

TRY14

HALL EFFECT JOYSTICK

The TRY14 series offers proportional miniature-size thumb joysticks with Hall sensors for long durability and enduring signal quality.

Signal output is available in different versions, like dual output or PWM output. The size of those joysticks can be compared with widely used gamepads, but integrated into an industrial-suited housing with a reliable mechanism.

Typical applications range from remote controls, arm rest integration or integration into larger joystick handles to swivel arms.



- Contactless Hall effect sensor
- Optionally with push button function in handle
- Mounting option threaded housing
- Waterproof, IP68 / IP69K

Mechanical characteristics:

Mechanical characteristics	
Mec. Angle of movement	50°
Operating force X-Y axis	3.1 N ± 0.5 N
Max force applied vertical	200 N (on handle)
Max force applied horizontal	150 N (on handle)
Operating / storage temperature	-40°C to 85°C
Sealing	IP68 / IP69K (sealing of panel opening excluded)
Panel thickness	Max. 2.03 mm
Expected life	1 million cycles
Weight	18.25 g ± 5g (0.64 oz ± 0.18 oz)
Lever action	Centering spring

Electronic characteristics:

Electronic characteristics	
Resolution	1.22 mV
Power supply	5 V \pm 0.01V
Reverse polarity max.	-10 V
Over voltage max.	20 V
Output impedance	2 Ω
Return to center voltage tolerance	\pm 200 mV initial

Push button characteristics:

Push button characteristics	
Electrical lifetime	100 000 cycles
Operating voltage	50 mA, 12 VDC
Terminal	Brass with silver plating
Contact resistance	100 m Ω max
Insulation resistance	100 M Ω min. 500 VDC
Dielectric force	250 VAC / 1 minute
Contact arrangement	1 pole 1 throw
Operating force	1.5 lbf
Stop force	Max. 29.4 N vertical static load for 15 seconds
Operating temperature	-25°C to 70°C (-13°F to 158°F)
Storage temperature	-30°C to 85°C (-22°F to 185°F)
Vibration resistance	MIL-STD-202F METHOD 201A
Shock resistance	MIL-STD-202F METHOD 213B

Materials characteristics:

Materials characteristics	
Body	Glass filled nylon
Threaded body	Black oxide plated brass
Boot	Silicone
Handles	Glass filled nylon / Silicone / Thermoplastic elastomer

Connections characteristics:

