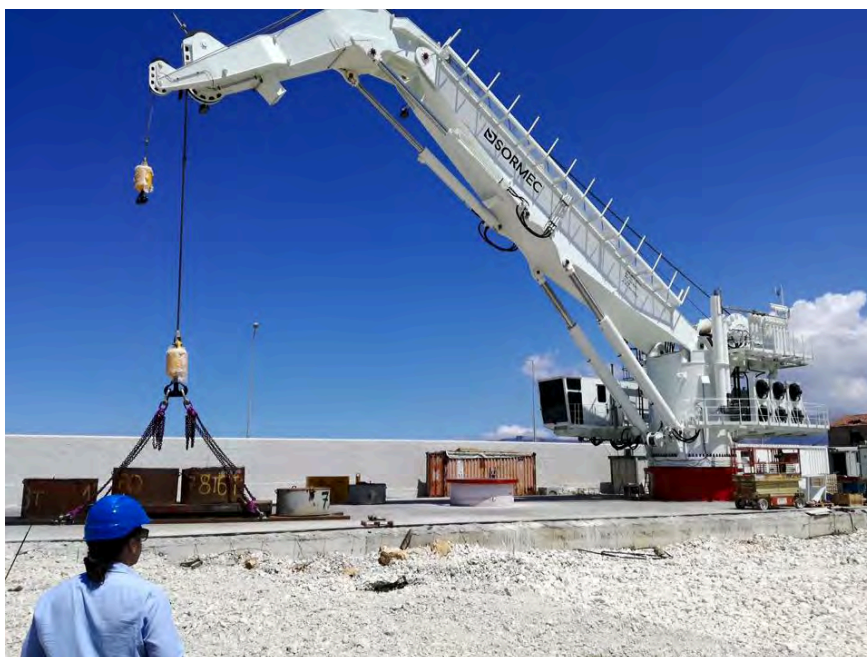




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ELECTRIC PROPORTIONAL JOYSTICKS JEP2

Applications

The JEP2 electric proportional joysticks are used in the energy, railway, shipbuilding, agricultural and forestry, earthmoving, material handling and industrial automation industries



Description

The JEP2 dual-axis electric proportional joysticks are used to remotely control the electro-hydraulic pressure reducing valves fitted on main directional control valves, variable displacement pumps and motors and various types servo-actuated users including clutches and brakes. The input supply can vary from 8 up to 32 Volt DC.

They are extremely compact and at the same time equipped with a robust, precise and reliable mechanical kinematic mechanism for positioning the sensors, which ensures excellent tactile sensitivity to the control lever.

Hall effect sensors, which eliminate any contact between moving parts, are totally protected from electromagnetic interference and radio frequencies (EMI and RFI) up to 100 V / M and are also programmable with magnetic temperature compensation logic to ensure constant operation and repeatable in any operating condition.



Rotary potentiometer



The JEP2 joysticks, available only in dual axis configuration, are designed for the maximum flexibility; the modular electronic system includes the analogue, PWM or CANbus output signals and can cover many applications from aerospace, railway, marine industries to construction equipment, agricultural machines, material handling and many industrial applications.

Proportional roller Hall effect, with integral PWM controller

Proportional dual axis mini-joystick Hall effect



Numerous accessories are available within the Fluidea range of components to integrate the configuration of the JEP2 joysticks and allow a variety of system options which can match any customer requirement, including a wide range of palm knobs IP1, multifunction cylindrical handles and ergonomic grips, which can be set up with on-off push-button switches, with selector switches, lightening leds, single and dual axis proportional mini-joysticks Hall effect without contacts.

