

EMTx30 EM Transmitter - 3 Cell Lithium



The EMTx30 transmitter is an ATEX certified electromagnetic (EM) transmitter that can be used for pig tracking and locating functions, intended for use in pipeline diameters above 8". The transmitters operate effectively in every type of pipeline, i.e. topside, buried, gas or liquid and in pipeline bundles where acoustic transmitters are either less effective or ineffective.

Key Benefits

- Exact location of the transmitter can be determined to within a few cm by detecting the inherent EM null spot of the transmitter.
- Self-regulation ensures the signal strength is constant over the battery's lifetime.
- Several activation methods designed to conserve battery life when deployed in advance of pigging operations.
- Bluetooth connection and IK Trax's EMTx CONFIG Application allows transmitter parameters such as pulse rate, pulse width and power output to be modified by the user providing flexibility to manage signal strength and battery requirements.
- Can be installed inside smaller lines when pig discs are fitted directly
 to the transmitter. This dramatically increases the received EM signal
 as it no longer needs to propagate through the carbon steel pig body in
 addition to the pipeline.



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The standard transmission frequency is 22Hz however the frequency is configurable between 10Hz and 30Hz. Once the approximate location of the transmitter has been established using an EM Receiver with the antenna held parallel to the pipeline/transmitter, the exact location can be determined to within a few cm by orientating the antenna perpendicular to the pipe and detecting the inherent EM null spot of the transmitter.

The EMTx30 offers several activation methods designed to conserve battery life when deployed in advance of pigging operations including bleedscrew, pressure switch and delayed activation. These methods may be used individually or in combination. Contact IK Trax to discuss your individual requirements.

The received signal strength is dependent on several factors and frequency, signal strength and transmission pattern can be configured to achieve the desired balance between detectability and battery life.

PRODUCT SPECIFICATION

Battery Type 3x SAFT LSH 14 Lithium Cells

Frequency Range 10Hz to 30Hz

Temperature Range $-40^{\circ}\text{C to} + 80^{\circ}\text{C} (-40^{\circ}\text{F to} + 176^{\circ}\text{F})$

External Pressure Rating (Stainless Steel) 300bar (4351Psi)

External Pressure Rating (Titanium) 500bar (7252Psi)

Standard Signal at 1m in air 190mVpp (SS) 230mVpp (Ti) (with IK Trax reference antenna)

BATTERY LIFE DATA

Based on measurements taken at 5°C and 100% power.

Continuous	1-sec pulse	2-sec pulse	3-sec pulse	4-sec pulse	5-sec pulse
5 days	12.5 days	25 days	37.5 days	50 days	62.5 days

MATERIALS & DIMENSIONS

Housing Material 316L Stainless Steel or Grade 5 Titanium

Endcap Material 2205 Duplex Stainless Steel

 O-Ring Material
 NBR70

 Length
 174mm (7")

 Diameter
 50mm (1.3")

Transmitter Weight (including batteries) Stainless Steel 1.7kg (3.7lbs) Titanium 1.5kg (3.3lbs)

CERTIFICATION

ATEX/IECEx Code Ex II 2 G Ex db IIC Gb T6

EU Type Examination Number EMT 17 ATEX 0058X

IECEx Cert No IECEx EMT 17.0024X

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

IK Trax T: +44 (0)1224 714714 E: Sales@iktrax.com