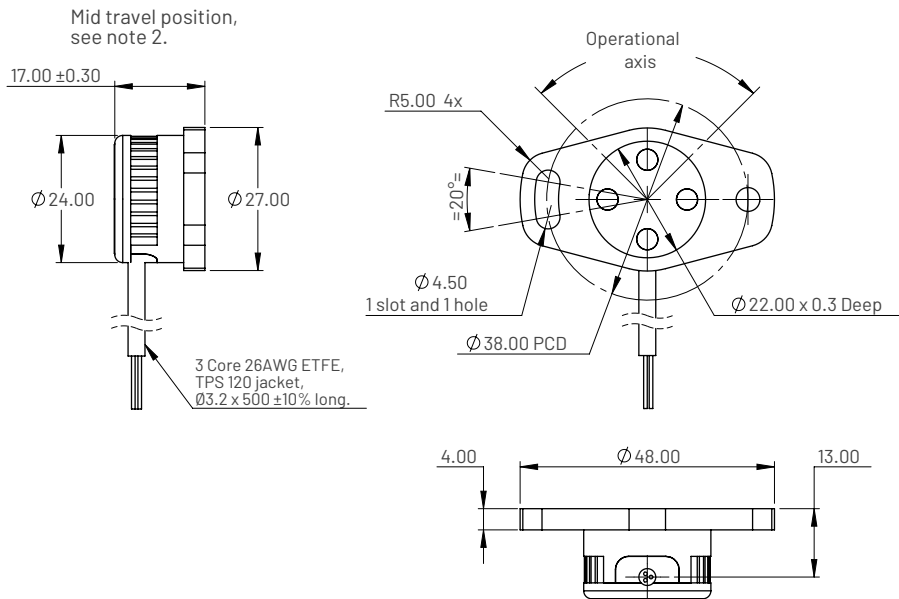


MHT5100 Series - Tilt sensor / Inclinometer

General-purpose

Dimensions



Electrical and mechanical specification

Parameters	Values	Units
Input specification		
Supply voltage (Vs)	6 to +30 unregulated	VDC
Over voltage protection	Up to 60	VDC
Supply current	<20	mA
Reverse polarity protection	Up to -60	VDC
Power on settlement time	<500	ms
Output specification		
Output type	Analogue voltage	
Voltage output (Vout)	10 - 90% Vs	0.5 - 4.5 VDC
Line regulation	<0.01	%FS
Load resistance	>10K	Ohms
Output noise	<2	mV RMS
Performance specification		
Measurement range	20°	%FS
	(±10°)	
Resolution	40°	%measurement
	(±20°)	
Non-linearity (see note 4)	60°	%FS
	(±30°)	
Temperature coefficient (Vout)	120°	%FS/°C
	(±60°)	
Bandwidth (-3db)	180°	Hz
	(±90°)	
Cross axis sensitivity	240°	Max
	(±120°)	
General specification		
Weight (approx.)	20.0	grams
Protection/sealing	IP68 and IP69K	
Operational temperature	See de-rating graph	°C
Storage temperature	-30 to +125	°C
Shock	1 metre on to concrete (Max 20,000g)	
Materials	Housing: GF Polymer	
Max torque screw setting (M4 with washer)	1.8	Nm

Europe
Active Sensors Ltd,
Unit 12, Wilverley Road,
Christchurch, Dorset,
BH23 3RU, UK

North America
Active Sensors Inc,
8520 Allison Pointe Blvd, Suite 220,
Indianapolis,
IN 46250, USA

Ordering code

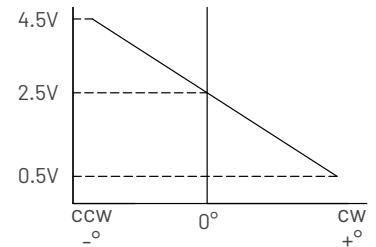
MHT5100-AV-XXX

Voltage output
Total tilt angle in degrees

Electrical connections (see note 1)

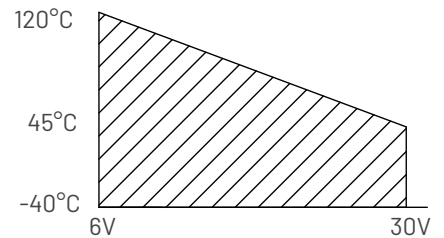
Wire Colour	Function
Red	Supply Voltage (Vs)
White	Output Voltage (Vout)
Black	Ground

Typical output when viewed on top with slot on right



Input voltage de-rating graph

Input volts vs temperature



Notes

1. Incorrect wiring may cause internal damage.
2. When cable exit facing down as shown, instrument is mid travel.
3. Non-linearity is calculated from least squares best fit method over the linear range.
4. General dimension tolerance is ±0.25mm.