

Data Sheet for Joysticks

Finger Joystick

Series TRY100



- Shallow installation depth < 26 mm
- Service-friendly due to connectors
- Available interfaces include USB, Dual Output and Voltage Regulator
- Ideally suited for applications in CCTV, robotics, medical technology and audio/video productions

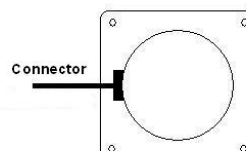
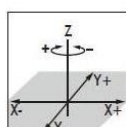
The TRY100 series can be considered as the successor of our famous TRY10 series. The TRY100 is also based on contactless Hall sensors, and is also offering most of the same options, like e.g. handle designs with up to two pushbuttons. Modern Hall sensors, reduced installation depth and further improved price-performance ratio are good reasons for these joysticks.

Technical Data

Sensor	Hall Effect Sensor
Supply Voltage	5 VDC $\pm 0,5$ VDC transient free
Resolution	1,22 mV
Independent Linearity Tolerance	$\pm 2\%$ full scale
Return to Center Voltage	± 200 mV (output voltage span 0..5 V; no load)
Output Impedance	2 Ohm
Load Resistance	Min. 10 kOhm, recommended > 100 kOhm
Expected Life	5 million cycles
Output Voltages	0.5 V / 0,5..4,5 V / 0,25..4,75 V / see Order Description page 2 for further
Mech. Angle of Movement X&Y-Axis / Z_Axis	36° ($\pm 18^\circ$ from center) / 60° ($\pm 30^\circ$ from center)
Operating Force X-Y-Axis	2,8 N / Break Out Force 1,3 N / max. applied: 200 N
Operating Force Z-Axis	0,12 Nm / Break Out Force 0,09 Nm / max. applied: 2,5 Nm
Operating / Storage Temperature	- 40°C..+ 70°C / - 40°C..+ 70°C
Protection Class	up to IP68 (depending on handle version)
Panel Thickness	1,17..3,17 mm
EMC Immunity Level (V/M)	EN61000-4-3
EMC Emissions Level	EN61000-6-3:2001
ESD	EN61000-4-2

Wiring

Pin	Function	Colour	Pin	Function	Colour
1	Ground	black	7	Z-Axis Dual Output	grey (<i>old: green/black</i>)
2	Power	red	8	Z-Axis	green
3	X-Axis Dual Output	pink (<i>old: blue/white</i>)	9	Pushbutton 1	orange
4	X-Axis	blue	10	Pushbutton 1/2 Common	white
5	Y-Axis Dual Output	brown (<i>old: yellow/black</i>)	11	Pushbutton 2	violet
6	Y-Axis	yellow	12	n.c.	n.c.



