

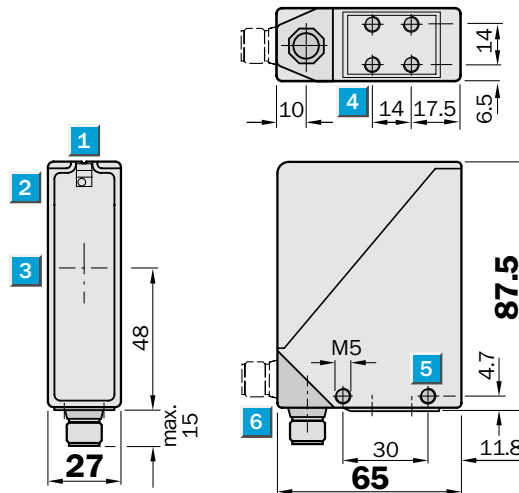


Scanning range
40 m

Through-beam photoelectric switches

- Red light
- Explosion protection EEx ia IIC T6
- Plug rotatable by 90°
- Terminal chamber

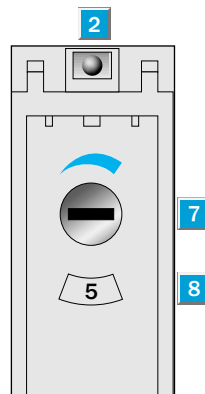
Dimensional drawing



Adjustments possible

WS/WE 24-X 2301

WS/WE 24-X 4301

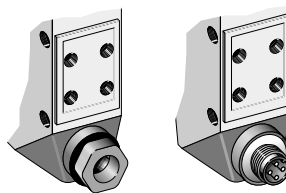


- 1 Alignment sight
- 2 LED signal strength indicator on WE
Power indicator on WS
- 3 Centre of optical axis
- 4 M5 threaded mounting hole – 8 mm deep
- 5 M5 threaded mounting hole
- 6 Cable gland, M 12 plug, rotatable
- 7 Sensitivity adjustment
- 8 Sensitivity indicator

Connection types

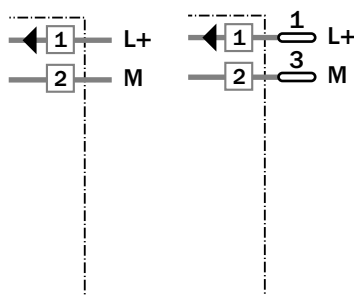
WS/WE 24-X 2301

WS/WE 24-X 4301



PG 9, terminals

4-pin, M 12



Accessories	page
Cable receptacles	496
Mounting brackets	510
Power supply units	564

Technical data		WS/WE 24-	X 2301	X 4301									
Scanning range , max. typical	0...40 m												
Sensitivity	Adjustable												
Light source ¹⁾ , light type	LED, red light												
Light spot diameter	Approx. 450 mm at 25 m												
Supply voltage V_S ²⁾	8.2 V DC (5...13.5 V) ³⁾												
Ripple ⁴⁾	0.4 V_{SS}												
Terminal capacitance	≤ 15 nF												
Terminal inductance	≤ 150 μH												
Current consumption ⁵⁾													
Sender permanent	≥ 2.2 mA												
Receiver with light beam unbroken	≥ 2.2 mA												
Receiver with light beam broken	≤ 1 mA												
Switching output	Control current dependent on switching state (to NAMUR EN 50227)												
Switching mode	Light-switching												
Response time ⁶⁾	≤ 10 ms												
Max. switching frequency ⁷⁾	50/s												
Connection types	Plug												
	Terminal connection												
Approval	PTB No. Ex97 D2035												
VDE protection class ⁸⁾	□												
Circuit protection ⁹⁾	A, C												
Enclosure rating	IP 67												
Ambient temperature T_A	Operation - 20 °C...+ 40 °C												
	Storage - 25 °C...+ 70 °C												
Weight	Approx. 330 g												
Housing material	Zinc die-cast housing												

1) Average service life 100,000 h at $T_A = +25\text{ °C}$

2) Supply with disconnecter device EN 2 Ex

3) Limit values

4) May not exceed or fall short of V_S tolerances

5) Without load

6) Signal transit time with resistive load

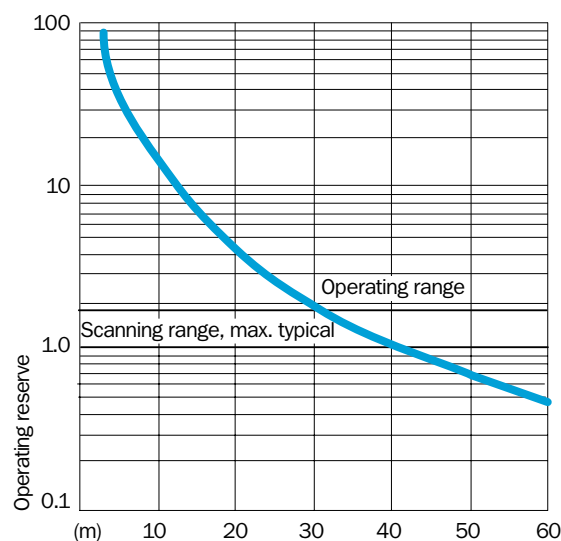
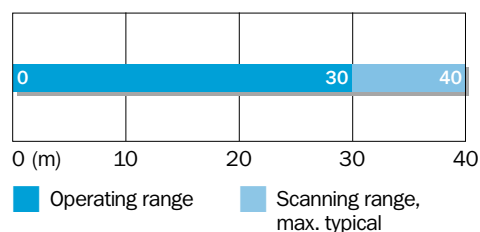
7) With light/dark ratio 1:1

8) Reference voltage 50 V DC

9) A = V_S connections reverse-polarity protected

C = Interference pulse suppression

Scanning range and operating reserve



Order information

Type	Part No.
WS/WE 24-X 2301	1 011 516
WS/WE 24-X 4301	1 011 517