

Photoelectrics Retro-reflective, Polarized Type PA18ALP20T., AC, PBTP housing

CARLO GAVAZZI



- Range: 2.0 m
- Modulated red light, polarized
- Supply voltage: 20 to 250 VAC
- Output: 500 mA SCR
- Make and break switching functions
- LED-output indication
- Improved immunity to reflecting surfaces
- Heavy duty M18 metal housing, IP67
- Cable and plug versions

Product Description

The PA18ALP20T. is a family of general purpose polarized retro-reflective sensor in a long M18 nickel-plated brass housing for heavy duty applications. They are useful for simple applications where a

basic sensor provides adequate sensing performance. The sensors are easy to adjust with a 270° single-turn potentiometer. The output is a 2-wire NO or NC thyristor (SCR) output.

Ordering Key PA18ALP20TOM6SA

Type	_____
Housing style	_____
Housing size	_____
Housing material	_____
Housing length	_____
Detection principle	_____
Sensing distance	_____
Output type	_____
Output configuration	_____
Connection type	_____
Adjustable	_____

Type Selection

Housing diameter	Rated operating dist. (S _n)	Ordering no. SCR/cable Make switching	Ordering no. SCR/plug Make switching	Ordering no. SCR/cable Break switching	Ordering no. SCR/plug Break switching
M 18	3 m	PA18ALP20TOSA	PA18ALP20TOM6SA	PA18ALP20TCSA	PA18ALP20TCM6SA

Note: Plugs and reflector to be ordered separately

Specifications

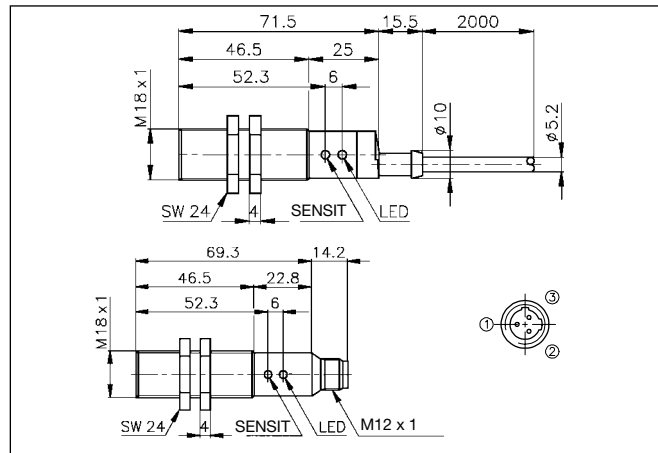
Rated operating dist. (S_n)	Up to 2.0 m. Ref. reflector type ER4 Ø 84 mm	Ambient light	Max 5'000 lux
Sensitivity	270° single-turn pot. meter	Operating frequency (f)	Max. 25 Hz light-dark ratio 1.2
Blind zone	0.15 m	Response time	OFF-ON (t _{ON}) ≤ 20 ms ON-OFF (t _{OFF}) ≤ 30 ms
Temperature drift	0.4%/°C	Power ON delay (t_v)	Typ. 70 ms
Hysteresis (H) (Differential travel)	3 to 20 %	Indication function	Dark (NC) or light (NO) switching Output ON LED, yellow
Rated operational volt. (U_B)	20 to 250 VAC, 45 to 65 Hz	Environment	Overvoltage category II (IEC 60664/60664A; 60947-1) Pollution degree 3 (IEC 60664/60664A; 60947-1) Degree of protection IP 67 (IEC 60529; 60947-1)
Output current (AC 12, AC 140)	Continuous (I _e) ≤ 500 mA Short-time (I) ≤ 3 A, max. 20 ms	Temperature	Operating -20° to +60°C (-4° to 140°F) Storage -30° to +70°C (-22° to 158°F)
Min. operational current (I_m)	10 mA	Vibration	10 to 150 Hz, 0.5 mm/-7.5 g (IEC 60068-2-6)
OFF-state current (I_i)	≤ 5 mA, typ. 2.6 mA	Shock	2 x 1 m 100 x 0.5 m (IEC 60068-2-32)
Voltage drop (U_d)	Typ. ≤ 7 VAC Max. ≤ 10 VAC	Dielectric voltage	1500 V (IEC 60364-4-41)
Protection	Transients		
Transient voltage	1 kV / 0.5 J		
Light source	GaAlAs LED, 660 nm		
Light type	Red polarized, modulated		
Optical angle	± 2°		
Light spot size	150 mm at 2 m		



