

Data Sheet for Joysticks

Finger Joystick

Series TRY22



- Outstanding quality of mechanics and sensors
- Contact-less, wear-free Hall sensor technology
- Safety due to redundant Hall sensors (optional)
- Protection IP65
- Available as a 2- or 3-axis variant, with or without a button
- Easy to install thanks to plug connection

The TRY22 finger joystick series achieves a top level in terms of quality of mechanics, materials and processing. The joysticks are therefore a guarantee for success in demanding applications where quality, durability and reliability are paramount. The high-quality feel conveys a safe operating feeling and enables the user to precisely control movements in several dimensions.

Electrical Data Joystick

Sensors	Hall-Effect
Supply Voltage	5 VDC \pm 0,5 VDC transient free
Output Voltage	0,5..4,5 VDC, redundant signal output available
Supply Current	typ. 15 mA per sensor
Signal at center position	2,50 \pm 0,15 V
Output Impedance	10 kOhm
Max. output current allowed	2 mA / Axis
Resolution	Infinite
Expected Electrical Life	typ. 1.000.000 h
Independent Linearity Tolerance	\pm 150 mV

Mechanical and Environmental Data Joystick

Expected Life	5.000.000 (X-/Y-Axis), 3.000.000 (Z-Axis) cycles
Mechanical Angle of Rotation x-, y-Axes	\pm 20° from center
Mechanical Angle of Rotation z-Axis	\pm 30° from center
Operating Force X-Y-Axis	1..4 N
Operating Momentum Z-Axis	40..80 mNm
Return-to-center Tolerance	\pm 5% (center)
Maximum Applied Force x-y-Axis	200 N
Maximum Applied Force z-Axis	0,5 Nm
Mounting	Drop-in
Operating Temperature	-20°C..+60°C
EMC Immunity Level	100 V/m (80 MHz..1 GHz)
ESD	\pm 8 kV contact discharge / \pm 15 kV air discharge
Vibration	10..55 Hz, 98 m/s ²
Shock	294 m/s ²

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Please contact us for information regarding stock availability, delivery times and minimum order quantities.

Order Description

Description	Selection: standard= black/bold , possible options= <i>grey/italics</i>							
Series	TRY22							
Axes: <i>2 Axes</i>		2						
3 Axes		3						
Sealing: Rubber Boot			5					
Return Mechanism: Spring Return				1				
Handles Handle „1“ for 2 or 3 Axes, no Pushbutton, IP65 <i>Handle „2“ for 2 or 3 Axes, 1 Pushbutton, IP65</i>					1			
					2			
Limiter: Square						3		
Output Signals: 0,5..4,5 V (rail to rail)							1	
Output Options: Single Output <i>Dual Output parallel</i> <i>Dual Output inverse</i>								- <i>1</i> <i>2</i>

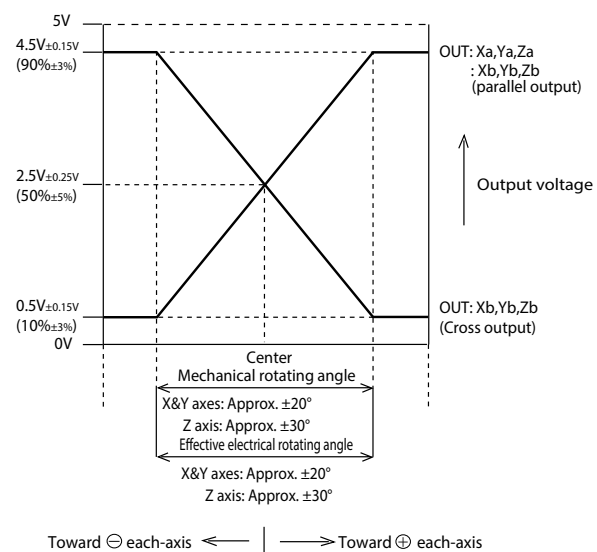
For higher quantities or on-going demand, additional options are available

- Customer-specific cables
- Stronger or weaker spring return
- Handles with different/additional input elements

