

The AiRanger SPL provides accurate, reliable level monitoring in a single vessel up to 60m (200 ft.). This versatile unit is suitable for bulk solids and liquids applications.

The system consists of an AiRanger SPL monitor linked to a non-contacting ultrasonic transducer that can be mounted up to 365 m (1200 ft.) away. The SPL will measure distance, level or volume, and it features patented Sonic Intelligence® software for superior reliability. Readings are displayed in user-selectable linear engineering units on the backlit LCD.

An on-board communications port automatically configures for RS-232, RS-485 or bi-polar current loop. The SPL will connect to a DCS or PLC using Milltronics SmartLinX® interface modules, giving you remote 2-way communication and full parameter access. Modules for popular industrial buses can be factory installed or added later to meet changing needs. No external gateway is required, reducing hardware and cabling costs.



Product Features

- Single point, long-range level monitoring
- Easy to install and easy to program using removable infrared keypad
- Non-contacting technology is low maintenance
- Backlit LCD display with reading in standard engineering units
- Automatic level-to-volume conversion for standard or custom tank shapes
- Dolphin Plus and SmartLinX® compatible

Technical Specifications

Power

- 100/115/200/230 Vac ±15%, 50/60 Hz, 31 VA

Environmental

- location: indoor/outdoor
- altitude: 2000 m max.
- ambient temperature: -20 to 50°C (-5 to 122°F)
- relative humidity: suitable for outdoor (Type 4X/NEMA 4X/IP65 enclosure)
- installation category: II
- pollution degree: 4

Scan Points

- 1 point per AiRanger SPL max.

Range

- level measurement: 0.3 to 60 m (1 to 200 ft.) max.

Accuracy

- 0.25% of range or 6 mm (0.24"), whichever is greater

Resolution

- 0.1% of program range* or 2 mm (0.08"), whichever is greater

Memory

- EEPROM (non-volatile) no back-up battery required

Programming

- via removable programmer or optional Dolphin Plus

Display

- 51 x 127 mm (2 x 5") custom graphics backlit LCD

Enclosure

- Type 4X/NEMA 4X/IP65, polycarbonate

Temperature Compensation

- -50 to 150°C (-58 to 302°F)
- integral transducer sensor
- TS-3 temperature sensor
- programmable fixed temperature

Temperature Error

- with compensation: 0.09% of range
- fixed temperature: 0.17%/°C deviation from programmed temperature

Communications

- RS-232/485 port

Outputs

Transducer drive

- 150 to 315 V peak (transducer model dependent)

Relays:

- 4 alarm/control relays
- 1 form 'C' SPDT contact per relay, rated 5 A at 250 Vac, non-inductive

mA

- 1 output max., 0.1% resolution, 0/4 to 20 mA, scalable, 750 Ω max. load, isolated, 30V rms

Transducer

- compatible models: ST-H and Echomax® models XPS-10/10F, XPS-15/15F, XPS-30, XPS-40, XCT-8, XCT-12, XRS-5, XKS-6, XLT-30, XLS-60 and XLT-60

Cable

- co-axial to be RG62-A/U low capacitance
- signal to be 2-3 copper conductors, twisted, with foil shield, drain wire, 300V 0.5 – 0.75 mm² (22 – 18 AWG)
- relay/power to be copper conductors per local requirements to meet 250V 5A contact rating

Weight

- 2.7 kg (6 lbs.)

Options

Temperature Sensor

- TS-3

Communications

- SmartLinX: protocol specific modules for interface with popular industrial communication systems
- Dolphin Plus: Milltronics Windows® - compatible interface and infrared ComVerter link
- BIC-II: SPL bi-polar communication current loop to remote RS-232 or RS-422 port

Approvals

- CE**, CSA NRTL/C FM (Pending)

