

TILT SWITCH

FEATURES

- Single or Dual Axis
- Refresh Rates - 1 / 10 / 20 Hz
- Fast Response Time
- Stability over Time and Temperature range
- Environmentally Robust
- Limit Switch and Indication

APPLICATIONS

- Angle and Tilt Sensing
- Solar Tracking
- Robotics
- Platform Stabilization
- Platform Leveling
- ATM machines, Man-Lift Safety
- Safe Load Indicators, Crane Boom Angle Indicators

VEGA TSW



DESCRIPTION

ARN-TSW is a dual-axis, industrial grade accelerometer based tilt switch that can be used for static leveling and safety alarm applications. TSW is designed for industrial applications.

The TSW employs MEMS accelerometers for gravity level sensing. It uses advanced statistical filtering algorithms and digital signal processing to deliver inclination data about longitudinal (X) and lateral (Y) axis over RS232/422 ports. TSW has low noise industrial grade accelerometer with low temperature dependence which makes it an ideal choice for OEM applications. The output is available at configurable data rates. The device is suitable for solar tracking, man-lift, safety load indication, robotics, marine and other static or non-accelerating platform applications.

VEGA TSW has 2 variants, one with single relay and one with 2 relay outputs. TSW with dual relay output (Product Code: 14003), and TSW-01C with single relay output (Product Code: 14006).

TECHNICAL SPECIFICATIONS

Parameter Name	Parameter Value
	VEGA
	TSW
Performance	
Measurement Range	±60° (pitch) ±180° (roll)
Resolution	0.01°
Accuracy ¹	±0.5° (1σ) (static)
Update Rate ²	1 Hz, 10 Hz, 20 Hz
Roll Angle Limit ²	±2° (default)
Pitch Angle Limit ²	±5° (default)
Electrical	
Power Supply	+9 to +28 VDC
Current Consumption	< 200 mA
Interfaces	RS232, RS485
Protocols	ASCII, MODBUS RTU
Baud Rate	9600, 19200, 38400, 57600, 115200
Environmental	
Shock Survival ³	20 g
Environmental Sealing	IP65
Operating Temperature	-40°C to +85°C
Mechanical	
Size	125 mm (L) X 80 mm (W) x 57 mm (H)
Weight	520 gms
Casing Material	Aluminum

1 - TSW - Calibrated over the entire temperature range

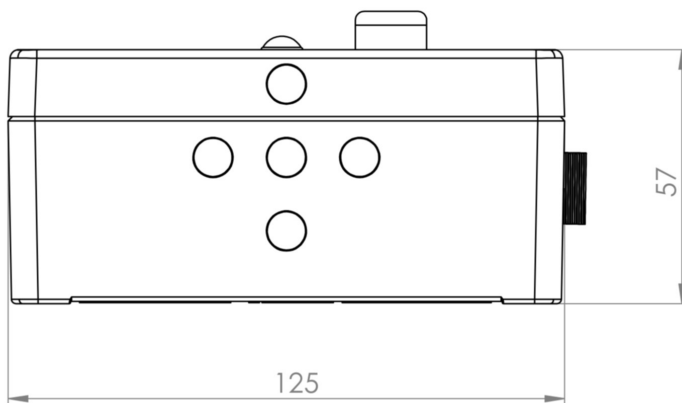
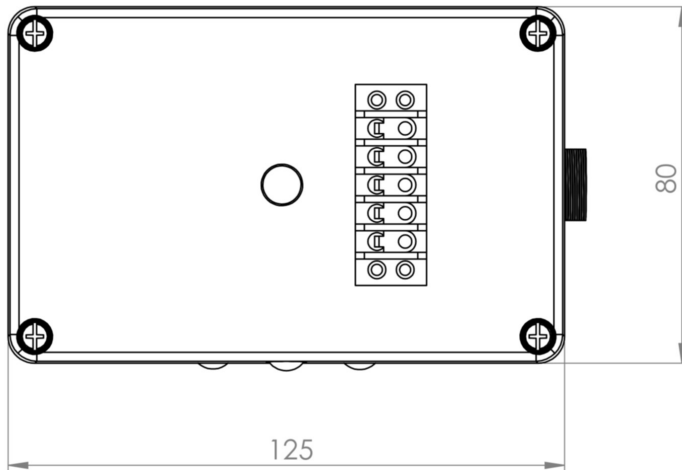
2 - Configurable

3 - Acceleration due to gravity

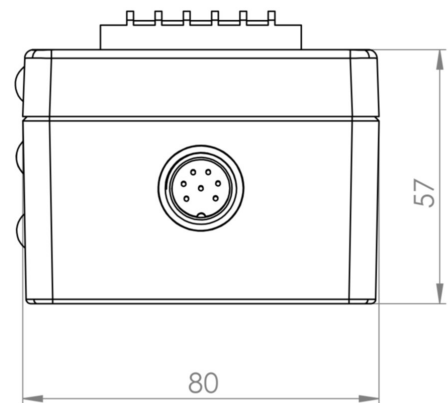
MECHANICAL DIMENSIONS

All dimensions in mm

Top View



Side View



Front View

ORDERING INFORMATION

VEGA-TSW (Dual Relay Variant- Product Code: 14003)

VEGA-TSW-01C (Single Relay Variant- Product Code: 14006)