

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 | PA18ALP20TOM6SA |
| 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 |
|------------------|---|---------------------------------------|--------------------------------------|--|---------------------------------------|
| M18 | 2 m | PA18ALP20TOSA | PA18ALP20TOM6SA | PA18ALP20TCSA | PA18ALP20TCM6SA |

Note: Plugs and reflector to be ordered separately

Specifications

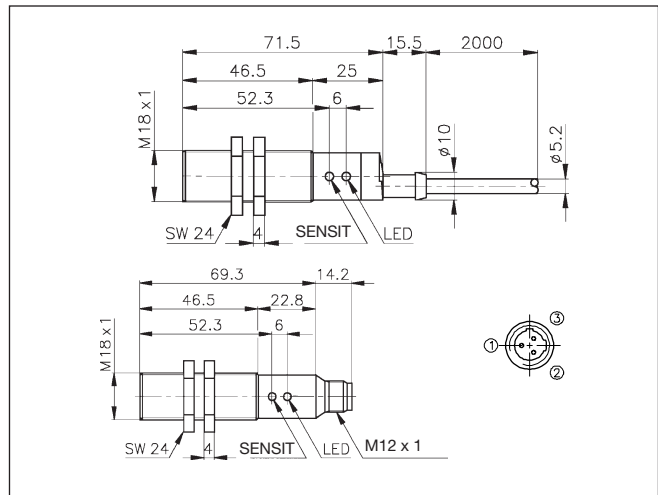
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| Rated operating dist. (S _n) | Up to 2.0 m. Ref. reflector type ER4 Ø 84 mm | Light spot size | 150 mm at 2 m |
| Sensitivity | 270° single-turn pot. meter | Ambient light | Max 5'000 lux |
| Blind zone | 0.15 m | Operating frequency (f) | Max. 25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



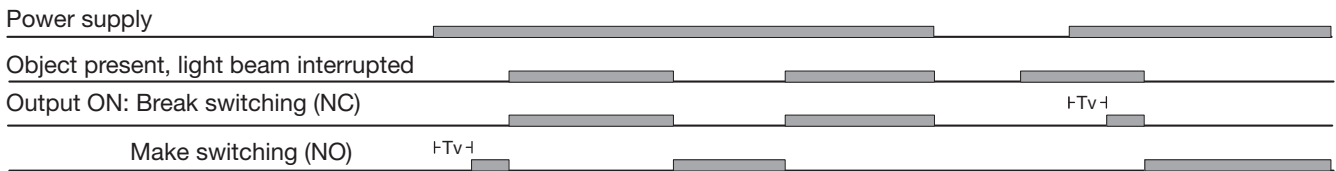
Specifications (cont.)

| | |
|-------------------------|---|
| 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, CSA |
| CE-marking | |
| | Yes |

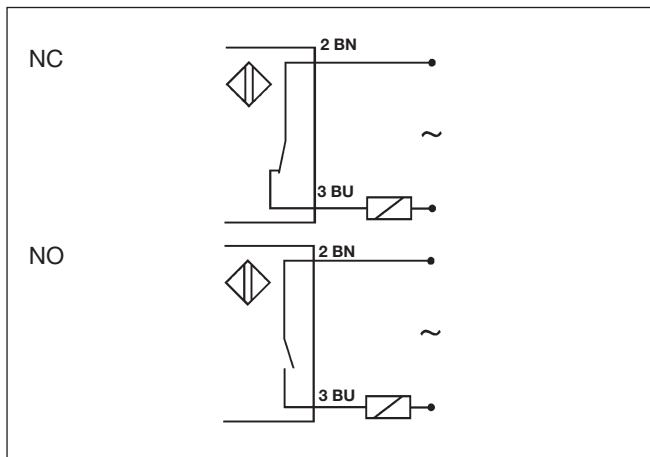
Dimensions



Operation Diagram



Wiring Diagrams



Detection Diagram

