

SST900 Levelmeter



Vigor Technology

SST900 Levelmeter

Features

- WiFi radio range up to 200m
- Both Wi-Fi +485/422
- Built-in lithium battery
- Measurement accuracy $\pm 1''$
- Resolution 0.05"
- Offset $\leq \pm 5''$,
- Absolute linear error $\leq \pm 1.0''$



Descriptions

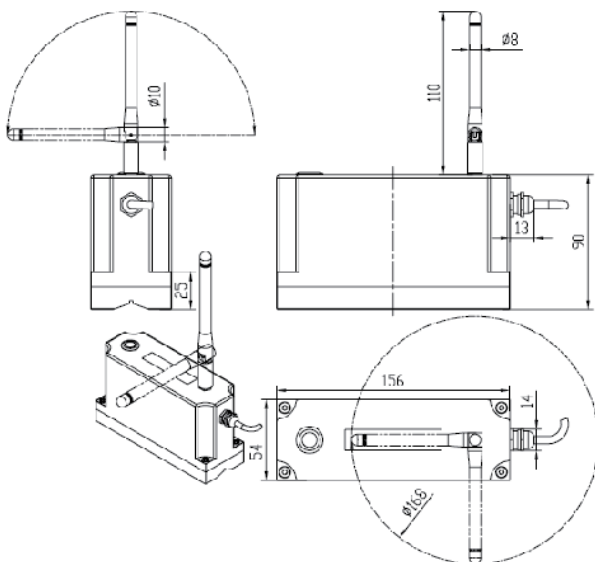
SST900 levelmeter based on servo accelerometer principle, core sensitive devices resolution up to $0.1\mu g$, frequency response 10 Hz, SNR is more than 120dB. The highest accuracy reach to $\pm 1.0''$.

Do not like as other levelmeter only to check null position which need very long warming time and large cross-axis sensitivity, SST900 has rapid starting-time(less than 3min.), less than 0.1%FS cross-axis sensitivity as well as less than 2mrad misalignment, it can keep the same accuracy on any angle point. SST900 is flexible to local and remote inspection with LCD indicator or Wi-Fi interface. The featured iAngle mobile software can be runned on Apple® iPad/iPhone® device or other mobile terminal devices

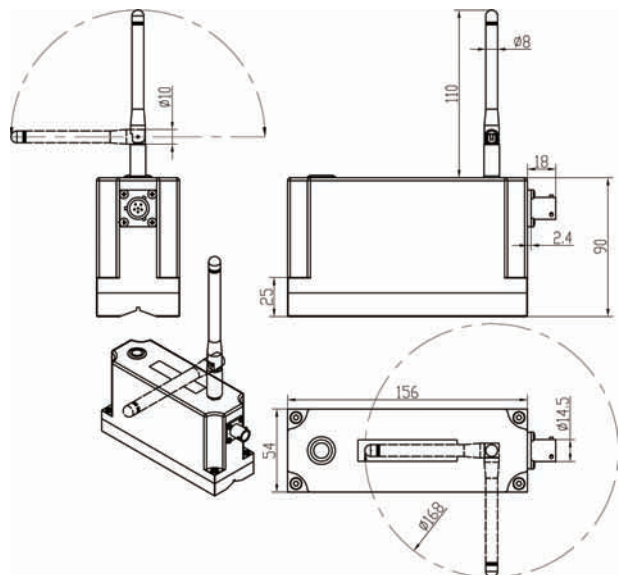
Applications

Aerospace, Automotive parts, Civil engineering, Hardware tools, Railway, Medical, Machining, Precision instruments, Installation, Research and education, Shipbuilding, etc.

Dimensions (mm)



Picture 1 Pigtail connector (with Wi-Fi)



Picture 2 MIL class connector (with Wi-Fi)

