HAND JOYSTICK MJ-H11 BASE

MJ-H11 is the perfect base for a midsize joystick. It is as compact as a finger joystick and as stable as a hand joystick. Its installation depth is minimal. Modern, low-wear Hall sensor technology ensures a long service life.
A customized handle can be mounted on this base, making it flexible for a wide variety of applications.

Advantages
– Hall technology
– Compact and robust design
– Low installation depth

Application examples
– Industrial trucks, forklifts and aerial work platforms
– Agricultural, forest and construction machinery
– Municipal vehicles
– Cranes, excavators



Electrical data Hall-effect	
Sensor technology	Hall-effect
Supply voltage	3.3 to 5 VDC
Tolerance center position	±2 % FSO
Interface	0.5 – 4.5 V ratiometric at 5 VDC Redundant or reverse redundant SPI PWM
Resolution	12 bit
Supply current	Typ. 8 mA, max. 16 mA

Electrical data CAN bus	
Sensor technology	Hall-effect
Supply voltage	8 to 32 VDC
Tolerance center position	±2 % FSO
Interface	CANOpen SAE J1939
Resolution Output Signal X-Y	min. 8 bit, max. 12 bit
Supply current	30 – 60 mA
Baudrate	250, 500, 1000 kbit/s
Digital I/O	7
Analog inputs	2

The wide range of possible configurations and communication protocols/mapping cannot be fully represented here.
Please contact us with your specific requirements.

Mechanical data	
Number of axes	Multiaxial
Dimensions	See drawings
Weight	approx. 130 g
Operating force	5.5 N ±1.5 N
Max. vertical load	< 650 N
Max. tilt load	< 350 N
Deflection angle	±20°
Mounting	Srewed from below or above
Mechanical option	Spring return to center
Limiter	Square Square, soft guided feel Round Round, soft guided feel Cross gate Single axis
Lifetime	> 10 million cycles

Environmental data	
Operating temperature	-25° C up to +85° C
Storage temperature	-40° C up to +85° C
Protection level acc. to IEC 60529	IP 67 above sealing
EMC Immunity acc. to	EN IEC 61000-6-2
EMC Emission acc. to	EN IEC 61000-6-4

Electrical connection
Cable Others on request

Handle design
None

Handle function
None

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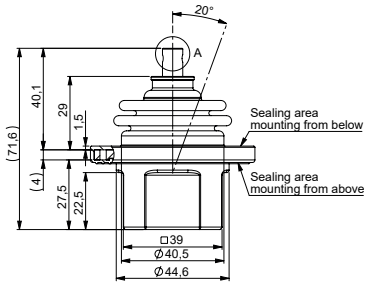
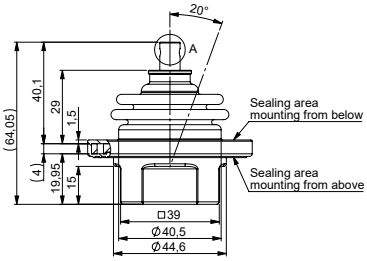
Dimensions

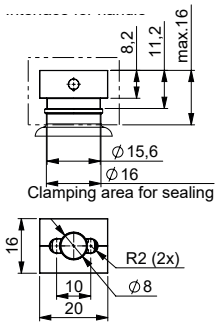
CAN



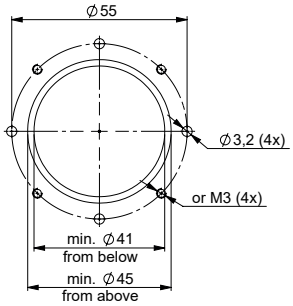
Analog

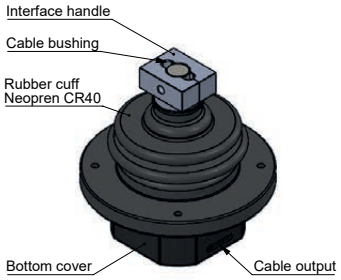


Interface for handle



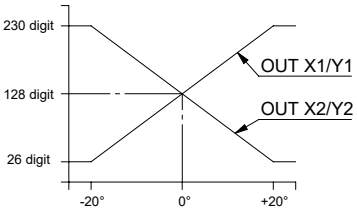
Mounting



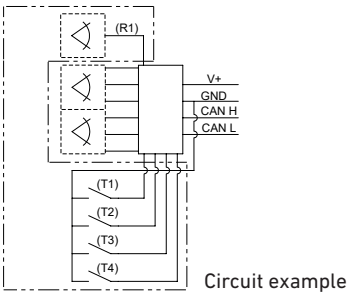


Electrical connection/Circuit diagram

CAN

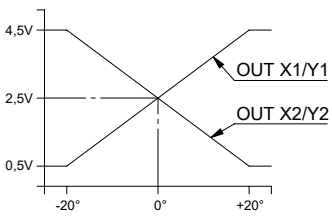


Output Cable	Function
BN	+8-32V
WT	GND
YE	CAN H
GN	CAN L

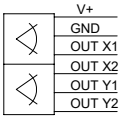


Circuit example

Analog



Electrical wiring	
Out 11	Y1
Out 21	Y2
Out 12	X1
Out 22	X2
+V	
GND	



Metallux cannot picture the customer's operating and application conditions and the customer's existing environmental influences.
We therefore recommend that you carry out your own investigations into the planned use of the products under the actual operating conditions.

