



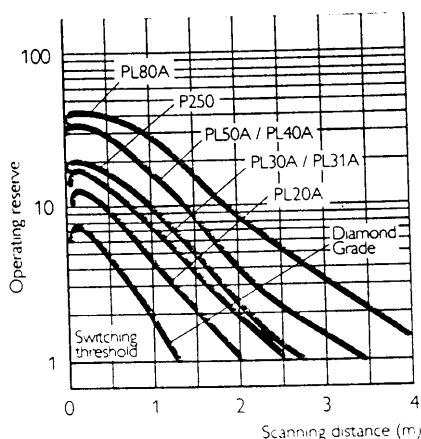
Scanning Range

2 m



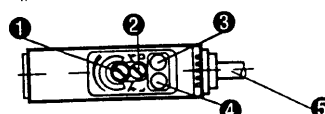
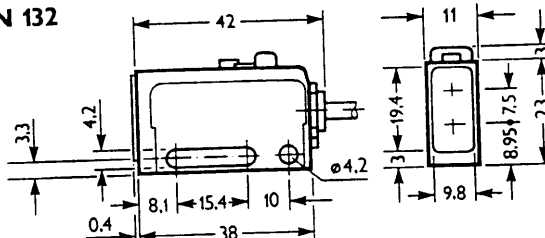
Features:

- Horizontal or vertical design
- Connecting cable or M8 plug, 4-pin
- Adjustable sensitivity (two-turn)
- Red and green indicator LEDs for ease of alignment
- Red LED to show system reserves
- Alarm output
- Test input to test the device and the complete system
- Transistor output short-circuit and overload protected
- Reverse-polarity protection
- Light/Dark-switching selector
- Polarizing filter for detection of targets with reflecting surfaces
- CE / /

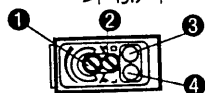
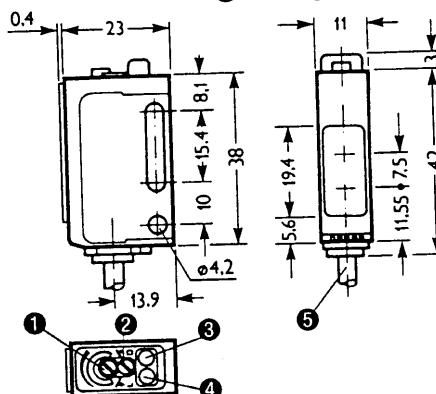


WL 160

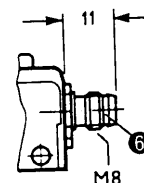
WL 160
-P/N 132



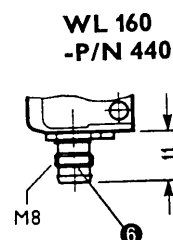
WL 160
-P/N 142



Dimensions in mm



WL 160
-P/N 430



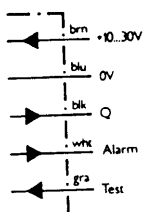
WL 160
-P/N 440

- 1 Sensitivity control (two-turn)
- 2 Light/Dark-switching selector (L: light-switching, D: dark-switching)
- 3 Red reception indicator (sender active)
- 4 Green reception indicator (WE)
- 5 Connecting cable
- 6 Equipment plug

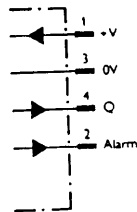
Mounting bracket and reflector included, see accessories (page 238, 236).
Order cable receptacles separately, see accessories (page 242).

Connection Diagram

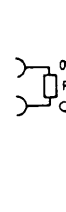
WL 160
-P/N 132
-P/N 142



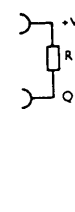
-P/N 430
-P/N 440



PNP



NPN



brn	blu	blk	wht	gra
brown	blue	black	white	gray

WL 160

Photoelectric Reflex Switch

	WL 160 -N	-P
Part No.	see selection table	
Typical max. operating range / with reflector	0 to 2.5 m / P 250	
Suggested operating range with P 250 reflector	0 to 2 m	
Light spot diameter	approx. 150 mm at a distance of 2 m	
Supply voltage V_s¹⁾	10 to 30 V DC	
Current consumption (without load)	≤ 30 mA	
Ripple max. ²⁾	≤ 5 V _{pp}	
Light sender	LED, visible red light	
Light receiver switching mode	Light/Dark-switching, selectable	
Switching outputs open collector	NPN	PNP
Signal voltage HIGH	approx. V_s	$V_s - (\leq 1.5 \text{ V})$
Signal voltage LOW	$\leq 1.5 \text{ V}$	approx. 0 V
Output current max.	≤ 100 mA	
Alarm output (statical)	≤ 100 mA	
Test input ³⁾	Sender deactivated 0 V	Sender deactivated + V_s
Response time, switching frequency max.	≤ 0.9 ms; 550/s	
VDE protection class⁴⁾	IP 67	
Enclosure rating	A, B, C, D	
Circuit protections ⁵⁾	- 25 to + 55 °C	
Ambient operating temperature	- 40 to + 70 °C	
Storage temperature	2 m, 5 x 0.2 mm ² , $\varnothing$ 4.2 mm	
Connecting cable	M 8, 4-pin	
Equipment plug	20 g with plug, 60 g with connecting cable	
Weight		

1) Limit values
 2) Must be within V_s tolerances
 3) No test input on models with plug
 4) Withstand voltage 50 V
 5) A = Supply connections reverse-polarity protected
 B = In/Outputs reverse-polarity protected
 C = Interference pulse suppression
 D = Outputs overload and short-circuit protected

Selection Table

		Switching output	
		NPN	PNP
Horizontal design	with connecting cable		
	Model	WL 160-N 132	WL 160-P 132
	Part No.	6008 807	6008 813
	with equipment plug, 4-pin		
Vertical design	Model	WL 160-N 430	WL 160-P 430
	Part No.	6008 809	6008 815
	with connecting cable		
	Model	WL 160-N 142	WL 160-P 142
Vertical design	Part No.	6008 808	6008 814
	with equipment plug, 4-pin		
	Model	WL 160-N 440	WL 160-P 440
	Part No.	6008 810	6008 816

Diagram of Functions