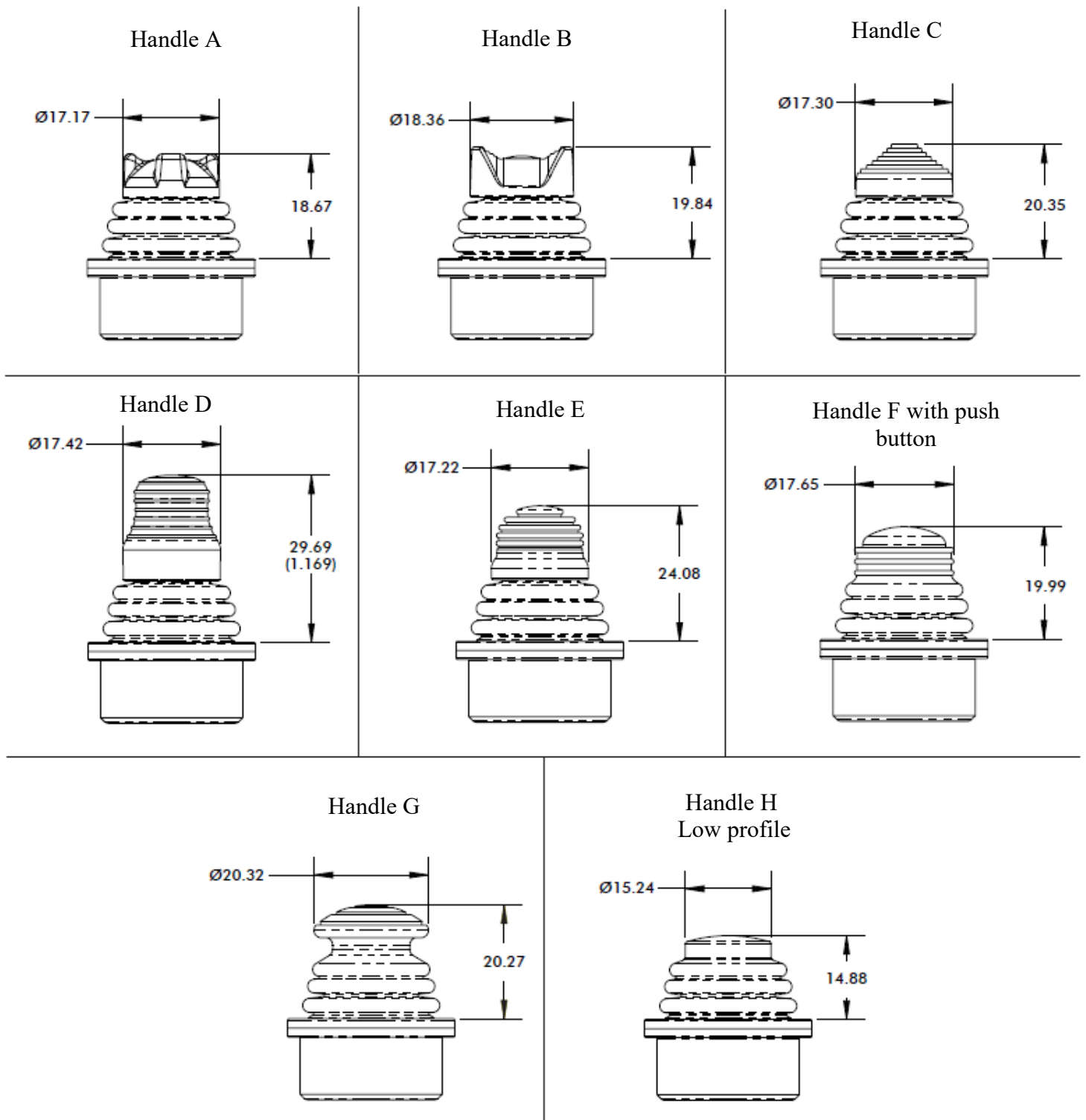
Connections characteristics			
Function	Wire color	TE connector standard	TE connector dual output
GND & Push button common	Black	Pin 4	Pin 2
Supply +5 VDC	Red	Pin 2	Pin 5
Output X-axis	Blue	Pin 3	Pin 3
Dual output X-axis	Blue / White	-	Pin 4
Output Y-axis	Yellow	Pin 1	Pin 6
Dual output Y-axis	Yellow / Black	-	Pin 7
Push button (Handle F)	Orange	Pin 5	Pin 1
GND 2 (options 2&4)	Black / White	-	-
Supply 2 (options 2&4)	Red / White	-	-



Handle F (with push button)



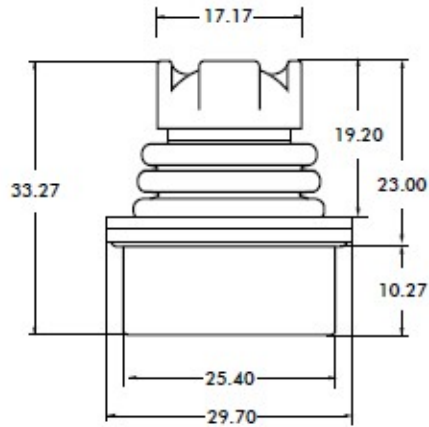
Technical drawing handles:



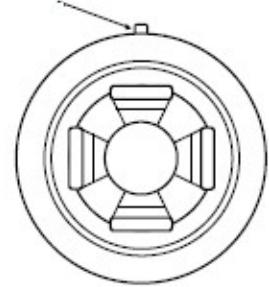
Notes: → Handles G and H are not compatible with option 8 : Threaded housing.

Technical drawing housing:

Plastic housing



PIN indicates +Y direction (North)

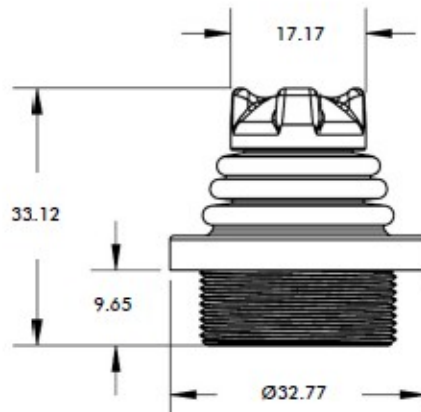
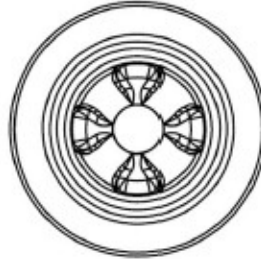


