Data Sheet for Joysticks

Thumb Joystick — Series PW30

- Single-axis joystick/proportional rocker
- Potentiometric or Hall effect sensor
- Spring return to the center position (optional to end position)
- Ergonomic handle shape

With the optics of a rocker switch, but the sensors of industrial joysticks, the PW30 series combines the advantages of joysticks (for setting an analogue control variable) with those of toggle switches (flat design, little space requirement).
In addition, it meets the highest standards of quality and reliability for long-term use in an industrial environment. In addition to two different rocker shapes, it is possible to choose between potentiometric or Hall-effect sensors, as well as between spring return in the central position or to the end position. Redundant versions are also available on request.

Technical Data Mechanics	
Angle of Movement	±15 to ±19°
Operating Force	24 to 30 mNm
Max. Force	0,5 Nm
Vibration	10 to 55 Hz, 98 m/s² (10G) MIL -STD-202F-204
Shock	294 m/s² (30G) MIL-STD-202F-213
Weight	0.03 kg

Technical Data Potentiometer	
Resistance Value / Tolerance	10 kOhm ± 15%
Independent Linearity Tolerance	±3 % full scale
Power Rating @40°C	0.1 W
Electrical Travel	30° ±5°
Return to Center Accuracy	±3 %
Max. Wiper Current	1 mA
Expected Life	ca. 2.000.000 cycles
Protection Grade	Standard IP40 (up to IP54)

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

Technical Data Hall Sensor	
Supply Voltage	5 VDC ± 10 %
Current Consumption	7 mA (14 mA with Dual Output)
Min. Impedance	10 kOhm (>100 kOhm recommended)
Output Voltage	0.5 to 4.5 VDC ratiometric
Independent Linearity Tolerance	±3 % full scale
Return to Center Accuracy	±3 %
Expected Life	ca. 5.000.000 cycles
Protection Grade	IP65

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Order Code

Description	Selection: standard=**black/bold**, possible options=*grey/italics*							
Series name	**PW30**							
Axes: 1 Axis		**1**						
Cover type: **Only without cover**			**1**					
Return mechanism: **Spring return to center position** *Spring return to end stop*				**1** *2*				
Knobs: **Seesaw** **Flat-shaped rocker**					**1** **2**			
Limiter: **Single axis only**						**1**		
Sensors / signal options: **Potentiometer conductive plastic** **Hall sensor single output** *Hall sensor dual output parallel* *Hall sensor dual output inverse*							**1** **H** *HP* *HX*	
Additional Options: *Potentiometer with Center Tap (CT)*** *Custom resistance value in kOhms***							 *(1)* *(1)*	 *CT* *RxK*

* default resistance value is 10K
** only for version with potentiometric sensor

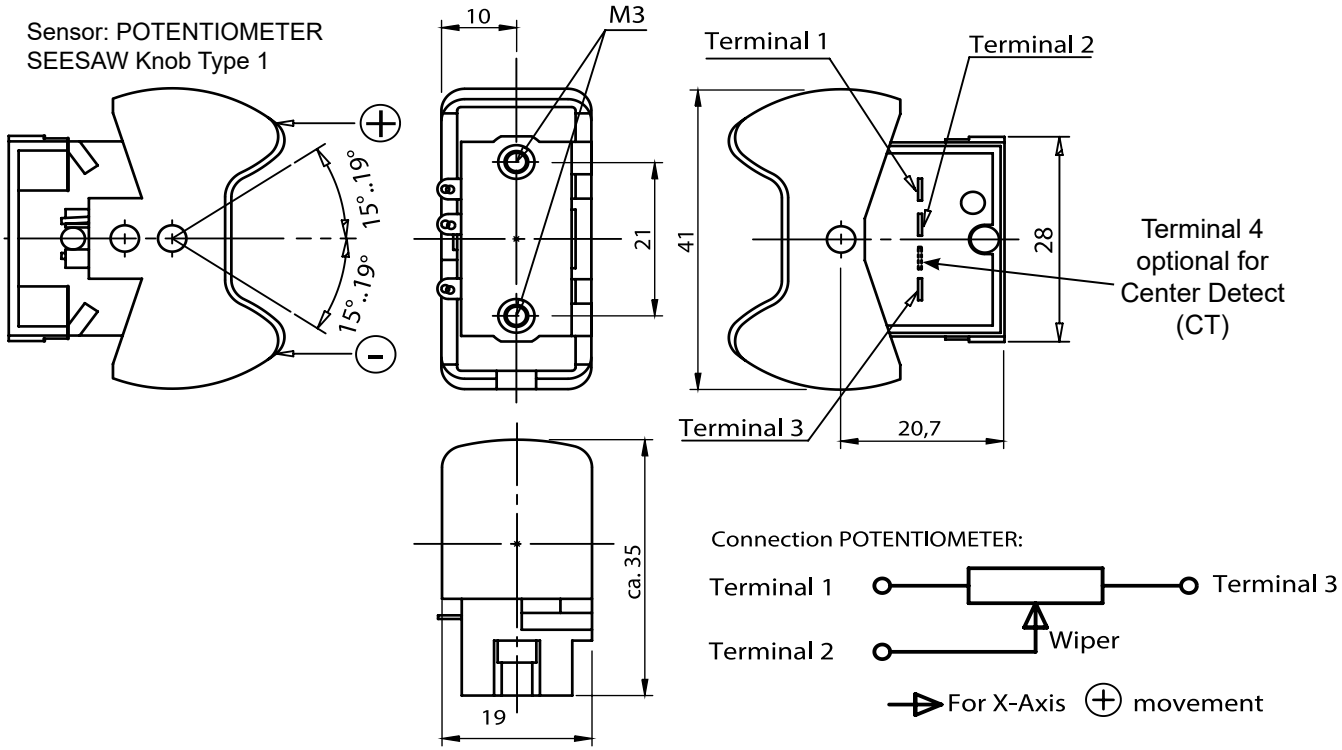
For series demands these and further customer-specific solutions are available