Technical features

Mechanical

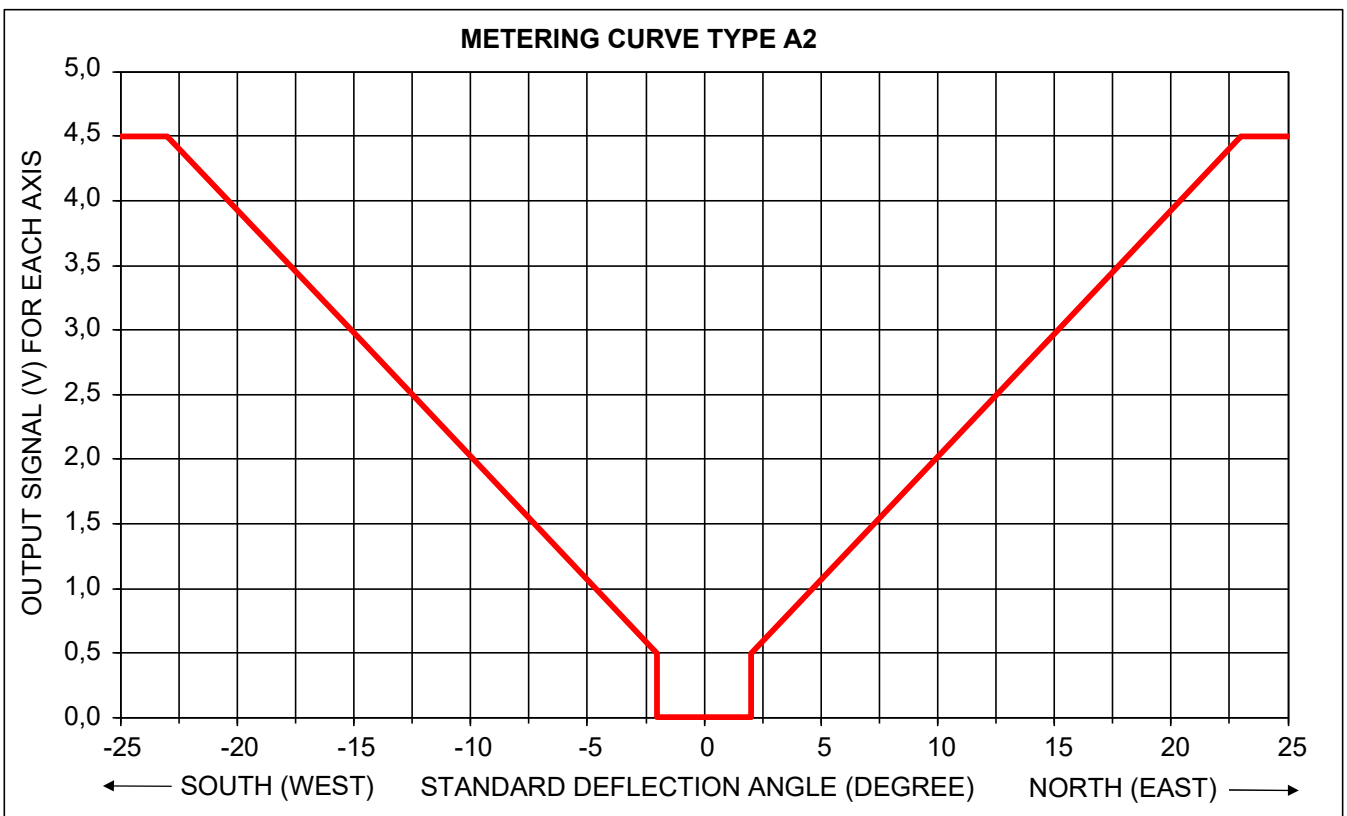
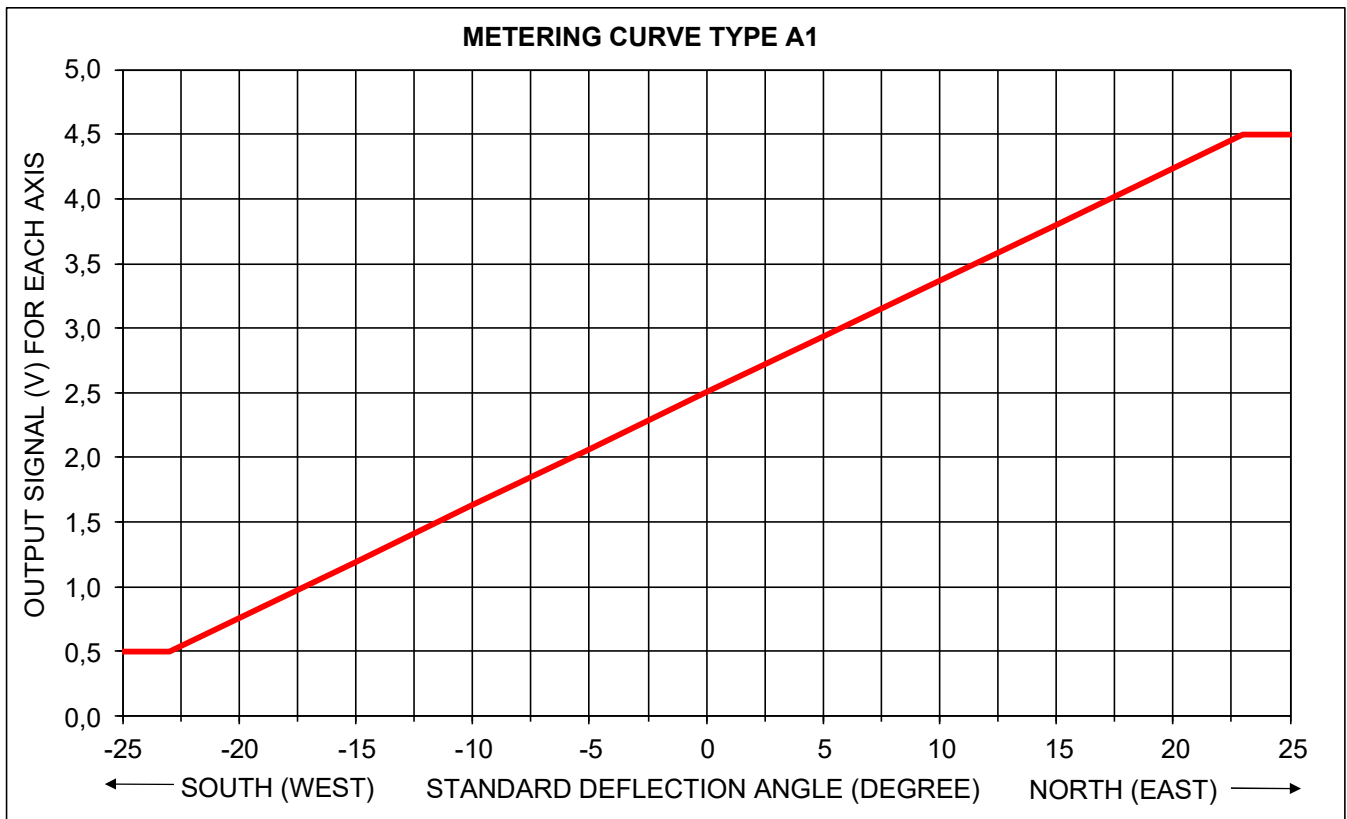
- Body material:	Aluminium alloy
- Rubber boot material:	NBR / 50° Shore - UV resistant
- Adapter materials:	Galvanized steel or brass
- Lever deflection angle:	+/- 23° (+/-1°)
- Electric adjustment angle:	+/- 23° (+/-1°)
- Operating temperature:	-25°C / + 80°C
- Protection class (above flange):	Up to IP67, depending on the handle
- Life:	> 5 millions cycles