Top view

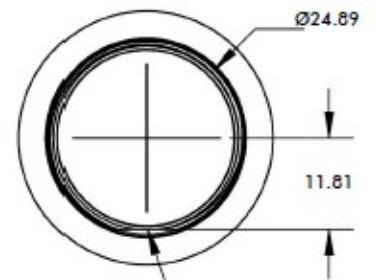
Threaded metal housing



Top view



Bottom view

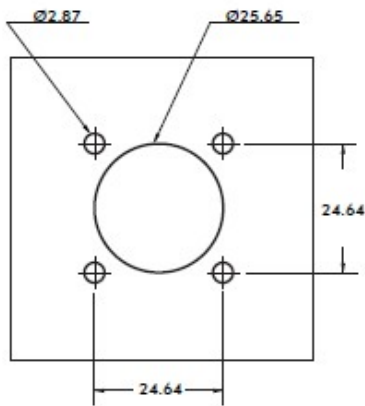


Locating feature +Y (North)

Technical drawing mounting CUTOUT :

PLASTIC HOUSING - DROP-IN (MOUNTING OPTION 6)

=> Installation depth below panel 16,02 mm

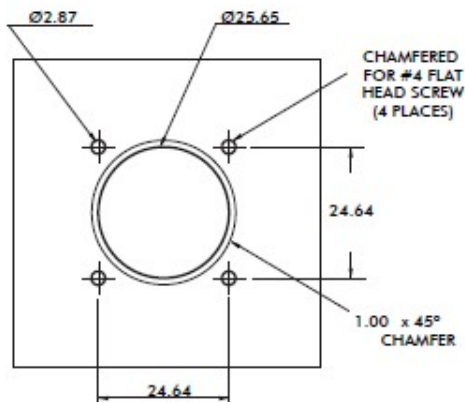


4x push in connectors



PLASTIC HOUSING - REAR MOUNT (MOUNTING OPTION 7)

=> Max. Panel Thickness 2,032 mm

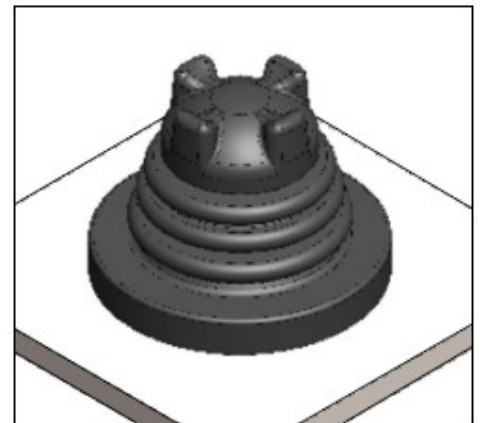
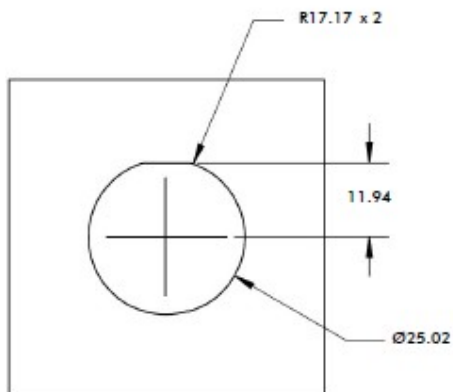


4x 1/2 FH SS PHIL SCREW



THREADED HOUSING - DROP-IN (MOUNTING OPTION 8)

=> Installation depth below panel 14,55 mm



References and ordering options	Sérial	Axes	Bezel	Return	Handle	Limiter plate	Output	Option	Connection
Hall effect joystick	TRY14								
1 axis		1(*)							
1 axis + push button		6(*)							
2 axes		2							
2 axes + push button		3							
Rubber boot, drop-in mounting			6						
Rubber boot, below panel mounting			7						
Threaded housing			8(*)						
Spring return				1					
Handle A					A				
Handle F with push button					F				
Handle B					B				
Handle C					C				
Handle D					D				
Handle E					E				
Handle G (not mouting option 8)					G				
Handle H, Low profile (not mounting option 8)					H				
Square						1			
X-Y guided feel						4			
X-Y, plus cross limiter						5			
Single axis X						8			
Single axis Y						9			
0 V - 5V rail to rail							1		
0.25 V – 4.75 V							2		
0.5 V – 4.5 V							3		
1 V – 4 V							4		
PWM							P		
USB							5		
USB Mouse-emulation							6		
No options								0	
Dual parallel								1	
Dual parallel redundant								2	
Dual inverted								3	
Dual inverted redundant								4	
Wires AWG 28, 25 cm									1
Wires AWG 22, 25 cm									2
TE connector, pitch 2.54 mm									3
Devices with output signal (5 and 6) (USB)									--
References example	TRY14	2	6	1	A	1	3	0	2

For any special options, please contact us.

*consult us



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