

**Ultrasonic
Open Channel
Flow Meter
SF-500S**

SONDAR™



■ Product Description

SF-500S is an ultrasonic non-contacting flow meter for open channels. The measured level value is converted into the rate of flow in specific weirs or flumes therefore the accurate level value is very important.

LXD-04 is an exclusive sensor for open channel flow, it provides accurate level reading.

SF-500S provides a variety of weirs and flumes formulations so it can be used in different applications. The measured flow information is saved in the memory of SF-500S and it can be downloaded by USB or transmitted by the digital communication such as RS232, RS485 or Modbus.



■ Specification

Controller	SF-500S
Measurement	Ultrasonic non-contacting
Measurement Range	0.00m ³ /h~200,000.00m ³ /h
Accuracy	0.2% of F.S
Resolution	1mm
Damping Rate	0.1m/min ~ 100m/min adjustable
Data Logging Period	Maximum 672 days (1hr interval)
Output	• Two 4~20mA analog outputs into max 750Ω • 3 Relays • RS232, RS485, Modbus
Display	Illuminated Graphic LCD
IP Rating	IP65
Temperature	-20℃~60℃ (-4°F~140°F)
Material	Polycarbonate
Dimension	166(W)×250(H)×95(D) mm
Weight	ca. 2kg
Power Supply	• 100~230V AC±15%, 50/60Hz, 29VA(12W) • Fuse: 250V T1.0A • DC 9~30V, Max 8W

Sensor	LXD-04
Range	0.3~4m (0.98~13ft)
Beam Angle	8°at -3dB
Process Connection	1" PF
Weight	ca. 1.0kg
Material	PVDF
Temperature	-30℃~70℃ (-22°F~158°F)
Temperature Compensation	Built-in temperature sensor
IP Rating	IP68
Cable	2 Core Shield (AWG18)

Certificate	CE, UL, FCC
Warranty	3 years

* The specification is subject to change without notice.

■ Features

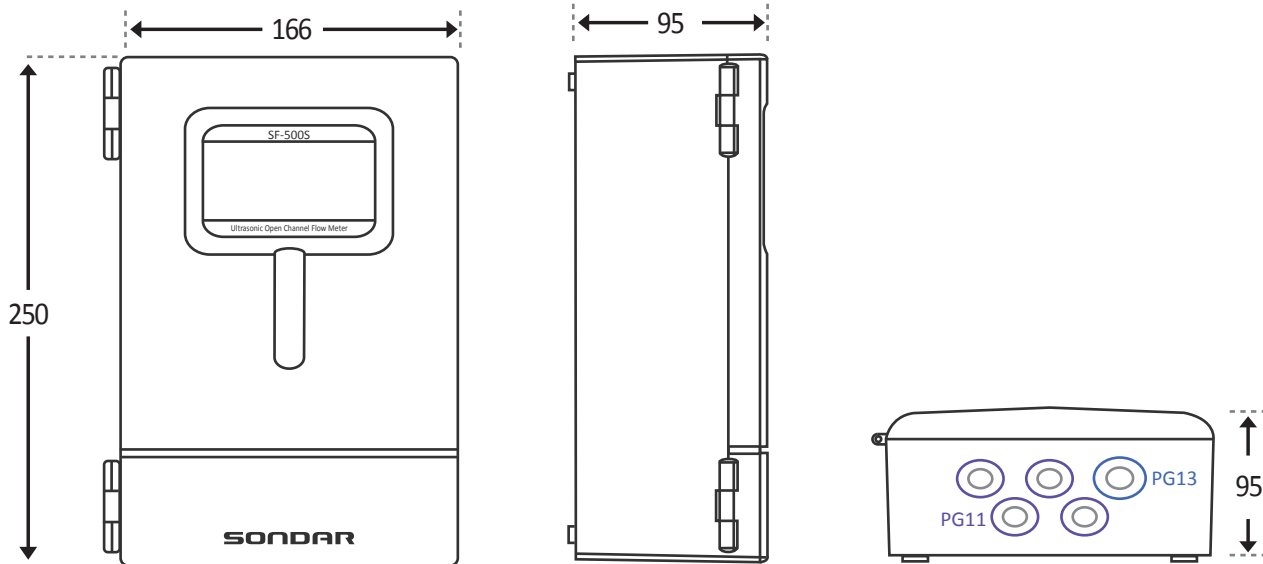
- Exclusive Sensor for the open channel
- User Friendly Menu
- Error instruction Guide by QR Code scanning
- RS232, RS485, Modbus
- USB Data Downloading
- USB Firmware Upgrading
- Data Logging for long time period
- Various Flumes and Weirs Formulations
 - 1) Parshall Flumes
 - 2) Suppressed Rectangular Weirs
 - 3) Contracted Rectangular Weirs
 - 4) V-Notch [Triangular] Weirs
 - 5) Cipolletti Weirs
 - 6) Leopold Lagco Flumes
 - 7) Palmer Bowls Flumes
 - 8) H Flumes
 - 9) Trapezoidal Flumes

