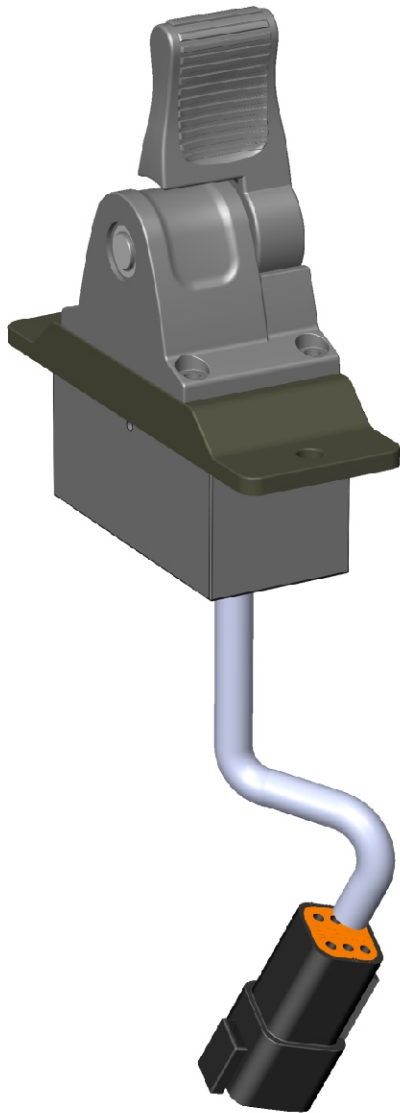


## Single axis finger joystick with signal output



### Description

MAS3L (version for marine use of MAS2L) is a single axis electronic joystick with voltage signal output.

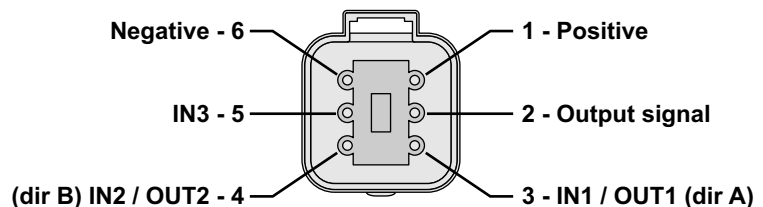
Joystick command is based on the measurement of the magnetic field of a permanent magnet through redundant Hall effect probes, not subject to wear and tear.

#### Main characteristics:

- single output voltage signal.
  - available ranges are: 0÷5V, 0÷10V, 5÷0÷5V, 0.5÷2.5÷4.5V or any other range within 0÷10V;
  - ratiometric (25%÷50%÷75% of supply voltage).
- output curve shape: linear or parabolic (selectable);
- ramps on signal adjustable from 0 to 25 s (step 0.1 s);
- input usable for:
  - speed reduction (calibration adjustable for each side);
  - block one or both sides of signal output;
  - deadman feature (to be activated before moving the paddle);
- paddle with friction version available (retained paddle);
- high current digital directional outputs, usable as FAULT signal;
- all working parameters are programmable through a serial port and the Windows® SepSim program using a special serial port adapter (AISR).

For direct PWM outputs the version "MAP3L" is available.

### Connections



### Technical specifications

Power Supply Voltage	10 ÷ 30 Vdc
Working Temperature Range	-30 ÷ +70 °C
Output signal range (programmable)	0÷5V, 0÷10V, (any value in 0÷10V), ratiometric (Danfoss® signal)
Max signal output current	10 mA
Digital outputs OUT1 and OUT2 maximum current	2000 mA
Input Threshold	Vt-(In1, In2, In3)~2V / Vt+(In1, In2)~3V / Vt+(In3)~80%Power Supply
Connections	cable L=20 cm with Deutsch DT04-6 connector
Working Angle	± 30 degrees
Force for paddle at full stroke	Approx. 3.5N ±10% (measured on the top of paddle)
Ingress Protection Rating	IP66
Salt spray	...
EMC compatibility	ISO EN 14982:2009

**Working mode**

MAS3L joystick can generate almost any output signal in a programmable range all contained within 0 and 10V. Ratiometric output (25%+50%+75% of supply voltage) is also available for Danfoss® devices.

