

Photoelectrics Retro-reflective, Polarized Type EP 5520, PRELIMINARY

CARLO GAVAZZI



- Range: 2.0 m
- Adjustable sensitivity
- Modulated, red light, polarized
- 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/ABS housing, IP67
- Cable or M12 plug versions
- Protection: Reverse polarity, short-circuit, transients



Product Description

Retroreflective photoelectric switch with polarized light. Range up to 2.0 m 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/ABS blend. Easy mounting with only two M 4 screws. Ideal for use in conveying and material handling applications.

Ordering Key EP 55 20 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	2.0 m	EP 5520 NPAP	EP 5520 NPAP-1	EP 5520 PPAP	EP 5520 PPAP-1

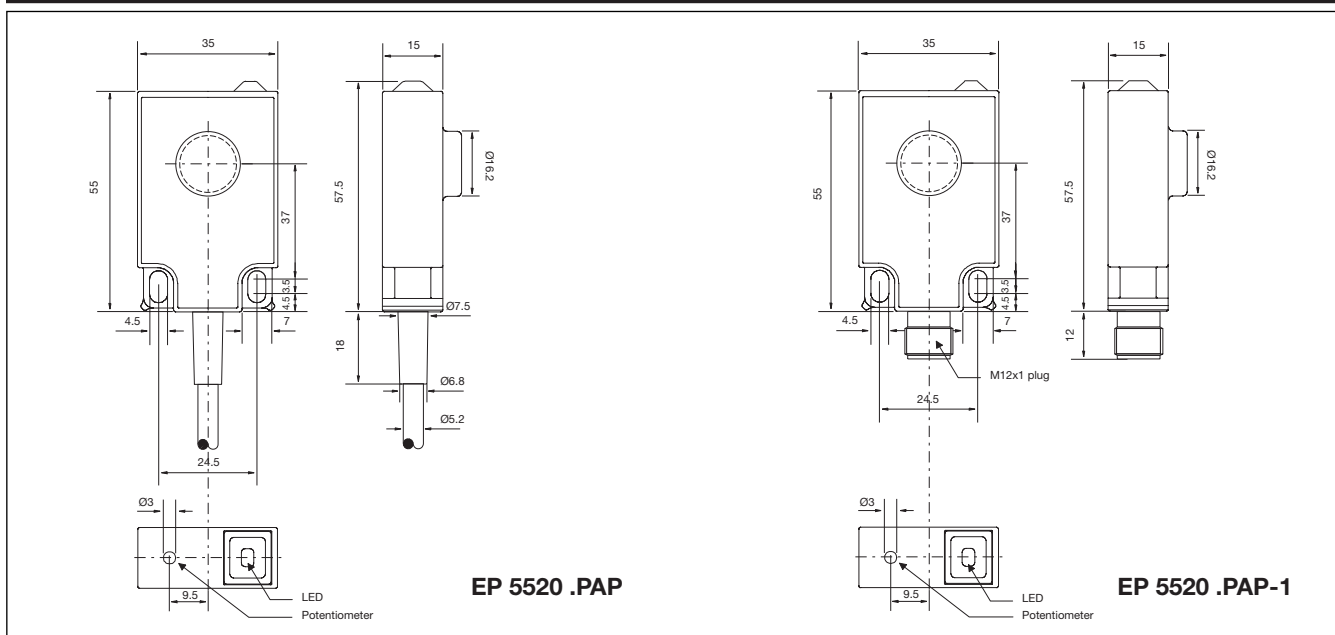
Specifications

Rated operating dist. (S_n) EP 5520	2.0 m. Reference reflector type ER4 Ø 84 mm	Light source	GaAlAs LED, 660 nm
Temperature drift	0.5%/°C	Light type	Red, modulated, synchronized
Hysteresis (H) (Differential travel)	< 20%	Sensing angle	± 2°
Rated operational volt. (U_B)	10 to 30 VDC (ripple included)	Ambient light	Max. 10,000 lux
Ripple (U_{ripp})	≤ 10%	Operating frequency (f)	100 Hz, light/dark ratio 1:2
Output current Continuous (I _a)	≤ 200 mA	Response time OFF-ON (t _{ON})	≤ 4 ms
Short-time (I)	200 mA	ON-OFF (t _{OFF})	≤ 6 ms
Max. load capacity	100 nF	Power ON delay (t_v)	Typ. 100 ms
