

Data Sheet for Joysticks

Finger Joystick

Series 829



- 1 Axis, Spring Return or Friction Clutch
- Optional with Hall sensors or Potentiometer
- Resting position of handle in center position, at negative max. deflection or at any angle using a friction clutch

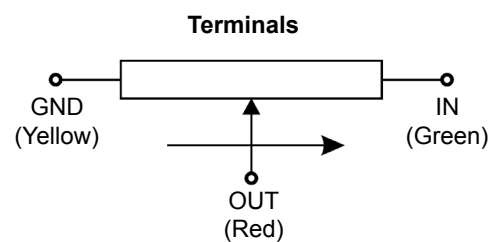
For the 829 series, several options are available: Rubber boot, handles, resistance value of potentiometers, additional switches.

Technical Data Joystick

Angle of Movement	$\pm 20^\circ$ from center
Operating Force	1.. 2,5 N (1 .. 5,5 N with Rubber Boot)
Return to Center Accuracy	$\pm 1^\circ$
Operating Temperature	$-20^\circ\text{C} \dots +60^\circ\text{C}$
Vibration (MIL-STD-202F-204)	10..55 Hz 98 m/s ²
Shock (MIL-STD-202F-213)	294 m/s ²
Lifetime	typ. 2 million cycles
Weight	ca. 100 g
Protection Grade	IP65

Technical Data Potentiometer Type K

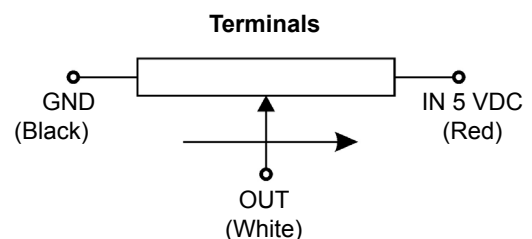
Technology	Conductive Plastic; Bearing
Nominal Total Resistance	10 k Ohm
Resistance Tolerance	$\pm 20\%$
Independent Linearity	$\pm 5\%$ full-scale
Power Rating @ 40°C	0,1 W
Effective Electrical Angle of Rotation	40°
Lifetime	typ. 2 million cycles
max. Wiper Current	1 mA



Wire AWG20, Length ca. 300 mm

Technical Data Hall Sensor Type H

Technology	Hall sensor
Supply Voltage	5 VDC $\pm 10\%$
Power Consumption	ca. 6 mA
Output Voltage	0,5 V.. 4,5 V
Independent Linearity	$\pm 3\%$ full-scale
Load Resistance	$> 100\text{k Ohm}$
Temperature Drift Output	$< \pm 2,5\%$ Uout full-scale
Temperature Drift Center Position	$< 0,5\%$ Uout full-scale
Insulation Resistance	$> 100\text{ MOhm @ } 250\text{ VAC}$
Lifetime	typ. 5 million cycles



Wire AWG20, Length ca. 300 mm

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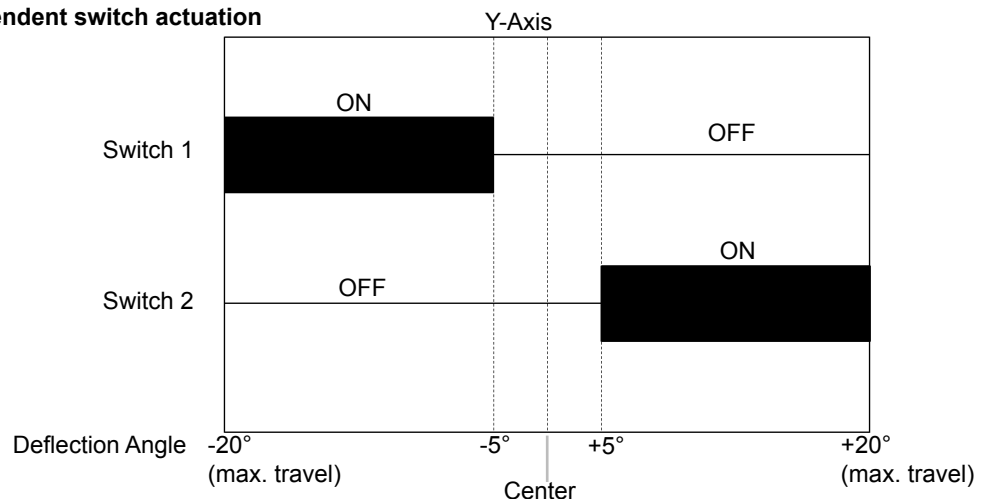
Order Code

