

Through-beam
photoelectric switches
Red light

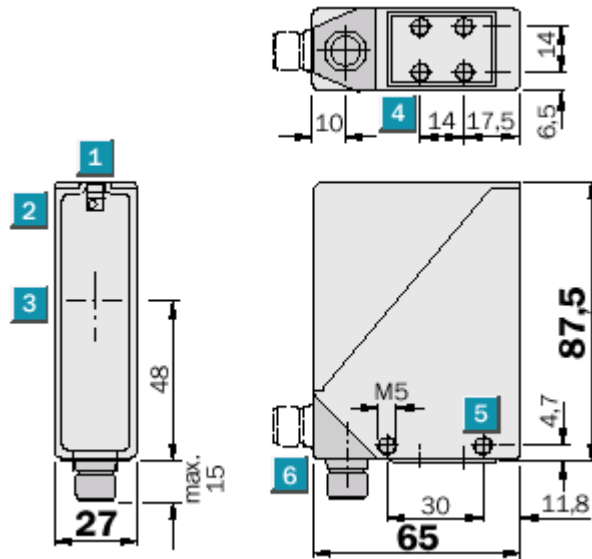
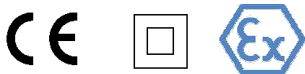
WS/WE24 Exi



Scanning range
40 m

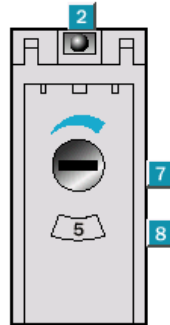
Through-beam photoelectric switches

- **Marking:**
 II 2G EEx ia IIC T4
 according to Directive 94/9/EC
 (ATEX)
- **According to category 2G**
- **Switching output:**
 EN60947-5-6 (NAMUR)
- **Red light**
- **Plug rotatable by 90°**



Adjustment possible

WS/WE24-X2301
 WS/WE24-X4301



- 1 Alignment sight
- 2 LED signal strength indicator on WE
Power indicator on WS
- 3 Centre of optical axis
- 4 M 5 threaded mounting hole, 8 mm deep
- 5 M5 threaded mounting hole
- 6 PG 9 screw fixing or M12 plug, rotatable
- 7 Sensitivity adjustment
- 8 Sensitivity indicator

Connection types

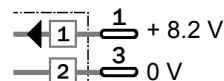
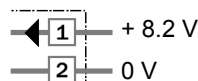
WS/WE24-X2301

WS/WE24-X4301



PG 9, terminals

4-pin, M12



Technical Data		WS/WE24-	X2301	X4301
Scanning range, max. typ.	0...40 m			
Sensitivity	Adjustable			
Light source ¹⁾, light type	LED; red light			
Light spot diameter	Approx. 450 mm at 25 m			
Supply voltage U_s ²⁾	DC 8.2 V (R _i approx. 1 kOhm) (5V...13.5 V) ³⁾			
Ripple ⁴⁾	0.4 V _{SS}			
EC-type examination certificate	PTB 03 ATEX 2103			
Explosion protection	Type of protection „Intrinsic safety“			
Input voltage U _i , max.	15.5 V			
Input current I _i , max.	53 mA			
Input power P _i , max.	100 mW			
Internal capacity C _i , max.	WS: 15 nF; WE: 80 nF			
Internal inductivity L _i , max.	80 μH			
Ambient temperature T _A	Operation: - 20 °C < T _A < + 50 °C			
Output / current consumption	Control current dependent on switching state to EN 60947-5-6 (NAMUR)			
Sender permanent	≥ 2.2 mA			
Receiver: light beam not interrupted	≥ 2.2 mA			
Receiver: light beam interrupted	≤ 1 mA			
Switching mode	Light-switching			
Response time ⁵⁾	≤ 10 ms			
Max. switching frequency ⁶⁾	50/s			
Connection types	Plug			
	Terminal connection			
VDE protection class ⁷⁾	<input type="checkbox"/>			
Circuit protection ⁸⁾	A, C			
Enclosure rating	IP 67			
Ambient temperature T _A	Storage: - 25 °C ... + 70 °C			
Weight	Approx. 330 g			
Housing material	Zinc die-cast housing			

- ¹⁾ Average service life 100,000 h at T_A = + 25 °C
²⁾ Supply with isolating switching unit EN 2 Ex
³⁾ Limit values
⁴⁾ May not exceed or fall short of V_S tolerances
⁵⁾ Signal transit time with resistive load
⁶⁾ With light/dark ratio 1:1
⁷⁾ Reference voltage DC 50 V
⁸⁾ A = V_S connections reverse-polarity protected
 C = Interference pulse suppression

Scanning distance	Order information	
	Type	Part No.
	WS/WE24-X2301	1 011 516
	WS/WE24-X4301	1 011 517

