



ID5002P NON-INTRUSIVE ULTRASONIC SGNALLER

The ID5002P (Passive) is a fully ATEX and IECEx certified, Exia intrinsically safe, non-intrusive, pig signaller which detects, signals, and logs the passage of pigs at critical points along a pipeline both on land and offshore.

Key benefits:

- Use of the ID5002P can result in both time and cost savings during pigging operations.
- Removes any uncertainty over confirmation of pig passage.
- Quick and easy installation using ratchet straps or stainless steel banding.
- Suitable for all pig types - no transmitters or magnets are required to confirm passage or location in the receiver.
- Suitable for gas and liquid pipelines.
- Main housing can be mounted remotely for use on buried pipelines or where access is limited.

The ID5002P 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.


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Events are signalled as they occur via an LCD graphical display and high brightness LEDs. The unit logs the date and time 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 ID5002P has two basic parts, 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 onto the pipeline using a mounting plate and straps in a similar fashion to the sensor or mounted on a wall or post.

Specification:

External Supply	PSD5201 Intrinsically Safe Power Supply NOTE 1
Main Housing Ambient Temperature Range	-40°C to +85°C (-40°F to +185°F)
Sensor Ambient Temperature Range	-55°C to +110°C (-67°F to +230°F)
Maximum Allowable Pipeline Surface Temperature	+150°C (+302°F) NOTE 2
Typical Minimum Pig Speed	0.1m/s NOTE 3
Main Housing Ingress Protection	IP66
Sensor Ingress Protection	IP68
ATEX Code	 II 1 G Ex ia IIB T4 Ga
IECex Code	Ex ia IIB T4 Ga
EU Type Examination Certificate No.	EMT 16 ATEX 0007X
IECEX Certificate No.	IECEX EMT 16.0006X
Weight in Aluminium	8kg (17.6lbs)
Weight in Stainless Steel	13kg (28.7lbs)
Length (including mounting plate)	240mm (9.4")
Width (including mounting plate)	192mm (7.6")
Height (including mounting plate)	174mm (6.9")
Standard Housing Entries	3x M20x1.5

Outputs:

DPDT Relay NOTE 4 (Volt Free Contacts)	2A @ 30VDC NOTE 5
Current Loop Output	4-20mA NOTE 6
Serial Data Interface	RS485 MODBUS

Note 1 The ID5002P must be powered from a GM International PSD5201 power supply which may be purchased separately from Online Electronics Ltd

Note 2 Maximum allowable pipeline surface temperature depends on ambient temperature and mounting configuration. If pipeline surface temperature exceeds +85°C only the sensor may be mounted on the pipeline.

Note 3 Minimum pig speed depends on pig type, pipeline configuration and installation position.

Note 4 DPDT is equivalent to 2x SPDT.

Note 5 Limited by certification entity parameters

Note 6 Current Loop levels are configurable between 4mA and 20mA. Default listening state 4.0mA. Default detection state 20.0mA. Tolerance ±1.0mA. Safety Barrier required (typically MTL7787+).