Series	829							
Axes								
1 Axis		1						
Rubber Boot			5					
Square Dress Panel			8					
Spring Return				1				
Friction Clutch				6				
Handles								
Cylinder					2			
Ball Tip					3			
Flat					F			
Cylinder, with Pushbutton (*)					6 (*)			
Mounting Plate								
none						1		
Mounting Plate (*)						4 (*)		
Sensors								
Potentiometer Type K							K	
Hall Sensor Type H							H	
Micro Switches								
none								0
Center Detect Switch (*)								1 (*)
2 Micro Switches, ON @ ±5° (*)								2 (*)
Additional Options								
Resistance Values Potentiometer (1k, 5k) (*)								RxK (*)
Center Tap (Potentiometer) (*)								CT (*)

(*) upon request

SCHEME of deflection-dependent switch actuation

e.g. "Switches ON @ ±5°"



For higher quantities or on-going demand, additional options are available

For example:

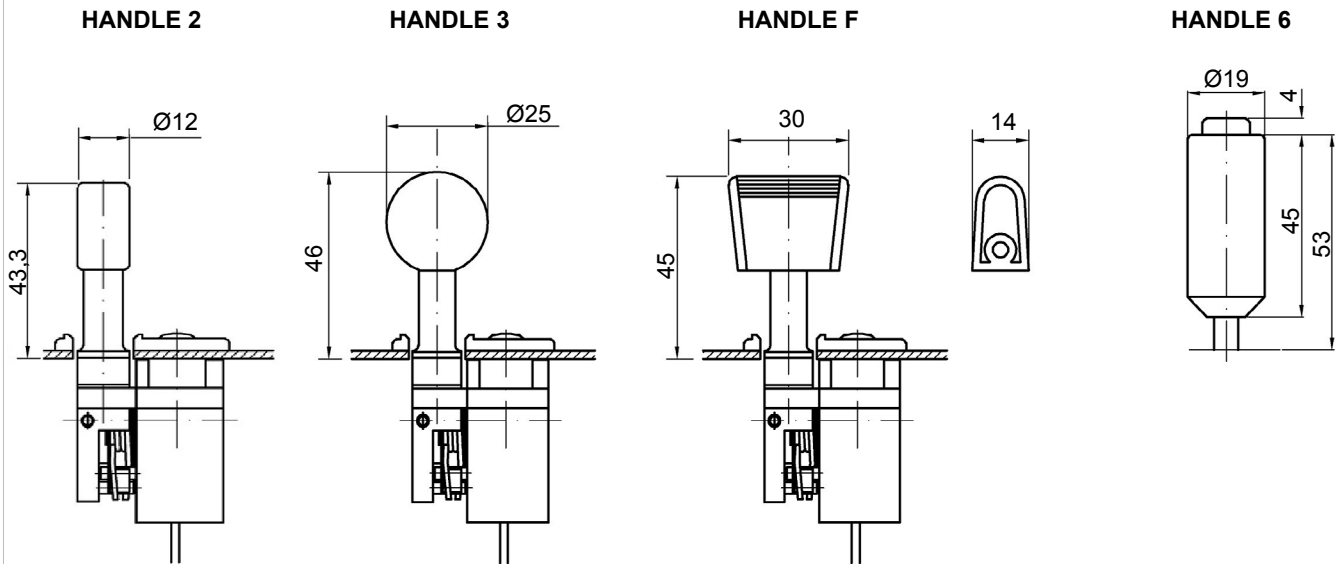
- Specific switch configurations
- Customer-specific cable

