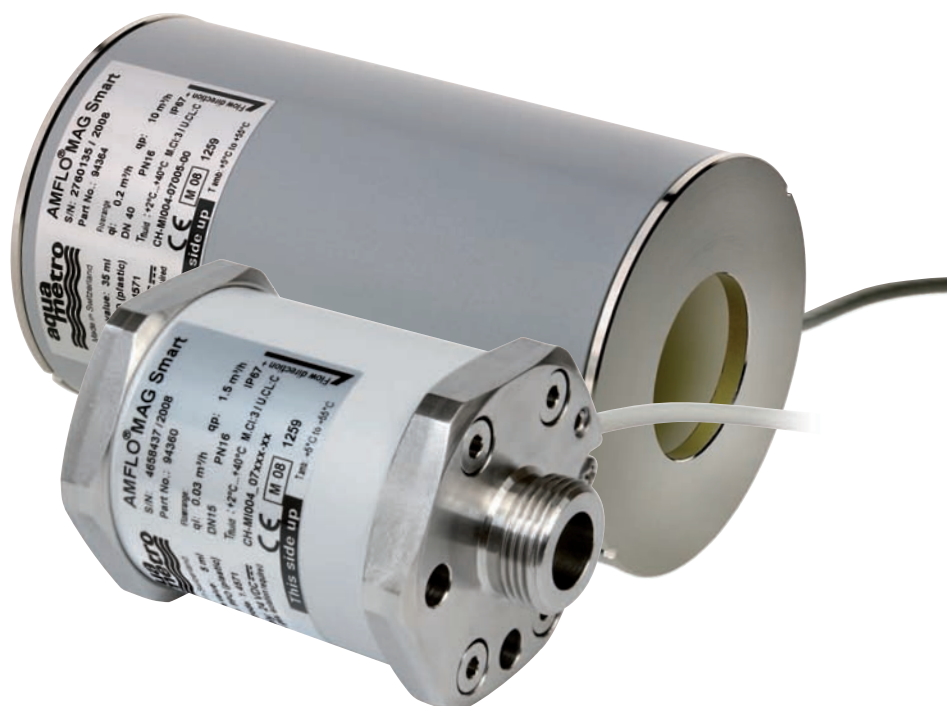


# AMFLO® MAG Smart Electromagnetic flowmeter

## Applications

Electromagnetic flowmeters are designed for measuring the flow of electrically conductive mediums. The main applications can be found in the sectors cooling, building automation, cooling water and cold water measurement.



## Features

- Nominal sizes DN 15 - 100, PN 16
- Compact measurement system without moving parts
- No configuration needed
- Measurement dynamic 1:250
- Small pressure loss
- Integrated electronics
- Power supply 24 VDC

## Benefits

- Large measurement range
- Long term measurement stability
- High accuracy for energy optimization
- Maintenance-free, trouble-free
- No in- and outlet section needed
- No radial centering needed

## Technical data

Nominal sizes	DN 15 - 100
Electrodes	Stainless steel 1.4571
Fluid	Water and other fluids*
Nominal pressure	PN 16, JIS 10K, ANSI 150
Liner	PPE Noryl
Flange	Chromed brass
Outer casing	Coated steel
Gaskets	NBR/EPDM
Protection class	IP 67
Fluid temperature range	T <sub>Fluid</sub> = 0 - 60 °C
Ambient temperature	T <sub>Amb</sub> = 2 - 55 °C
Min. electrical conductivity	40 µS/cm
Accuracy	±0.5 % (±0.004 m/s slower than 0.5 m/s)
Digital output	max. 200 Hz (pulse duration 2.5 ms at 200 Hz), SSR (Solid State Relais) passive, max. 48 V / 50 mA
Range of measurement	0.015 - 5 m/s
Cable length	3 m, fixed on sensor side
Wiring	pulse and alarm outputs
Power supply	24 VDC, 150 mA (galvanically isolated)