Dead band, signal range, ramps, output shape (linear or parabolic) and other parameters are adjustable.

Setting can be changed using a PC with the SepSim Windows® program and a special serial port adapter with M8 connector (code: PISPR).

The electronic card is protected against short-circuits of the load.

The MAS3L joystick can be ordered with different configuration of output signal, ready to use.

Ask for a special configuration.

**Signaling**

A multicolor LED under the mounting panel is lit when the joystick is supplied and gives information on the status of the device with a coded series of colored flashes.

**Accessories:**

- Kit with male mating connector Deutsch DT6-6 way (with female contacts). Code: **PCVMDT6**
- AISR: serial port adapter with M8 connector (to adjust settings). Code: **PISPR**

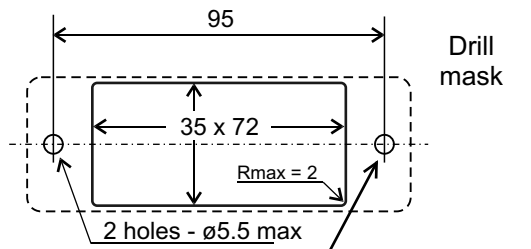
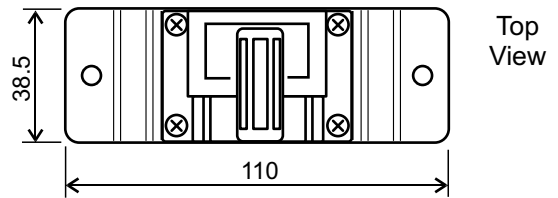
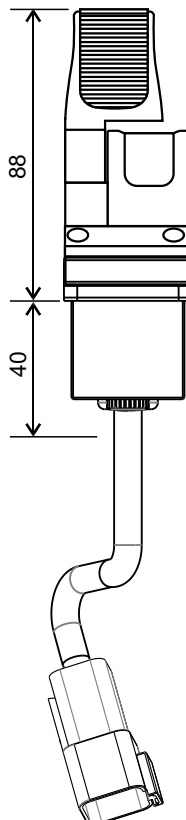
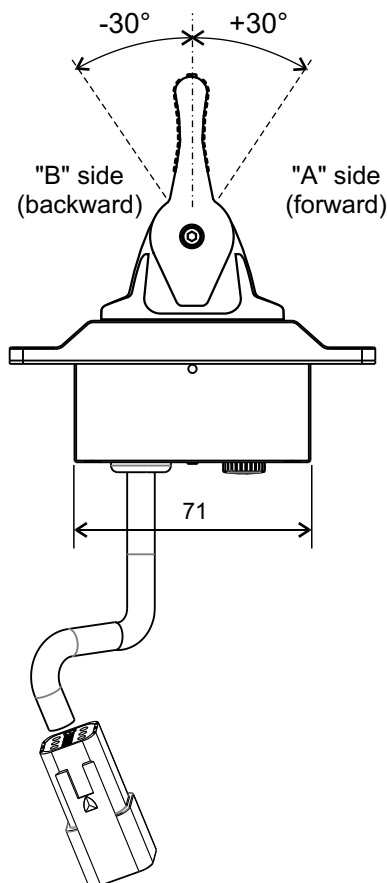
Example of ordering codes:

**PMAS3\_L\_nnn** ← **nnn** (optional): customized special version

- R**: paddle spring return
- F**: paddle with friction
- S**: fixed
- R**: ratiometric (Danfoss® signal)
- V**: vertical symmetrical signal
- Z**: asymmetrical signal



**DIMENSIONS** (in millimeters)



Mounting screws must be sealed apart (rubber gasket does not seal them)