Data Sheet for Joysticks

Finger Joystick

Series TRY100

Order Description / Options								
Series	TRY100							
Axis								
2 Axes, with Pushbutton in handle	3							
3 Axes	4							
3 Axes, with Pushbutton(s) in handle	5							
2 Axes	2 (*)							
1 Axis	1 (*)							
1 Axis with Pushbutton in handle	6 (*)							
Rubber Boot		5						
Spring Return			1					
Handles								
Handle for 1-2 Axis, 1 Pushbutton				4				
Handle for 3 Axes, w/o Pushbutton				7				
Handle for 3 Axes, Low Profile, w/o P.button				6				
Handle for 3 Axes, 1 Pushbutton				9				
Handle for 3 Axes, 2 Pushbuttons				A				
Handle Ball Tip				3 (*)				
Handle Tapered (not compatible to mounting 2)				1 (*)				
Handle for 1-2 Axis, 1 Pushbutton, IP67				5 (*)				
Handle for 3 Axes, w/o Pushbutton, IP67				B (*)				
Handle for 3 Axes, 1 Pushbutton, IP67				C (*)				
Handle for 3 Axes, 2 Pushbuttons, IP67				D (*)				
Handle for 3 Axes, 2 Pushbuttons, IP67				E (*)				
Limiter								
Square					1			
Round					3			
„Plus +“ X/Y					9			
Slotted X -					7 (*)			
Slotted Y					8 (*)			
„Cross X“ X/Y					D (*)			
Square 45° rotated					2 (*)			
Output Signal (redundant signals available ^(*))								
0..5,0 V (rail to rail)						1		
0,5..4,5 V						2		
0,25..4,75 V						3		
USB ⁽¹⁾						5		
USB Mouse Emulation						6 (*)		
Voltage Regulator (see below)						0 (*)		
Mounting / Housing								
Drop-In							1	
Rear Mount							2	
Desktop-Housing w/o Pushbuttons							M0 (*)	
Desktop-Housing w/ 2 small Pushbuttons							M2 (*)	
Desktop-Housing w/ 2 long Pushbuttons							M2L (*)	
Desktop-Housing w/ 3 small Pushbuttons							M3S (*)	
Desktop-Housing w/ 4 small Pushbuttons							M4 (*)	
Desktop-Housing w/ 4 small Pushbuttons							M4D (*)	
Desktop-Housing w/ 5 small Pushbuttons							M5 (*)	
Voltage Regulator ^{(2) (*)}								
Supply +12..+30 VDC, Output 0..+5 VDC								V1205 (*)
Supply +12..+30 VDC, Output 0..+10 VDC								V1210 (*)
Supply +12..+30 VDC, Output ±5 VDC								V1205B (*)
Supply +12..+30 VDC, Output ±10 VDC								V1210B (*)
Bold print = Standard options (*) upon request	⁽²⁾ the switching power supply for the electronics of this device requires an initial current of at least 100mA. The use of power supply units with current limiters operating below this threshold can damage the circuitry of the joystick!							

Data Sheet for Joysticks

Finger Joystick

Series TRY100

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

For example:

- Redundant Output Signals (inverted or parallel), Mouse Emulation, Voltage Regulator
- Customer-specific cable

Available options for small quantity orders can be found on our stock types list on

<http://www.megatron.de/en/stocklists/joysticks/lagerliste.html>

In addition, we have an extensive stock of samples for project needs.

For technical advice, projects, samples, questions about pricing, delivery times and availability please contact us

Tel.: +49 89 46094-500
export@megatron.de

Limiters



Square - Option „1“



Round - Option „3“



Single Axis - Option „7“



Single Axis - Option „8“



X/Y Plus - Option „9“



X/Y Cross - Option „D“

Connection cable

For ratiometric output a suitable cable (length approx. 25cm) with Hirose DF11-12DS-2C connector is available (Art.nr. 129802, not included).

Other connectors and cable lengths available on request.

For Joysticks with USB interface the cable is included (please refer to chapter „USB Options“).



USB Options

USB Interface (USB 1.1 HID compatible)

The USB Controller is integrated into the Joystick. Power Supply will be provided by the USB host via the connection cable. This USB interface supports most versions of Microsoft Windows and Linux OS.

Cable included: USB cable (length approx. 1,75 m) with USB male type A connector. Other connectors and cable lengths available on request.

With integrated USB controller a maximum of 4 pushbuttons (handle + desktop housing) can be controlled. Please do not hesitate to contact us if you need a different configuration for your project.

USB Joystick as Mouse replacement

Cursor emulation optionally available. Supported protocols include Sun Microsystems (mouse systems 5vdc serial) and USB (most versions of Microsoft Windows and Linux OS).

Data Sheet for Joysticks

Finger Joystick

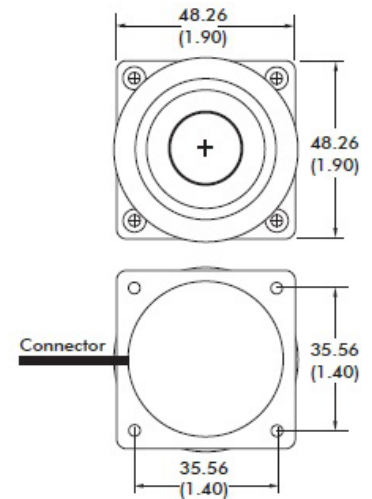
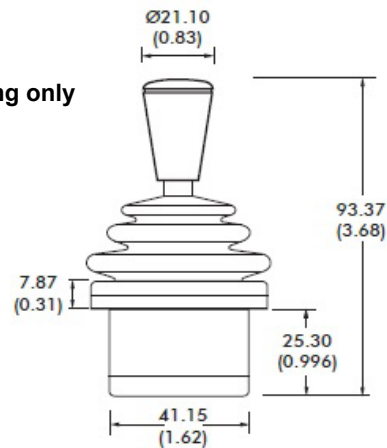
Series TRY100