Electrical

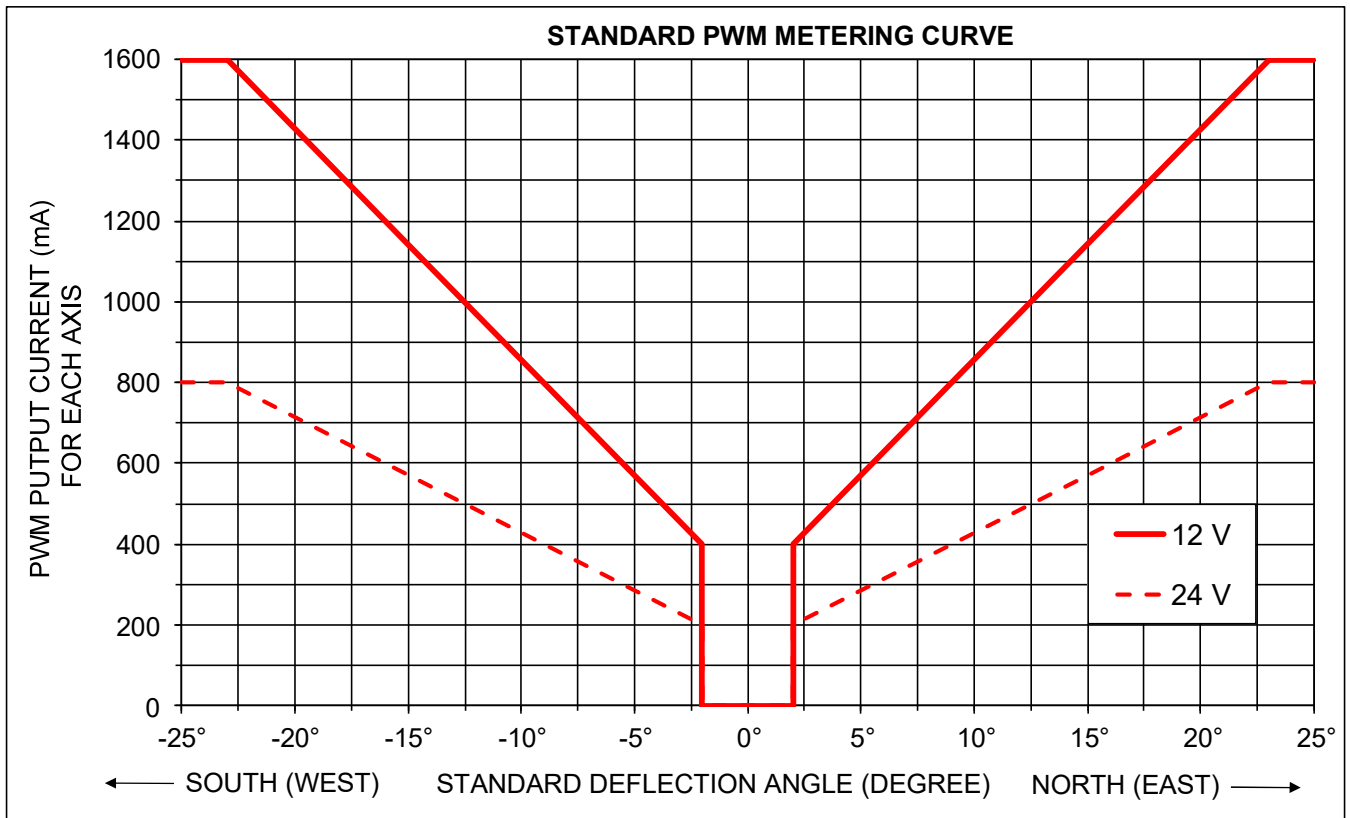
<p> - Frequency (PWM signal): 60-250 Hz (standard 100 Hz) </p>	<p> Analogue (0 ÷ 5 VDC) (pag.6), PWM (pag.7), CAN BUS 60-250 Hz (standard 100 Hz) </p>
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The data and the technical features in this catalogue are not binding. The manufacturer reserves the right to carry out modifications, by its unquestionable judgement and without prior notice, in order to improve its products. The manufacturer is not responsible for damage to people or properties caused by an improper use of the product.