We continuously improve our products and also update our data sheets regularly. In this respect, there may be changes in the specification.
These changes will apply to orders received by us from the time of the update, unless otherwise agreed.

Our products comply with Directive 2011/65/EU (RoHS) including Directive 2015/863/EU and Regulation (EC) No. 1907/2006 (REACH).

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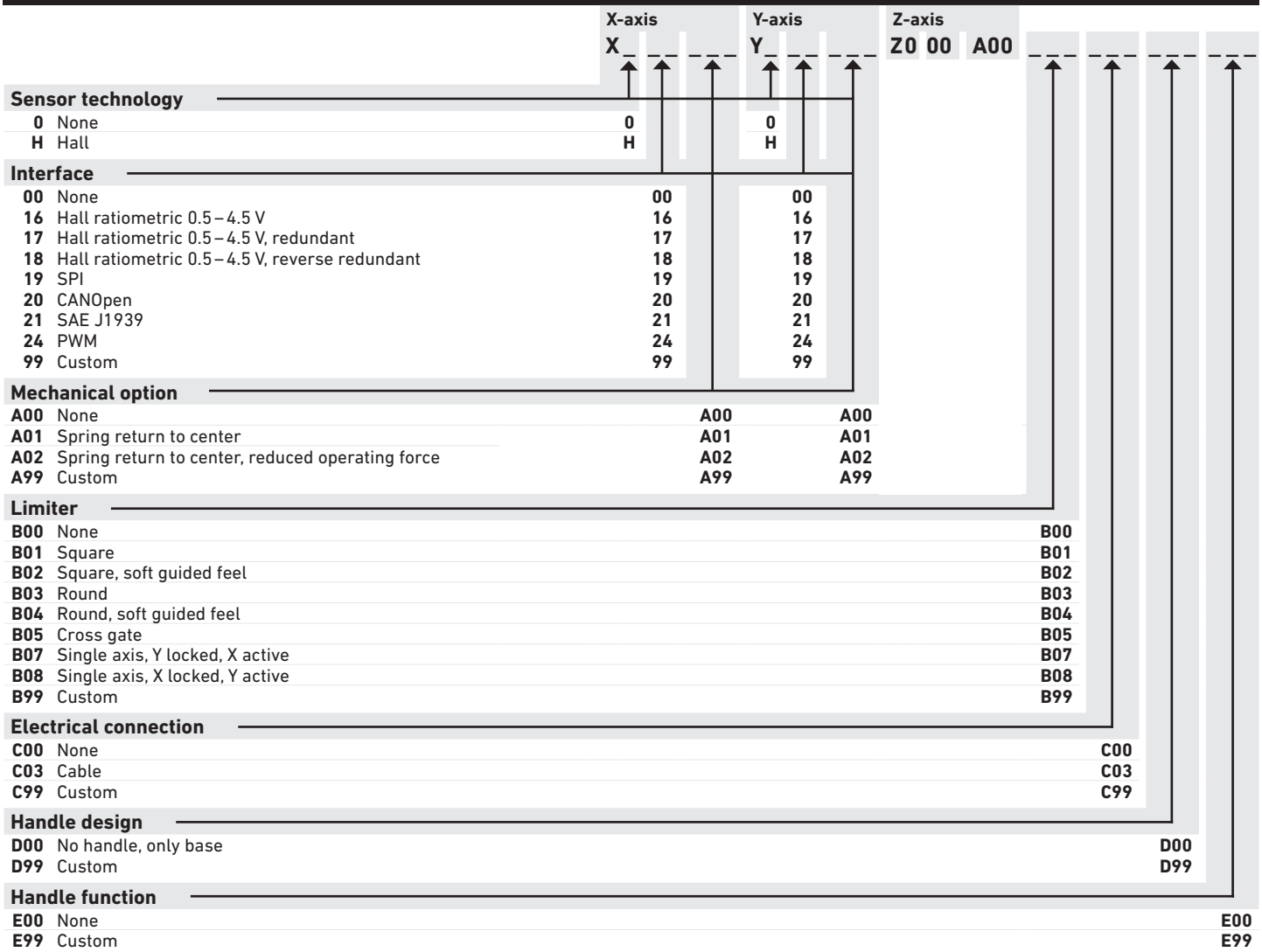
Product codes for orders



Explanation of Product Codes: Each product code begins with the model name. After that, for each axis, the sensor technology, the interface, and the mechanical option are specified. This is followed by the limiter, the electrical connection, the handle design, and the handle function.

Example for the Product Code of a typical MJ-H11: MJ-H11_XH18_A01_YH18_A01_Z000_A00_B02_C03_D00_E00
XH18_A01: X-axis Hall ratiometric 0.5 – 4.5 V reverse redundant, spring return to center
YH18_A01: Y-axis Hall ratiometric 0.5 – 4.5 V reverse redundant, spring return to center
Z000_A00: No Z-axis
B02_C03_D00_E00: Square limiter, soft guided feel, Cable, no handle, no handle function