

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	ED 5502 NPAP	ED 5502 NPAP-1	ED 5502 PPAP	ED 5502 PPAP-1
	600 mm	ED 5506 NPAP	ED 5506 NPAP-1	ED 5506 PPAP	ED 5506 PPAP-1

Specifications

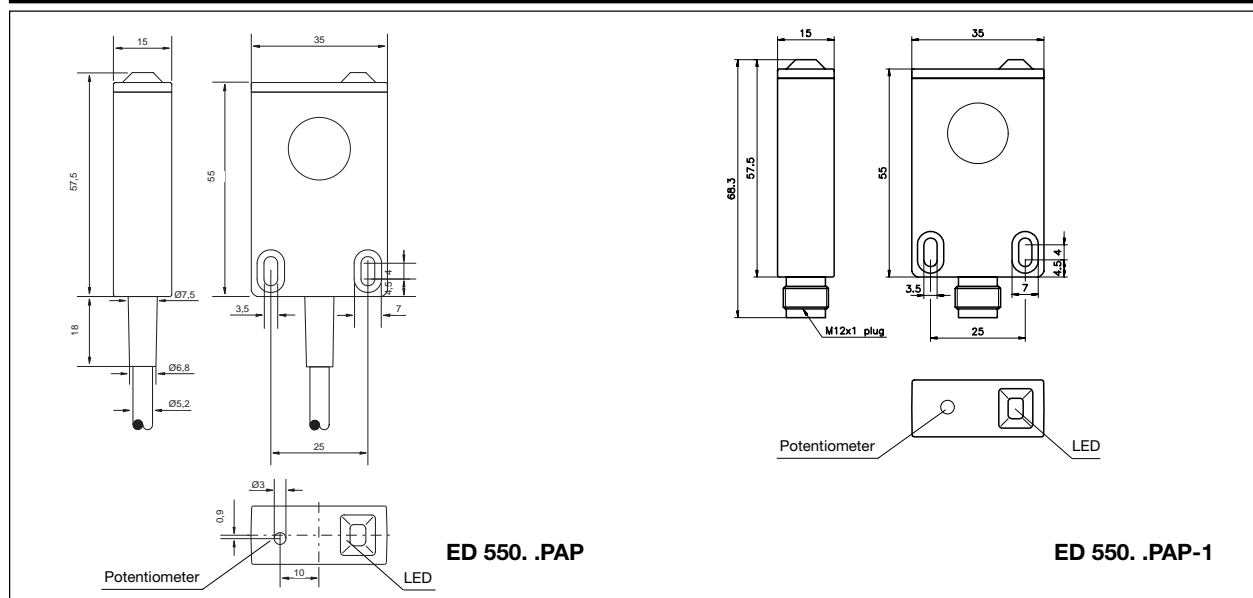
Rated operating dist. (S_n)	ED 5502	Up to 200 mm	Protection	Reverse polarity, short-circuit, transients
	ED 5506	Up to 600 mm		Transient voltage
		Reference target: Kodak test card R27, white, 90% reflectivity	Sensitivity	Adjustable, 270° turn potentiometer
	ED 5502	100 x 100 mm	Light source	GaAlAs LED, 880 nm
	ED 5506	200 x 200 mm	Light type	Infrared, modulated, synchronized
Adjustable range	ED 5502	50 to 200 mm	Sensing angle	±25° at 1/2 range
	ED 5506	150 to 600 mm	Ambient light	Max. 10,000 lux
Temperature drift		0.5%/°C	Operating frequency (f)	
Hysteresis (H) (Differential travel)		< 20%	ED 5502	500 Hz, light/dark ratio 1:2
Rated operational volt. (U_b)		10 to 30 VDC (ripple included)	ED 5506	100 Hz, light/dark ratio 1:2
Ripple (U_{rpp})		≤ 10%	Response time	
Output current			OFF-ON (t _{ON})	ED 5502 ≤ 0.67 ms
Continuous (I _a)		≤ 200 mA		ED 5506 ≤ 4 ms
Short-time (I)		200 mA	ON-OFF (t _{OFF})	ED 5502 ≤ 1.33 ms
Max. load capacity		100 nF		ED 5506 ≤ 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	
OFF-state current (I_f)		≤ 100 μA	Output ON	LED, yellow (indicates the present of a target or object)
Voltage drop (U_d)		≤ 2.5 V	Environment	
			Overvoltage category	III (IEC 664/664A; 947-1)
			Pollution degree	3 (IEC 664/664A; 947-1)
			Degree of protection	IP 67 (IEC 529; 947-1)



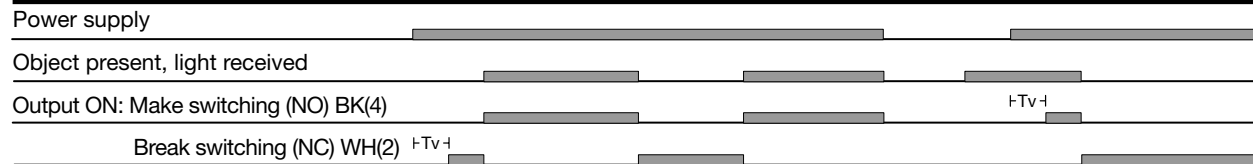
Specifications (cont.)

Temperature		Connection	
Operating	-20° to +60°C (-4° to +140°F)	Cable	Grey, 2 m, oilproof PVC, 4 x 0.34 mm ² ,
Storage	-30° to +70°C (-22° to +158°F)	Note:	Other cable lengths on request
Vibration	10 to 150 Hz, 0.5 mm/7.5 g (IEC 68-2-6)	Plug (-1)	M12, CONH1A-.. serie
Shock	2 x 1 m & 100 x 0.5 m (IEC 68-2-32)	Weight	125 g cable version 40 g plug version
Dielectric voltage	500 VAC (rms)		
Housing material	Polycarbonate, black		

Dimensions



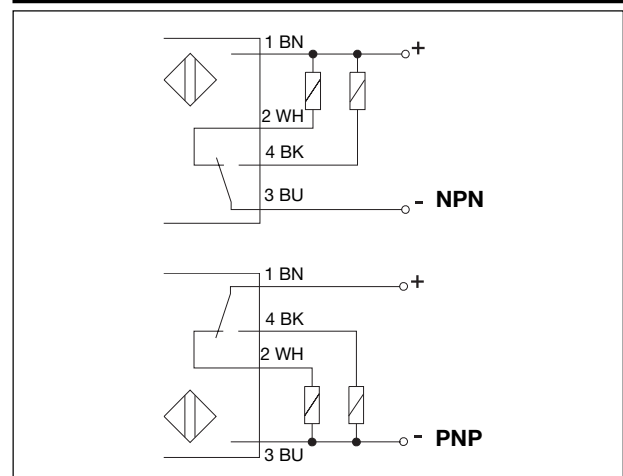
Operation Diagram



Truth Table

	Make switching		Break switching	
	No	Yes	No	Yes
Object present	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