Output metering curves



Output metering curve



Portable chestpack control

Customized control box

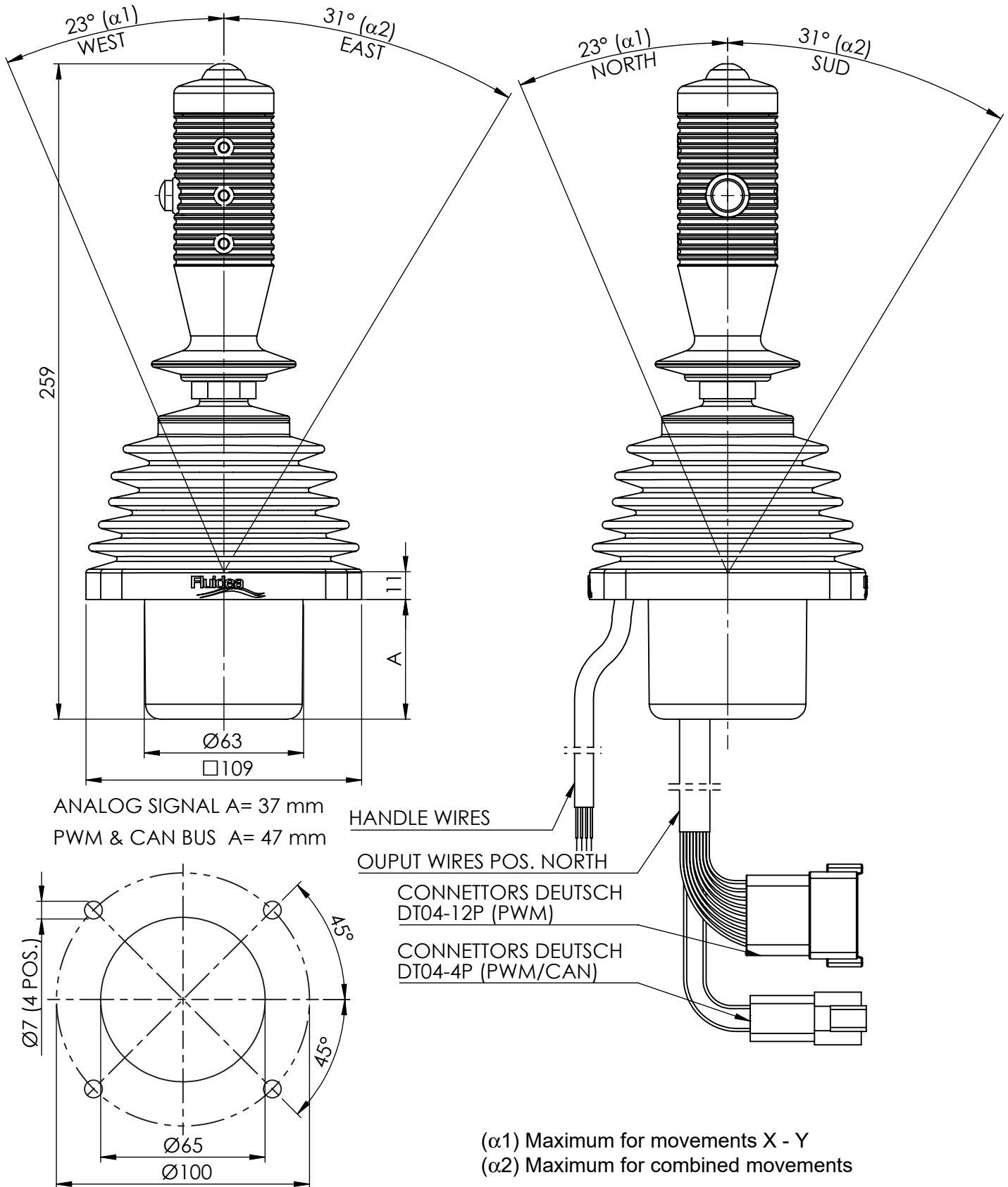


Customized wiring kit

