Data Sheet for Joysticks

Hand Joystick — Series TRY80

- Different handle designs available
- Optionally with Pushbuttons and Deadman
- Industrial-suited robust design
- IP classes up to 68 (on request)
- Several Output Options (analog, CAN, USB)

The TRY80 series provides very robust joysticks for usage in tough environments. With optionally available safety features it is also suited for critical applications. Besides standard analog signal output, bus interfaces like USB and CAN (J1939) are available.

Electricl Data Joystick	
Sensor	Hall Effect
Supply Voltage	5 VDC ±0,5 VDC transient free
Current Consumption Max	10 mA per axis
Reverse Polarity Max	-14,5 VDC
Overvoltage Max	18 VDC
Output Impedance	6 Ohm
Resolution	infinite
Return to Center Voltage (no Load)	±200 mV initially
Output Voltages	0..5 V / 0,5..4,5 V / 0,25..4,75 V / redundant signals available

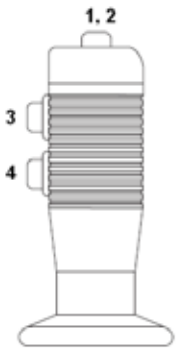
Mechanical Data Joystick	
Expected Life	10 million cycles
Mechanical Angle of Movement	38° (±19° from center)
Break Out Force	7,7 N
Operating force	14,0 N
Maximum Applied Force	1000 N
Sealing	up to IP68 (Standard = IP65)
Operating Temperature	-25°C..+70°C
Storage Temperature	-40°C..+70°C
EMV Immunity Level /V/M)	IEC 61000-4-8:2009
EMC Emissions Level	IEC 61000-4-3:2006
ESD	IEC 61000-4-2:2008

Note:
1. All values are nominal.
2. Exact specifications may be subject to configuration.

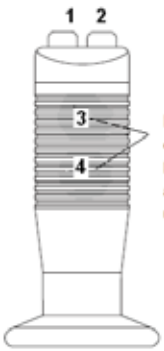
Hand Joystick — Series TRY80

Configurations of Handles

Pushbuttons on top and side

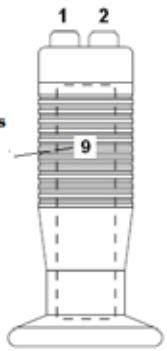


Side View

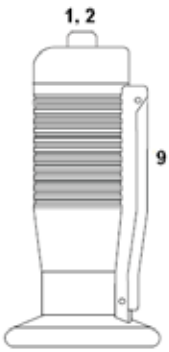


Users View

Deadman

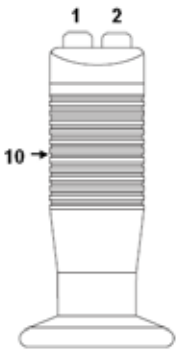


Users View

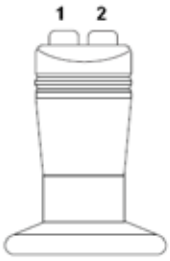


Side View

Proximity Sensor inside handle



Short stock grip



Technical Data Switches	
Electrical Load	5 A resisitive, 3 A inductive
DWV	1050 Vrms
Low Level	10 mA at 30 mV
Electrical Life	25000 cycles 5 A @ 28 VDC resistive snap-action
Mechanical Life	1 million cycles
Sealing	IP67
Action	Momentary, snap-action
Operating Force	7,5 N ±2 N
Total Travel	2 mm + 0,25 mm
Available Button Colors	white, grey, black, red, orange, yellow, green, blue, purple

Notes:
1. Maximum possible configuration for the Stock Grip is up to 2 Top Buttons and 2 Side Buttons. A handle with Deadman or Proximity Sensor can have 2 Top Buttons, but no Side Buttons.
2. Maximum possible configuration for the Short Stock Grip is up to 2 Top Buttons. It is not available with Deadman, Index trigger, Proximity Switch, or Side Buttons.
3. If unspecified, the pushbuttons will have snap action momentary switches („normally open“) and red button caps.