No load supply current (I_o)	≤ 30 mA,	Indication Output ON	LED, yellow (indicates the presence of a target i.e. reflector)
Min. load current (I_m)	0.5 mA	Environment Overvoltage category	III (IEC 60664/60664A; 60947-1)
OFF-state current (I_i)	≤ 100 µA	Pollution degree	3 (IEC 60664/60664A; 60947-1)
Voltage drop (U_d)	≤ 2.5 V	Degree of protection	IP 67 (IEC 60529; 60947-1)
EMC	Approved according to EN 50080, EN 50081		
Transient voltage	Max 1 kV/0,5 J		
Sensitivity	Adjustable, 270° turn potentiometer		

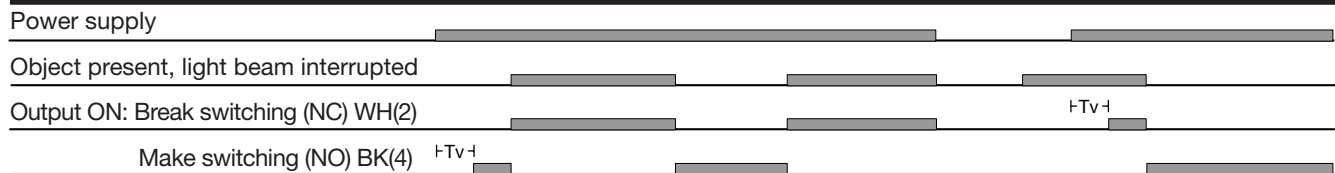
Specifications (cont.)

Temperature		
Operating	-20° to +60°C (-4° to +140°F)	
Storage	-30° to +70°C (-22° to +158°F)	
Vibration		
	10 to 150 Hz, 0.5 mm/7.5 g (IEC 60068-2-6)	
Shock		
	2 x 1 m & 100 x 0.5 m (IEC 60068-2-32)	
Dielectric voltage		500 VAC (rms)
Housing material		Polycarbonate/ABS blend Grey housing - red front
Connection		
Cable		Grey, 2 m, oilproof PVC, 4 x 0.34 mm ² , Other cable lengths on request
Note:		
Plug (-1)		M12, CONH1A-.. serie
Weight		
		125 g cable version 40 g plug version

Dimensions



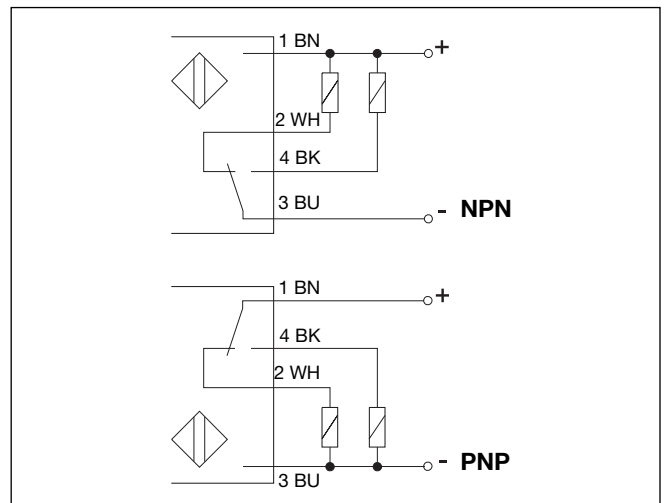
Operation Diagram



Truth Table

	Make switching		Break switching	
	Yes	No	Yes	No
Object present	Yes	No	Yes	No
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.
- Reflectors: ER serie, please refer to Accessories.

Delivery Contents

- Photoelectric switch: EP5520
- Screw driver
- **Packaging:** Corrugated cardboard (environmentally friendly recycling material).