

# Data Sheet for Joysticks

Thumb Joystick

Series PW30



- 1 axis rocker
- Potentiometer or Hall sensors
- Spring return
- Ergonomic handle design

The PW30 series combines the advantages of joysticks for the control of analog parameters with the small space consumption of trackballs. The rocker can be integrated into panels as well as into bigger joysticks, e.g. our 891 series

## Technical Data Mechanics

|                   |  |
|-------------------|--|
| Angle of Movement | $\pm 15.. \pm 19^\circ$                                |
| Operating Force   | 24..30 mNm   |
| Max. Force        | 0,5 Nm   |
| Vibration         | 10..55 Hz, 98 m/s <sup>2</sup> (10G) MIL -STD-202F-204 |
| Shock             | 294 m/s <sup>2</sup> (30G) MIL-STD-202F-213            |
| Weight            | 0,03 kg  |

## Technical Data Potentiometer

|                                 |                            |
|---------------------------------|----------------------------|
| Resistance Value / Tolerance    | 10 kOhm $\pm$ 15%          |
| Independent Linearity Tolerance | $\pm 3$ % full scale       |
| Power Rating @40°C              | 0,1 W                      |
| Electrical Travel               | 30° $\pm 5^\circ$          |
| Return to Center Accuracy       | $\pm 3$ %                  |
| Max. Wiper Current              | 1 mA                       |
| Expected Life                   | ca. 2.000.000 cycles       |
| Protection Grade                | Standard IP40 (up to IP54) |

Note: Max. Voltage < 50VAC resp. < 75VDC, additionally max. power rating must be considered.

## Technical Data Hall Sensor

|                                 |                                 |
|---------------------------------|---------------------------------|
| Supply Voltage                  | 5 VDC $\pm$ 10 %                |
| Current Consumption             | 7 mA (14 mA with Dual Output)   |
| Min. Impedance                  | 10 kOhm (>100 kOhm recommended) |
| Output Voltage                  | 0,5..4,5 VDC ratiometric        |
| Independent Linearity Tolerance | $\pm 3$ % full scale            |
| Return to Center Accuracy       | $\pm 3$ %                       |
| Expected Life                   | ca. 5.000.000 cycles            |
| Protection Grade                | IP65                            |

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## Order Code

|  |             |          |          |                   |                   |          |  |
|--|-------------|----------|----------|-------------------|-------------------|----------|--|
| <b>Series</b>  | <b>PW30</b> |          |          |                   |                   |          |  |
| <b>Axes</b><br>1 Axis  |             | <b>1</b> |          |                   |                   |          |  |
| <b>Cover</b>   |             |          | <b>1</b> |                   |                   |          |  |
| <b>Spring Return to Center Position</b><br>Spring Return to End Stop (*)   |             |          |          | <b>1</b><br>2 (*) |                   |          |  |
| <b>Knobs</b><br><b>Seesaw (standard)</b><br>Flat shaped Rocker (*)   |             |          |          |                   | <b>1</b><br>2 (*) |          |  |
| <b>Limiter</b>   |             |          |          |                   |                   | <b>1</b> |  |
| <b>Sensors / Signal Options</b><br><b>Potentiometer Conductive Plastic R10k</b><br><b>Hall Sensor Single Output</b><br>Hall Sensor Dual Output Parallel<br>Hall Sensor Dual Output Inverse |             |          |          |                   |                   |          | <b>1</b><br><b>H</b><br><b>HP</b><br><b>HX</b> |

(\*) upon request

### For series demands these and further customer-specific solutions are available

For example:

