

# EMTx50 EM Transmitter



The EMTx50 transmitter is an electromagnetic (EM) transmitter that can be used for pig tracking and locating functions, intended for use in pipeline diameters of around 16" and above. 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.
- Mounting holes are built in to aid centralising the transmitter within a pig body, eliminating the need for a transmitter carrier. This dramatically increases the received EM signal.

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

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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 EMTx50 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	Alkaline D Cell Pack
Frequency Range	10Hz to 30Hz
Temperature Range	-20°C to + 50°C (-4°F to + 122°F)
External Pressure Rating	153bar (2219Psi)
Standard Signal at 1m	2300mVpp (with IK Trax reference antenna in air)

## 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
14.4 days	36.8 days	73.6 days	110.4 days	147.2 days	184 days

## MATERIALS & DIMENSIONS

Housing Material	Ertacetal C
Endcap Material	316L Stainless Steel
O-Ring Material	NBR70
Length	558mm (21.9")
Diameter	160mm (6.3")
Transmitter Weight (including batteries)	24kg (52.9lbs)

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