

Data Sheet for Joysticks

Desktop Joystick

Series MACHIV



- Several handle versions
- Desktop housing with customizable number of pushbuttons
- Optionally with USB interface

The MACHIV range is the solution for applications requiring two or three axis joysticks in a desktop enclosure. The desktop enclosure offers the ability to integrate pushbuttons for additional application specific operations.

Technical Data

Angle of Movement X-,Y-Axis	±30° from center
Angle of Movement Z-Axis	±45° from center
Return to Center	±2%
Operating Force	< 60 mN

Potentiometers (Conduct. Plastic)	Type P	Type U
Track Resistance [kOhm]	5	10
Resistance Tolerance [%]	±20	±10
Indep. Linearity Tolerance [%FS]	±1	±1
Operating Temperature [°C]	-55...+120	-65...+125
Power Dissipation at 70°C [W]	0.25@40°C	1
Track Operating Angle [°]	220	260±5
Bearing	Sleeve	Sleeve
Expected Life (million cycles)	>1	ca. 10
Recommended max. Current [mA]	0.1	0.1
Max. allowed Current [mA]	1	1
Max. Voltage [V DC]	35	70

Hall Sensors

Supply Voltage	5 VDC ±10%
Power Consumption 2 Axes / 3 Axes	4.8 to 11 mA / 7.2 to 16.5 mA
Center Voltage	2.5 V ±200 mV
Expected Life	1 million cycles typ.
Indep. Linearity Tolerance	±2%
Operating Temperature	-25...+85 °C
Storage Temperature	-40...+85 °C

Pushbuttons	Current [mA]	Voltage [V]	Expected Life	Colour
Handle E	Switching Power 0.1 W		5 million	black
Handle G	50	24	1 million	black
Handle H	500	12	5 million	black
Handle 9	500	12	5 million	black

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

Order Code

Series	MACH IV							
Axes								
2 Axes		2						
2 Axes with Pushbutton		3						
3 Axes		4						
3 Axes with Pushbutton		5						
Rectangular Desktop Housing			2					
Spring Return				1				
Spring Return (50% enforced springs)				7				
Handle Versions								
Handle "J" for 2 Axes, w/o Pushbutton						J		
Handle "K" for 2 Axes, w/o Pushbutton						K		
Handle "L" for 2 Axes, w/o Pushbutton						L		
Handle "1" for 2 Axes, w/o Pushbutton						1		
Handle "A" for 2 Axes, w/o Pushbutton						A		
Handle "B" for 2 Axes, w/o Pushbutton						B		
Handle "6" for 2 Axes, w/o Pushbutton						6		
Handle "3" for 2 Axes, w/o Pushbutton						3		
Handle "E" for 2 Axes, w/ Pushbutton						E		
Handle "G" for 2 Axes, w/ Pushbutton						G		
Handle "H" for 2 Axes, w/ Pushbutton						H		
Handle "7" for 3 Axes, w/o Pushbutton						7		
Handle "9" for 3 Axes, w/ Pushbutton						9		
Handle "S" for 3 Axes, w/ Pushbutton						S		
Handle "T" for 3 Axes, w/ 2 Pushbuttons						T		
Handle "O" for 3 Axes, w/o Pushbutton, Hall Sensor						O		
Handle "P" for 3 Axes, w/ Pushbutton, Hall Sensor						P		
Handle "Q" for 3 Axes, w/ 2 Pushbuttons, Hall Sensor						Q		
Desktop Housings*								
Type 0: w/o Pushbutton, w/o external Trim							0	
Type 1: 2 square Pushbuttons, w/o external Trim							1	
Type 2: 2 rectangular Pushbuttons, w/ external Trim							2	
Type 3: 2 rectangular Pushbuttons, w/o ext. Trim							3	
Type 4: 4 square Pushbuttons, w/o external Trim							4	
Type 5: 4 square Pushbuttons, w/o external Trim							5	
Type 6: 2 square Pushbuttons, w/o external Trim							6	
Sensors, Output Signals*								
Potentiometer P for X-/Y-/Z-Axis								P
Pot. U for X-/Y-Axis, Pot. P Z-Axis								U
Hall Sensors for X-/Y-/Z-Axis 0..5V								K1
Hall Sensors for X-/Y-/Z-Axis 0,25..4,75V								K3
Housing Colour (Standard = Light Grey)*								
Black*								- SW

* not all combinations of housings / colours / sensors are possible. Please contact us for more information.

