

MPG - Manual Pulse Generator

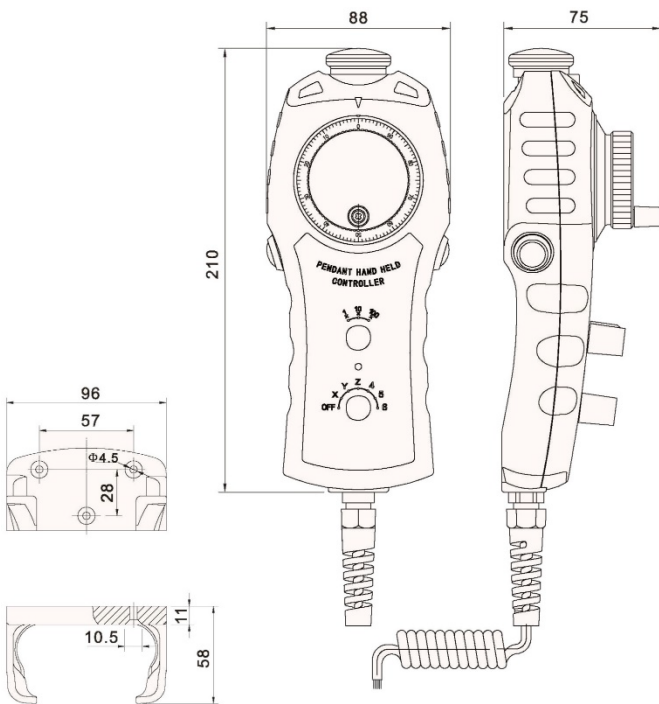
JOG handwheel ISMM2188

A tool for quick configuration of a material base (G54, G55 ...), tool magazine (tool length offset), as well as for manual machining or fast manual rides (requires CSMIO-MPG module available separately or in the MPG Kit). Connection with CSMIO-MPG is extremely simple and shouldn't take more than 5 minutes, even for inexperienced users.



Technical specification

Dimension (mm)



ELECTRICAL SPECIFICATION	
Output wave	Square wave
Output signals	A,B, (Line driver out A,A(_),B,B(_), phase)
Current consumption	≤100mA
Response Frequency	0~20KHz
Output phase difference	90° ± 45°
Supply voltage	5VDC and 24VDC
Signal level	V _H ≥ 85%V _{cc} , V _L ≤ 0.3V
Number of pulses	100
MECHANICAL SPECIFICATION	
Signal position	2kind
Speed without sealing	500 rpm
Starting torque w/o sealing	≤2.0x 10 ⁻² ~6.0x 10 ⁻² Nm (+25°C)
Shock resistance	980m/s ² , 6ms, 2 times each on XYZ
Vibration proof	50m/s ² , 10~200Hz, 2 hours each on XYZ
Working life	MTBF≥ 10000h (+25°C, 2000rpm)
Weight	Appr. 740g (incl. 1.5 meter cable)
ENVIRONMENTAL SPECIFICATION	
Working humidity	30~85% (No condensation)
Storage temperature	-30°C ~85°C
Working temperature	-10°C ~70°C
Protection class	IP54

How to run it?

- Fasten the module on a DIN rail
- Place the DB25 plug of the JOG handwheel in the CSMIO-MPG module socket.
- Connect the CAN bus with the included DB9 wire
- Connect 24V DC power.
- Connect E-STOP circuit to terminals E1 and E2 (order of the connections is not important). Terminals E1 and E2 are pins of the handwheel E-STOP button.

Product code

ISMM2188	-	001	100	B	-	5	L
Series		Sequence Number	Number of Pulses	Output Signals		Supply Voltage	Output Circuit

ELECTRICAL SPECIFICATION OF SELECTION SWITCH

Switch load	0.4VA	Max. voltage	25V
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Circuit width	0.1-50mA
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ELECTRICAL SPECIFICATION OF CONTROL SELECTION

Connection Point	AC Max. load	AC220VV 0.5A
	DC Max. load	DC24V1A

ELECTRICAL SPECIFICATION OF STOP SWITCH

Connection Point	AC Max. load	AC220V0.5A
	DC Max. load	DC30V1A

Additional feature button

The additional blue button is a button that allows you to perform additional functions if you use simCNC, including:

- deleting the selected axis coordinate in combination with a multi-position axis selection switch,
- triggering homing of the selected axis in combination with a multi-position axis selection switch,
- changing any value (e.g. SRO, FRO, JRO) in connection with the encoder wheel,
- and many more that you can think of.

How it's working?

The blue button is connected to the previously unused digital input number 9 of the CSMIO-MPG module. Pressing it activates input number 9, which triggers the Python action, which triggers the macro assigned to this action. In this macro we can read the positions of the axis selection and step size switches, as well as the position and speed of the encoder. Based on this data, we can create additional functionalities.

In the case of Mach4, the situation is analogous, but here a PLC macro should be used. It is impossible to use an additional button in Mach3.



In CS-Lab online store on sale in a set with CSMIO-MPG module and separately.
(suitable straight connection plug included)

www.cs-lab.eu/en