ELECTRIC PROPORTIONAL JOYSTICKS JEP2

Overall dimensions

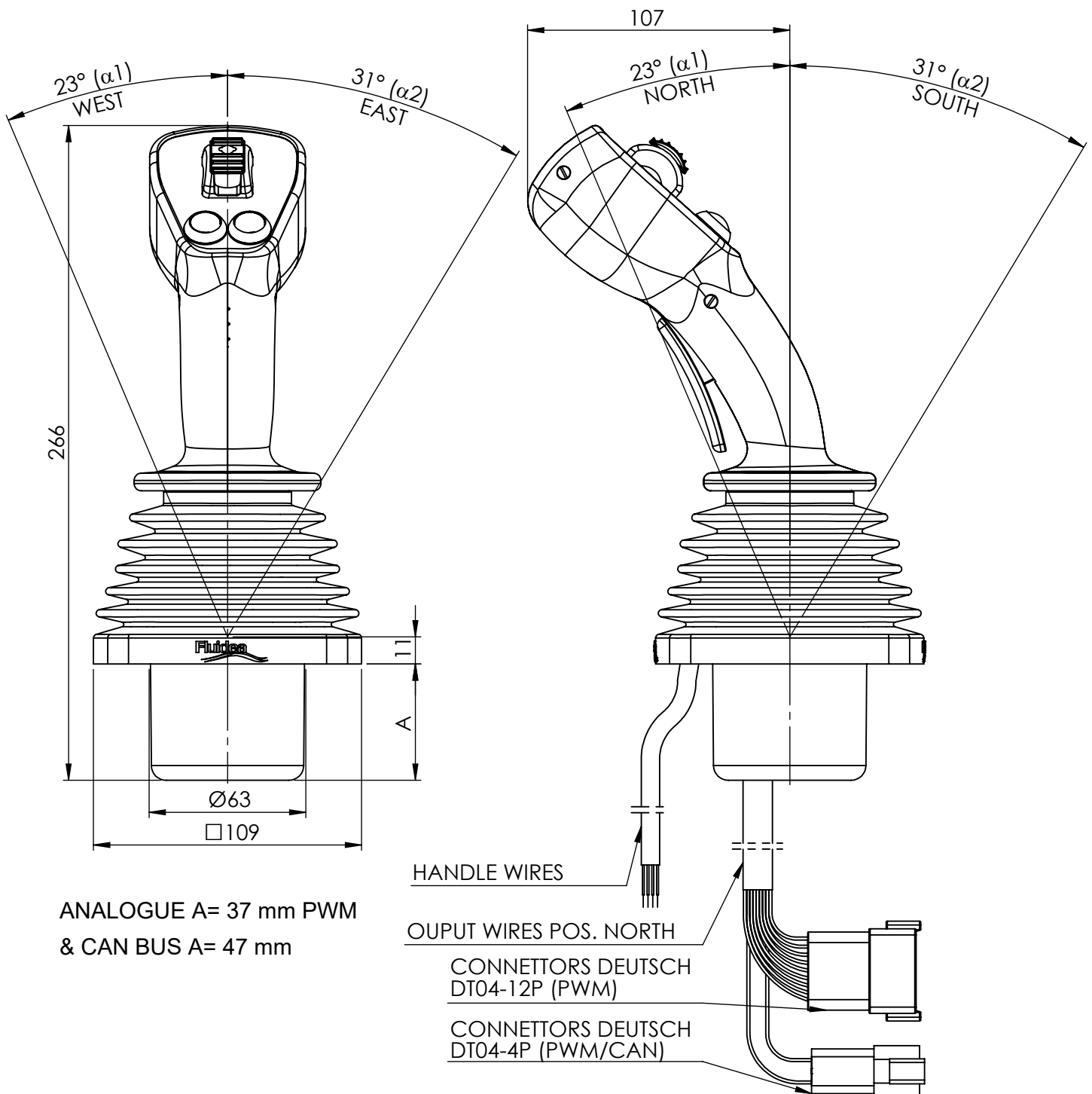
Dual axis joystick JEP2 with IC2 cylindrical handle and rubber boot Q



