

High accuracy bi-axial Inclinometer



Description

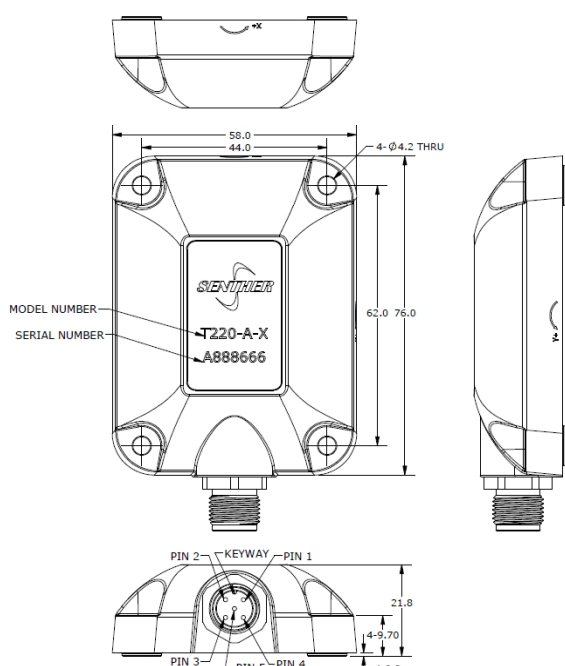
The model T220 dual axis inclinometer achieves high accuracy over a wide temperature range. The fast microcontroller works with a linearization and temperature compensation routines. This full calibrated inclinometer is available with digital output and analog output signals. T220 is mainly developed for wide application of platform leveling, tower monitoring, tip-over protection and tilt alarm. Fast response time and good accuracy makes this device the ideal choice for mobile leveling applications. It features digital signal processing including temperature compensation. The integrated filter improves performance and allows using the sensor in many noisy environments (e.g. vibrations). It is possible to adjust the sensor by different environments for yielding an optimized performance. Customization can be made in terms of angular range, cable and connector. The robust anodized aluminum housing is compatible with oil, grease and fuel. Therefore it is suitable to apply at outdoor and rough industrial field.

Features

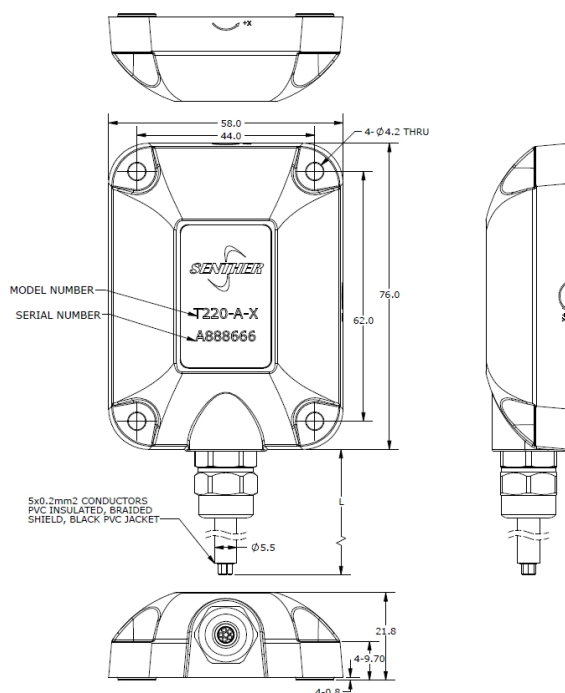
- High resolution
- Wide measuring range
- Wide supply voltage range
- Single or Dual axial
- Low supply current
- Harsh environment

Application

- Horizontal alignment
- Geological detection
- Automotive measurement
- High building monitoring
- Drilling machines



Connector version



Integrated cable version

Specification

Typical at +24°C (+75°F), 12Vdc excitation and <1Hz, unless otherwise stated.

PERFORMANCE	STANDARD	UNITS
MEASUREMENT RANGE	±5/10/15/30/45/60/90	°
MEASUREMET ACCURACY (-20°C TO +60°C)	±0.05@-30°~30° ±0.15@-80°~80° ±0.50@-90°~90°	°
THERMAL ZERO SHIFT, -40°C TO +85°C	0.0011	°/°C
RESOLUTION	0.01	°
BANDWIDTH	2/5/10/50/100, DEFAULT 10	Hz
REFRESH RATE	200 MAX	Hz
NON-LINEARITY	±0.03	°
VOLTAGE SFO	0.5 – 4.5	V
CURRENT SFO	4 - 20	mA
REPEATABILITY	±0.02	°
SHOCK LIMIT	1000	g

ENVIROMENTAL	STANDARD	UNITS
SUPPLY VOLTAGE	9 to 36	Vdc
CASE INSULATION (@100Vdc)	>100	MΩ
WARM UP TIME	<100	mSEC
OPERATION TEMERATURE	-40 to +85	°C
EMC	EN61000/GBT17626	
PROTECTION	IP67	
CASE MATERIAL	AI ALLOY ANODIZED BLACK	
CONNECTOR(IF APPLICABLE)	M12X1.0, 5-PINS SOCKET	
MTBF	10	YEARS
WEIGHT (EXCLUDING CABLE)	<200	Gram

OUTPUT INTERFACE CODE X





ITEM	A	B	B1	C	C1	D	E	F
	RS232	RS485	RS485	CAN	CAN OPEN	SWITCH ALARM	VOLTAGE	CURRENT
PIN 1	POWER+	POWER+	POWER+	POWER+	POWER+	POWER+	POWER+	POWER+
PIN 2	POWER GND	POWER GND	POWER GND	POWER GND	POWER GND	POWER/SIGNAL GND	POWER GND	POWER GND
PIN 3	TXD	RS485-A	RS485-A	CAN-H	CAN-H	CONTROL POWER +	Vx	Ix
PIN 4	RXD	RS485-B	RS485-B	CAN-L	CAN-L	X AXIS ALARM	Vy	Iy
PIN 5	SIGNAL GND	SIGNAL GND	SIGNAL GND	SIGNAL GND	SIGNAL GND	Y AXIS ALARM	SIGNAL GND	SIGNAL GND
COMMUNICATION PROTOCOL	MODBUS	MODBUS	CUSTOM	CUSTOM	CAN OPEN	/	/	/

Accessories

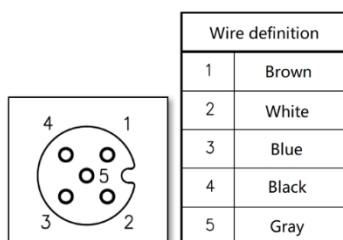
Calibration certificate included.

Part Number	Description	Availability
PM0195	M4x16 hex head mounting screw	4pcs Included
18T-10	10 meters mating cable with M12-5pins connector	Optional
IN-3062	8 channels data acquisition system	Optional

Measurement configuration

Sensor	Mating cable(if applicable)	Data acquisition	Computer
			

18T-L Mating Cable:



Ordering information

T220	-	15	-	B	-	5
Model	-	Range	-	Output interface	-	Cable length(if applicable)
T220	-	5=±5° 10=±10° 15=±15° 30=±30° 45=±45° 60=±60° 90=±90°	-	A= RS232 B= RS485 B1= RS485 Customize C= CAN C1=CAN open D= Switch alarm E= Voltage F= Current	-	1=1 meter 5=5 meters Blank=connector version