

Data Sheet for Joysticks

Finger Joystick

Series 826



- 1 to 2 Axes
- Potentiometers outside of housing
- Protection Grade IP65

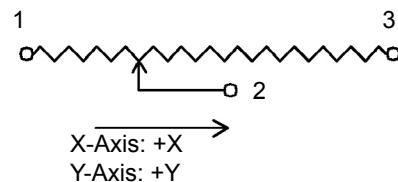
Optional configurations: Pushbutton on top of handle, center detent, external trim, up to 6 micro switches, adjustable friction clutch.

Technical Data Joystick

Angle of Movement X+Y Axis	$\pm 30^\circ \dots \pm 35^\circ$
Return to Center Accuracy X+Y Axis	$\pm 1^\circ$
Operating Force X+Y Axis	3 .. 15 N
Lifetime	typ. 5 million cycles
Vibration 10 bis 55 Hz, 1 min.	10 G (MIL-STD-202F-204)
Shock	30 G (MIL-STD-202F-213)
Protection Grade	IP54 (above panel), other upon request
Operating Temperature	$-20^\circ\text{C} \dots +65^\circ\text{C}$
Weight	ca. 350 g
Panel Thickness	max. 3,2 mm

Technical Data Potentiometer Type F

Technology	Conductive plastic
Nominal Total Resistance	10 kOhm
Resistance Tolerance	$\pm 15\%$
Independent Linearity	$\pm 3\%$
Power Rating @ 40°C	0,15 W
Effective Electrical Angle of Rotation	60°
max. Wiper Current	1 mA



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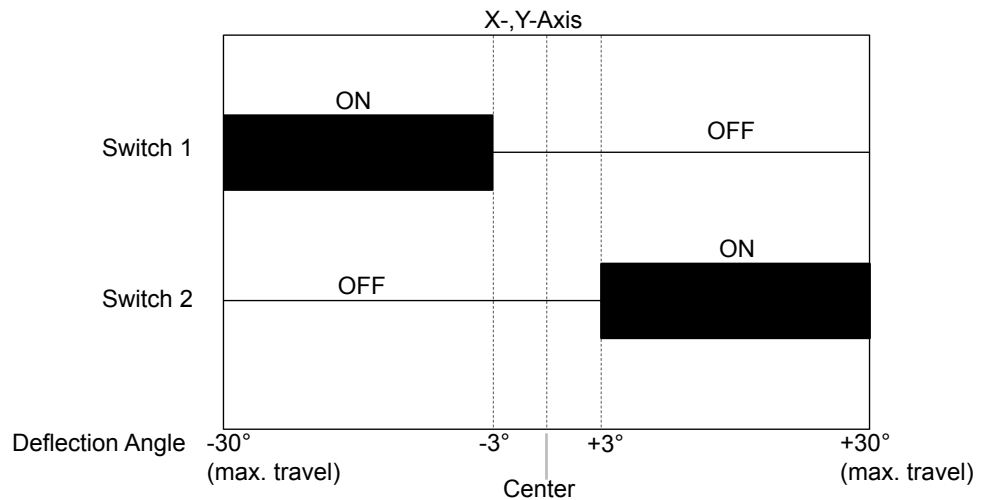
Pushbutton & Micro Switches

The joystick series 826 offers the option to integrate micro switches for deflection-dependent switch actuation. Three different angles per axis can be defined, e.g. one switch to detect the center position of the joystick handle plus one switch at $+10^\circ$ and -10° each. Due to the large number of different combination we cannot give a complete list of Order Codes. We recommend to contact us personally to identify the optimal solution for your needs.

Technical Data	Pushbutton (handle)	Micro Switch	Center Detect
Voltage / Current (max.)	50 VAC / 6 A	50 VAC / 5 A	30 VDC / 100mA
Lifetime (typ.)	25000	200000	100000

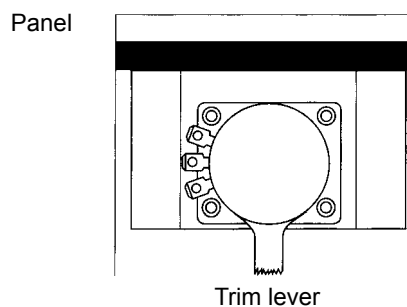
SCHEME (Standard) of deflection-dependent switch actuation

e.g. "Switches ON @ $\pm 3^\circ$, X-/Y-Axis" (many other combinations can be realized).



Trim Option „3“

Using the Trim function, potentiometers can repeatedly be adjusted („trimmed“) to an individual „0“ position.



