

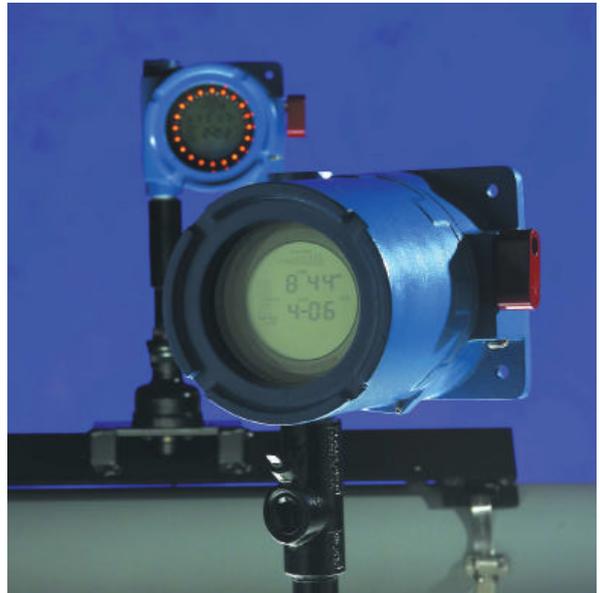


UNI-SIG NON-INTRUSIVE PIG SIGNALLER

The Uni-Sig Non-Intrusive Pig Signaller makes pig detection incredibly easy. Easy to install and easy to read – the Remote indication System lets you see passage LEDs up to 100 meters away. The Uni-Sig Non-Intrusive Pig Signaller is completely nonintrusive and easily bands to the outside of pipelines from 2" to 60". Since the Uni-Sig Non-Intrusive Pig Signaller is non-intrusive corrosion problems are avoided and installation can take place without hot-tapping or interrupting the flow of the system.

Once installed the Uni-Sig Non-Intrusive Pig Signaller immediately begins scanning for both transmitter and permanent magnet equipped pig passages, and displays times and dates along with a "Recent Passage" message. A simple scroll through the Uni-Sig Non-Intrusive Pig Signaller memory reveals the last ten passages' times and dates.

The Uni-Sig Non-Intrusive Pig Signaller operates for a full year on just two standard D-cell alkaline batteries or can be connected to an existing 24VDC power.



With the Uni-Sig Non-Intrusive Pig Signaller you can:

- ? Install it quickly and easily by simply banding it to pipelines from 6" to 60" with wall thicknesses of up to 1.5".
- ? Detect both transmitter and permanent magnet equipped pipeline pigs.
- ? Install anywhere on a system without paying extra for explosion rated location due to the unit's fully certified explosion-proof housing (with tempered glass window).
- ? Install either above or below ground.
- ? Retrieve the unit's ten most recent pig passage times and dates
- ? Install just two D-cell alkaline batteries for a full year's operation
- ? Utilize the suspend option which allows the system to be moved to different locations on your pipeline

The Uni-Sig Non-Intrusive Pig Signaller detects pig passages with both permanent magnets and transmitters. Each method has distinctive advantages:

Magnets:

- ? Small, powerful and inexpensive
- ? No batteries required

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Transmitters:

- ? Magnetic field emitted is readily detectable by the Uni-Sig Non-Intrusive Pig Signaller
- ? Stuck pigs can be found by starting at the last Uni-Sig Non-Intrusive Pig Signaller location it was known to have passed and walking the pipeline downstream using a location and tracking product

The Uni-Sig Non-Intrusive Pig Signaller User Interface

- ? Simple and easy to read
- ? Able to quickly convey large amounts of information
- ? Display automatically cycles every seven seconds between showing most recent pig passage's time and date and actual real time

The Recent Passage segment in the display's lower portion flashes once a second when the pig passage occurs – the flashing remains in effect for one hour after the pig passage. After an hour, it switches to constant-on mode. So you can approach the unit and know quickly and easily how recent a pig passage has been:

- ? Blinking means the passage was within the last hour.
- ? If not blinking, the most recent passage occurred within the last 12 hours, but more than an hour ago

The Uni-Sig Non-Intrusive Pig Signaller's user interface offers many more easy-to-use features including being able to scroll through the data of the last ten pig passages with just the push of a button.

