

Ultrasonic Diffuse, NPN/PNP Output Types UA18CLD.. .O, UA30CLD25 .O

CARLO GAVAZZI



- Cylindrical M18 and M30 polyester housing
- Sensing distance: 100-600 mm, 200-1500 mm or 300-2500 mm
- Power supply: 18 to 30 VDC
- Output: Transistor NPN or PNP, 500 mA
- 8° beam angle
- Protection: Short-circuit, reverse polarity, transients
- Protection degree IP 67
- 2 m cable, M12 plug or M12 pig tail

Product Description

A family of diffuse ultrasonic sensors with sensing range from 100-600 mm, 200-1500 and 300-2500 mm with repeatability as low as 0.2 %. Set point is adjustable by potentiometer and outputs are either PNP or NPN with NO switching. The family is ideal for detection of any

material independent of material, colour, light or smoke. Due to use of microprocessor control the digital filtering makes the sensor very immune against most electromagnetic interferences and enables synchronisation in an easy way.

Ordering Key

UA 18 CLD 15 PO M1

| | |
|----------------------|-------|
| Ultrasonic sensor | _____ |
| Housing style | _____ |
| Housing size | _____ |
| Housing material | _____ |
| Housing length | _____ |
| Detection principle | _____ |
| Sensing distance | _____ |
| Output type | _____ |
| Output configuration | _____ |
| Connection | _____ |

Type Selection

| Housing diameter | Body style | Connec-tion | Rated operating dist. (S _n) | Ordering no. Transistor NPN | Ordering no. Transistor PNP |
|------------------|------------|-------------|---|-----------------------------|-----------------------------|
| M18 | Long | Cable | 100-600 mm | UA 18 CLD 06 NO | UA 18 CLD 06 PO |
| M18 | Long | Pig tail | 100-600 mm | UA 18 CLD 06 NO M1 | UA 18 CLD 06 PO M1 |
| M18 | Long | Cable | 200-1500 mm | UA 18 CLD 15 NO | UA 18 CLD 15 PO |
| M18 | Long | Pig tail | 200-1500 mm | UA 18 CLD 15 NO M1 | UA 18 CLD 15 PO M1 |
| M30 | Long | Cable | 300-2500 mm | UA 30 CLD 25 NO | UA 30 CLD 25 PO |
| M30 | Long | Plug M12 | 300-2500 mm | UA 30 CLD 25 NO M1 | UA 30 CLD 25 PO M1 |

Specifications

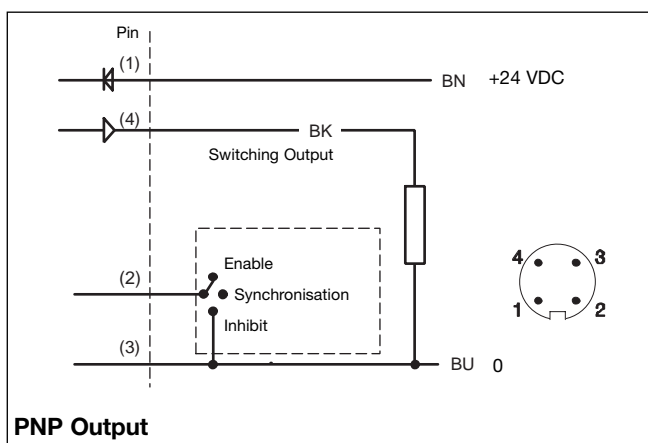
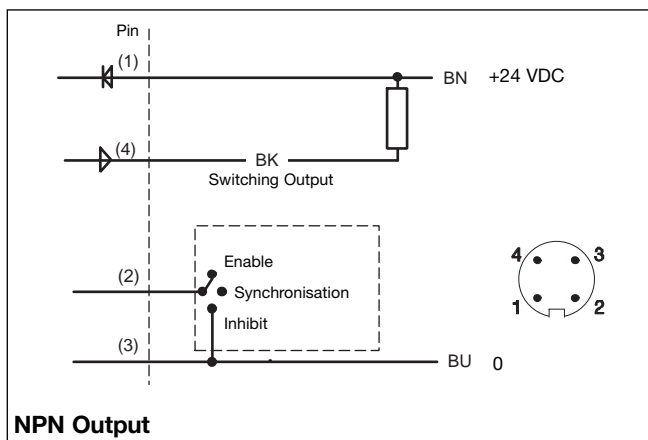
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|--|---|--|---|
| Rated operational volt. (U_e) | 18 to 30 VDC (ripple included) | Operating frequency | UA18CLD06 25 Hz UA18CLD15 8 Hz UA30CLD25 1 Hz |
| Ripple | ≤ 10% | Hysteresis (H) (differential travel) | Approx. 2% |
| Output current (I_o) | max. 500 mA (continuous) | Temperature compensation | No |
| No-load supply current (I_o) | ≤ 35 mA | Beam angle | 8° |
| Protection | Short-circuit, transients and reverse polarity | Ambient temperature | Operating -15° to +70°C (5° to +158°F) Storage -25° to +75°C (-13° to +167°F) |
| Rated insulation voltage | > 1 kV | Degree of protection | IP 67 (Nema 1, 3, 4, 6, 13) |
| Linearity error | < 0.3% | Housing material | Polyester PBTP |
| Repeat accuracy (R) | ≤ 0.2% | Connection | Cable 2 m, 4 x 0.25 mm ² Plug M12 x 1 Pig tail M12, 4-pin Cables for plug (-1) CONH1A serie |
| Rated operating distance | UA18CLD06 100-600 mm UA18CLD15 200-1500 mm UA30CLD25 300-2500 mm | | |
| Adj. of sensing distance | Potentiometer | | |



