

Photoelectrics

Diffuse-reflective

Type PA18ALD04T., AC, Metal-housing



- Range: 400 mm adjustable
- Modulated, infrared light
- Supply voltage: 20 to 250 VAC
- Output: 500 mA SCR
- Make or break switching function, LED indication
- High immunity to ambient light
- Heavy duty M18 metal housing, IP67
- Cable and plug versions

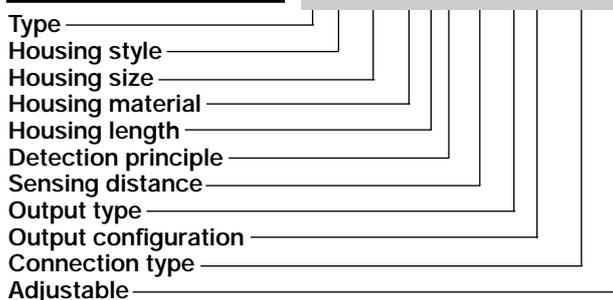
Product Description

The PA18ALD.. is a family of general purpose diffuse-reflective sensors in industrial standard 18 mm cylindrical 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 270° single-turn potentiometer. The output is a 2-wire NO or NC thyristor (SCR) output.

Ordering Key

PA18ALD04TOM6SA



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 | 400 mm | PA18ALD04TOSA | PA18ALD04TOM6SA | PA18ALD04TCSA | PA18ALD04TCM6SA |

Note: Plugs to be ordered separately

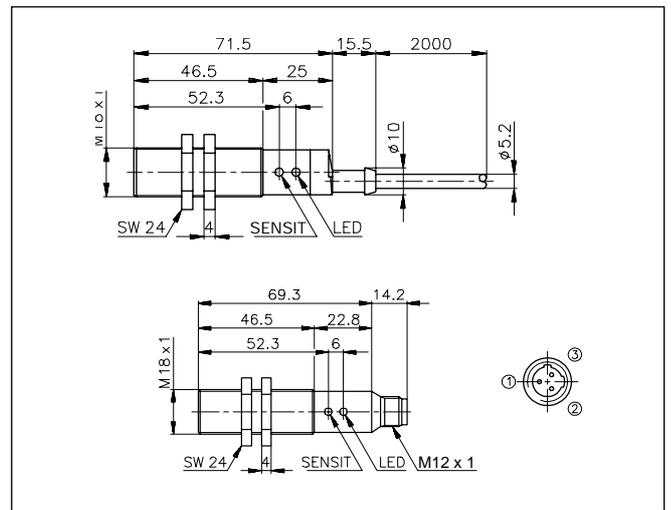
Specifications

| | | | |
|---|--|--|---|
| Rated operating dist. (S_n) Adjustable | Up to 400 mm, Ref. target Kodac test card 227, white, 90° reflectivity, 200 x 200 mm | Sensing angle | ±25° at 1/2 range |
| Sensitivity | 270° single-turn pot. meter | Ambient light | Max 10'000 lux |
| Temperature drift | 0.4%/K | Operating frequency (f) | 20 Hz, light/dark ratio 1:2 |
| Hysteresis (H) (Differential travel) | 3 to 20%, | Response time OFF-ON (t _{ON}) ON-OFF (t _{OFF}) | ≤ 20 ms ≤ 30 ms |
| Rated operational volt. (U_B) | 20 to 250 VAC, 45 to 65 Hz | Power ON delay (t_v) | Typ. 100 ms |
| Output current (AC12, AC140) Continuous (I _e) Short-time (I) | ≤ 500 mA ≤ 3A, max. 20 ms | Indication function Output ON | Dark (NC) or light (NO) switching LED, yellow |
| Min. operational current (I_m) | 10 mA | Environment Overvoltage category Pollution degree Degree of protection | II (IEC 60664/60664A; 60947-1) 3 (IEC 60664/60664A; 60947-1) IP 67 (IEC 60529; 60947-1) |
| OFF-state current (I_i) | Max < 5 mA, typ. 2.6 mA | Temperature Operating Storage | -20° to +60°C (-4° to 140°F) -30° to +70°C (-22° to 158°F) |
| Voltage drop (U_d) | Max ≤ 10 V, typ. 7 VAC | Vibration | 10 to 150 Hz, 0.5 mm/- 7.5 g (IEC 60068-2-6) |
| Protection | Transients | Shock | 2 x 1 m 100 x 0.5 m (IEC 60068-2-32) |
| Transient voltage | Max 1 kV/0,5 J | Dielectric voltage | 1600 VAC (IEC 60364-4-41) |
| Light source | GaAlAs LED, 880 nm | | |
| Light type | Infrared, modulated synchronized | | |

