm	Cable	BS4/00-0C	BV4/00-0C
		M12	BS4/00-0E	BV4/00-0E
	400mm	Cable	BS6/00-0C	BV6/00-0C
		M12	BS6/00-0E	BV6/00-0E
	1600mm	Cable	BS8/00-0C	-
		M12	BS8/00-0E	-
Retro-reflective	8m	Cable	BSC/00-0C	BVC/00-0C
		M12	BSC/00-0E	BSC/00-0E

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Technical Specifications

	Diffuse Reflection				Retro Reflective	Diffuse Reflection			Retro Reflective
	BS2/00-0*	BS4/00-0*	BS6/00-0*	BS8/00-0*	BSC/00-0*	BV2/00-0*	BV4/00-0*	BV6/00-0*	BVC/00-0*
									
Nominal sensing distance	100mm ⁽¹⁾	200mm ⁽¹⁾	400mm ⁽²⁾	1600mm ⁽²⁾	8m ⁽³⁾	100mm ⁽¹⁾	200mm ⁽¹⁾	400mm ⁽²⁾	8m ⁽³⁾
Emission	infrared (880nm)								
Tolerance	+15 / -5% Sn								
Differential travel	5%				10%	5%			10%
Repeatability	5%								
Operating voltage	10...30 VDC					20...253 VAC / 50...60Hz			
Ripple	10% max.					-			
No-load supply current	25mA					1.5W			
Load current	100mA					5mA / 300m ARMS			
Inrush current	-					6A (ton = 10ms)			
Leakage current	≤10 μ					1.5m ARMS max. (supply V=253 VAC)			
Output voltage drop	1.2 Vmax					2.5 Vmax			
Output type	DECOUT® (PNP, NPN, NO, NC selectable)					TRIAC (NO, NC selectable)			
Switching frequency	80Hz					25Hz			
Power on delay	200ms								
Temperature range	-25°C... +70°C (without freeze)								
Power supply protections	transient								
Supply electrical output	short circuit (autoreset)					-			
Temperature drift	≥10% Sr								
Protection degree	IP65 (EN60529) ⁽⁴⁾								
EMC	in conformity with the EMC Directive according to EN 60947-5-2								
External light interference	3000 lux (incandescent lamp), 10000 lux (sunlight)								
LEDs	red (output energised)								
Housing material	ABS polyethylene (cable exit)								
Optic material	PMMA								
Weight (approx)	185g (50g mounting bracket ST01)								

⁽¹⁾ With 100x100mm white matt paper

⁽²⁾ With 200x200mm white matt paper

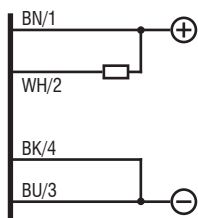
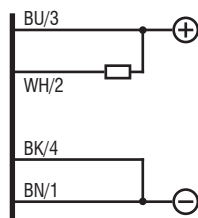
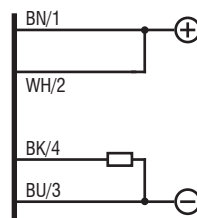
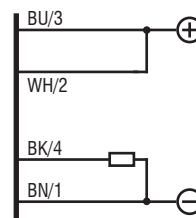
⁽³⁾ With standard reflector Ø 80mm (RL110 supplied separately)

⁽⁴⁾ Protection guaranteed only with plug cable well mounted and if it is of similar or higher IP rating

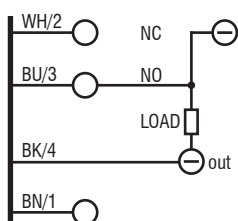
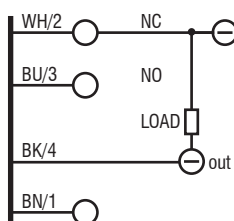
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Wiring Diagrams - BS*/00-0* DECOUT® exit ⁽¹⁾

Emitter with check

NPN output

PNP output

NPN output


Wiring Diagrams - BV*/00-0* T_{RIAC} exit ⁽²⁾

NO output

NC output

LEGEND

BN - Brown
BU - Blue
BK - Black
WH - White

NOTE:

⁽¹⁾ In case of combined load, resistive and capacitive, the maximum admissible capacity $C = 0.2 \mu F$, for the maximum output voltage and current.