Handle versions

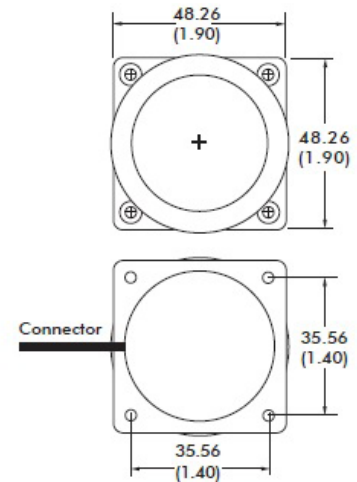
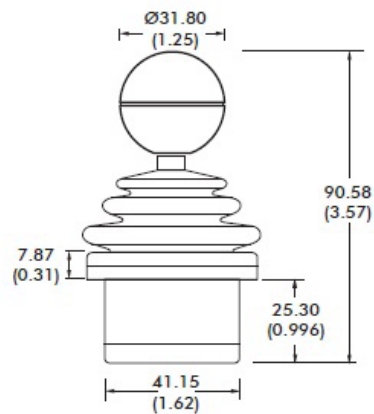
Handle 1



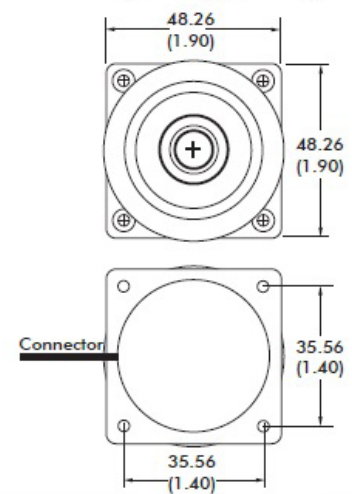
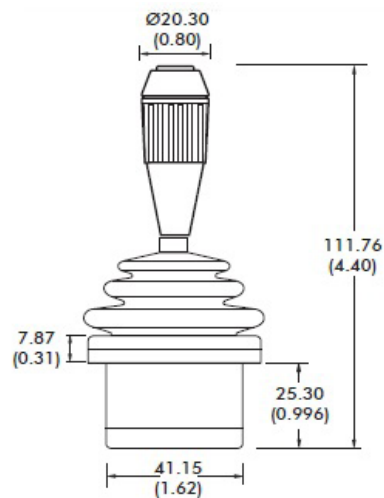
Drop-In mounting only



Handle 3



Handle 4



All dimensions in mm

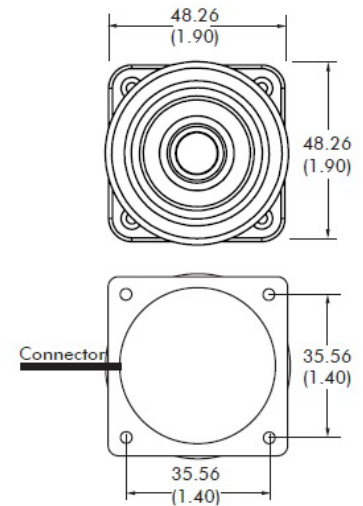
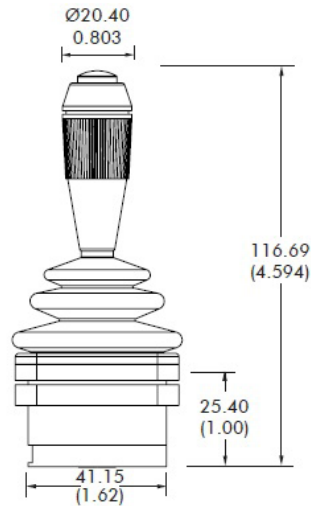
Data Sheet for Joysticks

