

Specifications

Trimble AS450 Gravity Referenced Angle Sensor



Standard Features

- Gravity-referenced sensor, capable of 360° measurement range
- J1939 CAN industry standard interface, with function instance support
 - $\pm 180^\circ$ angle operating range (each axis)
 - Temperature stabilized output
- Mil-Spec bulkhead connector – 6 pin, rugged and sealed
 - Submersible to 20+ meters of water
- Internal power conditioning; 9-32 VDC input
 - Flash updateable firmware
- Precision locating holes for positioning and re-positioning
 - ROHS compliant

Physical Characteristics

Size:	
Height	55 mm (2.16 in.)
Width	71 mm (2.80 in.)
Length	189 mm (7.44 in.)
Weight:	0.82 kg (1.8 lbs)
Mounting holes:	9.5 mm (0.374 in.) diameter (4 holes)

Environmental Characteristics

Temperature:	
Operating	-40°C to +80°C (-40°F to +176°F)
Storage	-50°C to +85°C (-58°F to +185°F)
Humidity:	100% fully sealed
Sealing:	IP68
EMC:	
Emmissions	Compliant with CE (Exceeds ISO 13766:2006)
Susceptibility	Compliant with CE (Exceeds ISO 13766:2006)

Technical Specifications

Electrical Input Voltage	9 to 32 V DC
Current Draw (maximum)	1.2 A
Current Draw (typical)	<0.4 A
Control Interface	CAN (SAE J1939)
Reverse Voltage Protection	Yes, to -32 V DC
Load Dump Protected	Yes, compliant to ISO 7637 specifications
Short Circuit Protected:	Yes, CAN and function instance lines to power and ground

Characteristic - Angle Sensor (each axis)

Range	$\pm 180^\circ$
Resolution	0.01°
Cross-Axis Error	<4%
Output Noise	<0.1° of angle max.

Characteristic - Laser Receiver

Laser reception angle range – azimuth	n/a
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6 Pin AS450 Network Connector:

Pin -- Signal

A — SWPWR1
B — SELECT_A
C — CAN0_H
D — CAN0_L
E — SELECT_B
F — PWRGND1

Description -- Direction

Switched Power — Input
Function Instance Select "A" — Input
CAN HIGH — I/O
CAN LOW — I/O
Function Instance Select "B" — Input
Power Ground — Output

Specifications subject to change without notice.

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