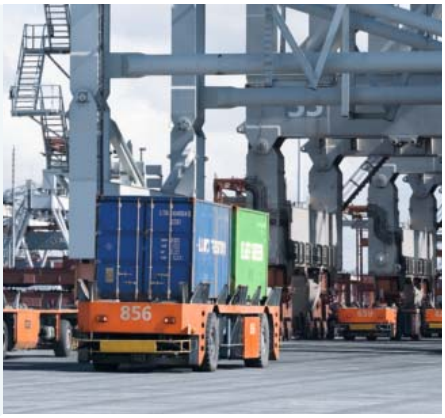
Precise inclination measurement in dynamic applications



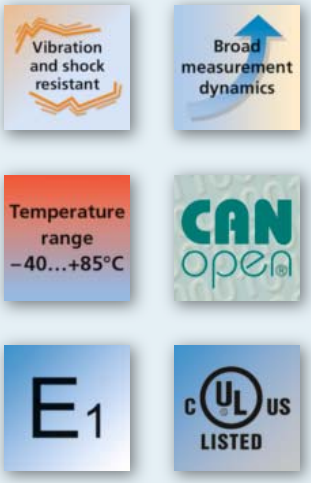
Inclination sensors

Inclination sensors with 1 and 2 axes and 6 degrees of freedom

Fast response time and high signal quality thanks to innovative sensor fusion algorithm

The raw data of the acceleration and gyro sensor provide extended functionality

High protection rating IP 68 / IP 69K for use under extreme conditions

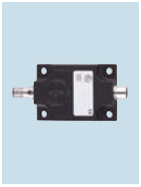


Noise-immune inclination measurement

The dynamic inclination sensors of the JD series set new standards with regard to signal quality and response characteristics. They use a 3D gyro sensor as well as a 3D acceleration sensor.
A 6-axes IMU (Inertial Measurement Unit) with intelligent sensor fusion filters determines the precise inclination values on this basis. Interference, as may for example occur in mobile applications due to vibrations, impact or starting and braking behaviour, do not falsify the measured values.

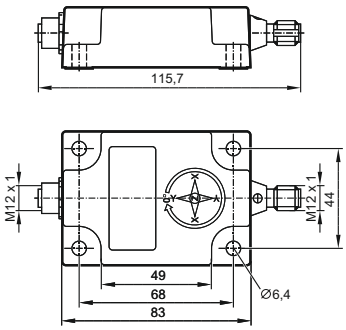
Flexible interface

The inclination sensor features a CANopen interface for the transmission of the measured values and for parameter setting. If required, an integrated terminating resistor can be activated via software.

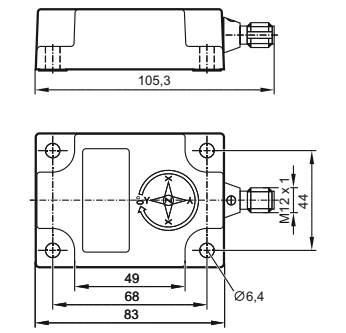
Type	Measurement axes	Angular range	Precision static	Precision dynamic	Connection	Order no.
Inclination sensors with 1 or 2 axes						
	2 (X/Y)	± 90°	0.3°	0.5°	1 x M12, 5-pole (female)	**JD2110**
	2 (X/Y)	± 90°	0.3°	0.5°	1 x M12, 5-pole (female), 1x M12, 5-pole (male)	**JD2120**
	1 (Z)	0...360°	0.3°	0.5°	1 x M12, 5-pole (female)	**JD1111**
	1 (Z)	0...360°	0.3°	0.5°	1 x M12, 5-pole (female), 1x M12, 5-pole (male)	**JD1121**

Dimensions

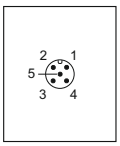
JD2120, JD1121



JD2110, JD1111

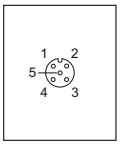


Wiring diagram



M12 connector CAN-In

1: CAN_GND
2: Supply voltage 24 V DC (+UB)
3: GND
4: CAN_H H bus cable
5: CAN_L L bus cable



M12 socket CAN-Out

1: CAN_GND
2: Supply voltage 24 V DC (+UB)
3: GND
4: CAN_H H bus cable
5: CAN_L L bus cable

Accessories

Type	Description	Order no.
	Switched-mode power supply, 24 V DC; 10 A	**DN4013**
	Plug-in power supply, connection cable with connector	**E30080**

Connection technology

Type	Description	Order no.
	Socket, M12, 5 poles 2 m, black, PUR cable	**EVM036**
	Socket, M12, 5 poles 2 m, black, PUR cable	**EVM039**
	Wirable socket, M12 connector	**E11511**
	Wirable socket, M12 connector	**E11512**