

Inclinometer STS-102-xxx



- Sensors for tilt measuring
 - One axis
- Ranges from $\pm 5^\circ$ to $\pm 70^\circ$
 - Universal dual output (U & I) or RS485 (SIP / Modbus RTU)
- High accuracy
 - High resolution capability
- IP67 protection
 - Micromachined technology

Specification

Nonlinearity in F.R.*	.....max 0,3%
Resolution in F.R.*	.....min 0,03%
Hysteresis in F.R.*	.....max 0,05%
Response time*	.....< 1 s
Cross-axis sensitivity*	.....max 1% up to F.R.
Operating temperature	.....-40~70°C
Storage temperature	.....-45~90°C
Temperature error in range 0~40°C	.....max 300 ppm / °C
Temperature error in range -40~80°C	.....max 500 ppm / °C
Output loading (U output)	.....min 50 kOhm
Output loading (I output)	.....max 200 Ohm***
Digital output	..... RS485 (SIP and Modbus RTU protocols)
Protection	.....IP67
Power supply voltage (UI output)	..... 12~30 VDC
Power supply voltage (RS485)	..... 7~30 VDC
Power consumption	.....< 30 mA
Constant acceleration resistance	.....50g (max)
Shock acceleration resistance	.....500g/0,5msec (max)
Vibration resistance	.....20g RMS (max)
Input Axis Misalignment**	.....max 0.5% from F.R.
Weight (without cable)	.....max. 60 g.

* For temperature $20 \pm 4^\circ\text{C}$
 ** Relative to the base of the inclinometer
 *** Max. loading is dependent of power voltage

Order information

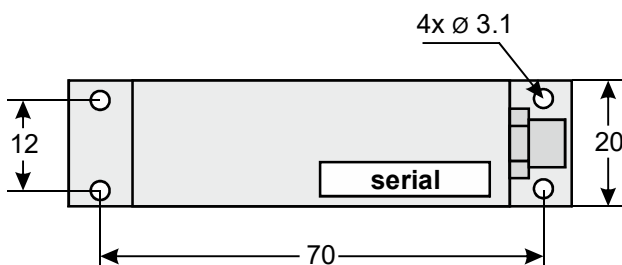
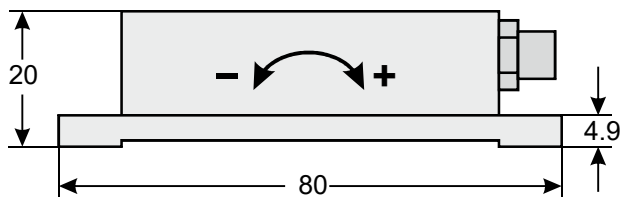
STS-102-1-**XXX** -**X** -**X**

Full range of tilt measuring (F.R.)					
10	$\pm 5^\circ$	50	$\pm 25^\circ$	90	$\pm 45^\circ$
20	$\pm 10^\circ$	60	$\pm 30^\circ$	100	$\pm 50^\circ$
30	$\pm 15^\circ$	70	$\pm 35^\circ$	120	$\pm 60^\circ$
40	$\pm 20^\circ$	80	$\pm 40^\circ$	140	$\pm 70^\circ$

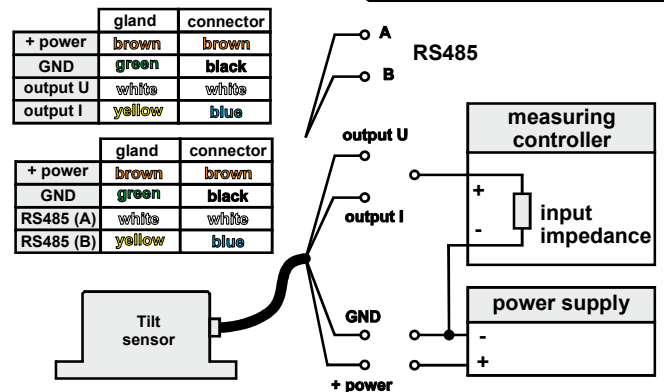
Outputs	
UI1	0~10V / 4~20mA
UI2	0~10V / 0~20mA
UI3	0~5V / 4~20mA
UI4	0~5V / 0~20mA
RS485	RS485

Cable connection	
2	Connection with cable gland (option 1)
4	Connection with cable connector (option 2)

Dimension



Connection circuit



Output vs. tilt