Please note:

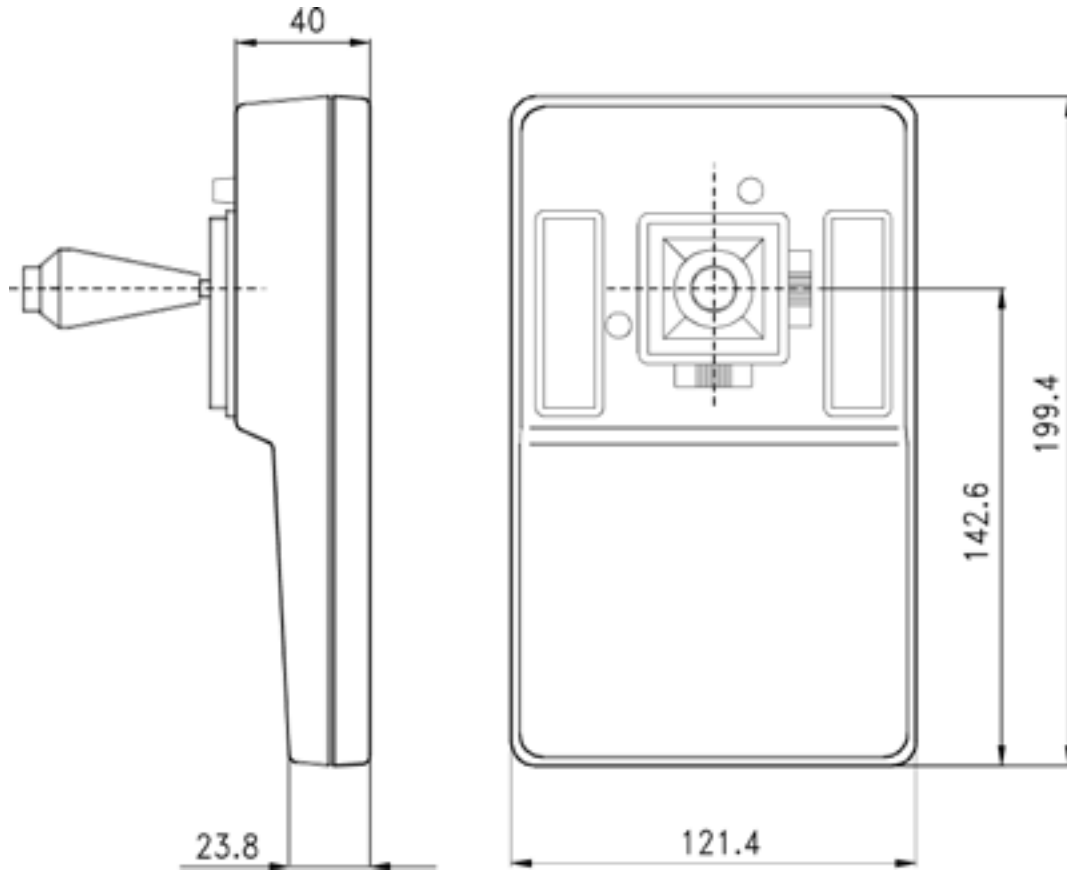
The joystick is delivered disassembled and unwired, with enclosed screws and rubber housing feet. Only special USB versions come with the housing closed and wired.

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

For example:

- Customer-specific cable, switches, etc.

