

Photoelectric switches
with fibre-optic cable

Red light

WLL24Exi

	Scanning range ...100 mm (max. 1000 mm)
Through-beam system	
	Scanning distance .. 25 mm
Proximity system	

■ Marking:



II 2G EEx ia IIC T4

according to Directive 94/9/EC
(ATEX)

■ According to category 2G

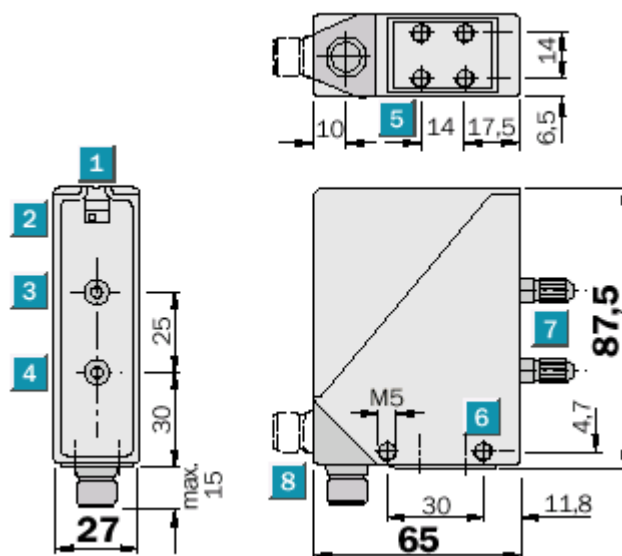
■ Switching output: EN60947-5-6 (NAMUR)

■ Red light

■ Interchangeable fibre-optic cable

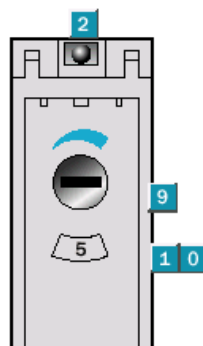


Dimensional drawing



Adjustment possible

WLL24-X2301
WLL24-X4301



- 1 Alignment sight
- 2 LED signal strength indicator
- 3 Centre of receiver's optical axis
- 4 Centre of transmitter's optical axis
- 5 M 5 threaded mounting hole, 8 mm deep
- 6 M5 threaded mounting hole
- 7 Connector for fibre-optic cable
- 8 PG 9 screw fixing or M12 plug, rotatable
- 9 Sensitivity adjustment
- 10 Sensitivity indicator

Connection types

WLL24-X2301

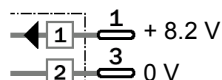
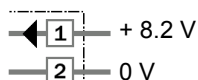
WLL24-X4301



PG 9, terminals



4-pin, M12



Technical Data		WLL24-	X2301	X4301
Scanning range, through-beam system	100 mm with LL3-TB02			
	1000 mm with tip adapter LL3-TA01			
Scanning distance, proximity system	25 mm with LL3-DB01			
Fibre-optic cable	See accessories of fibre-optic cable			
Sensitivity	Adjustable			
Light source ¹⁾ , light type		LED; red light		
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 2104		
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.		80 nF		
Internal inductivity L_i , max.		80 μ H		
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)		
Light beam not interrupted		≥ 2.2 mA		
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⁾		☐		
Circuit protection ⁸⁾		A, C		
Enclosure rating		IP 65		
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 ⁷⁾

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.
	WLL24-X2301	1 011 562
	WLL24-X4301	1 012 711