Finger Joystick

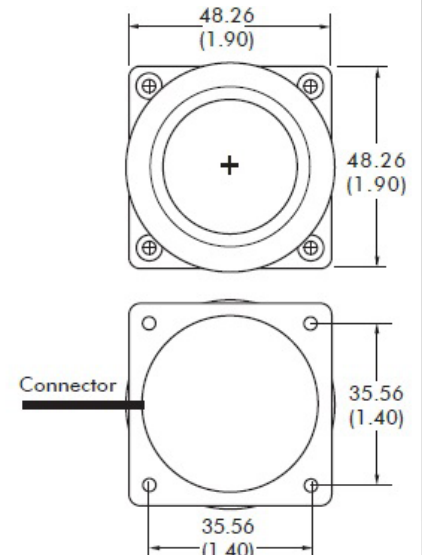
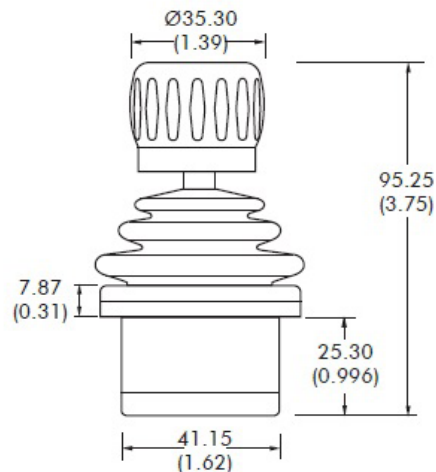
Series TRY100

Handle versions

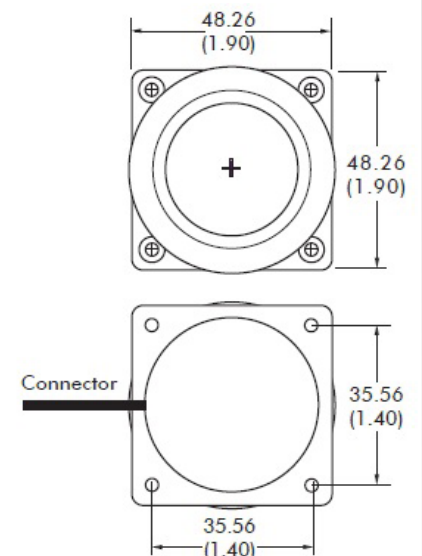
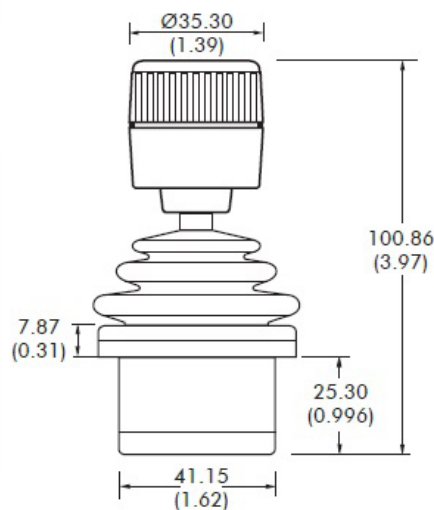
Handle 5



Handle 6



Handle 7



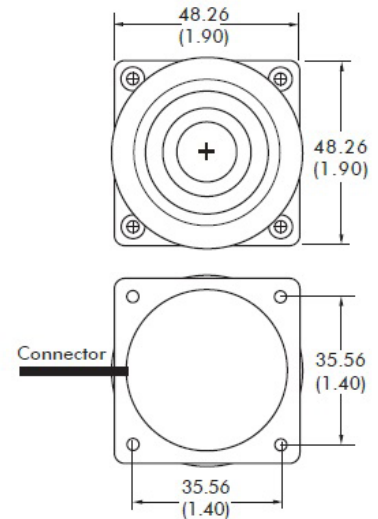
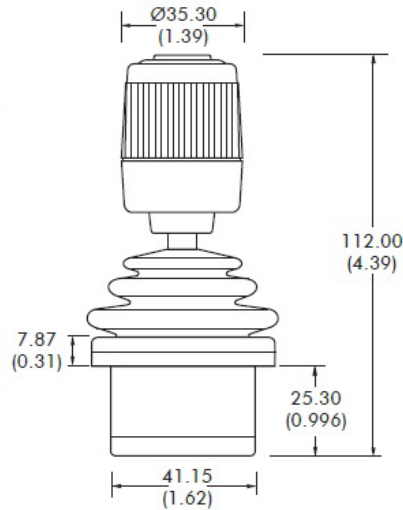
Data Sheet for Joysticks