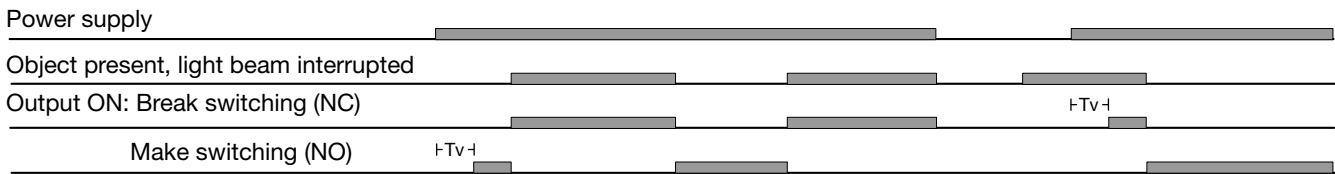
Specifications (cont.)

Housing material	
Body	Nickel-plated brass
Front	PMMA, red
Cable (Cable end)	PVC, black
Nuts	Nickel-plated brass
Connection	
Cable	Grey, 2 m, 2 x 0.5 mm ² , oilproof PVC
Plug	M12 x 1
Cables for plug (M6)	CONH6A...series
Weight	
Cable version	230 g
Plug version	145 g
Approvals	UL
CE-marking	Yes

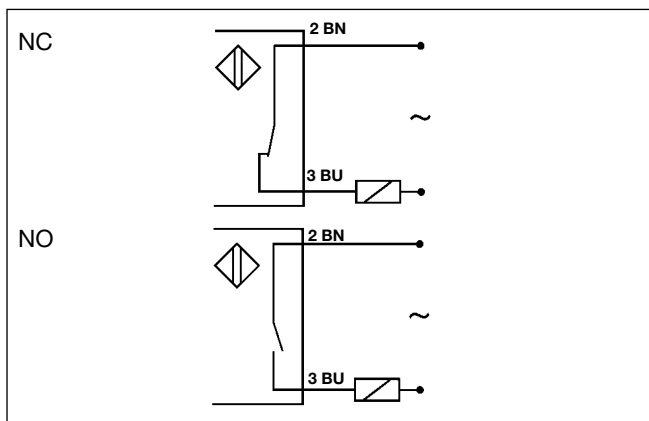
Dimensions



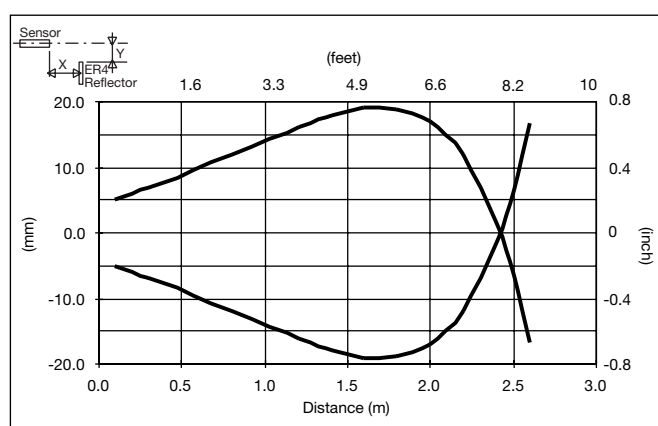
Operation Diagram



Wiring Diagrams



Detection Diagram



Delivery Contents

- Photoelectric switch: PA18ALP20..
- 2 nuts
- **Packaging:** Plastic bag

Accessories

- Reflectors: ER series
- Plugs: CON.6A... serie
- MB18A
- APA18-RAR
- Options: Fibre optics

For further information refer to "Accessories".