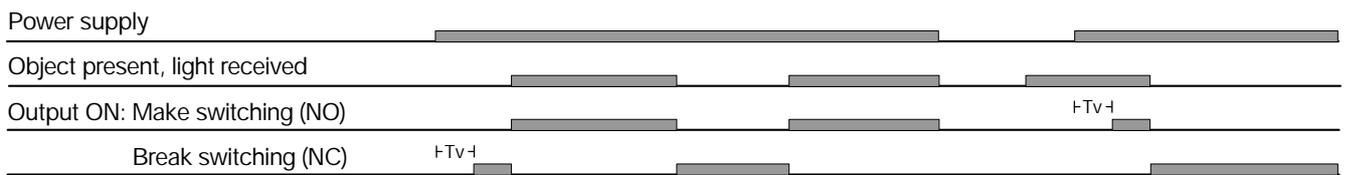
Specifications (cont.)

| | |
|-------------------------|--|
| Housing material | |
| Body | Nickel-plated brass |
| Front | Luran®, black |
| Cable end | Polyester, black |
| Nuts | Nickel-plated brass |
| Connection | |
| Cable | Grey, 2 m, 2 x 0.5 mm ² , oilproof PVC, M12 x 1 |
| Plug | CON.6A-... series |
| Cables for plug (-6) | |
| Weight | |
| Cable version | 150 g |
| Plug version | 65 g |
| Approvals | |
| | UL |
| CE-marking | |
| | Yes |

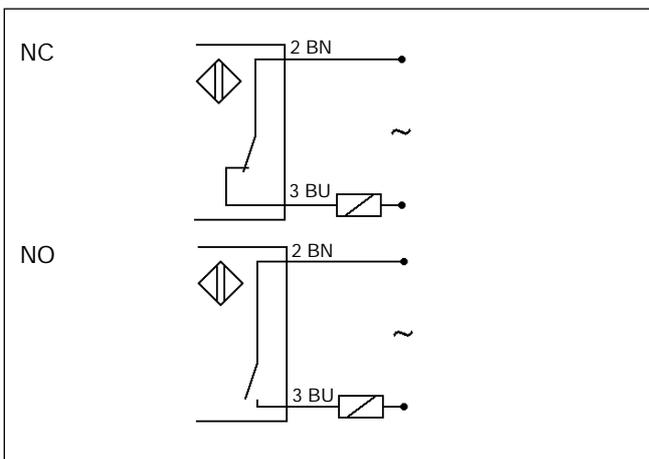
Dimensions



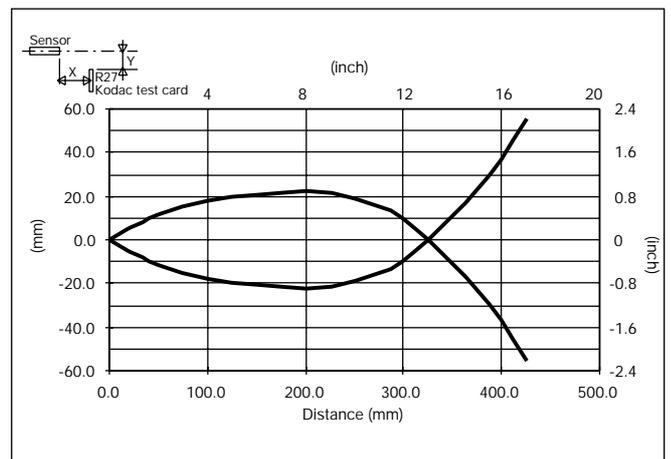
Operation Diagram



Wiring Diagrams



Detection Diagram



Delivery Contents

- Photoelectric switch: PA18ALD04..
- 2 nuts
- **Packaging:** plastic bag

Accessories

- Fibre optics
- Plugs CON.6A-.. series.
- Screw driver for adjustments: 77-000
- MB18A
- APA18-RAR

For further informations refer to "Accessories"