Dual-axis inclinometer ±85°, CAN J1939 output

IMA-2-085-CJ · MEMS capacitive · IP67 · 8…36 V DC



FEATURES

- MEMS capacitive inclinometer, dual axis, range ±85°
- Output: CAN SAE J1939 · resolution 0.01°
- Accuracy ±0.2° (<±15°), ±0.3° (<±30°), ±0.5° (>±30°) at 25 °C · IP67
- Supply 8…36 V DC · operating temperature −40…85 °C

WIRING

Pin 1	Supply + (8…36 V DC)
Pin 2	GND
Pin 3	CAN_H
Pin 4	CAN_L

RANGE VARIANTS – SAME HOUSING AND OUTPUT

Article	Measuring range
IMA-2-085-CJ	**±85°**

Also available with 0–5 V, 4–20 mA and RS485 Modbus output.

Need another range or a special version? Talk to an engineer: info@mekelson.com

PERFORMANCE

Measuring range	±85°
Number of axes	2
Resolution	0.01°
Accuracy at 25 °C	±0.2° (<±15°), ±0.3° (<±30°), ±0.5° (>±30°)
Temperature drift	0.01 °/°C (−40…85 °C)
Cross-axis error	< 0.1°
Long-term stability (1 year)	0.1°
Response time	0.2 s
Sensor technology	MEMS capacitive

INTERFACE

Output signal	CAN SAE J1939
Interface details	CAN 2.0B, 250 kbit/s, source address 0xC0 (default), 100 Hz refresh

ELECTRICAL

Supply voltage DC	8…36 V
Current consumption	< 30 mA
Power-on time	1 s
Insulation resistance	≥ 100 MΩ
Connection	4-wire cable, 400 mm incl. TE 282106-1 connector
Cable	4 × 0.3 mm², Ø6.0 mm, 400 mm incl. connector

MECHANICAL & AMBIENT

Housing material	Plastic
Dimensions (L × W × H)	70.5 × 45 × 15 mm
Weight	< 80 g
Mounting and zero setting	2 × M6 screws
Protection class	IP67
Operating temperature	−40…85 °C
Storage temperature	−40…85 °C
Vibration resistance	10 grms, 10…1000 Hz
Shock resistance	100 g / 11 ms, 3 axes, half-sine

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RELIABILITY & COMPLIANCE

MTBF	> 80 000 h
EMC standards	EN 61000-4-2, ISO 7637-2:2011, EN 55011

ORDERING INFORMATION

Article	IMA-2-085-CJ
Series	IMA-2-CJ – Dual-axis inclinometer, CAN J1939 output

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