## Plastic bodied limit switch

Series 188

## Operating symbol

Fixed positioning for safety applications


Operating diagram (position of actuator: 9 mm )


Mounting screw according to DIN 912 M5


Tolerance:
Operating point $\pm 0,25 \mathrm{~mm}$;
Operating force $\pm 10 \%$

| Breaking capacity DC |  |  |
| :--- | :--- | :--- |
| Rated operational voltage | $\mathrm{U}_{\mathrm{e}}$ | 110 VDC |
| Rated operational current | $\mathrm{I}_{\mathrm{e}}$ | $0,7 \mathrm{~A}$ |
| Switching frequency |  | $\leq 60 /$ min |
| Mechanical life | $1 \times 10^{6}$ switching cycles <br> Load | ohmsch |


| Electrical Data |  |  |
| :--- | :--- | :--- |
| Rated insulation voltage | $\mathrm{U}_{\mathrm{i}}$ | 250 V AC |
| Conv. thermal current | $\mathrm{I}_{\text {the }}$ | 10 A |
| Rated operational voltage | $\mathrm{U}_{\mathrm{e}}$ | 240 V |
|  |  | $\mathrm{AC}-15, \mathrm{U}_{\mathrm{e}} / I_{\mathrm{e}} 240 \mathrm{~V} / 3 \mathrm{~A}$ |
|  |  | $\mathrm{DC}-13, \mathrm{U}_{\mathrm{e}} / I_{\mathrm{e}} 24 \mathrm{~V} / 1 \mathrm{~A}$ |
| Utilization category |  | $\mathrm{DC}-13, \mathrm{U}_{\mathrm{e}} / I_{\mathrm{e}} 240 \mathrm{~V} / 0,1 \mathrm{~A}$ |
|  |  | acc. to $\mathrm{IEC} / \mathrm{EN} 60947-5-1$, annex K |
| Direct opening action |  | Fuse 10 AgG |
| Short-circuit protective device |  | II, totally insulated |
| Protection class |  |  |


| Mechanical data |  |
| :---: | :---: |
| Enclosure | Thermoplastic, glass fibre reinforced (UL 94-V0) |
| Cover | Thermoplastic, glass fibre reinforced (UL 94-V0) |
| Actuator | Lever with roller (thermoplastic) |
| Ambient air temperature | $-30^{\circ} \mathrm{C}$... $+80^{\circ} \mathrm{C}$ |
| Contact type | 1 N.C., 1 N.O. (Zb) |
| Mechanical life | $10 \times 10^{6}$ operating cycles |
| Switching frequency | $\leq 100 / \mathrm{min}$. |
| Assembly | $2 \times \mathrm{M} 4$ |
| Connection | 4 screw connections (M3,5) |
| Conductor cross-sections | Solid: $0,5 \ldots 1,5 \mathrm{~mm}^{2}$ or <br> Litz wire with ferrules: $0,5 \ldots 1,5 \mathrm{~mm}^{2}$ |
| Cable entrance | $1 \times$ self-sealing grommet M20 x 1,5 (tightness-range 8 - 13,5 mm) |
| Weight | $\approx 0,07 \mathrm{~kg}$ |
| Installation position | operator definable |
| Protection type | IP54 acc. to IEC/EN 60529 |

## ID for safety engineering

B10d
$20 \times 10^{6}$ switching cycles

## Actuation

The actuating device is preferably started from 2 sides.
By loosening the 4 screws the actuation assembly can be rotated in 90 degree increments such that 8 actuation directions are possible. The actuation assembly is to be again fastened to the housing using the 4 screws.

| Standards |  |
| :--- | :--- |
| VDE 0660 T100, DIN EN 60947-1, IEC 60947-1 |  |
| VDE 0660 T200, DIN EN 60947-5-1, IEC 60947-5-1 |  |
| DIN EN ISO 13849-1 |  |

## EU Conformity

acc. to directive 2014/35/EU (Low-Voltage-Directive)

| Approvals |  |  |
| :--- | :--- | :--- |
|  | ${ }_{C} \mathrm{CSA}_{\mathrm{US}}$ | A 300 (same polarity) |
|  | CCC |  |

[^0]
[^0]:    Notes
    The specified protection classification (IP code) applies only when the cover is closed and the appropriate cable is used, in accordance with the clamping range of the above mentioned self-sealing grommet.
    Actuator head turned by $270^{\circ}$.