SST20

SST30

SST100

SST200

SST300

SST400

SST500

SST800

SST810

SST820

SST830

SSG100

SSG200

SST900

Performances

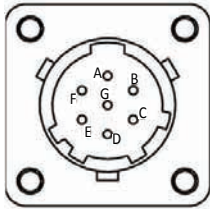
Table 1 Specifications

Measurement range	±0.5°	±1°	±5°	±10°	±15°
Combined absolute accuracy [®] (@25°C)	±1"	±3"	±5"	±10"	±10"
Resolution	±0.05"	0.1"	0.2"	0.5"	0.5"
Measurement axis	1 or 2 axis				
Null repeatability	±1.0"	±1.0"	±2.0"	±3.6"	±3.6"
Null stability	±5"				
Offset	±5"				
Offset temperature drift coefficient(max.)	±1"/°C	±3"/°C	±5"/°C	±5"/°C	±10"/°C
Sensitivity temperature drift coefficient(max.)	50 ppm/°C				
Cross-axis sensitivity	±0.1%FS				
Input-axis misalignment	≤2mrad.				
Response time	0.3~1.0s				
Cold start warming time	≥3.0min				
Output	RS232/485/422, refresh rate5Hz (default); Form: 9600bps, 8 data bits, 1Start bit, 1Stop bit, No Parity, ASCII Wi-Fi, TCP/IP protocol				
EMC	According to EN 61000				
MTBF	≥5000 h/times				
Power supply	External power supply: 9~36VDC Built-in power: 12V lithium battery				
Consumption	External power ≤80mA@24VDC Built-in power: sustainable 8 hours(When Wi-Fi running, maybe shorten)				
Shock	100g@11ms, three-axis, half-sine				
Vibration	3grms,20~2000Hz, random				
Housing	6061-T6 aluminum alloy shell, 316 stainless steel base				
Connecting	Military-class connector or metal pigtail , 2m standard 7-wire cable, heavy duty to 30kg				
Protection	IP65				
Operation temp. range	-20~70°C				
Storage temp.range	-40~85°C				
Weight	2.5kg				
Size	154X54X90mm(without connector and cable)				
Temperature sensor(built-in)	Range: -50~125, Accuracy: ±1°C				

Table 2 Wi-Fi Specifications

WLAN protocol	IEEE 802.11b/g, Wi-Fi compatible
Radio channel	802.11b: USA, Canada and Taiwan – 11 Most European Countries – 13 France – 4, Japan – 14 802.11g: USA and Canada – 11 Most European Countries – 13
Modulation	DSSS, OFDM, DBPSK, DQPSK, CCK, 16-QAM, 64-QAM
Band	2.4G ISM
Transmission power	15dBm +/-1.5dBm
Receiving sensitivity	802.11b: -91dBm 802.11g: -85dBm
Antenna interface	IPEX antenna connector
Transmission rate	802.11b: 1, 2, 5.5, 11Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps
Wireless network co-existence	Cell phone(GSM/DCS/WCDMA/UMTS/3G) co-existence
WLAN setting up	Support AP & Ad-Hoc
Encryption	Support WEP40 and WEP104 encryption (64/128 bit). Support OSI & Shared key model WPA/WPA2 PSK, AES and TKIP
MAC	CSMA/CA, with ACK
Recovery	<3s (WEP encryption), 6s (WPA encryption)
Other functions	Wi-Fi automatically recovery after dis-connection speed max 60kb/s(send & receive), 90kb/s(send or receive) Support TCP/UDP Support TCP Server/Client/ UDP As TCP server, allows 3 clients connection Flexible configuration: HTML or PC software

Wiring

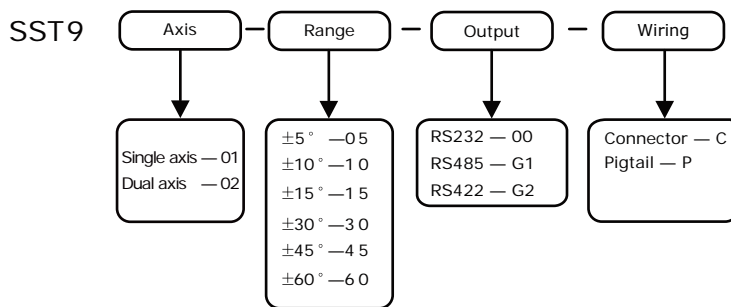


Picture 2 MIL connector socket (View from outside)

Table 3 Pin definition

Pin	Function (1 axis or 2 axis , include LCD display)			
	RS232	RS485	RS422	Wi-Fi
A	Power +	Power +	Power +	Power +
B	Power GND	Power GND	Power GND	Power GND
C	Signal GND	Signal GND	Signal GND	Signal GND
D	NC	NC	RS422-RXD+	NC
E	NC	NC	RS422-RXD-	NC
F	RS232—TXD	RS485-A	RS422-TXD+	RS232—TXD
G	RS232—RXD	RS485-B	RS422-TXD-	RS232—RXD

Ordering



Options

Table 4 Options

Item	P/N	Option name	Function
Software	SST003-04-10-01 (Based on iPhone)	iAngle mobile apps software	Radio range reach 200m iPhone/iPad application Tilt data inspect & settings: zero, range, sampling rate, filter coefficient, etc. Functions: alarm, graph, compass chart, bubble chart Sampling rate: 20time/sec
	SST003-04-10-02 (Based on iPad)		

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Shanghai Vigor Technology Development Co., Ltd.

No.289-4, Bisheng Road, Pudong New District Shanghai China 201204

Hotline. +86-400-0505-021

Tel. +86-21-5840-4921

Fax. +86-21-5835-4552

Email: sales@vigordigital.com

Web: www.vigordigital.com