

Data Sheet

Joystick

JS1000 Joystick Base



Rugged compact design

The unique design of the JS1000 joystick base incorporates contactless Hall effect sensors into a simple, compact and rugged mechanical construction for the most demanding applications. It is ideally suited for low clearance and armrest mounting, and yet withstands the most punishing environments.

Environmental sealing

The JS1000 joystick base is designed and tested for use in harsh out of cab environments. It meets IP 67 environmental protection below the panel mount if the vent plug is installed. The vent plug is a base option. If it is not ordered, the base is not protected from below-panel particulate and moisture ingress. Environmental protection above the panel mount is IP 67 with the exception of the Pro grip option. The Pro grip is for in machine cab use only.



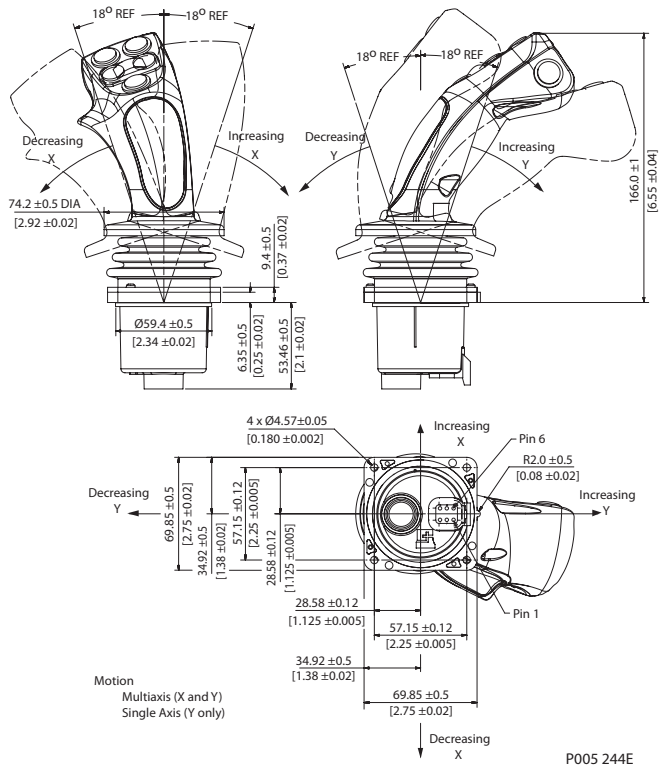
Features

- Non-contacting hall effect sensing
 - Available redundant sensing per axis for CAN output configurations
- Single or dual axis
- X – Y axis guided
- Spring return to center
- Choice of two centering spring forces
- Operating life > 10 million cycles per axis
- Two output options:
 - 0.5 to 4.5 V_{DC}
 - CAN 2.0 B, J1939 protocol
 - CAN 2.0 B, CANopen protocol
- IP 67 environmental sealing above panel (grip dependent)
- IP 67 environmental sealing below panel with vent plug installed (base dependent)
- Integrated 6 pin DEUTSCH DTM connector
- Multiple grip options:
 - Ball grip
 - Grip with analog rocker switch
 - Grip with analog banana switch
 - PRO style ergonomic grip, which offers a wide variety of configurable push-button switches and proportional roller switch functions. (Pro grip is not recommended in an open cab environment)
 - Custom designed grips to meet specific user requirements

Comprehensive technical literature online at powersolutions.danfoss.com

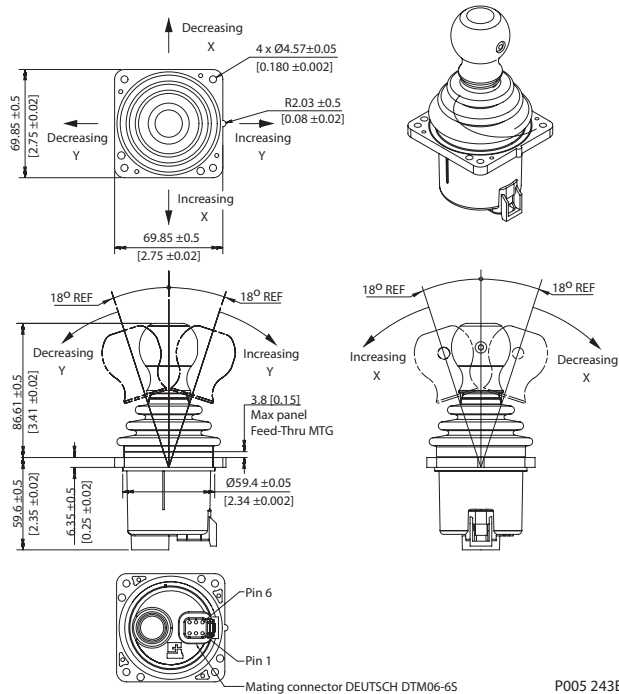
Dimensions in millimeters [inches] and connectors

PRO Grip



P005 244E

Ball Grip



P005 243E

Pin assignments

| Pin | CAN | Analog |
|-------|---------------|-----------------|
| Pin 1 | Ground | Ground |
| Pin 2 | Power | Power |
| Pin 3 | CAN high | X output signal |
| Pin 4 | CAN low | Y output signal |
| Pin 5 | CAN shield | Rocker switch |
| Pin 6 | No connection | No connection |

Electrical characteristics

| | |
|----------------------------|--|
| Sensor type | Hall effect |
| Resolution | Infinite |
| Supply voltage (Vs) | Analog output: 5 ± 0.5 Vdc CAN: 9 to 32 Vdc |
| Output | Analog: 0.5 to 4.5 Vdc nominal CAN: 2.0 B, J1939 protocol |
| Current consumption | 25 mA PRO grip = 150 mA |

Mechanical characteristics

| | |
|-----------------------------------|---------------------|
| Lever mechanical angle | ±18° on axis |
| Operating life | > 10 million cycles |
| Vibration | 7.67 Gs RMS |
| Shock | 50 Gs |
| Weight (base without grip) | 0.38 kg [0.838 lb] |

Environmental parameters

| | |
|------------------------------|--|
| Operating temperature | -40° C to +80° C [-40° F to +175° F] |
| Storage temperature | -55° C to +85° C [-67° F to +180° F] |
| Protection | Above panel ball grip: IP 67 (PRO grip IP 43 and IP 40 with proportional roller function) Below panel: IP 67 with vent plug installed |
| EMI/RFI rating | 100 V/m |

Mating connector assemblies

| Type | Danfoss part number |
|--|---------------------|
| 6 pin DEUTSCH connector bag assembly | 10101551 |
| 6 pin connector with 400 mm [15.75 in] leads | 10101557 |

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.