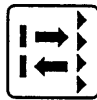




Scanning Range

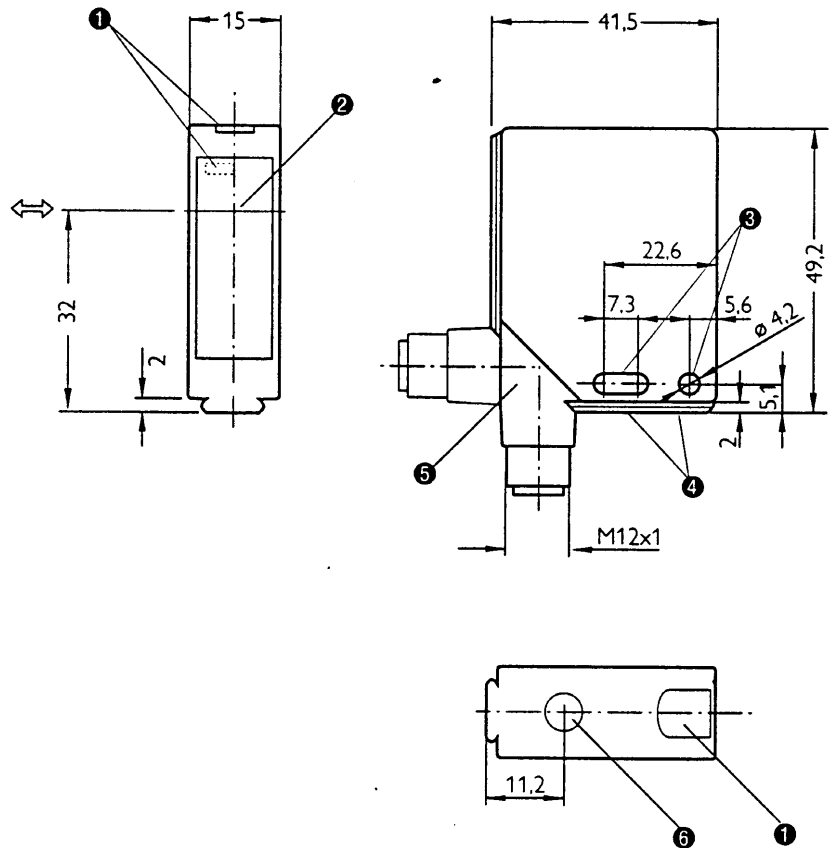
0 ... 7 m



Features:

- Red-light emitter LED as alignment aid
- Insensitive to ambient light (HF lamps, blinking alarm lights)
- Reliable functioning when devices mounted facing each other
- Switching frequency 1.5 kHz
- All-round reverse polarity protection at inputs and outputs
- Outputs short-circuit protected
- 90° rotatable M 12 equipment plug or 2 m cable
- CE

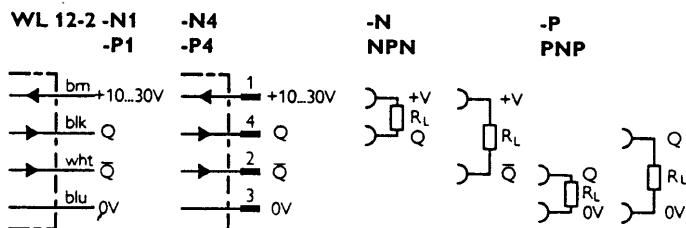
WL 12-2



- 1 LED signal strength indicator
- 2 Center of optical axis
- 3 Mounting holes
- 4 Threaded mounting hole M 4 - 4 deep
- 5 Plug M 12 (rotatable by 90°) or 2 m connection cable
- 6 Sensitivity adjuster

