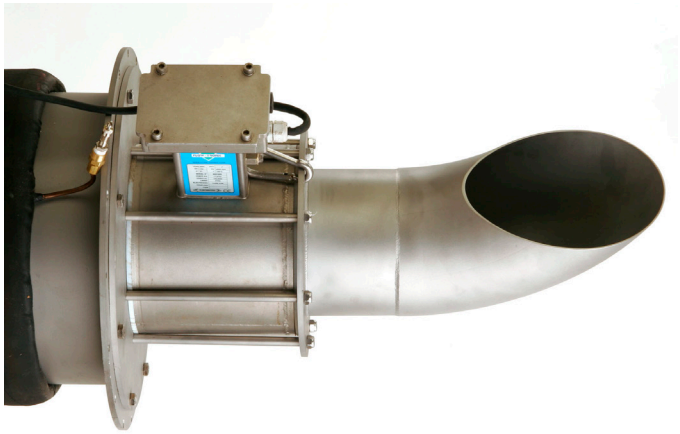
SEWER-MAG™

Portable Flow-Through Electromagnetic Flow Meter Sensor



The SEWER-MAG™ is an insertable full bore electromagnetic flow meter sensor. It ensures extremely accurate flow determination even under difficult flow conditions. The SEWER-MAG™ is usually temporarily installed in sewer networks to verify or calibrate existing flow meters.

The inflatable flow-through plug forces the water through the measuring tube, which is maintained full with an especially designed outlet elbow. The flow-through plug creates a straight section (3x the pipe diameter) upstream the measuring point and the outlet has a length of 2x the pipe diameter downstream.

The SEWER-MAG™ can be combined with the converter ML210 (AC or DC powered).

Technical Specifications

Velocity measurement

Method	Electromagnetic full bore
Range	±0,001 m/s to ±2 m/s
Accuracy	±2% from reading at minimum at ± 0,2 m/s
Resolution	0,001 m/s

Material

Body	Stainless steel AISI304 (AISI316 optional)
Lining	PFTE
Electrodes	Stainless steel AISI316L Hastelloy C276 (optional) Titanium (optional) Platinum/Rhodium (optional) Others on request

Operating Temperature	0°C to +80°C
Storage Temperature	-30°C to +80°C
Protection rate	IP68 (standing immersion with 1,5 m of head water)

How to select the correct dimensions of the SEWER-MAG™?
The dimensions of the SEWER-MAG™ depend on the flow range to be calibrated or measured and of the sewer pipe dimensions. When the system is smaller, it is less expensive and easier to install due to smaller overall dimensions and less weight.

Flow range table depending on measuring tube size:

	Min. Q (l/s)	Max. Q (l/s)
DN65	0,25	5,00
DN80	0,50	10,00
DN100	1,00	15,00
DN125	2,00	20,00
DN150	4,00	30,00
DN200	6,00	40,00
DN250	8,00	50,00
DN300	10,00	75,00
DN400	12,00	100,00

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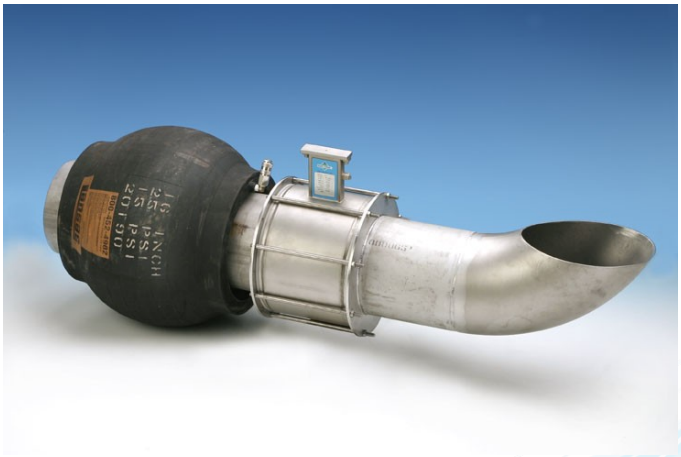
SEWER-MAG™ DN65 & DN80 for pipe sizes DN150-250 & DN250-350



SEWER-MAG™ DN200 for pipe sizes DN300 to DN450

Technical Specifications

Sewer pipe dimensions depending on Flow Through Plug

FTP Size	Min. pipe size	Max. pipe sizes
FTP100	DN150	DN250
FTP125	DN200	DN300
FTP150	DN250	DN350
FTP200	DN300	DN450
FTP250	DN350	DN500
FTP300	DN400	DN550
FTP350	DN450	DN700
FTP400	DN500	DN800

First select the Flow Through Plug dimension based on the sewer pipe dimension, then look at the flow rate range you want to measure and select an appropriate measuring tube dimension. If the measuring tube dimension is smaller than the FTP dimension an adapter is required.

Examples:

1. Sewer pipe dimension is DN400, flow rate range is 5 to 10 l/s
The FTP size can range from 200 up to 300, but the measuring tube dimensions range from DN80 up to DN150, so the selection of an FTP 200 is logical. The selection of the measuring tube is a compromise between price plus ease of installation and the risk of pipe plugging due to small dimensions. An adapter piece is required anyhow as the largest measuring tube remains smaller than the smallest FTP dimension so a "middle of the road" DN100 or DN125 should be selected. If the risk of plugging is high, take a DN150.

2. Sewer pipe dimension is DN200, flow rate range is 2 to 12 l/s
The FTP size can range from 100 up to 125, and the measuring tube dimensions range from DN100 up to DN125, so the selection of an FTP 125 with measuring tube DN125 is logical.

3. Sewer pipe dimension ranges from DN150 up to DN600, flow rate range is 1 to 40 l/s
The smallest FTP size needs to be 100 and the largest FTP can range from 350 up to 400, but the measuring tube dimensions ranges from DN100 for the smaller flow rates up to DN200 or DN250 for the larger flow rates, so the selection can be:
Measuring tubes DN100 and DN250

FTP 100 and 250
An adapter piece 150/100 with FTP 150 to cover the sewer pipe sizes between DN250 and DN350 and an adapter piece 350/250 with FTP 350 to cover the pipe sizes between DN500 and DN600.

Specifications are subject to change without notice
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