- Customer-specific cables and connectors

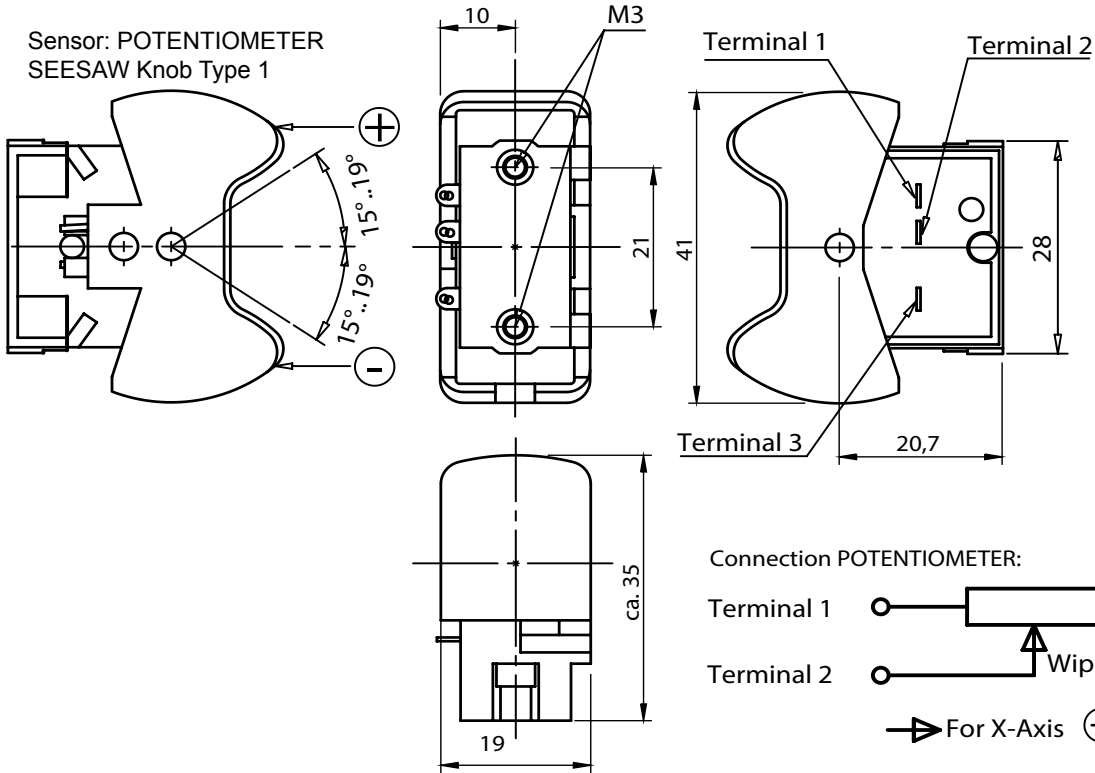
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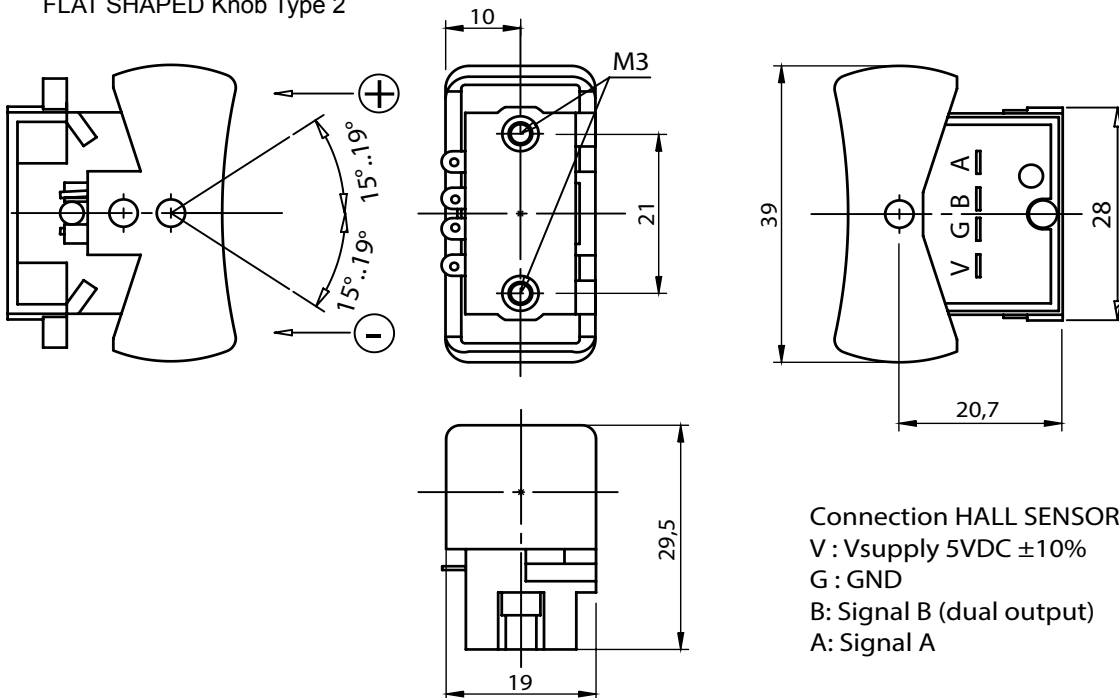
Series PW30

## Technical Drawing and Connections

Sensor: POTENTIOMETER  
SEESAW Knob Type 1



Sensor: HALL SENSOR  
FLAT SHAPED Knob Type 2



All Dimensions in mm