

## JS1000 Joystick Base

### Mobile Machine Management

The JS1000 joystick base is an element of the flexible, powerful, expandable, and affordable joystick family of mobile machine management products. Sauer-Danfoss has developed the JS1000 to meet the harsh operating requirements of today's mobile machine market. Combine the JS1000 joystick base with a standard or custom grip to configure a complete joystick solution.

### 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.

Local Address:



*JS1000, available with multiple grip configurations.*

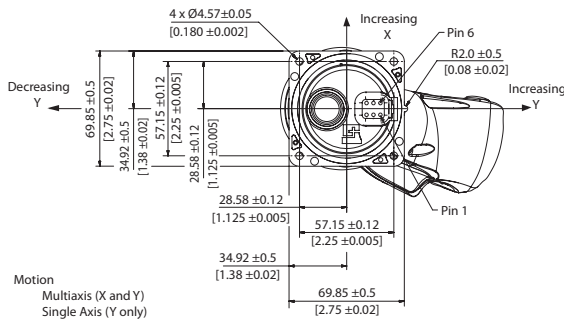
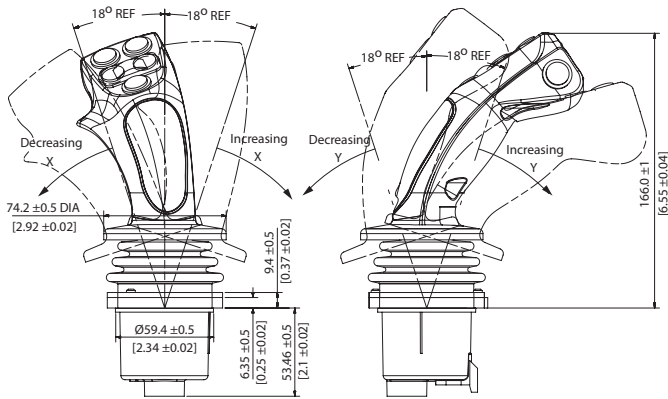
### Features and Options

- 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 Vdc
  - 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

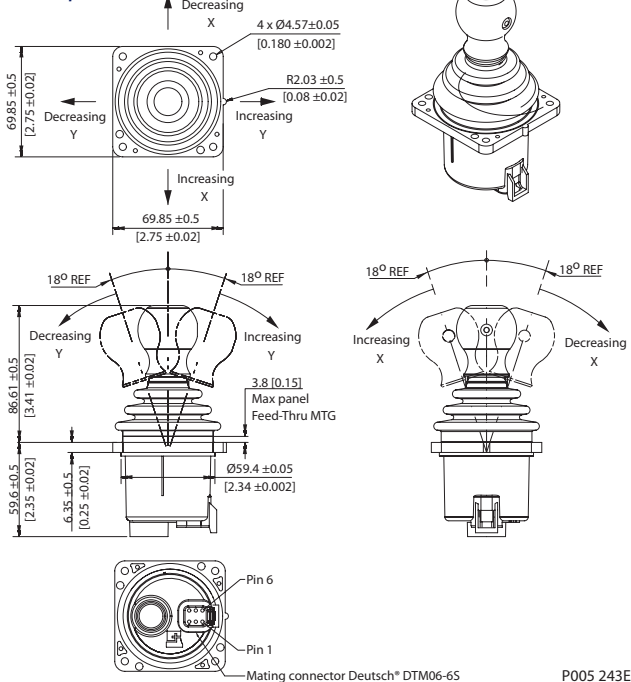
See Sauer-Danfoss publication *JS1000, JS6000 Joystick Grips Technical Information*, **520L0872** for more information.

## Dimensions and Installation Details

### PRO Grip



### Ball Grip



Grip mounting dimensions in millimeters [inches].

## Specifications

### Electrical Characteristics

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

### Mechanical Characteristics

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

### Environmental Parameters

<b>Operating temperature</b>	-40° C to +80° C [-40° F to +175° F]
<b>Storage temperature</b>	-55° C to +85° C [-67° F to +180° F]
<b>Protection</b>	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
<b>EMI/RFI rating</b>	100 V/m

### Pinout and Wiring Information

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

### Mating Connector Assemblies

Type	Sauer-Danfoss ordering number
6 pin Deutsch® connector bag assembly	10101551
6 pin connector with 400 mm [15.75 in] leads	10101557

Comprehensive technical information: *JS1000 Joystick Base Technical Information*, **520L0826**  
Sauer-Danfoss product literature is online at: [www.sauer-danfoss.com](http://www.sauer-danfoss.com)