

Roxar Pig detector

Non-intrusive acoustic sensor

Data Sheet



Real time pig detection for water, oil, gas or multiphase pipelines

Roxar Pig detectors are non-intrusive devices that utilize the acoustic noise generated by travelling pigs to identify pig passed signals in any water, oil, gas or multiphase pipeline flows. The units are compact, designed for easy installation, minimal maintenance and do not require a PC or laptop for daily use* .

The system provides the operator with the accurate time at which a pig passes a given point and indicates the amount of pipeline debris pushed ahead by a cleaning pig.

All types of pig can be detected using the Roxar Pig detector without any requirement for pig inserts or the typical installation requirements of intrusive systems (tapping, welding etc.).

*PC/Laptop required for setup & configuration purposes only unless software option 2 is supplied.



INTERPRETATION



MODELING



SIMULATION



WELL & COMPLETION



PRODUCTION & PROCESS

Specifications

General Specifications

Model:

- Roxar Pig detector

Suitable Pig Types:

- All pig types can be detected

Detector Specifications

Detector Housing Material:

- 316 Stainless Steel

Dimensions / Weight:

- 88 mm (OD) x 100 mm / 3.0 Kg

Installation:

- Fixed onto outside of pipe (non-intrusive)

Ingress Protection:

- IP 67

Hazardous Area Classification / Location:

- EEx ia / Zone 0, 1 or 2

Hazardous Area Certification:

- CSA: Class I Division 1 Groups C, D T6/T5
- ATEX: Ex II 1 G EEx ia IIB T6/T5

Pipe Surface Temperature:

- -40°C to 115°C
- Higher range available on request

Ambient Temperature Range:

- -40°C to 80°C

Communication:

- Serial SW protocol overlain on power cable

Field Cable Type (Roxar optional supply or by 'others'):

- Screened twisted pair (0.75 mm²)
- Common pair for power and signal

Maximum Field Cable Length:

- Up to 1500 m depending on L/R ratio

Calculation & Interface Unit (CIU)

Power Consumption:

- 2 W (including sensor and safety barrier)

Supply Voltage:

- 24 V DC

Modbus RTU Input / Output:

- 1 off process bus: 2 wire RS485
- 1 off service bus: 2 wire RS485 or 3 wire RS232
- Up to 32 units on the same bus with RS485

Analogue Output:

- 1 off 4-20 mA passive output for pig passed / raw data

Voltage-free Contact:

- Configurable to represent pig passed / technical alarm
- Local light indicator reset box available as an option

Data Storage:

- Up to 90 days based on 10 s averaging interval

Installation:

- DIN-rail mountable

Dimensions / Weight:

- 23 mm + 6 mm x 99 mm x 113 mm (WxLxH) / 0.2 Kg

Location:

- Safe area or optional field enclosure

Safety Barrier

Type / Hazardous Area Classification:

- MTL 7787+ / EEx ia IIC
- Others available on request

Installation:

- DIN-rail mountable

Dimensions / Weight:

- 12.6 mm x 105 mm x 90 mm (WxLxH) / 0.14 Kg

Location:

- Safe area or optional field enclosure

Power Supply (Optional)

Input Voltage:

- 100-240 V AC, 50/60 Hz

Output Voltage:

- 24 V DC

Installation:

- DIN-rail mountable

Location:

- Safe area or optional field enclosure

Software

Option 1:

- CIU service software

Option 2:

- Server and client software

Roxar Pig detector



www.roxar.com

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