

Photoelectrics Diffuse-reflective Types ED 5502/5506

CARLO GAVAZZI



- Range: 200 or 600 mm
- Adjustable sensitivity
- Modulated, infrared light
- Rated operational voltage: 10 to 30 VDC
- Output: DC 200 mA, NPN or PNP
- Make and break switching function, LED indication
- High immunity to ambient light
- Photoelectric, inductive and capacitive flat pack series in PC housing, IP 67
- Cable or M12 plug versions



Product Description

Diffuse-reflective photoelectric with sensing distance up to 600 mm. Easily adjustable sensitivity with 270° potentiometer. LED indication for output ON. Flat pack housing

size (W x H x D) 35 x 55 x 15 mm made in polycarbonate. Easy mounting with only two M 3.5 screws. Ideal for use in conveying and material handling applications

Ordering Key

ED 55 06 NPA P-1

Type _____
Housing _____
Range _____
Output type _____
Housing material _____
Connection type _____

Type Selection

Housing diameter W x H x D	Rated operating dist. (S _n)	Ordering no. NPN/cable Make & break swit.	Ordering no. NPN/plug Make & break swit.	Ordering no. PNP/cable Make & break swit.	Ordering no. PNP/plug Make & break swit.
35 x 55 x 15	200 mm 600 mm	ED 5502 NPAP ED 5506 NPAP	ED 5502 NPAP-1 ED 5506 NPAP-1	ED 5502 PPAP ED 5506 PPAP	ED 5502 PPAP-1 ED 5506 PPAP-1

