

IMP+ (by Pulsar)

Self-contained, ultrasonic level measurement without compromise.

The IMP series is a range of compact, low-profile, self-contained units with the benefit of digital echo processing.

There is an IMP unit to suit your application. 3 m (9.8 ft), 6 m (19.7 ft), and 10 m (32.8 ft) range versions are available and each can be wired for 2 wire or 3 wire operation. The IMP+ features an LCD display and digital temperature measurement and compensation with 2 relay outputs as standard.

Where Can I Use the IMP+?

The IMP+ can be used wherever you need a reliable, non-contacting level measurement, and digital echo processing means IMP+ is perfect for solids or liquids it can be installed in sumps, tanks, silos, or anywhere you need a display telling you the level, or analog output to interface with your site control system or drive a display.

Battery Power

When used on battery power for intermittent (wake-up) applications, the IMP+ features a high-speed boot up of around circa 3 seconds which maximizes battery life. For example, if an IMP were switched on every 15 minutes for a 3-second reading, the average current is a mere 40µA.

System Integration

Active and passive (sourcing and sinking) analog outputs assist with system integration, especially when retrofitting into older installations.



THE RIGHT METER FOR

- Tank Level Applications
- Chemical Dosing
- Simple Level Indication
- Open & Closed Vessel Level Requirements
- Solids Level Indication

Simple to Install

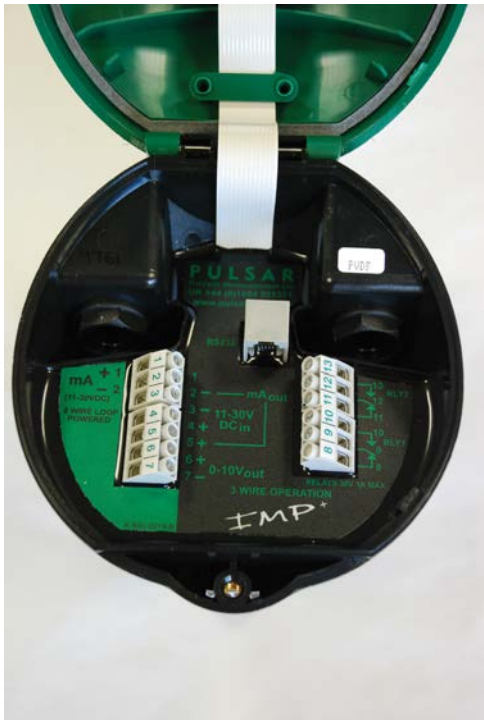
The compact IMP+ is only 175 mm (6 in) high with a 130 mm (5.1 in) diameter. Cable glands are provided and IMP+ can be simply screwed into a 1.5" or 2" universal fitting (a 1.5" or 2" adapter is available). High transducer power and tight beam angles, together with Pulsar Measurement's digital echo processing, makes IMP+ ideal for many "difficult" applications such as dusty or foamy environments, or where a tank has unavoidable intrusions.

The integral display makes programming IMP+ extremely straightforward. IMP+ can be completely set up, without compromising the IP rating, using the integral keypad alone with no need for a PC. Optional IMP PC software makes it easy to fine-tune IMP's performance and "clone" any number of IMP units to the same settings if, for example, they are being used on a tank farm.

IMP+ PC Software

IMP PC is optional software that extends the capabilities of the IMP+ and allows a user to:

- **Download, analyze, and store echo profiles.** A great way to see exactly what is happening in the application. Fine-tuning for ultimate performance.
- **Set Up IMP+.** All programming parameters are instantly visible in the IMP PC programming screens. Program the IMP unit on a desktop before installation, or clone several IMPs to save valuable time.
- **Updates.** Future-proof your IMP+! Pulsar Measurement's policy of continual improvement means that we never stop developing our products. IMP PC allows new firmware to be installed into your IMP units, without even removing them from the application.
- **Flow Measurement.** A flow curve may be added within IMP PC to configure for simple level to flow linearization.



