



EMTx50 Series EM Transmitter

The EMTx50 transmitter is an electromagnetic 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. top-side, 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.
- Several activation methods designed to conserve battery life when deployed in advance of pigging operations.
- Bluetooth connection and OEL'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.

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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 series offers several activation methods including bleedscrew activation, magnetic activation, saltwater activation, pressure switch activation, delayed activation and vibration activation. These methods may be used individually or in combination. Contact Online Electronics Ltd 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.

Specification:

Batteries	Alkaline D Cell Pack
Battery Life at + 5°C in air	Up to 365 days dependent on battery type and pulse rate
Standard Frequency	22Hz
Temperature Range	-20°C to +50°C (-4°F to 122°F)
Housing Material	ASTM B348 Grade 5 Titanium Ti-6Al-4V
Endcap Material	UNS S32750 Super Duplex Stainless Steel
O-Ring Material	NBR70
Length	548mm (21.6")
Diameter	132.4mm (5.2")
Transmitter weight (including batteries)	25kg (55.1lbs)
External Pressure Rating	500bar (7252Psi)
Standard signal at 1m with OEL reference antenna at + 5°C in air	1250mVpp