ELECTRIC PROPORTIONAL JOYSTICKS JEP2

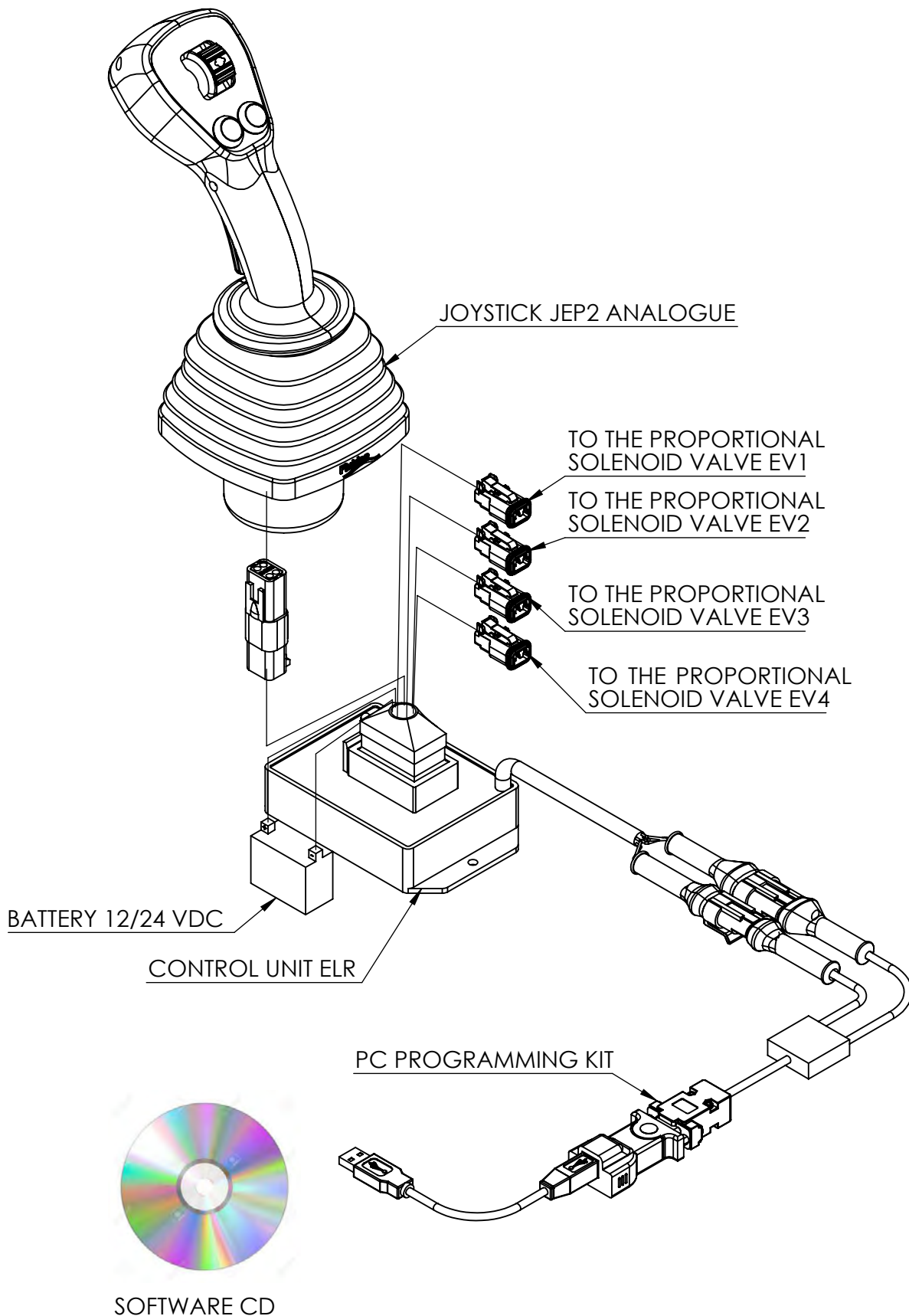
Overall dimensions

Dual axis joystick JEP2 with ergonomic handle IE2 and rubber boot Q