Finger Joystick

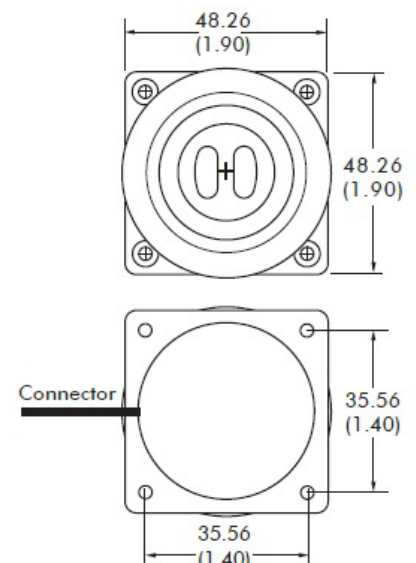
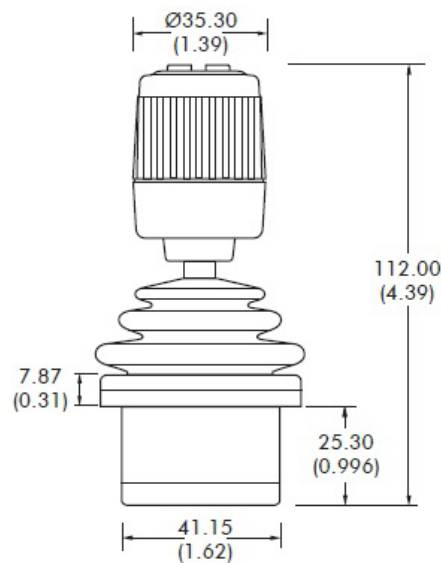
Series TRY100

Handle versions

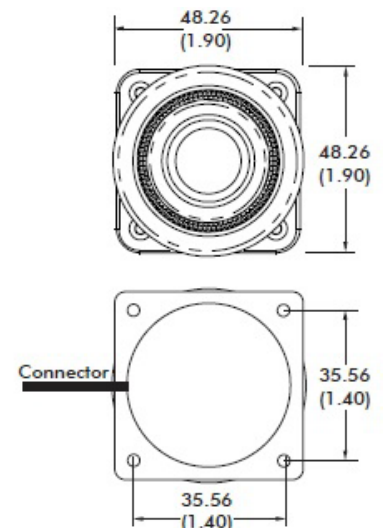
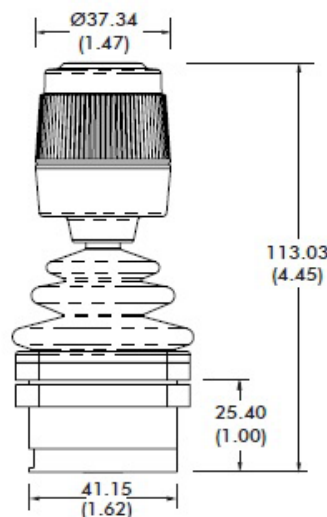
Handle 9



Handle A



Handle B



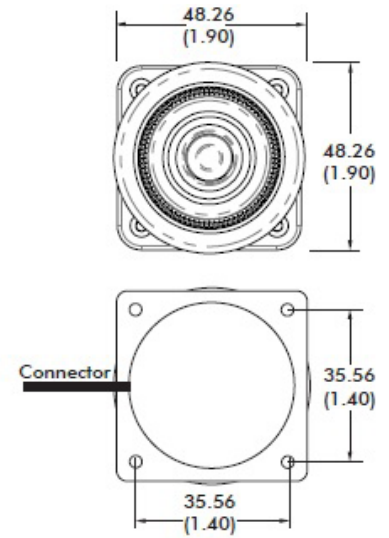
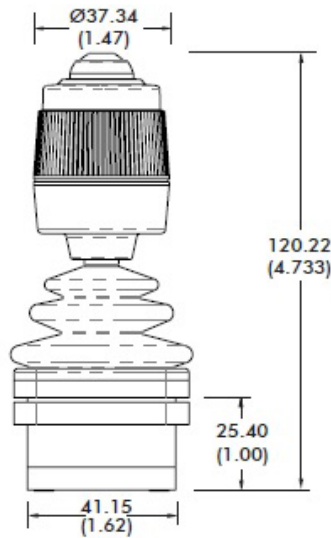
Data Sheet for Joysticks

