# Proximity Sensors Inductive Thermoplastic Polyester Housing Types EI, AC, M18, M30 



## Product Description

AC proximity switches constructed in rugged thermoplastic polyester housings. Sizes available are M18 and M30. Length of housing is selectable with 30 mm thread or 50 mm thread.

- Thermoplastic polyester housing, cylindrical
- Diameter: M18 and M30
- Sensing distance: 5 to 15 mm
- Power supply: 20 to 250 VAC
- Output: SCR, make or break switching
- Protection: Overvoltage
- LED-indication for output ON
- Long or short housing
- 2 m cable or M12 plug (double keyed)

Ordering Key
El 1808 TBCPL-6
Type
Housing diameter (mm)
Rated operating dist. (mm)
Output type
Housing material
Body style
Plug

## Type Selection AC Types, Cable and M12 Plug

$\left.\begin{array}{lllllll}\hline \begin{array}{l}\text { Housing } \\ \text { diameter }\end{array} & \begin{array}{l}\text { Body } \\ \text { style }\end{array} & \begin{array}{l}\text { Connec- } \\ \text { tion }\end{array} & \begin{array}{l}\text { Rated } \\ \text { operating } \\ \text { dist. }\left(\mathbf{S}_{\mathrm{n}}\right)\end{array} & & \begin{array}{l}\text { Ordering no. } \\ \text { SCR NO }\end{array} & \end{array} \begin{array}{l}\text { Ordering no. } \\ \text { SCR NC }\end{array}\right]$

## Specifications

| Rated operational volt. ( $\mathrm{U}_{\mathrm{e}}$ ) <br> $\left(U_{B}\right)$ | $\begin{aligned} & 24 \text { to } 240 \text { VAC } \\ & 20 \text { to } 265 \text { VAC, } 50 \text { to } 60 \mathrm{~Hz} \end{aligned}$ |
| :---: | :---: |
| Rated operational current ( $\mathrm{l}_{\mathrm{e}}$ ) |  |
| Continuous | 10-500 mA |
| Short-time | $\leq 2.5 \mathrm{~A}$, max. 20 ms |
| Minimum load current | 10 mA |
| OFF-state current ( $\mathrm{I}_{\mathrm{r}}$ ) | $\leq 2 \mathrm{~mA}$ |
| Voltage drop ( $\mathrm{U}_{\mathrm{d}}$ ) | $\leq 8 \mathrm{VAC}$ at max. load |
| Protection | Transients |
| Transient voltage | Level $3,2.5 \mathrm{kV}$, acc. to IEC 60255-5 (500 $\Omega, 0.5 \mathrm{~J}$ ) (prepared) |
| Power ON delay | $\leq 100 \mathrm{~ms}$ |
| Frequency of operating cycles (f) | 25 Hz |


| Indication for output ON | LED, yellow |
| :--- | :--- |
| Assured operating dist. ( $\mathrm{S}_{\mathrm{a}}$ ) | $0 \leq \mathrm{S}_{\mathrm{a}} \leq 0.81 \mathrm{~S}_{\mathrm{n}}$ |
| Repeat accuracy (R) | $\leq 5 \%$ |
| Hysteresis (H) <br> (Differential travel) | 3 to $20 \%$ of sensing distance |
| Effective operating dist. $\left(\mathrm{S}_{\mathrm{r}}\right)$ | $0.9 \times \mathrm{S}_{\mathrm{n}} \leq \mathrm{S}_{\mathrm{r}} \leq 1.1 \times \mathrm{S}_{\mathrm{n}}$ |
| Usable operating dist. (S) | $0.9 \times \mathrm{S}_{\mathrm{r}} \leq \mathrm{S}_{\mathrm{u}} \leq 1.1 \times \mathrm{S}_{\mathrm{r}}$ |
| Ambient temperature <br> Operating <br> Storage | $-25^{\circ}$ to $+70^{\circ} \mathrm{C}\left(-13^{\circ}\right.$ to $\left.+158^{\circ} \mathrm{F}\right)$ |
| Degree of protection | $-30^{\circ}$ to $+80^{\circ} \mathrm{C}\left(-22^{\circ}\right.$ to $\left.+176^{\circ} \mathrm{F}\right)$ |
| Housing material <br> Body <br> Back | IP 67 <br> (Nema 1, 3, 4, 6, 13) |
| Grey thermoplastic polyester |  |
| Black thermoplastic Polyester |  |

## Specifications (cont.)

| Connection Cable | $2 \mathrm{~m}, 2 \times 0.50 \mathrm{~mm}^{2}$ grey PVC, oil proof M12 x 1 (double keyed) CONH6A-xx |  | Tightening torque | $\begin{aligned} & \text { El } 18 \\ & \text { El } 30 \end{aligned}$ | $\begin{aligned} & 2.6 \mathrm{Nm} \\ & 7.5 \mathrm{Nm} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Approvals | UL, C |  |
| Plug Cables for plug (-6) |  |  | CE-marking | Yes |  |
| Weight (cable excluded) | $\begin{aligned} & \text { El } 18 \\ & \text { El } 30 \end{aligned}$ | $\begin{aligned} & 110 \mathrm{~g} \\ & 180 \mathrm{~g} \end{aligned}$ |  |  |  |

Dimensions


## Wiring Diagrams



## Installation Hints

To avoid interference from inductive voltage/
current peaks, separate the prox. switch pow-
er cables from any other power cables, e.g.
motor, contactor or solenoid cables cable strain

## Power Supplies

Power supplies VAC:

## X-ON Electronics

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