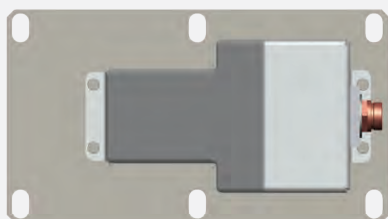
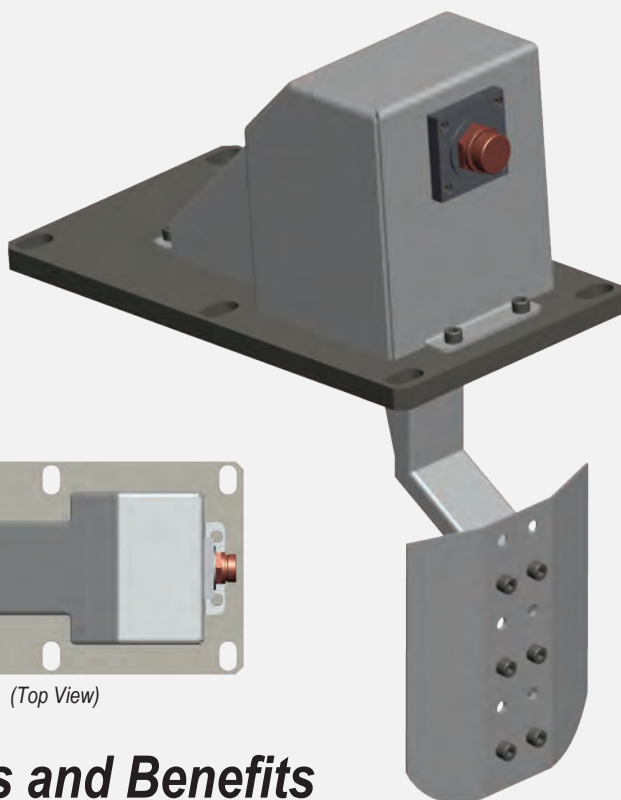




Mud Flow Transmitter

With Innovative Non-Contact Gap Sensing Technology

The Advanced Sensor Design "MFT" Mud Flow Transmitter is an innovative vane-type (paddle) meter that measures mud flow through the drilling mud inflow or outflow pipe. It mounts on the inflow or outflow line with the vane immersed into the mud flow.



(Top View)

Features and Benefits

- MFT Mud Flow Transmitter allows inline flow measurement of drilling mud, slurry, cement and completion fluids at the inflow or outflow points of the trip tank
- Mounted in pipe; interchangeable with most industry flow meters
- Low power integrated gap sensor with integrated display can be installed in hazardous locations
- SS316 construction for rugged, high shock and vibration applications
- 2 Wire, 4-20mA output signal
- Field repairable
- Pending certification to ATEX EEx ia IIC T4/T6, UL and CSA are pending approval for Class 1, Division 1, Groups A-D for Intrinsic Safety

MECHANICAL

Material: Stainless steel housing and construction

Weight: 36.0 lbs. (16.2kg)

Base dimensions: 12.2" x 6.81" (30.9 cm x 17.3 cm)

Mounting: Universal flange mounting adapts to most installations; paddle configurable to 3 Ft. with extensions added

Maintenance: replaceable electronics

Connector: Turck™ 4-pin Male (or Customer specified connector)

Range: 0-90 degrees rotation of Paddle

Shock: 30g

ELECTRONIC CERTIFICATIONS

ATEX Certified - Intrinsically safe certified by sensor manufacturer

Locations: ATEX Zone 1 when used with an approved safety barrier

ELECTRICAL

Supply Voltage: 14-30VDC

Current Requirement/Output: 4-20 mA

Output: 2 wire current loop

Accuracy: +/- 5% FS

ENVIRONMENTAL & OTHER RATINGS

*Operating Temperature: -13° to 150°F (-25° to 65°C)
0 to 100% R.H.*

EMI/RFI Protection: Yes

Rating: IP66

Reverse Polarity protection: Yes

PRODUCT WARRANTY

12 months from installation date

Mud Flow Transmitter Part Number Specifications

Item	Specification	Designation
Description	North American style - Mechanical Flow Transmitter; Non-Contact Gap Sensing Technique	MFT
Application	Drilling Mud in Pipe: S.G. = 0 to 3.0 (1.0 - H ₂ O)	MUD
Enclosure Style	316 Stainless Steel - Fabricated Housing; IP66 rated	EB
Electrical Connection	M12 Male: 4 pin DIN Style	M12
Output - Communications	4-20mA; (28mA maximum)	C1
	4-20mA; HART protocol (future)	C2
Hazardous Location Approvals	CSA - Cl. 1, Div. 1, Grp. A, B, C, D - Intrinsic Safety (pending)	CIS
	UL - Cl. 1, Div. 1, Grp. A, B, C, D - Intrinsic Safety	UIS
	CENELEC ATEX - EEx ia IIC T6 - Intrinsic Safety	AIS
	NEPSI - EEx ia IIC T6 - Intrinsic Safety (pending)	NIS

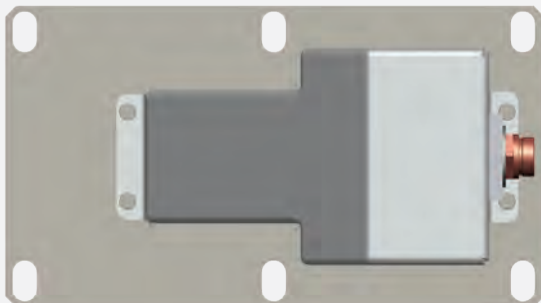
Replacement Sensor Unit p/n MFT-RSU

Untouchable Performance

What makes the Advanced Sensor Design MFT unique and beneficial is the use of a cam that varies in distance from a fixed non-contact measurement sensor as the paddle is displaced by the variable mud flow. The gap variation between sensor and cam is measured electronically, linearized, and calibrated for mud flow rate.

Rugged Design

The packaging of the Advanced Sensor Design MFT is rugged and durable. Our design eliminates the problems normally associated with vane-type flow meters, namely the mechanical linkage with a potentiometer or encoder. The low power gap sensor is rated for hazardous locations with ATEX pending for intrinsic safety areas according to EEX ia IIC T4/T6, and UL and CSA pending for Class 1, Division 1, Groups A-D intrinsic safety areas according to NEC Article 505.



(Top View)