For example:
- Customer-specific cables and connectors

Thumb Joystick — Series PW30

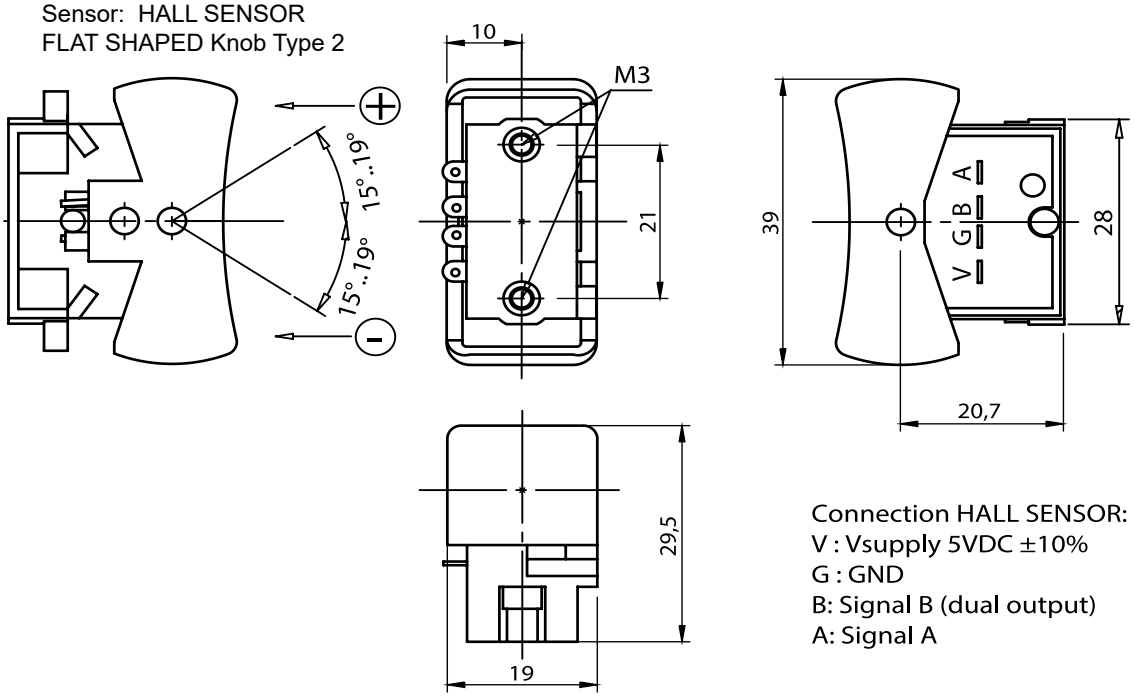
Technical Drawing and Connections

Sensor: POTENTIOMETER
SEESAW Knob Type 1



Connection POTENTIOMETER:

Sensor: HALL SENSOR
FLAT SHAPED Knob Type 2



Connection HALL SENSOR:
V : Vsupply 5VDC ±10%
G : GND
B: Signal B (dual output)
A: Signal A

All Dimensions in mm