Finger Joystick

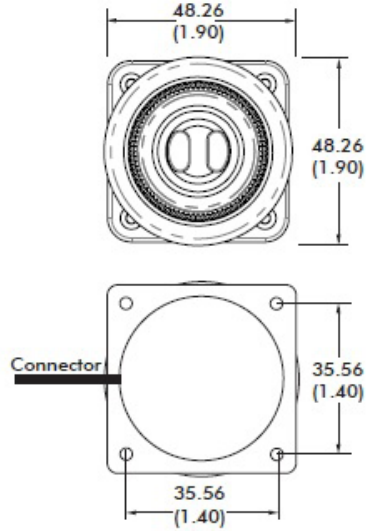
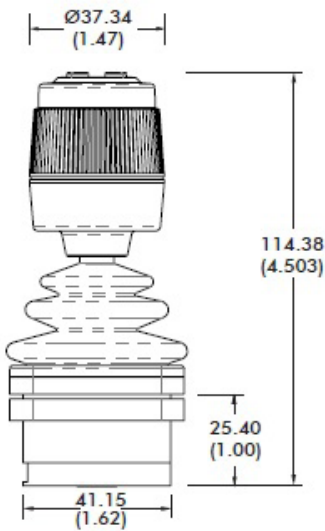
Series TRY100

Handle versions

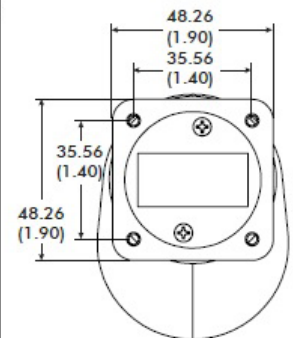
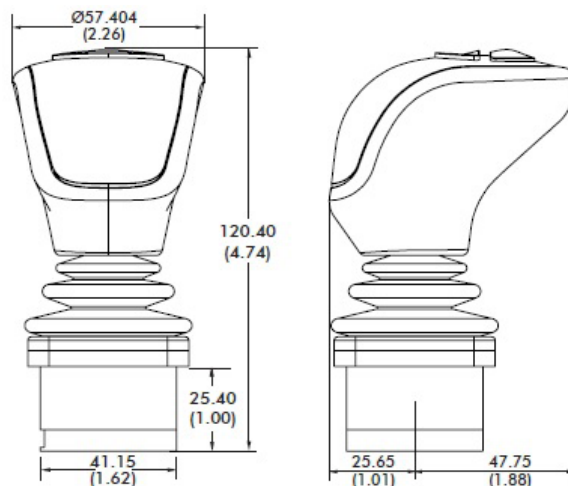
Handle C