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Order Code

Series	826								
Axes									
1 Axis (*)		1 (*)							
2 Axes		2							
2 Axes with Pushbutton		3							
1 Axis with Pushbutton		6 (*)							
Rubber Boot			5						
Spring Return				1					
no Spring Return				2 (*)					
Friction Clutch, with Detent in Center Position				5 (*)					
Friction Clutch, w/o Detent				6 (*)					
Handle versions									
Ball-Tip, Ø25 mm					3				
Cylindrical handle, with Pushbutton, Ø30 mm					6				
Concave handle, Ø32 mm					4 (*)				
w/o Trim						1			
External Trim						3 (*)			
Potentiometer Type F							4		
Limiters									
Round								0	
Single-axis Y (*)								8 (*)	
X-/Y-Axis „+“ (*)								9 (*)	
Micro Switches									
none									0
Center Detect X-/Y-Axis									1
Switches ON @ ±3°, X-/Y-Axis									4 (*)
Switches ON @ ±3°, Center Detect, X-/Y-Axis									5 (*)
Switches ON @ ±5°, 1 or 2 Axis									6 (*)
Switches ON @ ±5°, Center Detect, X-/Y-Axis									7 (*)
Additional Options									
Mounting Plate									M (*)
Potentiometer with Center Tap									CT (*)

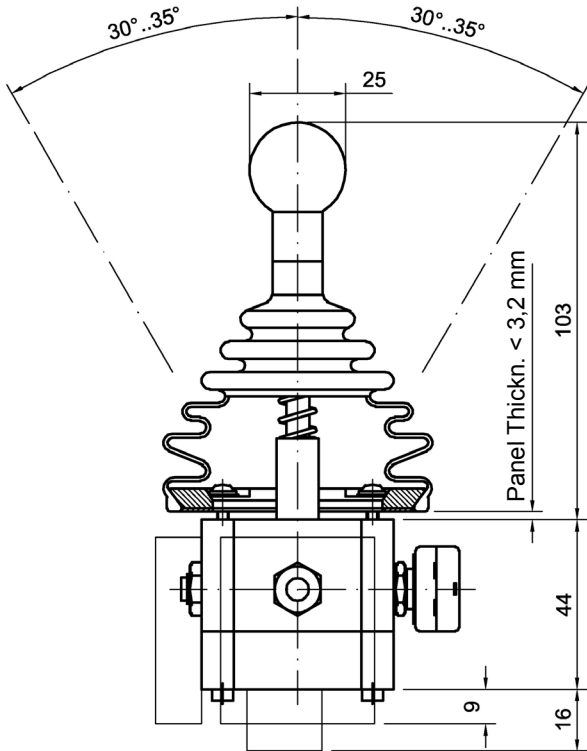
(*) upon request

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

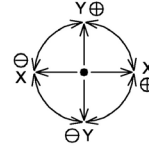
For example:

- Combinations of micro switches
- Customer-specific cable

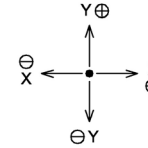
Technical Drawing



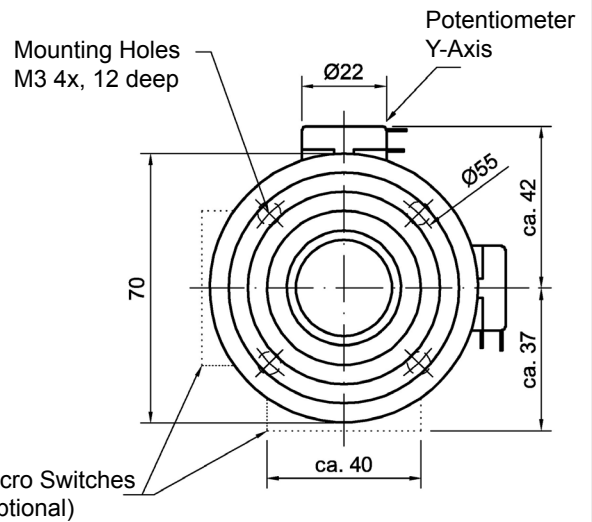
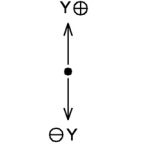
LIMITER 0



LIMITER 9



LIMITER 8

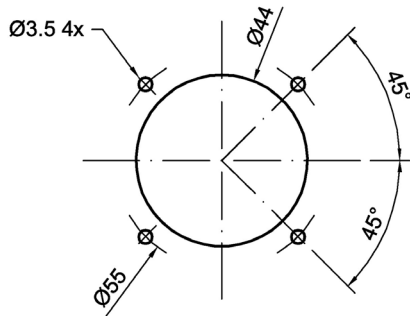


Center Detect (optional) - in the presence of handle "6" two microswitches will be attached to the housing instead of a single center detecting switch.

Dimensions in mm

Installation

PANEL CUT-OUT (Standard)



PANEL CUT-OUT HANDLE 6