Data Sheet for Joysticks

Hand Joystick — Series TRY80

Order Description

Series	TRY80							
Axis								
1		1						
2		2						
2 Axes, 1 Top Pushbutton		3						
2 Axes, 2 Top Pushbuttons		4						
2 Axes, 2 Top Pushbuttons, Deadman		5						
2 Axes, 1 Top Pushbtn., 2 Side Pushbuttons		6						
Rubber Boot			5					
Spring return								
Spring Return „Standard“				1				
Friction Clutch				6				
Limiter								
Square					Q			
Round					R			
Single Axis Y					Y			
Plus					P			
Handle / Switches								
Stock Grip long, no Pushbuttons						1		
Ball Tip						2		
Stock Grip long, 1 Top Pushbutton						3		
Stock Grip long, 2 Top Pushbuttons						4		
Stock Grip long, 2 Top Pushbuttons, Deadman						5		
Stock Grip long, 1 Top Pushb., 2 Side Pushb.						6		
Output Options								
0..5 V (rail to rail)							1	
0,5..4,5 V							2	
0,25..4,75 V							3	
USB Joystick							5	
USB Mouse Emulation							6	
Voltage Regulator							V	
CANbus J1939							CAN	
Additional Options								
Dual Decode								D
IP68 (Standard = IP65)								IP68
Dual Sensor								DS

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

For example:
- Stock Grip with further Pushbutton configurations
- Customer-specific wiring
- Redundant Output Signal (inverted and parallel), Discrete Output

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

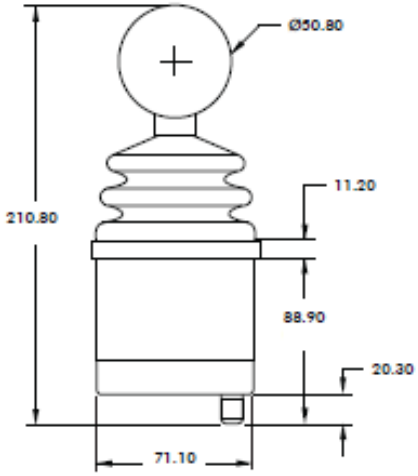
Tel.: +49 89 46094-500
export@megatron.de