Wiring

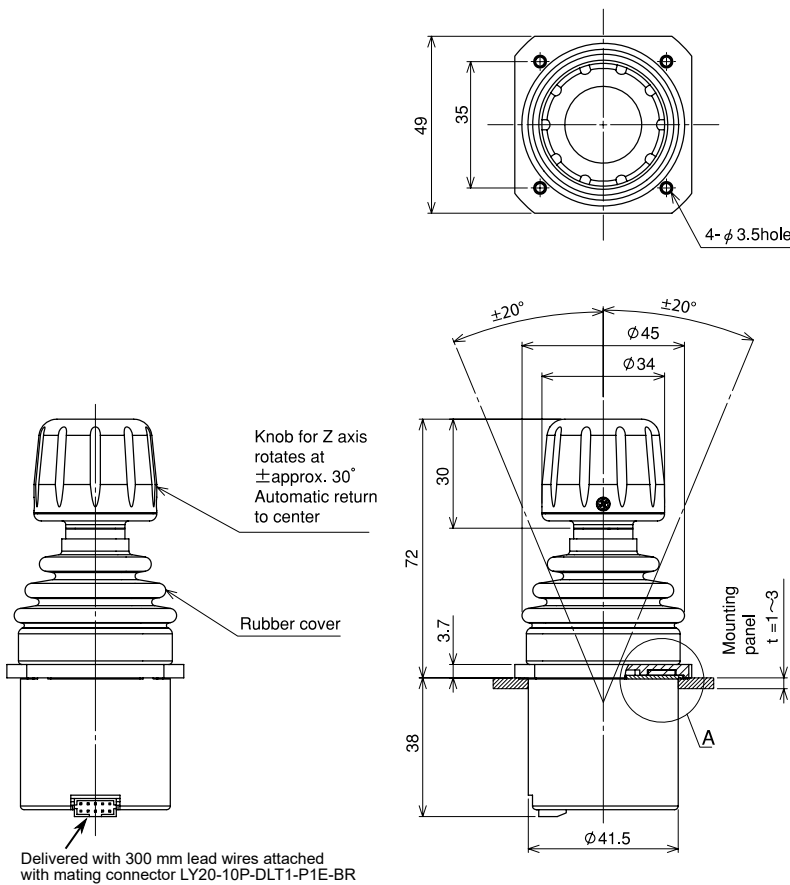
Pin	Function	Color
1	Pushbutton Common	black
2	Pushbutton	white
3	GND	grey
4	Z-Axis Dual Output	violet
5	Z-Axis	blue
6	Y-Axis Dual Output	green
7	Y-Axis	yellow
8	X-Axis Dual Output	orange
9	X-Axis	red
10	+5 VDC	brown

Joysticks are supplied with AWG24 lead wires, length ca. 300 mm, connected to the joystick with mating connector LY20-10P-DLT1-P1E

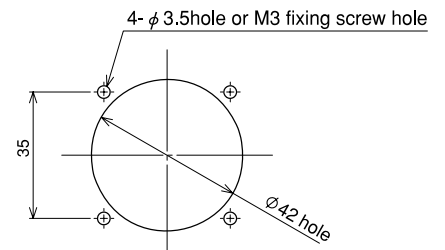


Technical Drawings

Handle 1

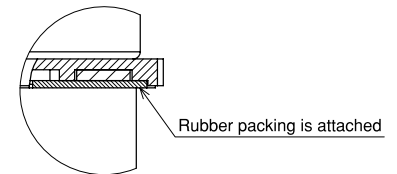


Panel arrangements

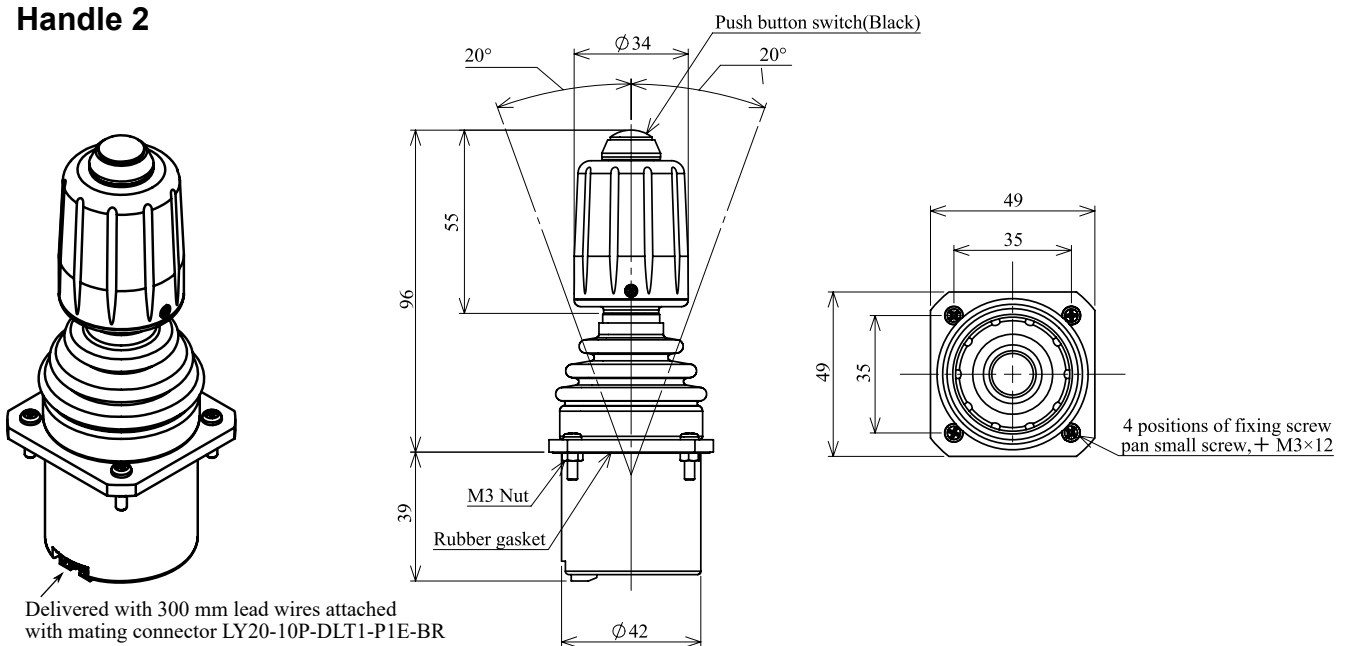


Note: 4 pcs. of mounting screws(M3X12) are attached.

Detailed cross-section diagram in the area A



Handle 2



All dimensions in mm