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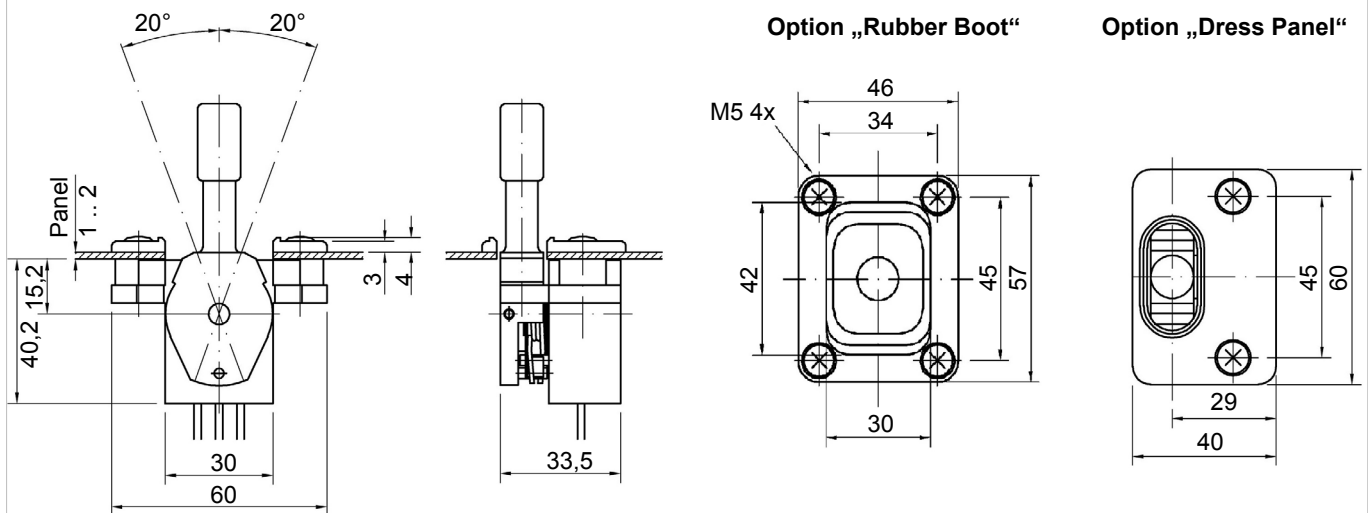
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Handle Versions



Dimensions in mm

Technical Drawing

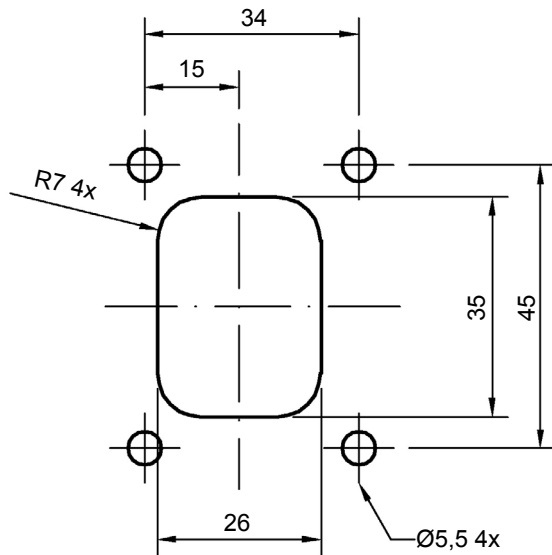


Dimensions in mm

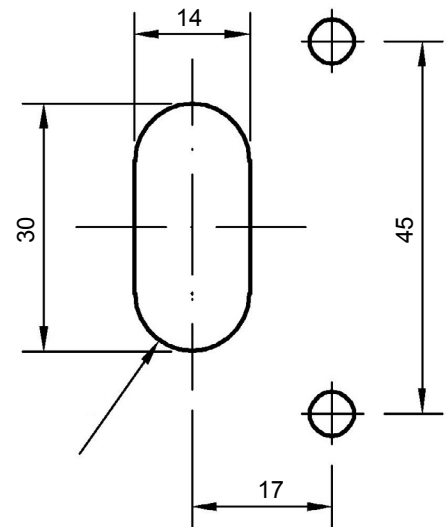
Mounting Options

PANEL CUT-OUT

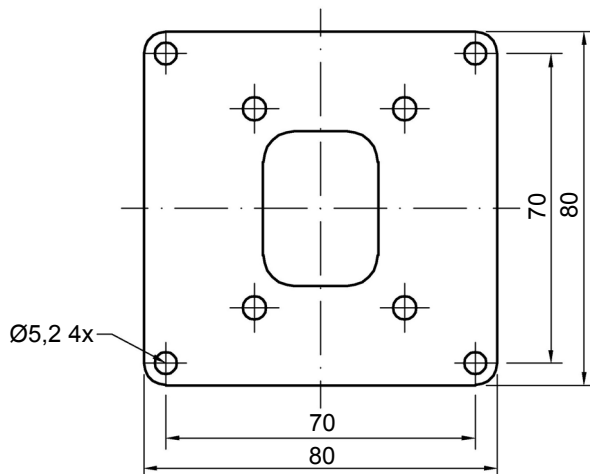
Option „Rubber Boot“



Option „Dress Panel“



Option „Mounting Plate“



Dimensions in mm