

ID5001P Ultrasonic (Acoustic) Pig Signaller



The ID5001 (Passive) is a fully ATEX and IECEx certified non-intrusive pig signaller which quickly and accurately detects, signals and logs the passage of pigs at critical points along a pipeline both onshore and offshore.

Key Benefits

- Removes any uncertainty over confirmation of pig passage.
- Suitable for all pig types - no transmitters are required to confirm passage.
- Quick and easy installation using ratchet strap or stainless steel banding.
- Suitable for gas and liquid pipelines.
- Main housing can be mounted remotely for use on buried pipelines or where access is limited.
- Seamlessly integrate with your control systems using RS485 MODBUS RTU bi-directional communications to receive notifications, pig passage information, and configure the signaller.
- Dedicated software provides real-time monitoring and instant readings facilitating debugging and testing and offering a deeper understanding of the theory of operation.

Interested in hearing more about this, or other applications?
Contact our IK Trax specialists at:

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The ID5001P monitors the acoustic emissions created by the vibrational and acoustic noise generated as a pig moves through a pipeline. The unit then processes the emissions to identify the signature of a passing pig. Events are signalled as they occur via a graphical display and high brightness LEDs positioned around the perimeter of the display. The unit logs the time and date of up to 99 events. Logged events can be viewed locally on the display or transmitted remotely over several optional interfaces. The user can turn the unit ON and OFF as well as modify several settings using the single control button and intuitive menu system.

The ID5001P has two basic parts - the main housing and sensor. The sensor is permanently connected to the main housing via a cable and can be quickly and easily attached to the pipeline using ratchet straps or steel banding. The main housing contains all electronics, display and the control button and can be mounted on the pipeline using a mounting plate or mounted on a wall or post.

PRODUCT SPECIFICATION

Battery Type (Alkaline)	7x Alkaline DURACELL ID1300 cells
Battery Type (Lithium)	7x Lithium SAFT LS33500 cells
Typical Battery Life	15 days (Alkaline) 30 days (Lithium)
External Supply	24.0VDC <2.0W
Entries	3x M20x1.5
Enclosure Temperature Range (Alkaline)	-20°C to +54°C (-4°F to +130°F)
Enclosure Temperature Range (Lithium)	-40°C to +85°C (-40°F to +185°F)
Enclosure Temperature Range (External Supply)	-40°C to +85°C (-40°F to +185°F)
Sensor Temperature Range	-55°C to +110°C (-67°F to +230°F)
Maximum Pipeline Surface Temperature	+150° (+302°F) <small>Note 1</small>
Typical Minimum Pig Speed	0.1m/s <small>Note 2</small>

MATERIALS & DIMENSIONS

Housing Material	Aluminium or 316L Stainless Steel
Length (including mounting plate)	240mm (9.4")
Width (including mounting plate)	192mm (7.6")
Height (including mounting plate)	174mm (6.9")
Weight in Aluminium	8kg (17.6lbs)
Weight in 316L Stainless Steel	13kg (28.7lbs)
Cable Length	5 metre (16ft) or 10 metre (32ft)

CERTIFICATION

ATEX/UKEX/IECEX Code	Ex ia/db [ia Ga] IIC T4...T6 Ga/Gb
EU Type Examination Cert No	TRAC 13 ATEX 0008 X
UKEX Cert No	EMA 22 UKEX0006 X
IECEX Cert No	IECEX TRC 13.0006 X
Ingress Protection (Enclosure)	IP66
Ingress Protection (Sensor)	IP68

STANDARD OUTPUTS

DPDT Relay (Volt Free Contacts)	2A @ 30VDC
Current Loop	4-20mA <small>Note 3</small>
Serial Data Interface	RS485 MODBUS RTU

Note 1 Maximum allowable pipeline surface temperature depends on ambient air temperature and mounting configuration. Only the sensor may be mounted on the pipeline

Note 2 Minimum pig speed depends on pig type, pipeline configuration and installation position

Note 3 Current loop levels are configurable between 4mA and 20mA. Default set state 20.0mA. Default reset state 4.0mA. Tolerance between ± 1.0mA.

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