

610 ELN control lever

Electronic Single axle control

It is a single axle control suitable for a variety of applications, including industrial vehicles, agricultural machines, heavy duty machines and any other kind of special machines.

It is equipped with a clutch which can be adjusted from factory and a neutral detent is also available.

With the neutral detent, it works as a FNR control. Without the neutral detent, it works as a throttle control.

Multifunctional handle is available with up to 6 switches and with the dead man function.

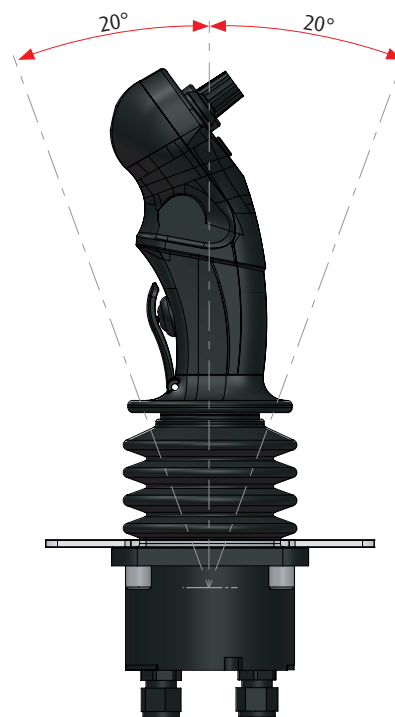
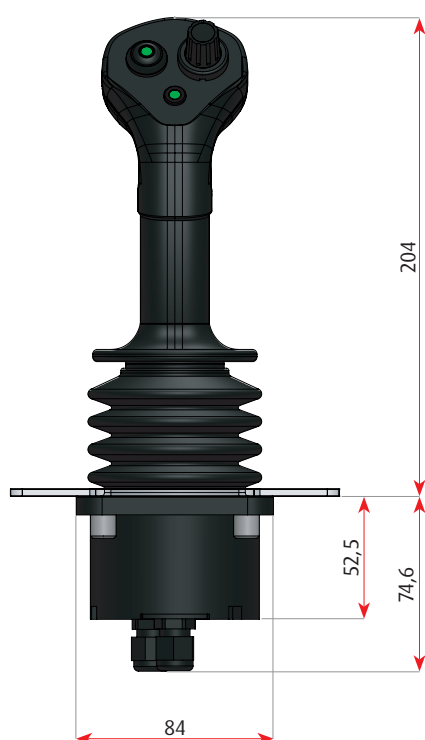
The electronic circuit is fully protected against water and any kind of contaminants. Thanks to its particular high IP enclosure, the control can be mounted either in cabin or in open air and it can operate in harsh environments with continuous operation, high reliability and long working life.

Measuring position is through Hall effect sensor with one or two channels. It is available with any kind of electronic interface: 1 or 2 voltage channels, with or without idle validation switch, PWM, current, CANBus.

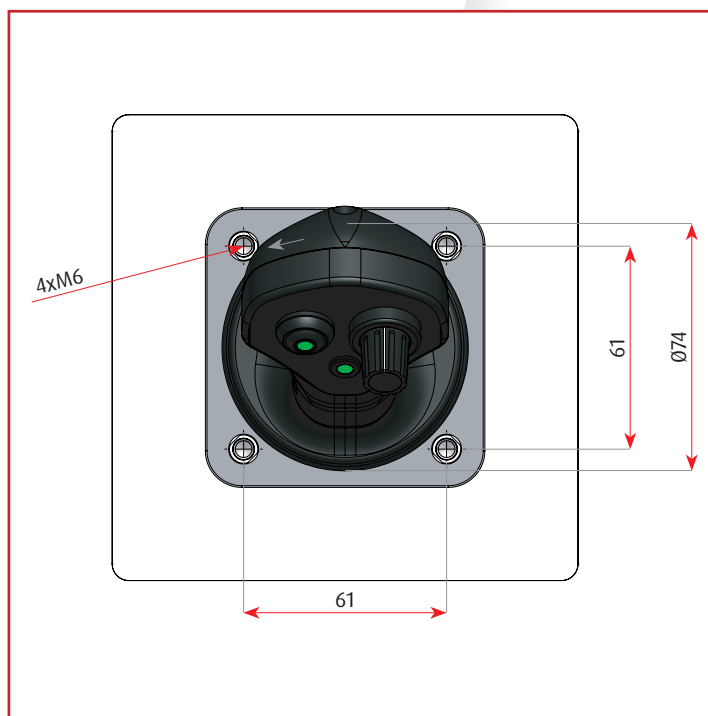
Wall mounted M12 connectors are positioned on the lower part of the lever.



PHYSICAL DIMENSIONS AND MOUNTING INSTRUCTIONS



Available multifunction handles: 1725 series or 1730 series both with or without dead man function.



MECHANICAL SPECIFICATION	
• Operational life (at 25 °C)	1 million cycles
• Operating temperature	-40 .. + 80 °C
• Storing temperature	-40 .. + 110 °C
• Weight	0.75 kg
• Hysteresis	0.15% on read value
• Travel angle	+/- 20 degrees with respect to neutral position

ELECTRICAL SPECIFICATION (VERSION WITH 2 VOLTAGE CHANNELS)	
• Sensor	Hall effect
• Power supply	5 Vdc ±10% ratiometric
• Electrical signal	Galvanically insulated
• Resolution and update rate	10 bit, update rate 0.1 ms
• Correlation in case of 2 signals	Better than 1% in the whole pedal range
• Current consumption	<10 mA (per each channel)
• Minimum load resistance	4.7 kΩ
• Maximum load capacitance	10 nF

APPLICATION EXAMPLE: LEVER 610 WITH VOLTAGE OUTPUT

Here below are reported typical standard configurations of foot pedals with 1 channel, 2 channels voltage output and 1 channel voltage + 1 Idle Validation Switch. Output voltage profile is fully programmable at the factory.

INTERFACE CONFIGURATION	CODE	SIGNAL OUTPUT
• 1 channel	610.01.00	CH1 = voltage signal
• 2 channels	610.02.00	CH1 = voltage signal; CH2 = voltage signal
• 1 channel + 1 idle validation switch	610.03.00	CH1 = voltage signal; CH2 = IVS

For a complete overview of lever 610 and its available interfaces, please refer to the ECU interface section.