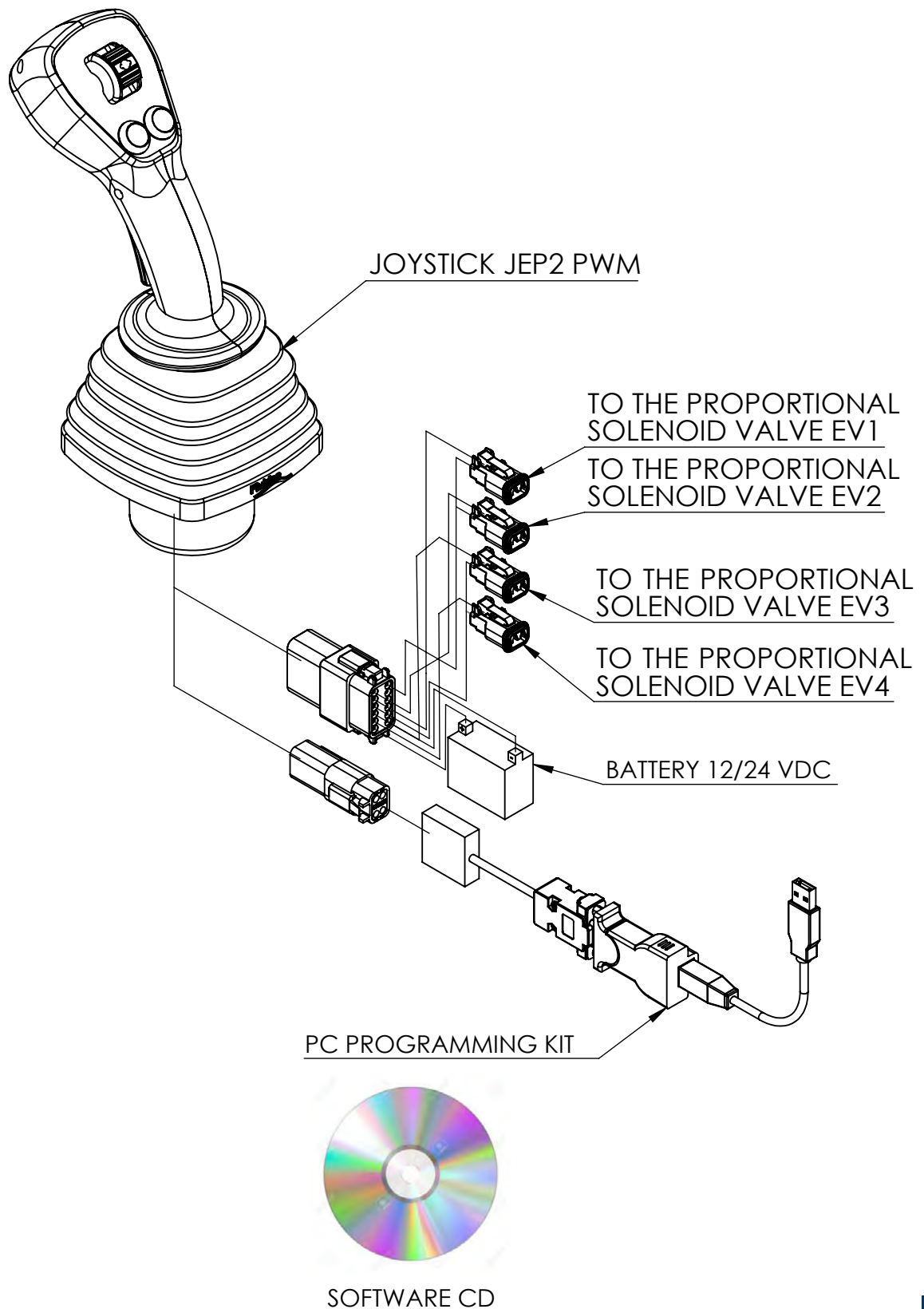
($\alpha 1$) Maximum for movements X - Y
($\alpha 2$) Maximum for combined movements

