## Switchmaster®

The opto-electric position indicator
Technical data sheet

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## Opto-electric position indicator for actuators / valves with many advantages

It's got a lot to offer! The patented Switchmaster®. A lot of power and a lot of safety e.g. approx. $50 \%$ savings in time and cost for installing and using compared to previous units.

- rapid comfortable connecting of the cable
- switchmaster opens and closes in seconds
- easy, rapid mounting of the telescopic feet
- easy and rapid adjustment of the switching points
- indication of the valve position recognizable from as far away as 30 m
- clear description of flow path ...
- ... also for 3-way or 4-way valves
- constructional dimensioning prevents wrong mounting
- protection type IP 67 (water-tight)
- no brackets needed
- can be used with all VDINDE 3845 classified actuators
- high corrosion resistance and much more - but have a look yourself ...


## Clips with double use

Benefit 1: Is the foot set to the correct height, all you do is to press the clip and the height is safely fixed!

Benefit 2: Would you like to have your company logo on the clips? Left and right? Everything is possible!


## Removable mounting plate

Disconnecting is easy, because it happens outside the casing:

- remove mounting plate
- thread the cable through the cable gland and connect acc. to the wiring diagramm
- clip the plate into position, tighten the fixing screw - finished!



## Indication of the valve-position

The green indicator pads are marking the position of the valve-bore respectively of the valve-disc. Just press-on the marker as required.


## Position easily recognized from long distances

The display can be easily seen from far and from all sides and clearly indicates the switching position: red = closed green = open. The green marking indicates the flow path.


## One foot for all standard dimensions

The foot is always the same: whether left or right, inside or outside. Simply rotate the feet by $180^{\circ}$ and the Switchmaster ${ }^{\circledR}$ is ready for NAMUR dimensions of 80 or of 130 mm .

## The new generation of position indicator

## 1 Quick-acting closure

The transparent cap with bayonet socket enables rapid and easy opening/closing for connecting and adjusting.

## 2 Electromechanical or inductive?

The mounting plate is equipped with either micro-switches or inductive switches - i.e. direct switching or according to NAMUR.

## 3 Vertically adjustable feet

Depending on the pinion overlap (20, 30, 40, or 50 mm ), the Switchmaster ${ }^{\circledR}$ can be universally mounted in seconds. Simply mount the feet (without casing) onto the valve, slide the casing over the feet brackets until the shaft matches the actuator pinion. Then press the clips and the position is fixed. Brackets are not needed!


## 4 Rapid marking

The flow path of the valve can be easily indicated in seconds by pressing on the green path indicator, not only through valves but multiple valves.


## 5 Universal switching cams

The patented switching cams activate the electromechanical or inductive switches. Inductive switches can be switched in either damped or undamped situations, depending on the adjustment. The switching point is quickly and easily changed by rotating the integrated adjusting tool. The positive formfitting connection between cam and shaft guarantees the stability of the switching point.


## 6 Cap markings

Rotate the cap in the closed position and the Switchmaster® is closed water-tight. The quickacting closure enables connecting, adjusting and programming within seconds.

Highly visible flow paths
When using multiple valves ( $L$ or $T$ models), the green marking indicates the flow path. The closed routes are indicated by red markings.



## Technical data

| Technical data |  |
| :--- | :--- |
| Mounting measurements | acc. to VDI/VDE 3845 for flange facing $30 \times 80$ and <br>  <br> $30 \times 130$ (see drawing) |
| Materials |  |
| Cap | PC |
| Stem | POM |
| Seals | NBR |
| Cable gland/Nut | PA |
| Other plastic parts | ABS |
| Hexagon socket screw | stainless steel (A2-70) |
| Protection | IP67, VDE 0470/EN 60529 |
| Temperature range | $-20{ }^{\circ} \mathrm{C}$ up to $+70{ }^{\circ} \mathrm{C}$ |
| Display \& switching range | $0^{\circ}-90^{\circ}$ pivoting angle |
| Cable gland | with strain relief, clamp range $7-13 \mathrm{~mm}$ |
| Cable | $\varnothing 7-13$ mm, max. 2,5 mm ${ }^{2}$ |
| Weight | ca. 0,325 kg |

## SWITCHmaster ${ }^{\text {®-V }}$-Variants

| SWITCHmaster ${ }^{\text {®-Variants }}$ |  |
| :---: | :---: |
| Type M, microswitch | type SM - M2 (signal „open + closed") |
| Voltage range | 4 V/DC-250 V/AC |
| Current range | 1 mA -5 A |
| Switching function | change-over, contacts gilded |
| Type D, inductive sensor, direct switching, 3-wire system, with LED | type SM - D2 (signal „open + closed") <br> type SM - DA (signal „open") <br> type SM - DZ (signal „closed") |
| Voltage range | $10 \mathrm{~V}-30 \mathrm{~V} / \mathrm{DC}$ |
| Current range | 100 mA |
| Switching function | plus switching contact in end position damped or undamped |
| Type $\mathbf{N}$, inductive sensor, Namur ~ DIN 19234/EN 50227 + LED explosion-proofed, EExia IIB T6 | type SM - N2 (signal „open + closed") <br> type SM - NA (signal „open") <br> type SM - NZ (signal "closed") |
| Rated voltage | $8 \mathrm{~V} / \mathrm{DC}$ |
| Output current | damped < 1 mA , undamped > 3 mA |
| Switching function | in end position damped or undamped |

## Dimensions



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