Inside of an IMP+



Optional IMP mounting bracket.

Technical Specifications

PHYSICAL

Controller Body Dimensions:	186 mm H x 133 mm D (5.2 in x 7.3 in)
Weight:	Nominal 1 kg (2.2 lb)
Cable Entry Detail:	2 off cable glands 4.5 mm to 10 mm (Torque to 2NM)
Mounting:	1.5 in BSP/NPT (IMP3 & IMP6), 2 in BSP/NPT (IMP10)

ENVIRONMENTAL

IP Rating:	IP67
Temp. Range (Process):	-40 °C to +80 °C (-40 °F to +176 °F)
Temp. Range (Ambient):	-20 °C to +65 °C (-4 °F to +149 °F)

IMP3

Beam Angle (-3dB Half Power):	<10° inclusive
Operating Frequency:	125 kHz
Measurement Range:	200 mm to 3 m (7.9 in to 9.8 ft)

IMP6

Beam Angle (-3dB Half Power):	<10° inclusive
Operating Frequency:	75 kHz
Measurement Range:	300 mm to 6 m (11.8 in to 19.7 ft)

IMP10

Beam Angle (-3dB Half Power):	<10° inclusive
Operating Frequency:	41 kHz
Measurement Range:	300 mm to 10 m (11.8 in to 32.8 ft)

APPROVALS

CE Approval:	Listed in the Certificate of Conformity within the manual
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PERFORMANCE

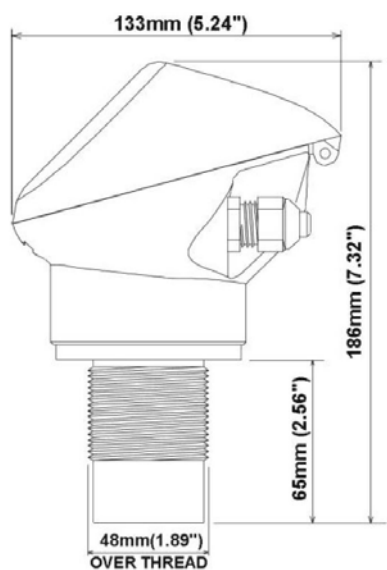
Input Voltage:	11-30 V, 3.5-22mA
Accuracy:	±0.25% or 6 mm (0.2 in), whichever is greater
Resolution:	± 0.1% or 2 mm (0.08 in), whichever is greater
4-20mA Outputs:	Resolution 5 µA, both active and passive outputs
Temperature Compensation:	Via internal temperature sensor (±0.5 °C (32.9 °F) accuracy). Level and volume conversion are installed allowing linearization for tank shapes
PC Interface-PC Suite:	All parameters can be accessed and changed through PC Suite software. Echo traces may be viewed on-screen.

2 WIRE CONFIGURATION FEATURES

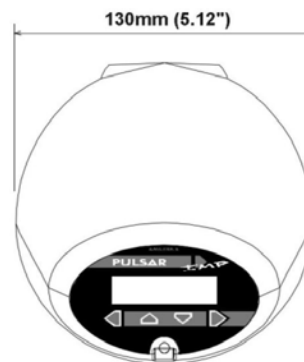
- RS232 (RJ11 port) connection for diagnostics and software updates
- 4 Digit LCD display
- 4 button keypad for parameter entry
- Power consumption: 3.5-22mA
- Passive 4-20mA output

3 WIRE CONFIGURATION FEATURES

- All 2-wire version features plus:
- Backlit LCD display
- 0-10 V analog output
- 2 relays: single pole two way, 1A 30 V DC/AC
- Power consumption with relays energised <60 mA (less 12 mA/relay not energised)
- Active and passive 4-20mA outputs



IMP drawing side



IMP drawing top

UFM_DS_IMP_EN_25_REV5.0

Official Pulsar distributor:


www.u-f-m.com