

Photoelectrics Diffuse-reflective Type PA18CSD0., DC, PBTP-housing

CARLO GAVAZZI



- Range: 400 mm adjustable
100, 200 or 400 mm fixed
- Modulated, infrared light
- Supply voltage: 10 to 40 VDC
- Output: 200 mA NPN or PNP
- Make and break switching function, LED indication
- Protection: Reverse polarity, short-circuit, transients
- High immunity to ambient light
- Cable and plug versions

Product Description

The PA18CSD.. is a family of inexpensive general purpose Diffuse-reflective sensors in industrial standard 18 mm cylindrical PBTP housing. They are useful for simple applications where a basic sensor provides adequate sensing performance. The

sensors are simple to use and no adjustment are necessary (except 400 mm diffuse adjustable type). The output is a 4-wire complementary (NO and NC) output in NPN (current sinking) or PNP (current sourcing).

Ordering Key

PA18CSD04NAM1SA

| | |
|----------------------|---|
| 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. 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. |
|------------------|---|---|--|---|--|
| M 18 | 100 mm fixed | PA18CSD01NA | PA18CSD01NAM1 | PA18CSD01PA | PA18CSD01PAM1 |
| M 18 | 200 mm fixed | PA18CSD02NA | PA18CSD02NAM1 | PA18CSD02PA | PA18CSD02PAM1 |
| M 18 | 400 mm fixed | PA18CSD04NA | PA18CSD04NAM1 | PA18CSD04PA | PA18CSD04PAM1 |
| M 18 | 400 mm adjust. | PA18CSD04NASA | PA18CSD04NAM1SA | PA18CSD04PASA | PA18CSD04PAM1SA |

Note: Plugs to be ordered separately

Specifications

| | | | |
|---|--|---|--|
| Rated operating dist. (S_n) Adjustable Fixed | Up to 400 mm 100, 200 or 400 mm Reference target: Kodak test card R27, white, 90% reflectivity 100 x 100 mm 200 x 200 mm | No load supply current (I₀) | Max. 20 mA |
| Size: S _n < 400 mm S _n ≥ 400 mm | | Min. operational current (I_m) | 0.5 mA |
| Sensitivity Adjustable type only | 270° turn potentiometer | OFF-state current (I_r) | Max. 100 μA |
| Temperature drift | 0.4%/K | Voltage drop (U_d) | Max. 2.5 V @ 200 mA |
| Hysteresis (H) (Differential travel) | 3 to 20% | Protection | Reverse polarity, short circuit, transients |
| Rated operational volt. (U_B) | 10 to 40 VDC (ripple included) | Transient voltage | Max. 1 kV/0.5 J |
| Ripple (U_{rip}) | Max. 10% | Light source | GaAlAs LED, 880 nm |
| Output current Continuous (I _e) Short-time (I) | Max. 200 mA 200 mA, max. load capacity 100 nF | Light type | Infrared, modulated synchronized |
| | | Sensing angle | ± 25° at 1/2 range |
| | | Ambient light | Max. 10,000 lux |
| | | Operating frequency (f) | 120 Hz, light/dark ratio 1:2 |
| | | Response time OFF-ON (t _{ON}) ON-OFF (t _{OFF}) | ≤ 3.2 ms ≤ 5 ms |
| | | Power ON delay (t_v) | Typ. 100 ms |