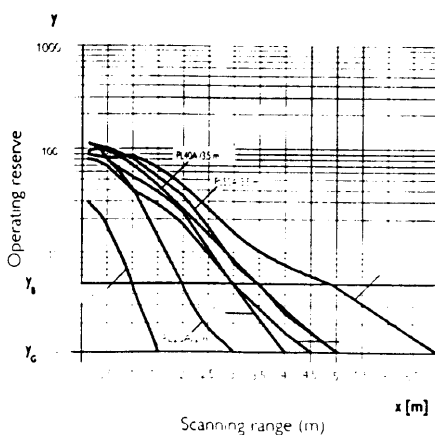
Dimensions in mm

Connection Diagram



brn	blk	blu	wht
brown	black	blue	white
braun	schwarz	blau	weiß

WL 12-2



WL 12-2

Photoelectric Reflex Switch

WL 12-2	-P		-N	
	Standard (f = ∞)	Focus (f = 90 mm)	Standard (f = ∞)	Focus (f = 90 mm)
Typical maximal range/on reflector	7 m/PL 80 A	2 m/PL 80 A	7 m/PL 80 A	2 m/PL 80 A
Recommended operating range				
With reflector PL 80 A	0 ... 5 m	0 ... 1.5 m	0 ... 5 m	0 ... 1.5 m
With reflector C 110	0 ... 3 m		0 ... 3 m	
With reflector PL 50 A	0 ... 3.5 m		0 ... 3.5 m	
With reflector PL 40 A	0 ... 3.5 m		0 ... 3.5 m	
With reflector PL 30 A	0 ... 3 m		0 ... 3 m	
With reflector PL 20 A	0 ... 2 m		0 ... 2 m	
with „Diamond grade“ reflective tape (min. 100 x 100 mm ² area)	0 ... 1 m	0 ... 0.5 m	0 ... 1 m	0 ... 0.5 m
Supply voltage V_S	10 ... 30 V DC			
Current consumption (without load)	≤ 30 mA		≤ 40 mA	
Ripple ¹⁾	≤ 5 V _{pp}			
Light source	LED, visible red light, average operating life 100 000 h ²⁾			
Angle of dispersion	approx. 1,5°			
Light spot diameter	80 mm at distance of 3 m	2 mm at distance of 90 mm	80 mm at distance of 3 m	2 mm at distance of 90 mm
Switching outputs	PNP, Q and $\overline{Q}$		NPN, Q and $\overline{Q}$	
Signal voltage HIGH	V _S – 2,9 V		V _S	
Signal voltage LOW ³⁾	approx. 0 V		≤ 1,5 V	
Output current I _A max.	100 mA			
Response time ⁴⁾ ; max. signal frequency ⁵⁾	≤ 330 μs; 1000/s			
VDE protection class⁶⁾	Ⓜ			
Enclosure rating	IP 67			
Protection circuits ⁷⁾	A, B, C			
Ambient operating temperature T _U ⁸⁾	– 40 ... + 60 °C			
Storage temperature T _L ⁸⁾	– 40 ... + 75 °C			
Weight	with equipment plug approx. 120 g, with connection cable approx. 200 g			

- 1) Must remain within V_s tolerances
 2) At $T_U = + 25$ °C
 3) At $T_U = + 25$ °C and 100 mA output current
 4) Signal run time with resistive load

- 5) With light/dark ratio 1:1
 6) Withstand voltage 50 V

- 7) A = Inputs and outputs all-round reverse polarity protected
 B = Outputs short-circuit protected
 C = Interference pulse suppression
 8) Do not deform connecting cable below 0 °C

Selection Table

Lens	Cable 2 m	M 12 plug rotatable	Transistor output PNP	NPN	Type	Order no.
Standard ($f = \infty$)	●		●		WL 12-2N130	1 016 085
	●		●		WL 12-2P130	1 016 096
		●		●	WL 12-2N430	1 016 092
		●	●		WL 12-2P430	1 016 102
Focus ($f = 90$ mm)	●			●	WL 12-2N120	1 016 084
	●		●		WL 12-2P120	1 016 095
		●	●		WL 12-2P420	1 016 091
		●	●		WL 12-2P420	1 016 101

722-9619