Typical connection diagram for analogue joystick

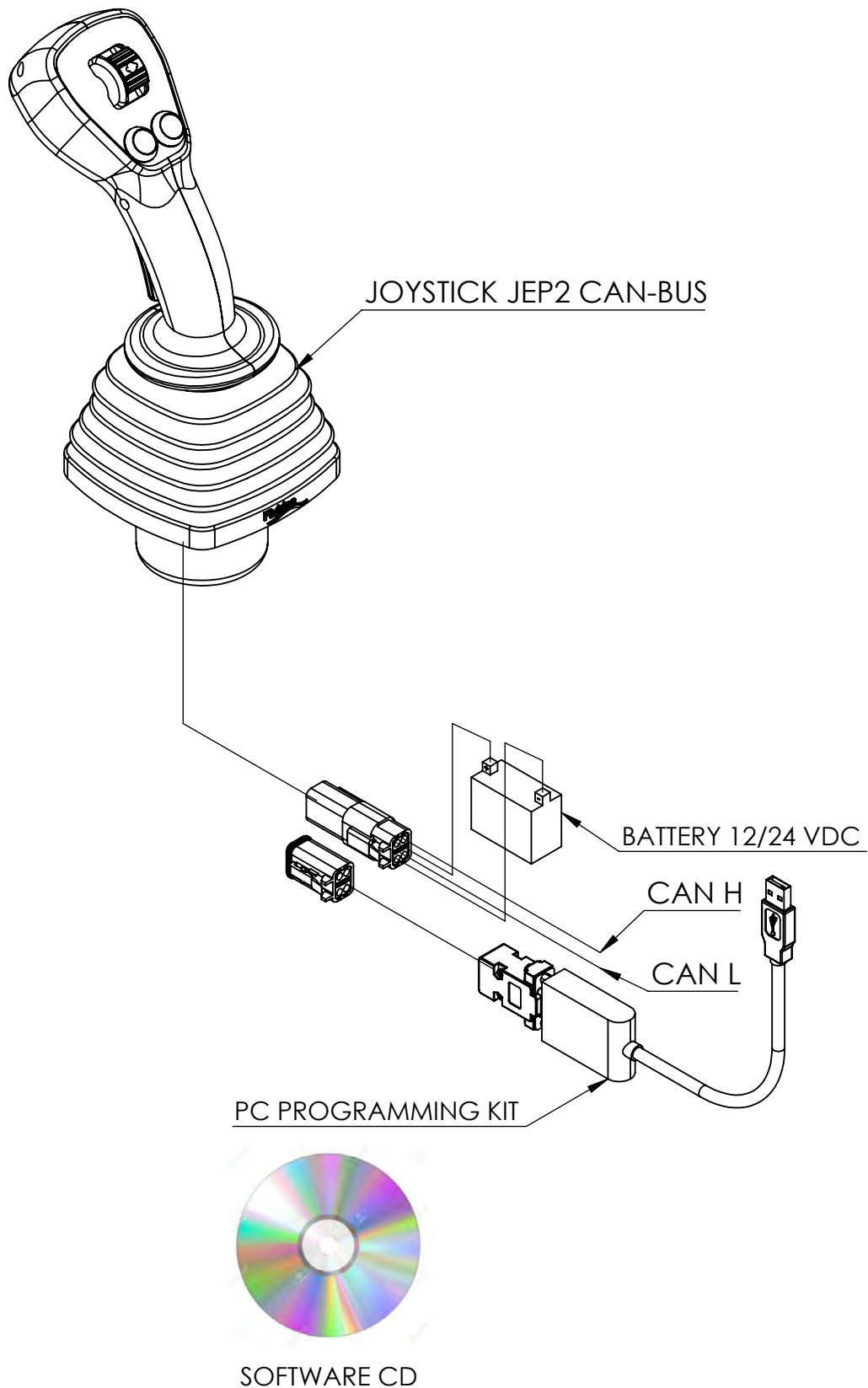


ELECTRIC PROPORTIONAL JOYSTICKS JEP2

Typical connection diagram for PWM joystick



Typical connection diagram for CAN-BUS joystick



Control handles

For a detailed configuration of the handle, please refer to the technical catalogue of the required model

Without handle

Z

Standard straight handle

IC1



Multifunctional straight handle

IC2



Multifunctional ergonomic

IE2



Rubber boot

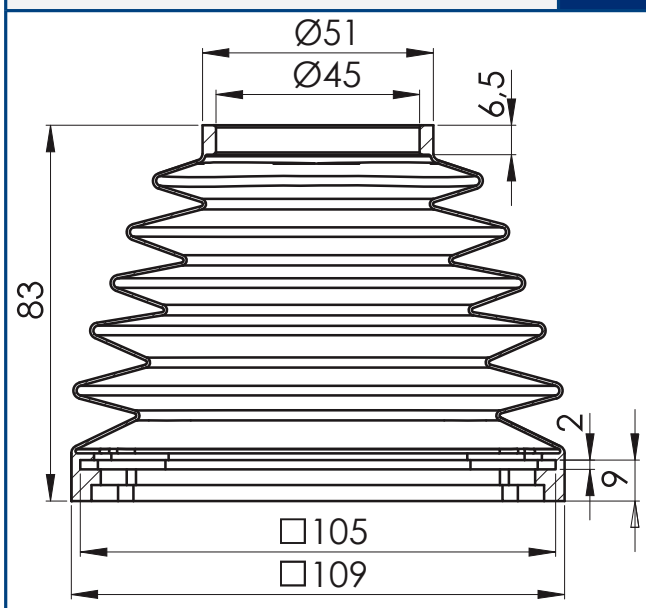
Without rubber boot

Z



With square rubber boot

Q



Ordering key

JEP2	A	IE20001	Q
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Rubber boot (page 14):

- **Z** = Without rubber boot
- **Q** = Rubber boot for dual axis joystick

Handle (page 13):

- **IE20001** = Handle part number, assigned by Fluidea
(for handle type please refer to the specific catalogue)
- **Z** = without handle

Output metering curve (pages 5-6):

- **A1** = analogue signal from 0,5 to 4,5 VDC
with one output (2,5 V in neutral position)
- **A2** = analogue signal from 0,5 to 4,5 VDC
with one output (0 V in neutral position)
- **PWM0** = output current signal PWM
- **PWM4** = output current signal PWM + 4 on-off directional signals
- **CAN** = digital signal CAN-Bus

Basic model:

- **JEP2** = Proportional electric joystick



THE COMPREHENSIVE RANGE OF MANUFACTURED AND MARKETING COMPONENTS INCLUDES:

- Hydraulic gear and axial piston pumps & motors
- Directional control valves & selector valves
- Proportional EH pressure reducing valves & manifold blocks
- Hydraulic, pneumatic and electric on-off & proportional joysticks
- Control electronics
- Radio controls, push buttons stations, dashboards and armrests
- Multifunction ergonomic, cylindrical & palm grips
- Hydraulic filters & contamination control systems
- Heat exchangers and cooling systems
- Fluid monitoring & diagnostic instruments
- Bell housings, driving flanges & elastic couplings