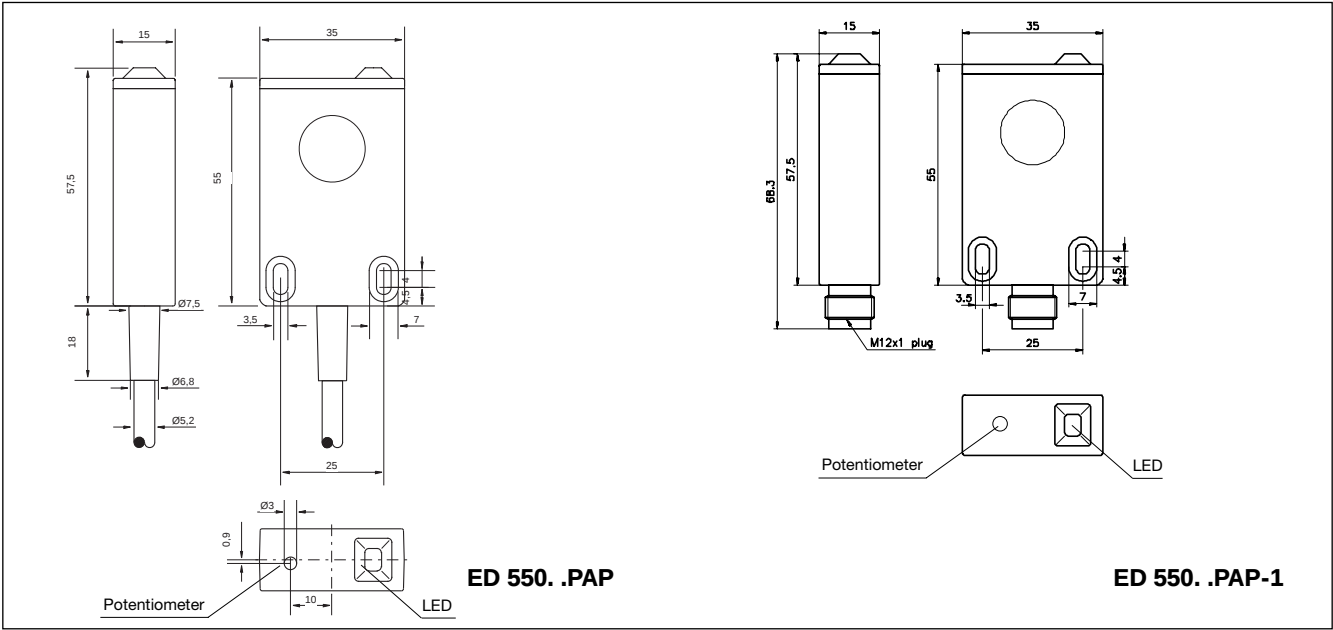
Specifications

Rated operating dist. (S_n) ED 5502 ED 5506	Up to 200 mm Up to 600 mm Reference target: Kodak test card R27, white, 90% reflectivity 100 x 100 mm 200 x 200 mm	Protection	Reverse polarity, short-circuit, transients Max. 1 kV/0.5 J
Adjustable range ED 5502 ED 5506	50 to 200 mm 150 to 600 mm	Transient voltage	Adjustable, 270° turn potentiometer
Temperature drift	0.5%/°C	Sensitivity	GaAlAs LED, 880 nm Infrared, modulated, synchronized ±25° at 1/2 range Max. 10,000 lux
Hysteresis (H) (Differential travel)	< 20%	Light source Light type	
Rated operational volt. (U_B)	10 to 30 VDC (ripple included)	Sensing angle Ambient light	
Ripple (U_{rip})	≤ 10%	Operating frequency (f) ED 5502 ED 5506	500 Hz, light/dark ratio 1:2 100 Hz, light/dark ratio 1:2
Output current Continuous (I _a) Short-time (I) Max. load capacity	≤ 200 mA 200 mA 100 nF	Response time OFF-ON (t _{ON}) ON-OFF (t _{OFF}) ED 5502 ED 5506 ED 5502 ED 5506	≤ 0.67 ms ≤ 4 ms ≤ 1.33 ms ≤ 6 ms
No load supply current (I_o)	≤ 30 mA,	Power ON delay (t_v)	Typ. 100 ms
Min. load current (I_m)	0.5 mA	Indication Output ON	LED, yellow (indicates the present of a target or object)
OFF-state current (I_i)	≤ 100 μA	Environment Overvoltage category Pollution degree Degree of protection	III (IEC 60664/664A; 60947-1) 3 (IEC 60664/664A; 60947-1) IP 67 (IEC 60529; 60947-1)
Voltage drop (U_d)	≤ 2.5 V		

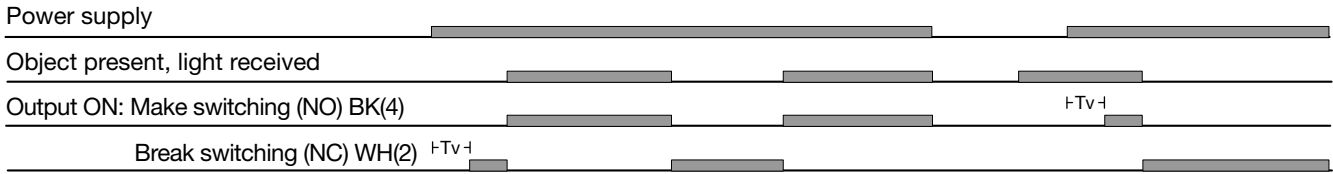
Specifications (cont.)

Temperature		Connection	
Operating	-20° to +60°C (-4° to +140°F)	Cable	Grey, 2 m, oilproof PVC, 4 x 0.34 mm², Other cable lengths on request
Storage	-30° to +70°C (-22° to +158°F)	Note:	Plug (-1)
Vibration	10 to 150 Hz, 0.5 mm/7.5 g (IEC 60068-2-6)	Weight	125 g cable version 40 g plug version
Shock	2 x 1 m & 100 x 0.5 m (IEC 60068-2-32)	CE-marking	Yes
Dielectric voltage	500 VAC (rms)		
Housing material	Polycarbonate, black		

Dimensions



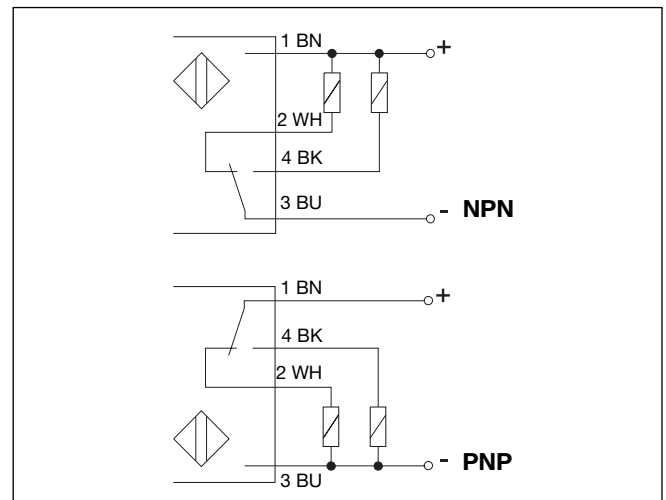
Operation Diagram



Truth Table

	Make switching		Break switching	
	No	Yes	No	Yes
DC types				
LED	OFF	ON	OFF	ON
Load	Non-active	Active	Active	Non-active
Output NPN	High	Low	Low	High
Output PNP	Low	High	High	Low

Wiring Diagrams



Accessories

- Plugs CONH1A-.. serie.

Delivery Contents

- Photoelectric switch: ED 550.
- Screw driver
- **Packaging:** plastic bag