FLOW MEASUREMENT / DATA SHEET

SS403-05
Intelligent Electromagnetic Flowmeter

Volume-flow measurement for conductive liquids and slurries in closed pipelines.

Overview

- SS403-05 is an intelligent electromagnetic flowmeter for measuring the volume flow of conductive liquids and slurries in closed pipelines.
- It is intended for clean water, sewage, power production and distribution, chemical and industrial pharmacy, food processing and related applications.
- The meter supports forward and reverse flow measurement, cold and heat metering, self-diagnosis and low-flow measurement.
- Dual-frequency excitation and a built-in reference electrode support stable zero-point measurement without a grounding ring.
- Communication and output options include RS485, Modbus, optional HART, 4-20 mA and pulse output.



Flow rate **Up to 15 m/s**	**Accuracy** **±0.2% + 0.3 m/s**	**Diameter** **10-3000 mm**	**Output** **4-20 mA / pulse**
Pressure **Up to 4.0 MPa**	**Supply** **AC 86-220 V / DC 24 V**	**Interface** **RS485 / Modbus**	**HART** **Optional**

Key Advantages

- Cold and heat metering function.
- Dual-frequency excitation for good zero-point stability.
- Self-diagnosis and intelligent operation.
- Built-in reference electrode; no grounding ring required.
- Forward and reverse flow measurement with low-flow measurement capability.

Application Scenarios

- Clean water and sewage.
- Mud, mineral pulp and paper pulp.
- Food industry.
- Chemical and industrial pharmaceuticals and acid-base solutions.

Measurement Principle

This electromagnetic flowmeter measures the volume flow of conductive liquids and slurries in closed pipelines. Its listed functions include forward and reverse flow measurement, low-flow measurement and dual-frequency excitation for zero-point stability.

Technical Specifications

Parameter	Specification	Parameter	Specification
Measurement / Maximum flow rate	15 m/s	**Measurement / Accuracy (source wording)**	±0.2% of measured value + 0.3 m/s
Process / Nominal diameter	10-3000 mm	**Process / Nominal pressure**	0.6 MPa, 1.0 MPa, 1.6 MPa, 4.0 MPa or other options
Output / Output signal	4-20 mA / pulse	**Communication / Serial interface**	RS485; Modbus communication (non-standard)
Communication / HART	Optional HART communication protocol	**Protection / Integrated type**	IP65
Protection / Split type	IP67 or IP68 (optional)	**Power / Supply**	86-220 V AC or 24 V DC (optional)
Display / Interface	Up to 8-digit LCD display; real-time clock	**Display / Unit**	Optional m^3 or L display unit
Electrode / Standard material	Stainless steel 316L	**Electrode / Optional materials**	Hc, Hb, Ti, Ta, Pt or other customized materials
Lining / Material	Ne, FEP, PTFE or polyurethane optional	**Housing / Material**	Carbon steel; SS304 customization available
Medium / Temperature	-20 to 80 °C; up to 180 °C according to requirements	**Environment / Ambient temperature**	-20 to 60 °C
Environment / Humidity	<85% RH, non-condensing	**Compliance / CE basis**	LVD 2006/95/EC and EMC 2004/108/EC
Compliance / EMC and safety	EN 61326-1:2006; EN 61010-1:2001		

Output and Communication

Interface / Output	Definition
4-20 mA	Analog flow output
Pulse	Pulse output
RS485	Serial communication; Modbus supported (non-standard)
HART	Optional HART communication
Display	Up to 8-digit LCD with real-time clock and optional m^3 or L units

The product page lists RS485 communication with Modbus support, optional HART communication, 4-20 mA output and pulse output.

Mechanical Dimensions / Installation

The product page specifies nominal diameter, nominal pressure, integrated or split configuration and lining/material options, but does not provide a separate dimensional drawing or wiring diagram. Final installation dimensions and mounting details depend on the selected configuration.

Product Selection / Ordering Information

Configuration item	Available option / range
Configuration	Integrated or split type
Nominal diameter	10-3000 mm
Nominal pressure	0.6 / 1.0 / 1.6 / 4.0 MPa or other options
Lining	Ne / FEP / PTFE / polyurethane
Electrode	316L stainless steel or selected optional material
Communication	RS485 / Modbus; optional HART
Power supply	86-220 V AC or 24 V DC

Final configuration depends on the selected meter type, diameter, pressure rating, materials, output and communication options.

CONTACT / SUPPORT

SpeSense Technologies Inc.
Add: No. 9 Yuhe Road, Guitang Subdistrict, Yuhua District, Changsha City
Tel: +86-15386478166
Email: info@spesense.com
Web: www.spesense.com

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