⁽²⁾ Through proper wiring for the connection cable BV models in AC permit one to select the output state.

Output state NO:

BLUE = power supply

WHITE = disconnected (isolate on a terminal)

Output state NC:

WHITE = power supply

BLUE = disconnected (isolate on a terminal)

Plug Pin Connections

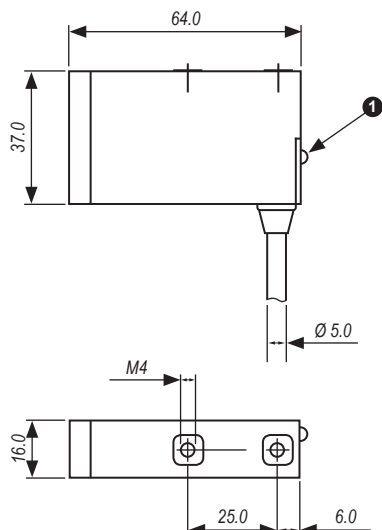


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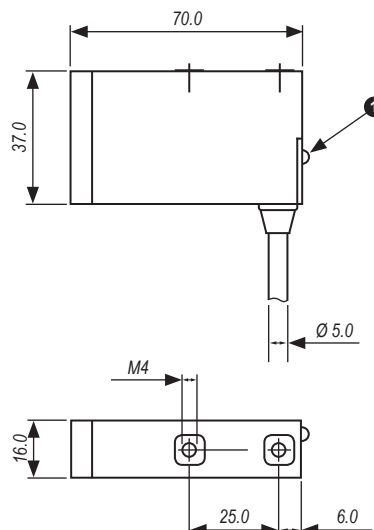
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Dimensions (mm)

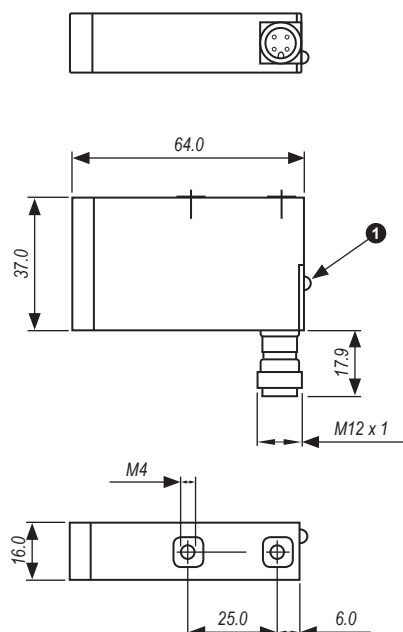
**B*2/00-0C, B*4/00-0C,
B*6/00-0C, B*8/00-0C**



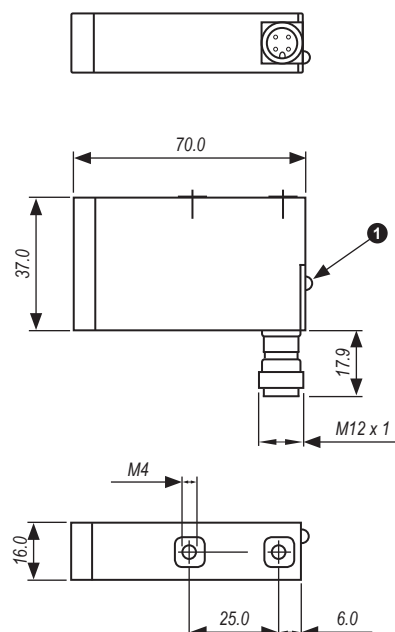
B*C/00-0C



**B*2/00-0E, B*4/00-0E,
B*6/00-0E, B*8/00-0E**



B*C/00-0E



- ① red LED (output state)
- Plugs M12F series - Accessories ST series