

# Data Sheet for Joysticks

## Finger Joystick

## Series TRY22



- Contactless Hall sensors
- Redundant signal output available
- IP classes up to 65

The TRY22 series was developed strictly following criteria such as cost efficiency, high quality level, high IP classes and easy installation.

### 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. 15mA per sensor
Signal at center position	50% $\pm 3\%$ $V_{Supply}$
Output Impedance	10 kOhm
Max. output current allowed	2 mA / Axis
Resolution	Infinite
Expected Electrical Life	typ. 1.000.000 h
Independent Linearity Tolerance	ca. $\pm 3\%$ full scale

### Mechanical and Environmental Data Joystick

Expected Life	5.000.000 (X-/Y-Axis), 3.000.000 (Z-Axis) cycles
Mechanical Angle of Movement	40° ( $\pm 20^\circ$ from center)
Break Out Force	5,6 N
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	Rear Mount
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 <sup>2</sup>
Shock	294 m/s <sup>2</sup>

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### Order Description

Series	TRY22							
3 Axes		3						
Rubber Boot			5					
Spring Return				1				
Rotary Handle					1			
Square Limiter						3		
Output Signals 0,5..4,5 V (rail to rail)							1	
Output Options								
Single Output								-
Dual Output parallel								1 (*)
Dual Output inverse								2 (*)

(\*) upon request

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

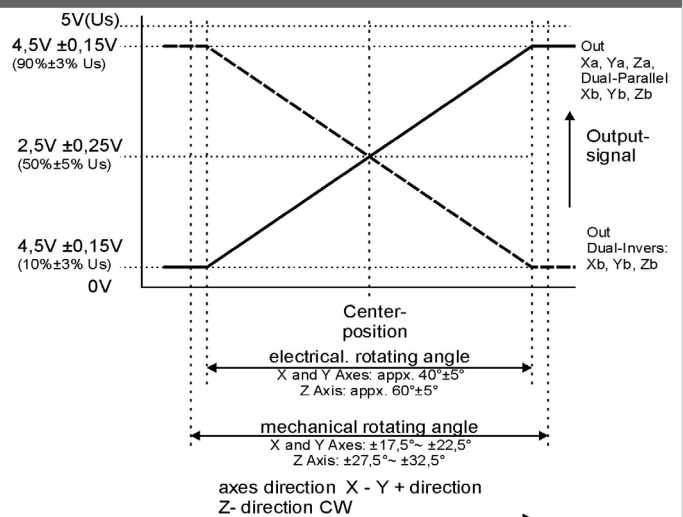
For example:

- Customer-specific cable

### Wiring

Pin	Function	Color
1	n.c.	black
2	n.c.	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

Leads AWG24, length ca. 300 mm  
Mating connector LY20-10P-DLT1-P1E

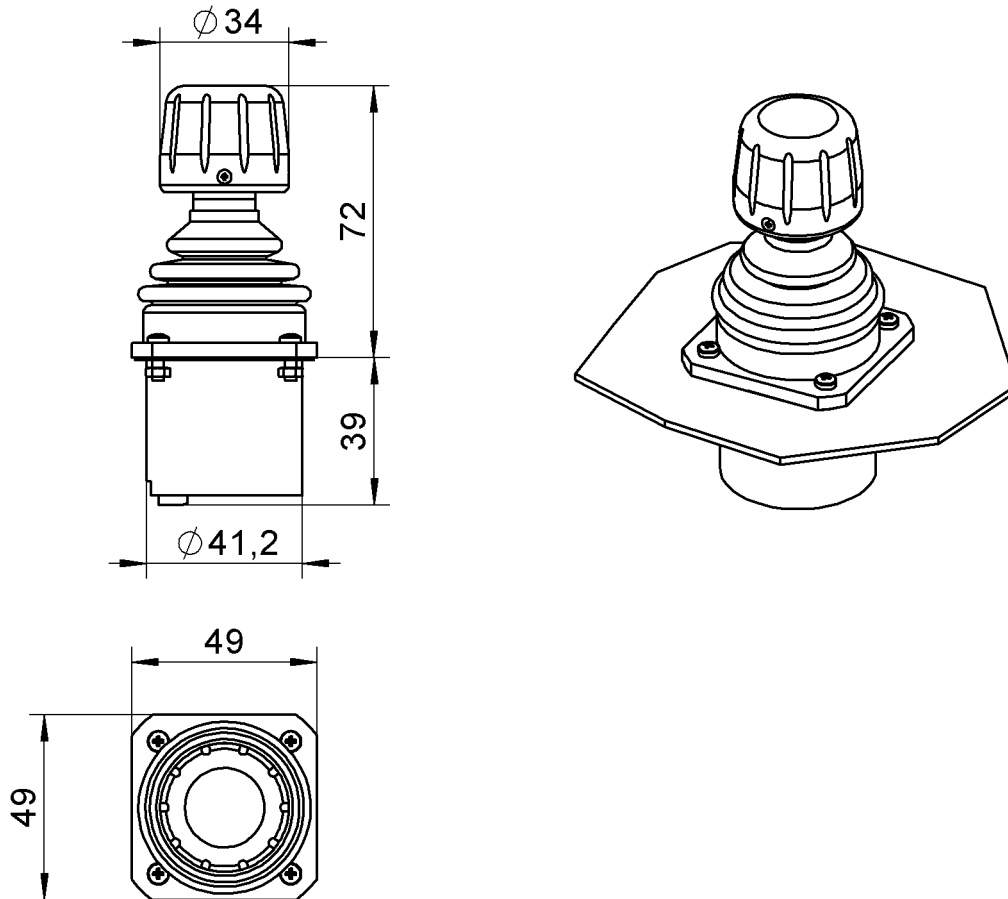


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## Technical Drawing



All dimensions in mm

## Mounting