Key Features:

- ? Simple to install no adjusting of sensitivity.
- ? Automatic set-up at power on Microprocessor controlled and uses Dynamic Tracking.
- ? Straps onto pipe.
- ? Battery or cable operation.
- ? Volt free output can switch up to 220 VAC @ 0.5 amps NO & NC volt free contacts.
- ? Parked & passing detection.
- ? Sealed to IP67 (non EX version & non Sub-sea version).
- ? Can be used on all pipelines up to 42-inch diameter & 52 mm wall carbon steel pipes.
- ? Wide operating supply voltage 4.5 to 30 VDC (cable versions).
- ? Accessories available.

Accessories:

Wireless radio link with interface to all types of PLC with Smart technology to ensure valid communications are maintained. This technology can be used in battery operated mode and line powered modes and is available in 4 ranges: 50 metres, 100 metres, 300 metres & 1000 metres (inbuilding ranges) to suite virtually all applications. GSM communicator to send data to remote locations, SMS and SCADA interface. CANBUS, RS422, RS232 & USB interface modules also available. Mechanical pig passage manual resettable flag unit. Bluetooth enabled and fully compatible with all Bluetooth enabled systems.

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Electrical Specification:

DESCRIPTION

	MIN	TYP	MAX	UNIT
OPERATING VOLTAGE (internal battery)				3 VDC
OPERATING TEMPERATURE RANGE (standard detector)		20	20	85 °C
DETECTION DISTANCE WITH 1000G MAGNET SOURCE				100 CM
PIG SPEED DETECTION LIMITS		0	100	mtr/sec
MOUNTING ORIENTATION AROUND PIPELINE	0		360	Degrees
VOLT FREE OUTPUT CONTACT:			240	VAC
OUTPUT SWITCHING CURRENT:			0.5	AMPS
DETECTION TO OUTPUT RESPONSE TIME (rto)	0.1	0.5	0.8	ms
AV CURRENT CONSUMPTION IN BATT MODE			256	µA
INDICATOR LED OUTPUT INTENSITY (BLUE LED)			750	mcd

Mechanical Flag Option

Where the flag option is selected over the LED indicator, the flag unit is retro fitted to the top of the detector case and incorporates no electrical components. The flag once triggered can be pressed down to reset it for another pig passage.

ELECTRICAL CONNECTION FOR CABLE VERSION

Customer specified options apply.

SUB-SEA VERSION

A maximum depth of 2000 metres can be obtained from this detector, the recommended depth for long term use is 1000 metres. All units will be pressure tested for 24 hours prior to dispatch, the electrical connector can be customer specified if necessary. Extended depth can be obtained on request.

EX CERTIFIED UNITS

Detectors can be certified to EX zone 1, an additional charge is made for this.

USE WITH PIG SONDES (Signal generators)

The APD1 can be used with most pig sondes at 20 Hz sine/square wave, however, because digital filtering is used in the APD1 and some manufacturer sondes are not frequency stable or signal symmetrical. It is advised that PE Sondes be used with PE detectors since these are also digital signal generators with crystal frequency control to 1 PPM accuracy and will provide a much higher reliability and extended battery life. See our data sheet APDPS for technical details.

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RELIABILITY

The APD1 is probably the only pig detector currently available that is CE tested to the low voltage directive and is thus probably the only legal unit available on the market at a low price. Testing on a continuous cyclic hot-cold has clocked up in excess of 3000 continuous hours until the release of this data sheet and will continue to be tested until failure occurs we could have a long wait!

EXTENDED TEMPERATURE RANGES

PE can manufacture APD1 detectors to military specification temperature range from -55°C to $+125^{\circ}\text{C}$ an additional charge is made for this version.

CUSTOMISED HOUSINGS

PE is happy to use a customer specified housing, contact us to discuss this.

DELIVERY

We hold a stock of fully populated & tested circuit boards but we do not always have complete finished units on the shelf due to type variations. Normal delivery would be next day in UK but where special versions are required allow up to 14 days for delivery.

WARRANTY

All standard detectors are guaranteed for 24 months new for old replacement on all detectors where no usage abuse or mishandling has taken place. Sub-sea and extended temperature versions are guaranteed for 12 months. Your statutory rights are not affected. See our terms and conditions for details.

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