Handle D



Handle E



All dimensions in mm

Data Sheet for Joysticks

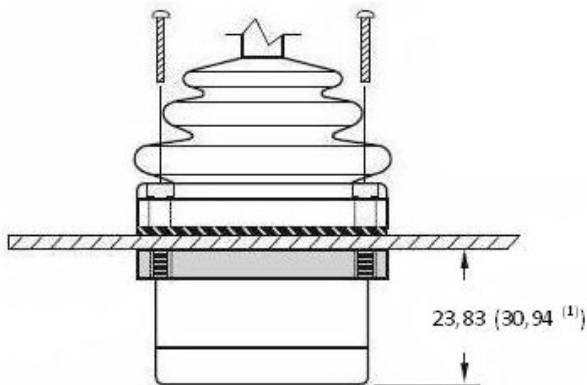
Finger Joystick

Series TRY100

Mounting Options

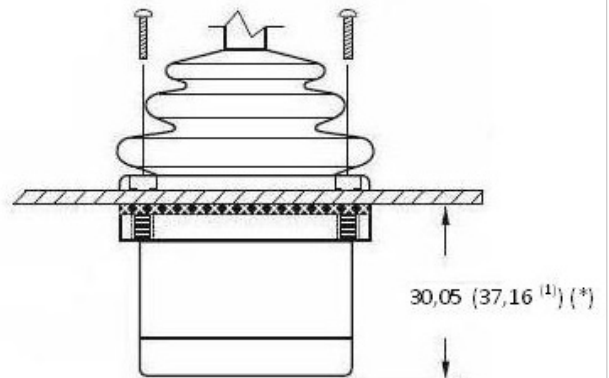
Drop-In Option „Housing 1“

(Panel 1,17 - 3,17 mm)



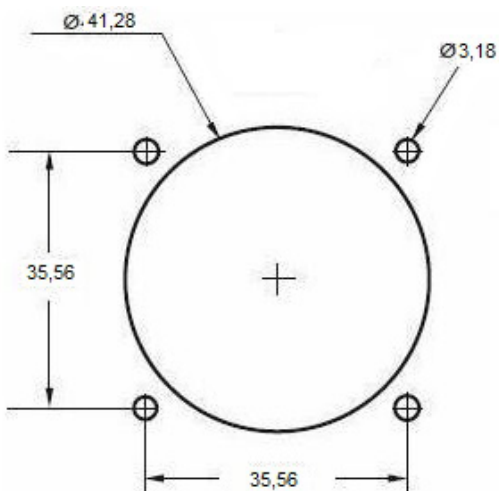
Rear Mount Option „Housing 2“

(Panel $\leq 1,6$ mm)

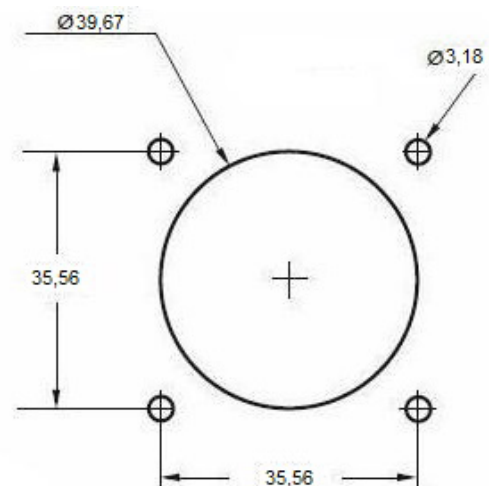


(*) Below-panel depth is extended by 7,11 mm with USB, Voltage Regulator, Dual Decode, Center Detect options.

Drop-In Option „Housing 1“



Rear Mount Option „Housing 2“



All dimensions in mm (inches)

Data Sheet for Joysticks

Finger Joystick

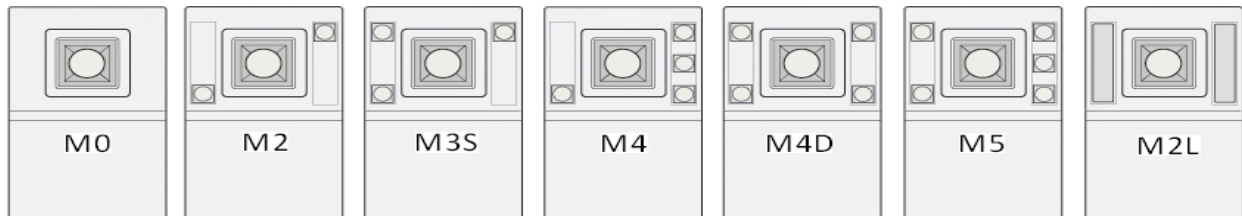
Series TRY100

Option Desktop Housing



Color of the Desktop Housing is black (handle and pushbuttons black).

With integrated USB controller a maximum of 4 pushbuttons (handle + desktop housing) can be controlled. Please do not hesitate to contact us if you need a different configuration for your project.



Dimensional Drawing Desktop Housing