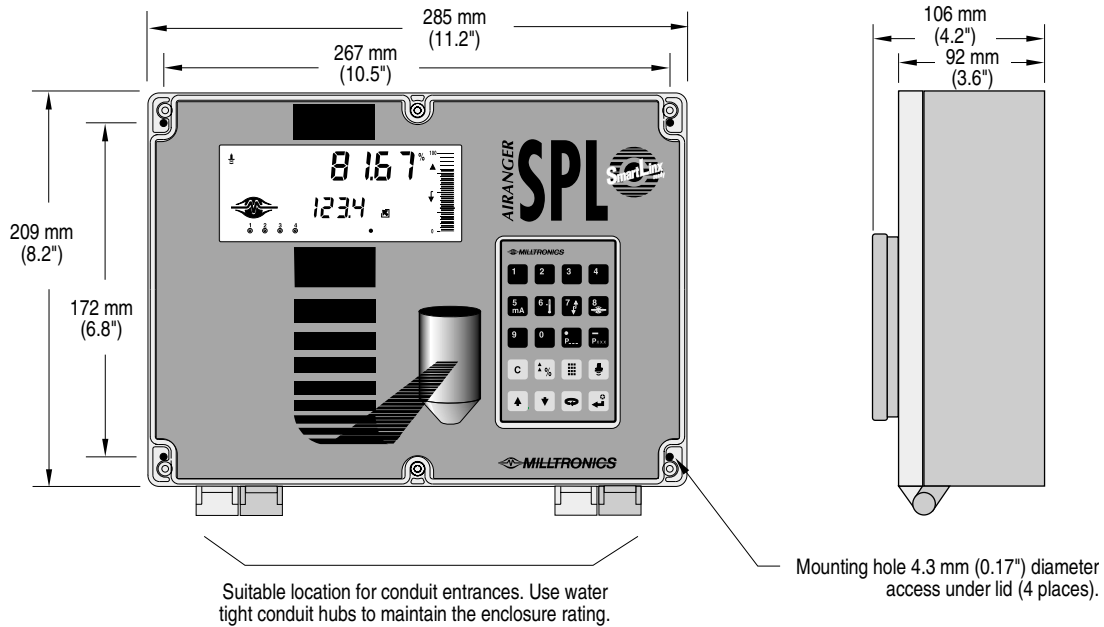
* Program range is defined as the empty distance to the face of the transducer (P006) plus any range extension (P801).

** EMC performance available upon request.

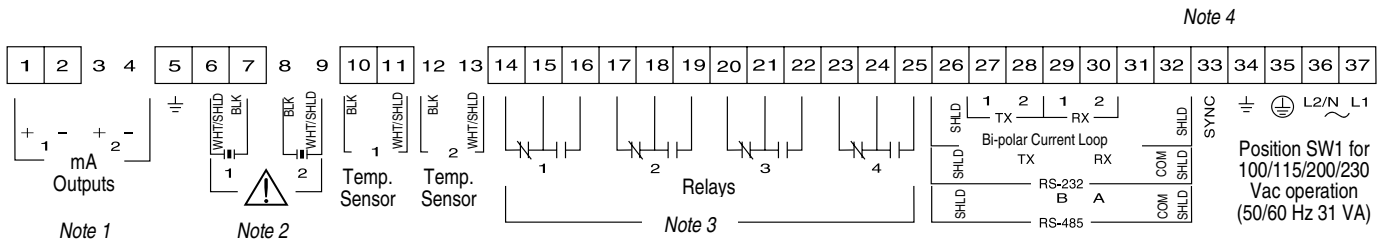
Specifications are subject to change without notice.

AiRanger SPL

Dimensions



Wiring



Notes

1. Optically isolated, 750Ω max. load
2. Use RG-62 A/U coaxial (or equivalent) for extensions up to 365 m (1200 ft.). Run in grounded metal conduit, separate from other wiring.
3. Each relay has 1 set of form 'C' (SPDT) contacts, relay rated at 5A 250 Vac, non-inductive, when equal or lower rated limiting fuses are installed.
4. Required if mounted adjacent to other AiRanger SPL units or other specified Milltronics devices. Interconnect all 'SYNC' terminals with a single 18 gauge (0.5mm²) wire.



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