toscano

T-500 flow magmeter series

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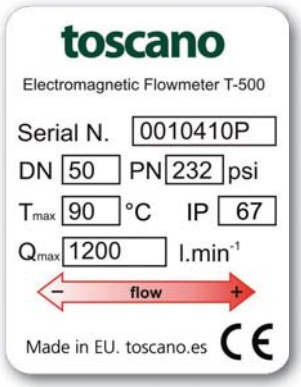
T-500 flowmeter series uses the electromagnetic principle to measure the flow of conductive liquids. There is therefore no moving parts in contact with the liquid, so it is not affected by the solid particles that could pass through the pipe, and there is no pressure drop.

It is made of carbon steel with a hard rubber lining (PTFE on request), which allows its use in many applications in the chemical industry. It includes a local display of the instantaneous and totalized flow.

- High accuracy.
- Excellent stability.
- Robust construction.
- Long operating life.
- Compact or remote versions.

Compact version



NEW!!!
T-550 Battery powered

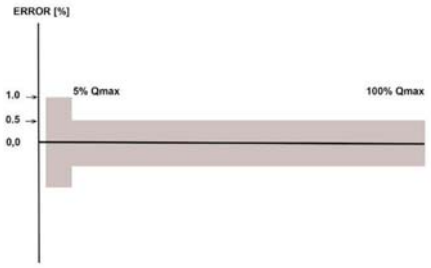
- Autonomy: 5 years (optional 10 years).
- Lithium battery powered (included).
- Remote version only, supplied with 5m cable (30m maximum).
- Datalogger 10.000 readings.
- USB port.
- Empty pipe detection.
- DN10 to DN300 PN16.

Remote version

Flow range

DN	m³/h	
	Qmin	Qmax
25	0,18	18
32	0,288	28,8
50	0,72	72
80	1,8	180
100	2,88	288
150	6,48	648
200	11,52	1152
250	18	1800
300	25,2	2520
350	34,56	3456
400	45	4500
500	72	7200

Big backlit display. Easy adjustment.

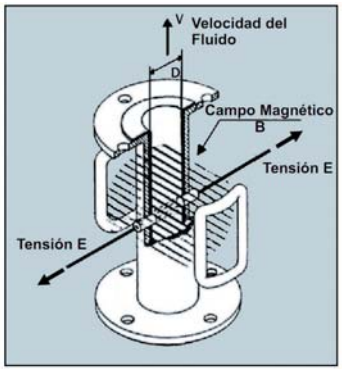


Operating principle

Electromagnetic flowmeters are systems with no moving parts, causing no restriction to the flow, so the pressure drop is irrelevant.

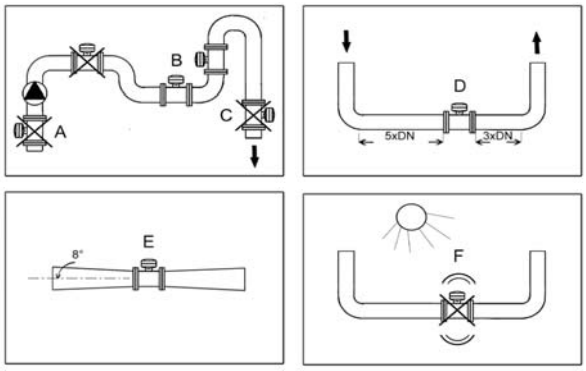
Its principle is based on Faraday's law of induction, which enables accurate and reliable measurements.

"Any conductive fluid moving through a magnetic field, induces a voltage which is directly proportional to the speed of the conductor and the amplitude of the magnetic field".



Mounting considerations

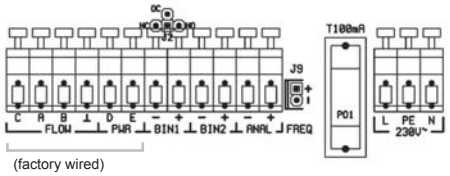
1. If the system includes pumps, never place the sensor in the pump suction area (A).
2. Place the sensor at the bottom section of the horizontal pipe or the rising pipe(B); never place the sensor in a downward section (C).
3. Make sure that the straight section of the pipe is at least 5xDN upstream and 3xDN downstream from sensor (D).
4. Reductions in pipes up to 8º of slope are considered as straight (E).
5. Avoid exposing the equipment to direct sunlight and vibrations (F).



Connections

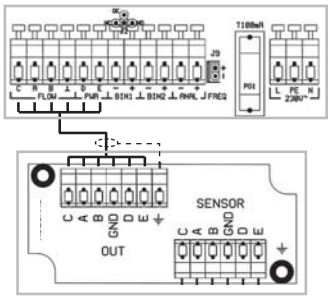
FLOW C	Full pipe electrode.
FLOW A	Measuring electrode.
FLOW B	Measuring electrode.
FLOW ⊥	Reference electrode (ground).
PWR D	Induction coil.
PWR E	Induction coil.
BIN1	Digital output 1.
BIN2	Digital output 2.
ANAL	Analog output.
FREQ	Frequency output (calibration only).
230 V L	Phase wire 230 V / 50 Hz
230 V PE	Ground wire.
230 V N	Neutral wire 230 V / 50 Hz

Compact version



(factory wired)

Remote version



Converter

Sensor

Calibration certificate

Order form

T-500-DNXXX/PNXX-XXXX

- Nominal diameter: 25-500 (see table “Flow range”)
- Nominal pressure: 10 or 16 bar
- 0: Hard Rubber
  1: PTFE (Teflon)
- 0: Stainless Steel
  1: Hastelloy
- 0: Compact version
  1: Remote version
- 0: 230 V AC
  1: 24 V AC
  2: 12/24 V DC

Nominal diameter	DN25 to DN500.
Nominal pressure	PN10 (145 PSI) to PN16 (232 PSI) Up to PN40 (580 PSI) on request
Piping connection	Flanges DIN 2633
Body material	Carbon Steel
Converter housing	Aluminium coating
Inner liner	Hard Rubber (PTFE optional)
Measuring electrodes	Stainless Steel AISI 316L (Hastelloy optional) 2x / 1x empty pipe detection / 1x ground
Flow range	0,1 to 10 m/s
Accuracy	0.25% of the measured value from 0.5 to 10 m/s range 1% of the measured value from 0.1 to 0.5 m/s range
Storage temperature	0º to +45° C
Working temperature	-10º - +90º C for hard rubber lining -30º - +150º C for PTFE (Teflon) lining
Voltage	230 V AC (24 V AC or 12/24 V DC optional)
Consumption	10 VA max.
Outputs	1x programmable multifunctional (pulses, status), isolated (relay, load 125VAC / 1A or 30V / 2 A) 1x programmable multifunctional (pulses, status), isolated (NPN transistor, load 30V / 50mA) 1x programmable active analog (0-20mA / 4-20mA, load ≤500Ω) 1x RS232
Communication	RS232, keyboard, permanent backlit graphical display (SMS via GSM module optional)
Registration	Recording capacity up to 100 readings
Class of protection	IP67 (sensor), IP65 (converter)
Languages	French, English, German and Spanish

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