ultra Twin

twin-channel ultrasonic level/volume monitoring, pump control and open channel flow measurement

Any combination of:

- Level & volume monitoring
- Sophisticated pump control
- OCM flow measurement to BS3680

PULSAR
Process Measurement

Pulsar *ultra* Twin

Flexibility is the keyword for the *ultra* Twin dual-channel ultrasonic system from Pulsar. Each channel is user-configurable to operate either as a full function open channel flow monitor calculating flow rate to BS3680, a pump control system or as a level and volume monitoring unit for liquids or solids, calculating volumes and providing alarms. *ultra* Twin is compatible with the full range of Pulsar's dB transducers, from the ultra-high resolution dBMACH 3 to the powerful 40m range dB40. Six relays configurable to either channel provide a wealth of alarm and control options.

Pulsar *ultra* Twin - Level/volume Measurement

Use the **Level/volume** Measurement setting and *ultra* Twin gives you everything you would get from the Pulsar Level Star. *ultra* Twin in Level/volume mode will calculate volumes based on a wide variety of standard tank shapes and is equally at home measuring liquids and solids, using Pulsar's world-leading DATEM (Digital Adaptive Tracking of Echo Movement) echo analysis system. For more details of the full range of Level Star capabilities please see Pulsar's Level Star literature.

Pulsar *ultra* Twin - Open Channel Flow Measurement

When you select the Open Channel Flow option, you are getting the full power of the Pulsar Flow Oracle, chosen by Europe's waste water companies and process industries to measure open channel flow within effluent treatment processes. On-board totalisation, pulsed output and, when teamed with the ultra-high resolution dBMACH 3 transducer, outstanding accuracy too. For more details on open channel flow applications please see the Flow Oracle literature.

Pulsar *ultra* Twin - Pump Control

In pump control configuration, *ultra* Twin provides all the power of the Pulsar Vantage 100, which is used throughout the global water industry for critical pump control applications. Extremely reliable level monitoring even in the most difficult applications, *ultra* Twin also provides a wide range of sophisticated pump control routines to keep the application running perfectly. *ultra* Twin also includes four digital inputs, making it possible to monitor the performance of other equipment, for example a no-flow signal from a pump can trigger an alarm without the need for a PLC. Pulsar's Vantage and Zenith literature has more info.

Pulsar *ultra* Twin -Data Logging/Digital Communications

Optionally, a powerful data logging solution can be added to the *ultra* Twin system. With the factory addition of an extra board, level and flow information is recorded and "date stamped" at user defined intervals to build up a complete picture of the changing situation on site. Information may be stored for up to a year, and easily downloaded to a computer through a standard RJ11 (computer/telephone) connection. The data logging solution offers Pulsar's Elephant Ultra software package, which records and charts data and trends in an easily accessible form. See technical update sheet TU003L

ultra Twin may also be upgraded to include RS485 communications, operating the Modbus or Profibus protocols. More information on both of these upgrades is available on request.

Specification

Physical	Dimensions: 240mm x 184 x 118, Weight: 1Kg nominal, Box Material: Polycarbonate, IP rating: IP65, Max separation (to transducer): 1000m (twin screened cable), Temperature range: -20 to +60ºC.
Performance	Accuracy: greater of 0.25% of range or 6mm, Resolution: up to ±1mm dependent on transducer, Range: from 70mm to 40m dependent on transducer, Echo processing: patented DATEM
Inputs:	4 digital inputs, normally open or normally closed with 24V dc supply
Outputs	Analogue: Isolated 4-20mA / 0-20mA into 500Ω **per channel**, Relays: 6 form C (SPDT) 5A 240V, Digital: full duplex RS232 via RJ11 port.
Power	**115V ac** +5% -10% 50/60Hz, **230V ac** +5% -10% 50-60Hz, **dc 10-36V**

Represented by:

Certificate No: 950136

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