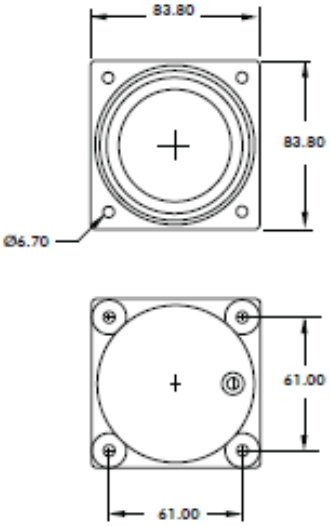
Data Sheet for Joysticks

Hand Joystick — Series TRY80

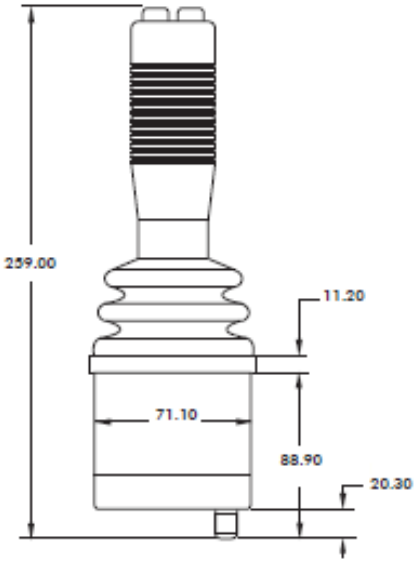
Technical Drawing

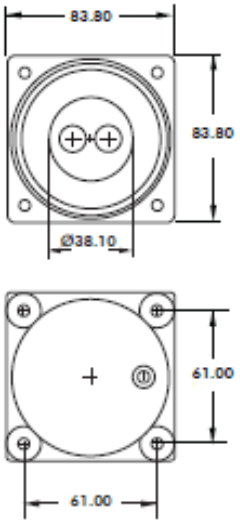
Ball Tip



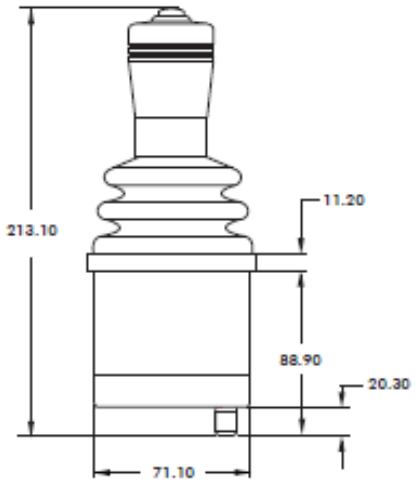


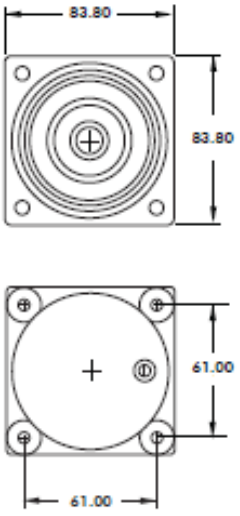
Long Stock Grip





Short Stock Grip





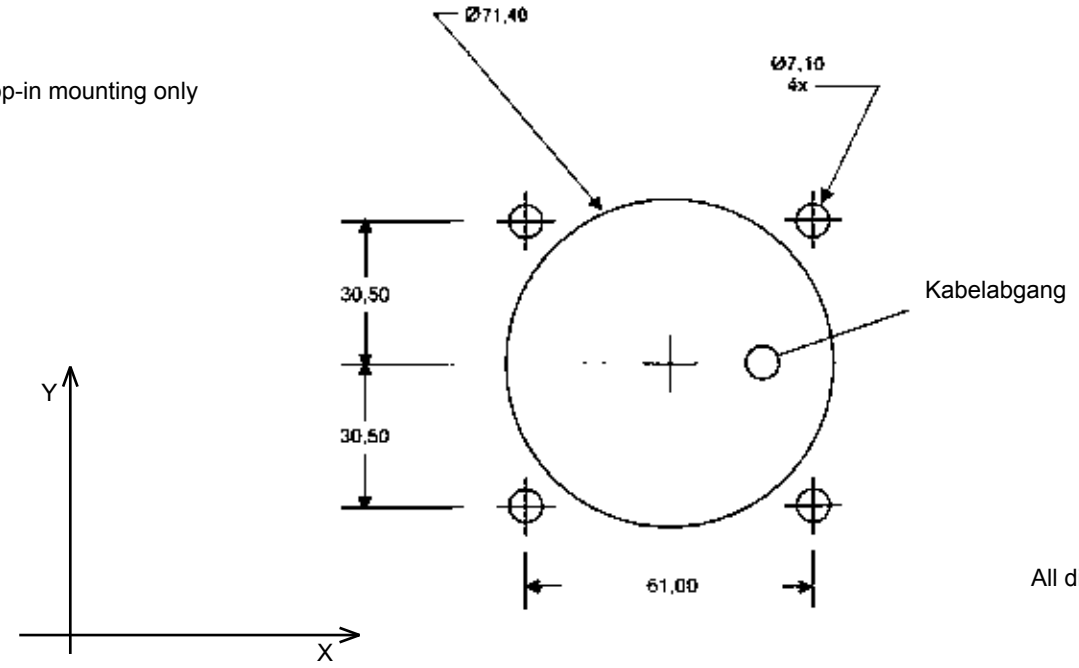
All dimensions in mm

Data Sheet for Joysticks

Hand Joystick — Series TRY80

Mounting Cutout Dimensions

Drop-in mounting only



All dimensions in mm

Wiring

Color	Function	Color	Function	Litzenfarbe	Function
BLACK	Ground	WHITE	Switch Common	PURPLE/WHITE	Deadman
RED	Vcc	ORANGE	Switch 1	YELLOW/WHITE	Proximity Sensor
BLUE	X Axis	PURPLE	Switch 2	RED/WHITE	Index Trigger
YELLOW	Y Axis	GREY	Switch 3	LIGHT GREEN	LED 12
GREEN	Z Axis	BROWN	Switch 4	LIGHT ORANGE	LED 13
		PINK	Switch 5	GREY/WHITE	LED 14
		BLUE/WHITE	Switch 6	BLACK/WHITE	LED 15
		YELLOW/BLACK	Switch 7		
		GREEN/BLACK	Switch 8		

Note:
1. Standard cable length ca. 400 mm; wires AWG 22 for Joystick, switches, LEDs, etc.
2. For Joysticks with USB interface or mous emulation a cable is included (USB male type A connector).
3. Wiring can deviate with special output options (CANbus, CenterDetect, etc.), detailed information will be provided with your product.