

SITRANS F M MAGFLO Verificator

Continuous Accuracy for Electromagnetic Flowmeters



sitrans f MAGFLO



SIEMENS

SITRANS F M MAGFLO Verificator: Market leader for continuous accuracy measurement

Primary benefits and advantages

Siemens Flow Instruments have manufactured high performance flowmeters for many years. Our products and services share the same goal: to improve your operations, reduce down-time and maintain measurement accuracy for the product lifetime.

The Verificator provides **Key Benefits** and the precision you need in your vital flow measurement:

- In-situ check of performance without interrupting the flowmeter installation
- Fully automated – no manual set up or data input – with predefined factory accept levels
- No expensive removal or installation costs
- Results in less than 15 minutes
- Full Verification Report to confirm meter performance according to quality standard ISO 9000 and management standard ISO 14001 – as handover approval from contractor to end user

The Verificator ensures accurate measurement and correct operation of the SITRANS F M MAGFLO meters.

- MAG 1100
- MAG 1100 F
- MAG 3100
- MAG 5100 W
- MAG 5000
- MAG 6000

A fully automatic verification test takes only 15 minutes after connection and consists of three steps:

1. Transmitter Test
2. Flowmeter Insulation Test
3. Sensor Magnetism Test

The verification is carried out at the transmitter location. The test is not affected by liquid flow or cable length.

Verificator connection on the SITRANS F M MAGFLO flowmeter



Transmitter Test

The transmitter verification checks the whole electronic system from signal input to output. Using a traceable calibrated precision network, the Verificator simulates flow signals to the transmitter input. By measuring the transmitter outputs the Verificator calculates its accuracy against defined factory values.

- Signal function from signal input to output
- Signal processing – gain, offset and linearity

- Test of analog and frequency output.

Transmitter Test by flow simulation



WRC*

What independent testing by WRC says:

"The MAGFLO Verificator correctly detected all set-up faults in the complete flowmeter...is straightforward to use.....is sturdy and suitable for field use"

WRC, Water Research Centre is a leading, independent research, technology and consultancy company with a reputation for scientific and technical excellence. WRC has over 15 years of experience in instrument testing and evaluation. WRC's full report, UC3600 March 2000, is available for inspection.

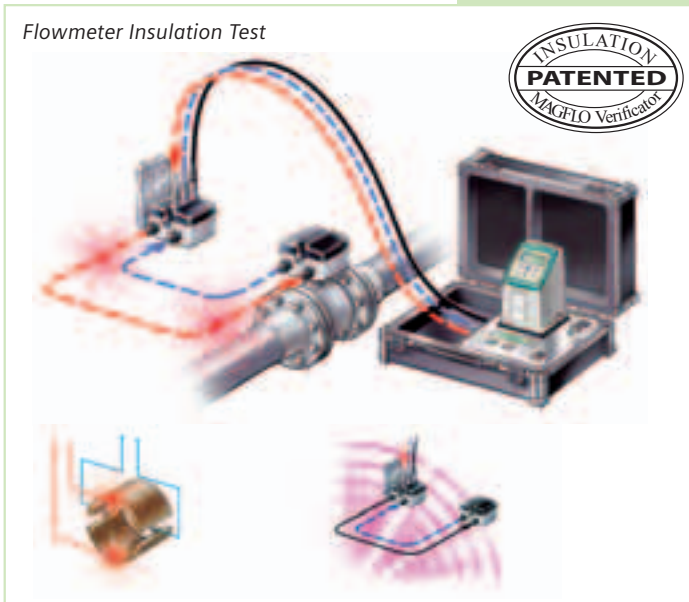


Flowmeter Insulation Test

The verification test of the flowmeter insulation is a “cross-talk” test of the entire flowmeter which ensures that the flow signal generated in the sensor is not affected by any external influences. By generating dynamic disturbances close-coupled to the flow signal the flowmeter is tested for noise immunity to a maximum level.

- EMC influence on the flow signal
- Moisture in sensor, connection and terminal box
- Non-conductive deposit coating the electrodes within the sensor
- Missing or poor grounding, shielding and cable connection

Flowmeter Insulation Test



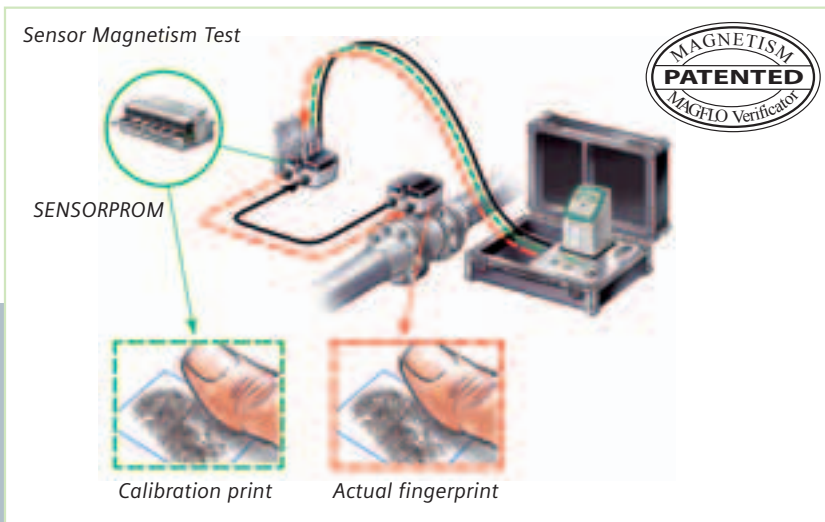
Sensor Magnetism Test

The Sensor Magnetism Test ensures that the magnetic behaviour is unchanged. The current sensor magnetism is compared with the “fingerprint” which was determined during initial calibration and stored in the SENSORPROM memory unit. This unique test is fulfilled without any interference or compensation

of surrounding temperature or interconnecting cabling.

- Changes in dynamic magnetic behaviour
- Magnetic influence inside and outside the sensor
- Missing or poor coil wire and cable connection

Sensor Magnetism Test



Flowmeter calibration



On-site inspection

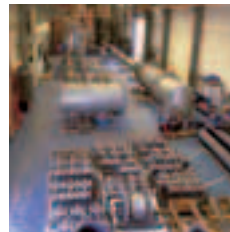


In-situ verification (Including flowmeter settings)

Three documents guarantee the accuracy of the flowmeter installation, ideal for ISO 9000 and ISO 14001 documentation.

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Contact us on the Internet at
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