Capacitive Proximity Switch

## Series M32

## Wiring Diagram



## Switch diagram for programming

| ON | switch | 1 | $1 /$ N.O. |
| :--- | :--- | :--- | ---: |
| $1 \square$ |  |  | ON / N.C. |
| 12 | switch | 2 | $2 / P N P$ <br> ON / NPN |

Identifying characteristics in accordance with EN 60947-5-2

| Electrical data |  |  |
| :---: | :---: | :---: |
| Rated operating distance | $\mathrm{S}_{\mathrm{n}}$ | 15 mm |
| Mounting |  | flush |
| Standard target |  | $45 \mathrm{~mm} \times 45 \mathrm{~mm}, \mathrm{t}=1 \mathrm{~mm}$, material: steel; connected to earth |
| Effective operating distance | Sr | $3-15 \mathrm{~mm}$, adjustable with potentiometer (POT); |
|  |  | turn right $=$ high sensitivity, turn left = low sensitivity |
| Assured operating distance | $\mathrm{S}_{\mathrm{a}}$ | $0 \leq \mathrm{S}_{\mathrm{a}} \leq 0,8 \times \mathrm{S}_{\text {r }}$ |
| Switching element function |  | DC Push-pull circuit, N.O. / N.C. programmable |
| Repeat accuracy | R | $\leq 10 \%$ |
| Differential travel (hysteresis) | H | $\leq 20$ \% |
| Frequency of operating cycles | f | $\approx 25 \mathrm{~Hz}$ |
| Rated operational voltage | $\mathrm{U}^{\text {e }}$ | 12-48V DC |
| Operational voltage range | $\mathrm{U}_{\mathrm{B}}$ | 10-60 V DC |
| Rated insulation voltage | $\mathrm{U}_{\mathrm{i}}$ | 75 V DC |
| Rated impulse withstand voltage | $\mathrm{U}_{\text {imp }}$ | 500 V |
| Voltage drop | $U_{\text {d }}$ | $\leq 3 \mathrm{VDC}$ |
| Utilization category |  | DC 12 |
| Rated operational current | $\mathrm{I}_{\text {e }}$ | 400 mA DC |
| Minimum operational current | $\mathrm{I}_{\mathrm{m}}$ | 1 mA DC |
| Off-state current | $\mathrm{I}_{\text {r }}$ | $\leq 0,5 \mathrm{~mA} \mathrm{DC}$ |
| No-load supply current | 1. | $\leq 20 \mathrm{~mA} \mathrm{DC}$ |
| Switching element |  | permanent overload and s.c.p. |
| Short-circuit protection |  | pulsed |
| False polarity protection |  | yes, with permutation of,+- , output no damage occurs |
| Time delay before availability | $t_{v}$ | $\leq 50 \mathrm{~ms}$ |

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## Electromagnetic compatibility (EMC)

| Electromagnetic field test | IEC $61000-4-3$ | $3 \mathrm{~V} / \mathrm{m}, 80, . .1000 \mathrm{MHz}$ |
| :--- | :--- | :--- |
| Electrostatic discharge test | IEC $61000-4-2$ | $4 \mathrm{kV} \mathrm{CD}, 8 \mathrm{kV} \mathrm{AD}$ |
| Electrical fast transient immunity test (Burst) | IEC $61000-4-4$ | $1 \mathrm{kV} /$ coupling clamp |
| Impulse voltage withstand ability (Surge) | IEC $61000-4-5$ | $500 \mathrm{~V}, 1,2 / 50 \mu \mathrm{\mu s}$ @ Ri $=42 \Omega$ |

## Mechanical Data

| Enclosure | Brass, nickel plated |
| :--- | :--- |
| Front cap | PTFE |
| End cap | PA 6.6 |
| Ambient air temperature | $-25^{\circ} \mathrm{C} \ldots+70^{\circ} \mathrm{C}$ |
| Type of protection | IP65 |
| Pollution degree | 3 (Pollution of the active zone can cause |
|  | impairments of the operating distances.) |
| Indication | Output ON: LED $=$ yellow |
|  | Power ON: LED $=$ green |
| Termination type | Cable $3 \times 0,5 \mathrm{~mm} \times 6 \mathrm{~m}$ |
| For attachment | $2 \times$ hexagon nut (brass, nickel plated) |

EU Conformity