Dimensions Desktop Housing

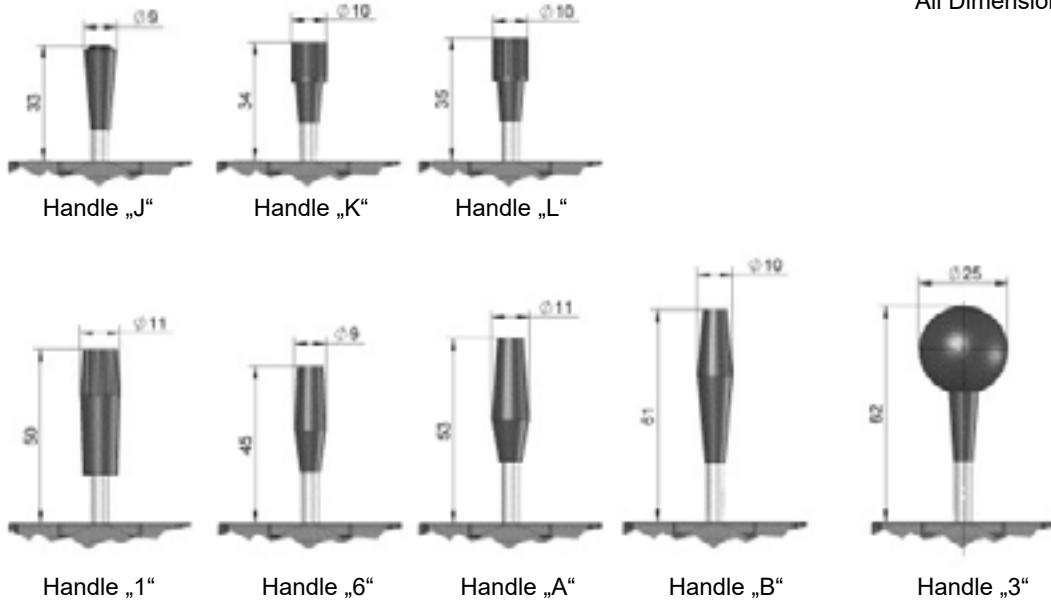


All Dimensions in mm

Handle Versions

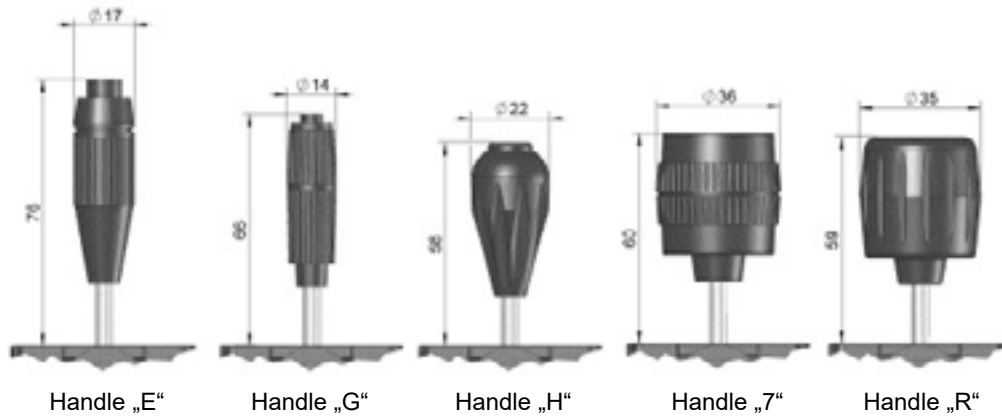
2 Axes

All Dimensions in mm



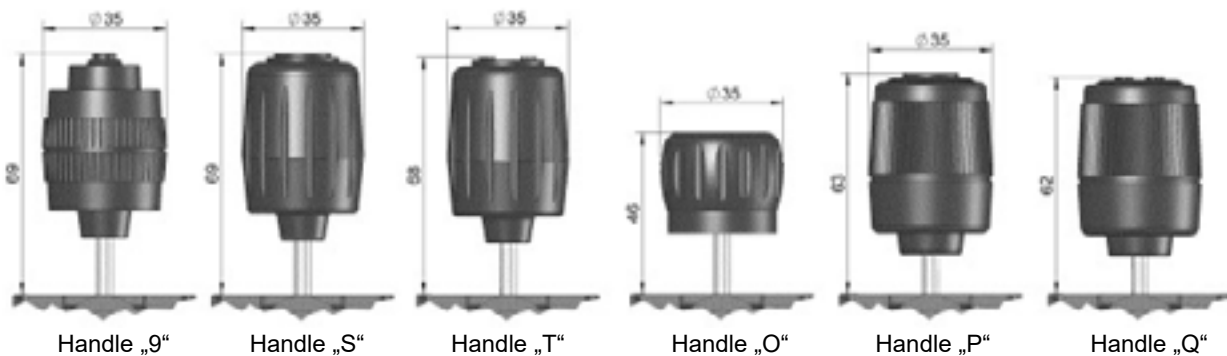
2 Axes, with Pushbutton

3 Axes



3 Axes, with Pushbutton

3 Axes, Hall Sensors

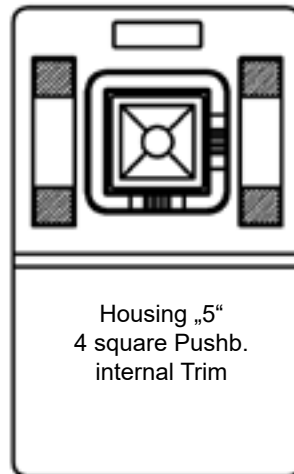
