

SERIE TST1x - inclinometer

The TST series inclinometer which developed by DPF is a small volume MEMS dual-axis tilt sensor, because of built-in the latest MEMS production technology inclination unit, small size, long distance transmission can up to over 2000 Meters, strong ability of resisting external electromagnet interference, can be adapted to long-term working in the industry harsh environment.

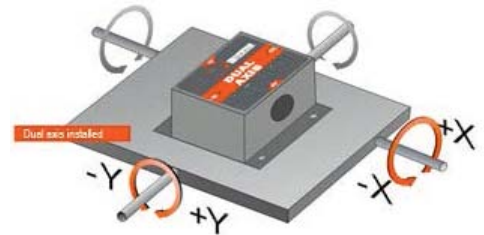
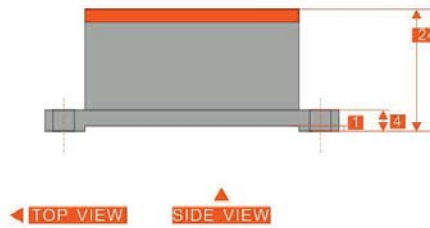
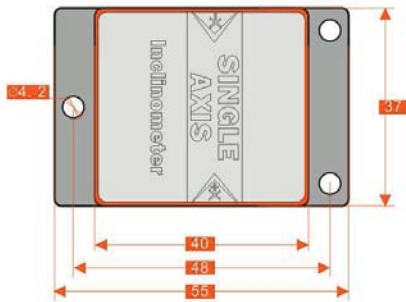
This product adopts the non-contact measuring principle, can real-time output the current attitude angle, simple to use, no need to find the relative variation of the two surface for mounting. It is a ideal choice for Industrial automation control and platform measuring attitude !



	TST-1x/10/x	TST-1x/30/x	TST-1x/60/x	TST-1x/90/x	UNIT
Measuring rang	±10	±30	±60	±90	°
Measuring axis	1 - 2	1 - 2	1 - 2	1 - 2	
Resolution	0,05	0,05	0,05	0,05	°
Absolute accuracy	0,1	0,1	0,15	0,2	°
Zero temp. coefficient -40 ~ 85°	±0.008	±0.008	±0.008	±0.008	°/C
Sensitivity Temp. coeff -40 ~ 85°	=150	=150	=150	=150	ppm/?
Response time	0.05	0.05	0.05	0.05	Seg.
Output	Output mode RS232/RS485/TTL 0...5 Vcc / 4...20 mA				
Power supply	9...36 Vdc				
Working temperature	-40...+85				°/C
Store temperature	-50...+85				°/C
Electromagnetic compatibility	According to EN61000 and GB17626				
MTBF	=45000 hours/times				
Insulation Resistance	=100M				
Shockproof	100g@11ms、3Times/Axis(half sinusold))				
Anti-vibration	10grms、10~1000Hz				
Protection class	IP67				
Cables	Standard 1M length、wearproof、grease proofing、widetemperature、Shielded cables4*0.4mm2				
Weight	90g(without cable)				



mechanical characteristics

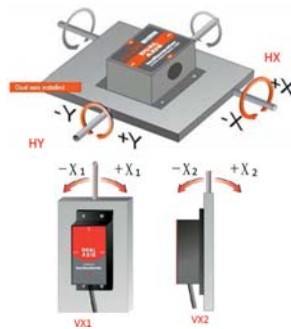


Enclosure material : Aluminum Oxide
Installation : 4*M3 screws

Angle output calculation formula

Angle=(Output current - Zero position current)÷Angle sensitivity
Angle sensitivity=output current range÷ Angle measuring range
E.g : TST-12/30/A (±30° Measuring range 16mA output current range)
Angle sensitivity= 16÷60=0.266666 mA/°

assembly 1 axis



* IN CASE THE ASSEMBLY IS (H), DEFINE THE AXIS TO CONTROL, "HY" OR "HX"

* IN CASE THE ASSEMBLY IS (V), DEFINE THE AXIS TO CONTROL, "VX1" OR "VX2"

Ordering information:

TST-1	AXIS	SIGNAL	INST.	-XX	X
	1: SINGLE AXIS	6: DIGITAL	Hx	10 (±10°)	A1 (4...20 MA)
	2: DUAL AXIS	8: CURRENT	Vx	30 (±30°)	V1 (0...5 VDC)
		0: VOLTAGE	Only 1 axis	60 (±60°)	232 (RS232)
				90 (±90°)	485 (RS485)
				180 (±180°)	C2 (CAN 2.0B)
				OTHER	C1 (CAN 2.0A)

E.g : TST12-8-VX1-30-A1, Dual-axis/current/±30°Measuring range/4-20mA output current



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