

Electromagnetic flow meter sensor for water & wastewater applications
Robust volume flow measurement for conductive liquids

In brief



Application

The **SITRANS FMS500** with its NBR or EPDM rubber lining is a versatile electromagnetic flow meter sensor for all kinds of water applications, such as ground water, potable water, cooling water, wastewater, sewage, or sludge applications [cite: 1].

- **Water Abstraction & Groundwater** [cite: 1]
- **Potable & Drinking Water Distribution Networks** [cite: 1]
- **Wastewater Treatment, Sewage & Sludge** [cite: 1]
- **Irrigation & Water Management** [cite: 1]
- **Industrial Water & Cooling Water Systems** [cite: 1]

Your benefits

- **Flexible Installation:** Zero Up and Zero Down (0U / 0D) straight pipe run installation capabilities [cite: 1].
- **NBR Rubber Liner:** Ideal for all general water and wastewater applications [cite: 1].
- **EPDM Liner:** Specifically approved for drinking water / potable water applications requiring special health certifications [cite: 1].
- **High Abrasion Resistance:** Soft elastomer facing provides high resistance to abrasive particles in sludge and raw sewage [cite: 1].
- **Leak Detection Accuracy:** Enhanced low-flow measuring accuracy for water leak detection networks [cite: 1].
- **Rugged & Submersible:** Simple on-site upgrade to IP68 for underground installation, direct burial, or permanent underwater immersion [cite: 1].
- **Integrated Grounding:** Built-in grounding electrodes eliminate the need for grounding rings in many applications [cite: 1].
- **SENSORPROM™ Technology:** Automatic upload of startup settings and calibration data for easy commissioning [cite: 1].
- **Compliance & Standards:** In conformity with ISO 4064, OIML R49, EN 14154, and built-in length according to ISO 20456 (up to DN 400 mm) [cite: 1].

Description

The **SITRANS FMS500** is a magnetic flow meter sensor suitable for volume flow measurement of conductive liquids [cite: 1]. It is the ideal product for applications in water abstraction, wastewater treatment, water distribution networks, and irrigation [cite: 1].

The rugged, fully welded design supports direct burial, constant flooding, and stands up to a wide range of harsh chemicals found in water-based applications across many different industries [cite: 1]. Designed for highly accurate measurement in low-flow conditions, these meters can measure from very low velocities up to 10 m/s, providing an exceptionally wide dynamic measurement range [cite: 1].

Combined with a compatible flow meter transmitter (such as the **SITRANS FMT020**), it forms the traditional externally powered electromagnetic flow meter system **SITRANS FM520**, providing a cost-effective solution for all general-purpose water applications [cite: 1].

System Configuration (SITRANS FM520)

Connected to the compatible transmitter **SITRANS FMT020** (mounted remotely or as a compact unit), it forms the complete magnetic flow meter system **SITRANS FM520** [cite: 1]. Perfect match for a cost-effective solution across all water and wastewater systems [cite: 1].

Technical Data

Sensor Properties

Measuring Principle	Electromagnetic induction [cite: 1]
Measured Media	Conductive liquids (Water, Wastewater, Sludge) [cite: 1]
Velocity Range	Very low velocities up to 10 m/s [cite: 1]
Measuring Accuracy	±0.4% of flow rate (Optional ±0.2% available) [cite: 1]
Built-in Length	According to ISO 20456 (up to DN 400 mm) [cite: 1]

Installation & Environmental

Inlet / Outlet Runs	Zero Up and Zero Down (0U / 0D) capabilities [cite: 1]
Ingress Protection	Standard IP67; Simple on-site upgrade to IP68 (direct burial / permanent immersion) [cite: 1]
Grounding	Integrated grounding electrodes (no grounding rings required for most applications) [cite: 1]

Liners & Materials

NBR Rubber	For all general water and wastewater applications [cite: 1]
EPDM Rubber	Specifically for drinking / potable water requiring approvals [cite: 1]
Soft Elastomer Facing	Provides high abrasion resistance against sludge [cite: 1]
Construction	Rugged, fully welded design with no moving parts [cite: 1]

Features & Approvals

Smart Tech	SENSORPROM™ auto settings & calibration upload [cite: 1]
Verification	Designed for easy in-situ performance verification [cite: 1]
Standards Compliance	ISO 4064, OIML R49, EN 14154, ISO 20456 [cite: 1]

PRC Technologies Corp., Ltd. ลาดพร้าว 101 กรุงเทพฯ 10240

โทรศัพท์ : 02 530 1714, 02 932 1711 มือถือ : 086 360 8600

อีเมล : contact@prctech.net LINE ID1 : prctec-info, LINE ID2 : prcsense