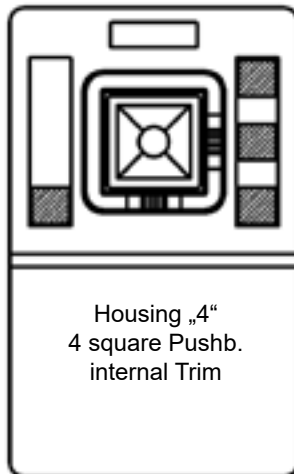
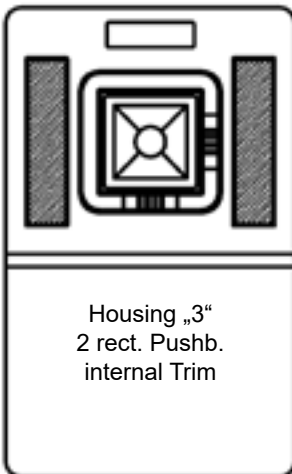
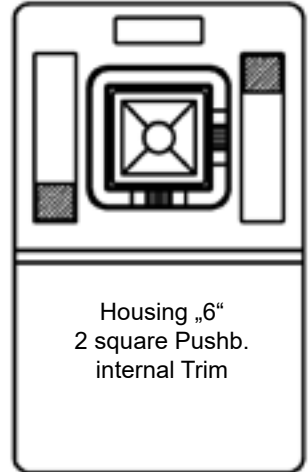
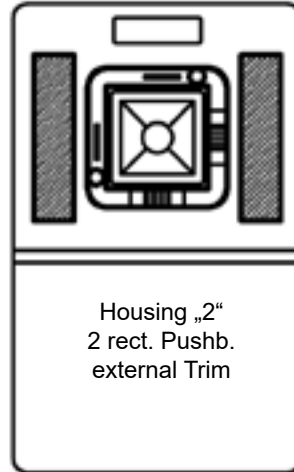
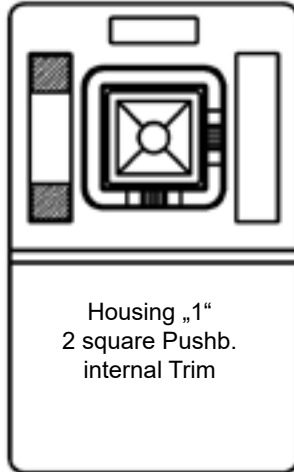
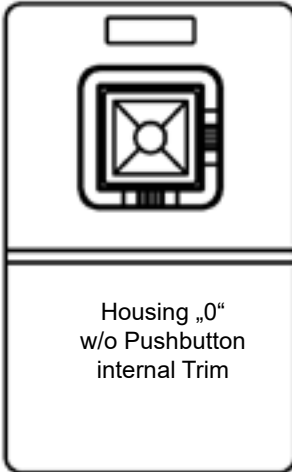


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Housing Versions



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