

The DPL Plus offers accurate, reliable two-point measurement with a single monitor. It will scan liquids, solids or a combination of both in one or two vessels of different size, shape and configuration up to 60 m (200 ft.).

The system uses ultrasonic technology to measure level, space, distance, volume or average/differential. It features patented Sonic Intelligence® software for superior reliability. Transducers can be mounted up to 365 m (1200 ft.) from the monitor. Readings are displayed in user-selectable linear engineering units on the backlit LCD.

It features an onboard communications port that automatically configures for RS-232, RS-485 or bi-polar current loop. It 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

- Non-contacting technology is low maintenance
- Easy to install; easy to program with removable infrared keypad
- Backlit LCD display with reading in standard engineering units
- Automatic level-to-volume conversion for standard or custom tank shapes

Technical Specifications

Power

- 100/115/200/230 Vac \pm 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

- 2 points per AiRanger DPL Plus max., frequency independent

Range

- level measurement: 0.3 to 60 m (1 to 200 ft.) max.
- tripper car: 1.2 to 120 m (4 to 400 ft.)

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

- 2 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: DPL Plus bi-polar communication current loop to remote RS-232 or RS-422 port

Approvals

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

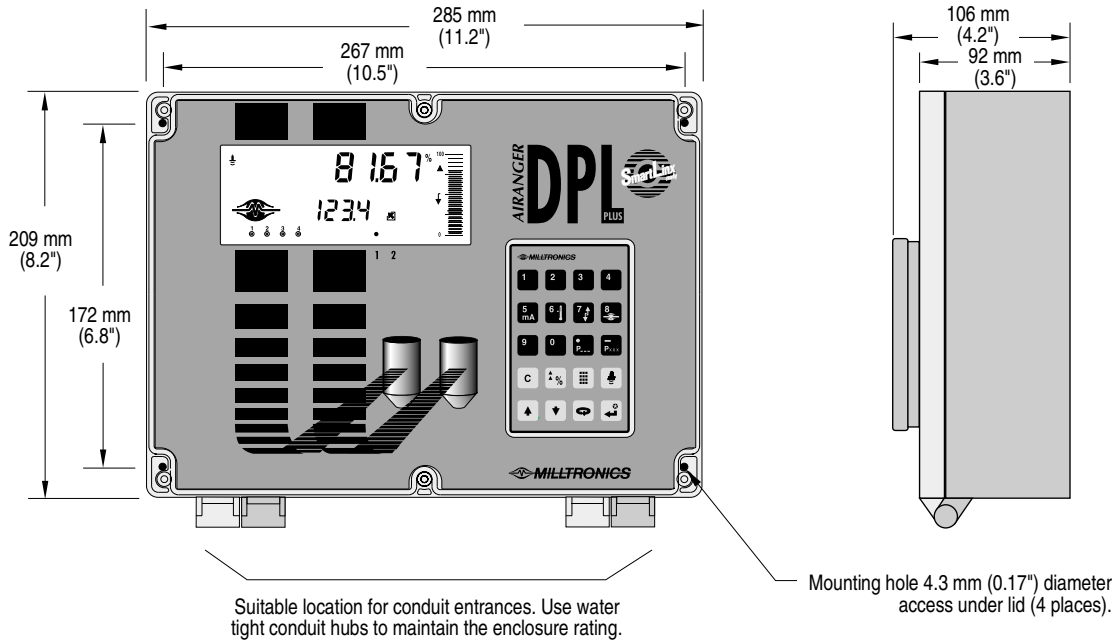
* Program range is defined as the empty distance to the face of the transducer (P006) plus any range extension (P801).

** EMC performance available upon request.

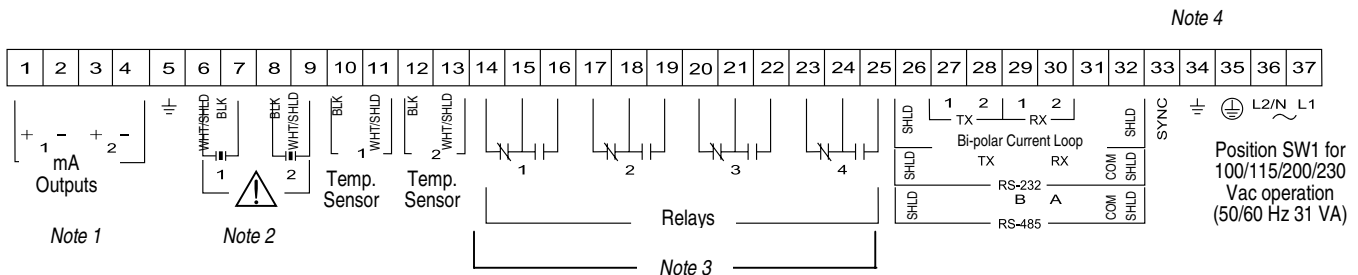
Specifications are subject to change without notice.

AiRanger DPL Plus

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 manufacture rated at 5A 250 Vac, non-inductive, when equal or lower rated limiting fuses are installed.
4. Required if mounted adjacent to other AiRanger DPL units or other specified Milltronics devices. Interconnect all 'SYNC' terminals with a single 18 gauge (0.5 mm²) wire.



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