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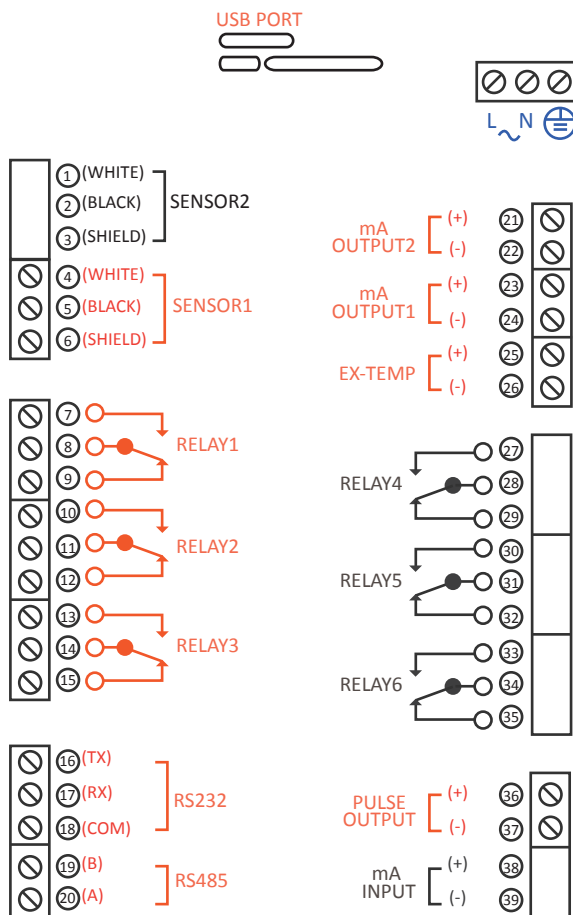
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Dimension

[unti: mm]



Wiring



* Unused terminal block displays by gray texts.

Ordering Code

SF-500S Ordering Code

Sensor Selection

1 LXD-04,1xSENSOR

Power Supply

A AC 100 to 230V (Standard)
B DC 9 to 30V

Communication

N none
A RS232 (Standard)
B RS485
C RS232 on Mod-bus
D RS485 on Mod-bus

Relay

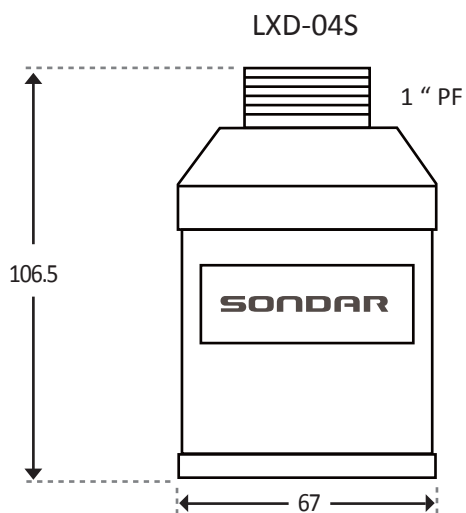
3 3x Relay

SF500S-

Ultrasonic
Open Channel
Flow Sensor
LXD-04

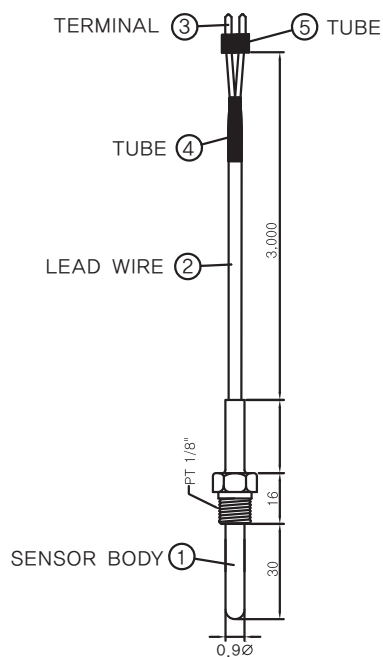
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■ Dimension



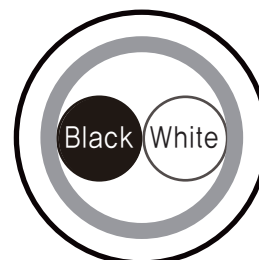
[unit: mm]

■ External Temperature Sensor



[unit: mm]

■ Sensor Cable



18AWG x 2Core with Shield

■ Ordering Code

LXD-04 Sensor Ordering Code

Measurement Range

04 4m

Sensor Material

P PVDF

Sensor Cable Length

1 1m
5 5m
10 10m
20 20m
30 30m
T* Tailor-made

External Temperature Sensor

A Thermometer

Accessory-Flange

N none
1 80A
2 100A
3 150A
4 200A
T* Tailor-made

Accessory-Flange Standard

D DIN
A ANSI
J JIS

Accessory-Extension Pipe

N none
T* Tailor-made

LXD

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T* Specify the exact size.