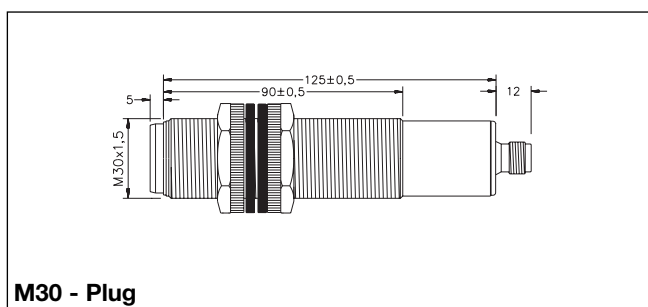
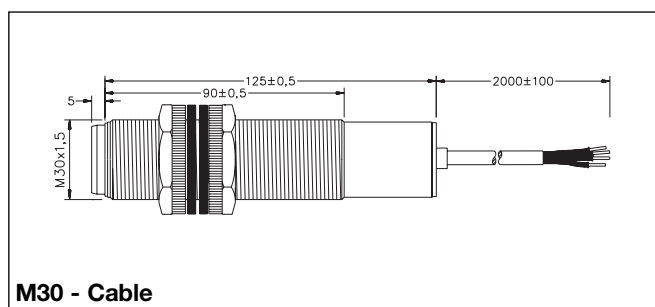
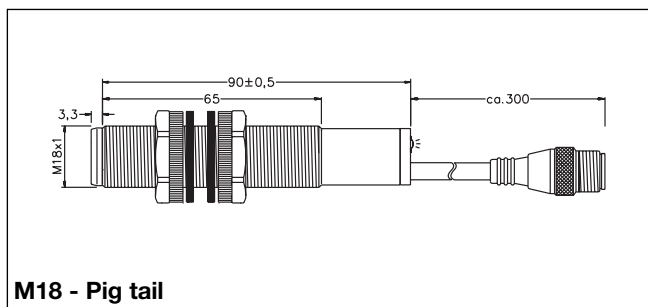
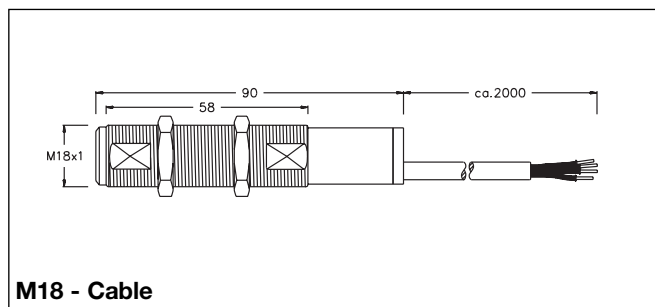
Specifications (cont.)

| | | |
|--------------------------|----------------|--------|
| Weight | UA18 | 96 g |
| | UA18 M1 | 57 g |
| | UA30 | 199 g |
| | UA30 M1 | 140 g |
| Tightening torque | M18 | 2.6 Nm |
| | M30 | 7.5 Nm |
| CE-marking | Yes | |

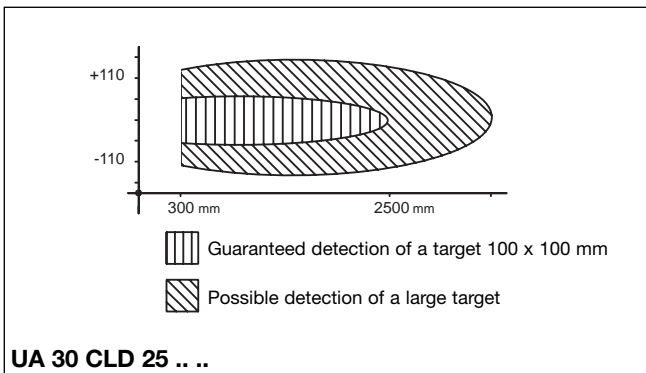
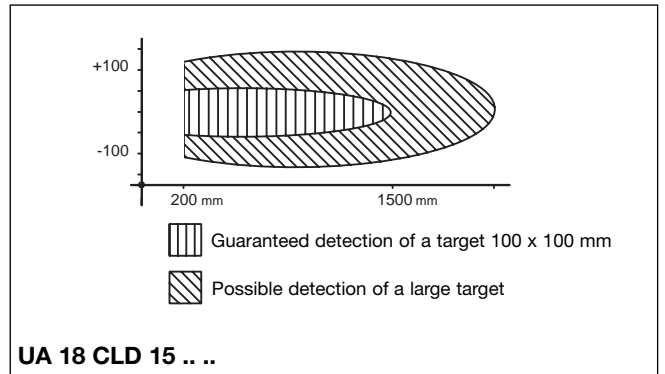
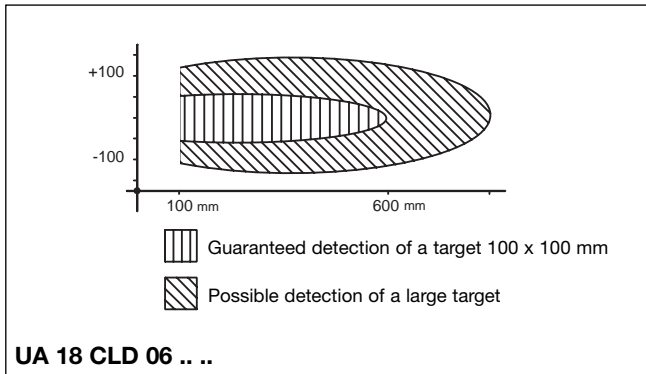
Wiring Diagrams



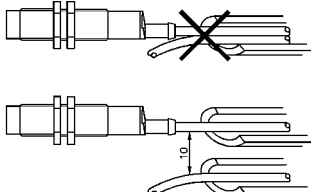
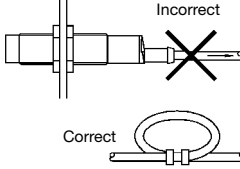
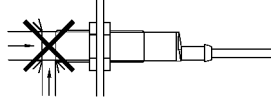
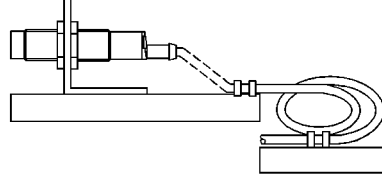
Dimensions



Detection Range



Installation Hints

| | | | |
|---|--|---|---|
| <p><i>To avoid interference from inductive voltage/ current peaks, separate the prox. switch power cables from any other power cables, e.g. motor, contactor or solenoid cables</i></p>  | <p><i>Relief of cable strain</i></p>  <p>The cable should not be pulled</p> | <p><i>Protection of the sensing face</i></p>  <p>A proximity switch should not serve as mechanical stop</p> | <p><i>Switch mounted on mobile carrier</i></p>  <p>Any repetitive flexing of the cable should be avoided</p> |
|---|--|---|---|