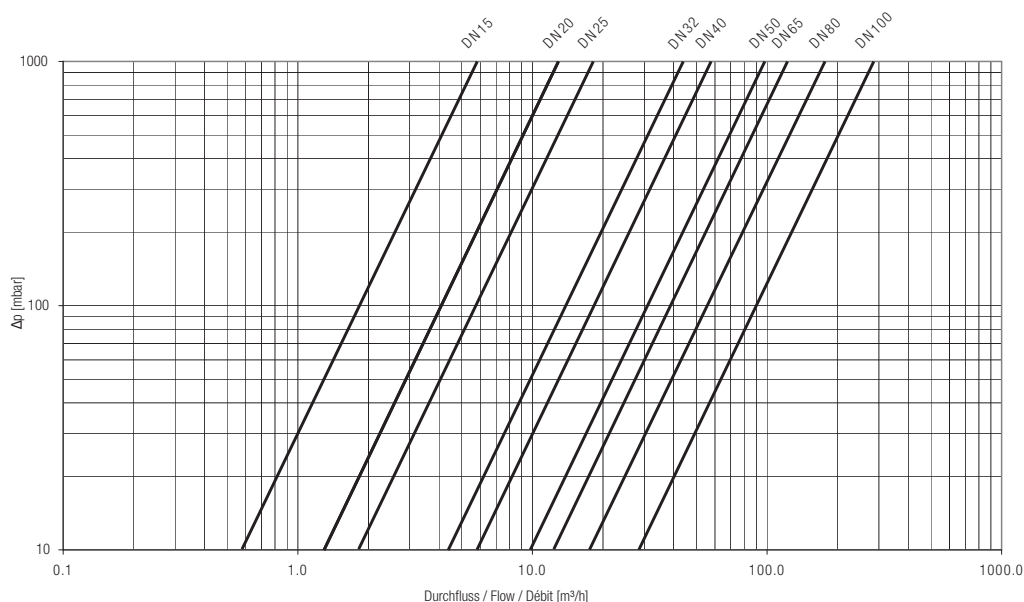
\* Please check the chemical resistance of the device (liner, electrodes and gaskets) for the used medium!

### Range of measurement (approved according to EN 1434 class 2, measurement dynamic 1:250)

Nominal diameter DN	mm	15	20	25	32	40	50	65	80	100
	inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
qi (minimal flow)	m <sup>3</sup> /h	0.012	0.02	0.028	0.048	0.08	0.12	0.2	0.32	0.48
<b>qp (nominal flow)</b>	<b>m<sup>3</sup>/h</b>	<b>3</b>	<b>5</b>	<b>7</b>	<b>12</b>	<b>20</b>	<b>30</b>	<b>50</b>	<b>80</b>	<b>120</b>
qs (maximal flow)	m <sup>3</sup> /h	3.3	5.7	8.5	14	22	35	59	90	140
v (qi)	m/s	0.019	0.018	0.016	0.017	0.018	0.017	0.017	0.018	0.017
v (qp)	m/s	4.72	4.42	3.96	4.14	4.42	4.24	4.19	4.42	4.24
Δp*	mbar	66	38	37	19	30	24	42	51	44
Kvs	m <sup>3</sup> /h	5.84	12.82	18.20	43.5	57.7	96.8	122	177	286
Pulse value	ml	5	10	15	25	35	50	85	130	200

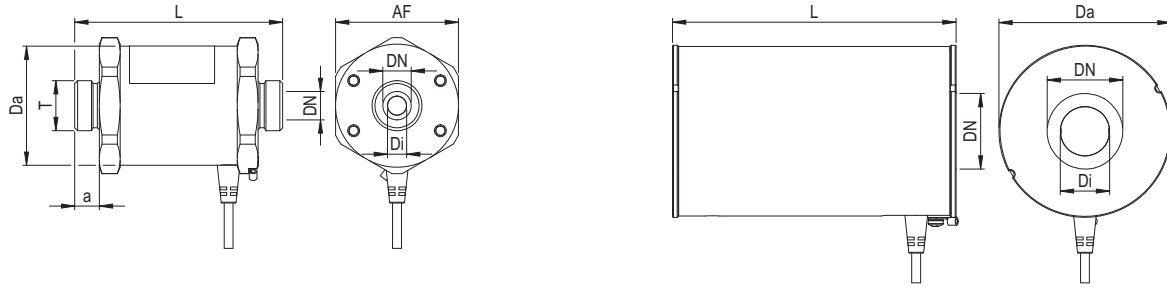
\* for standard values of qp according to EN 1434

### Pressure loss

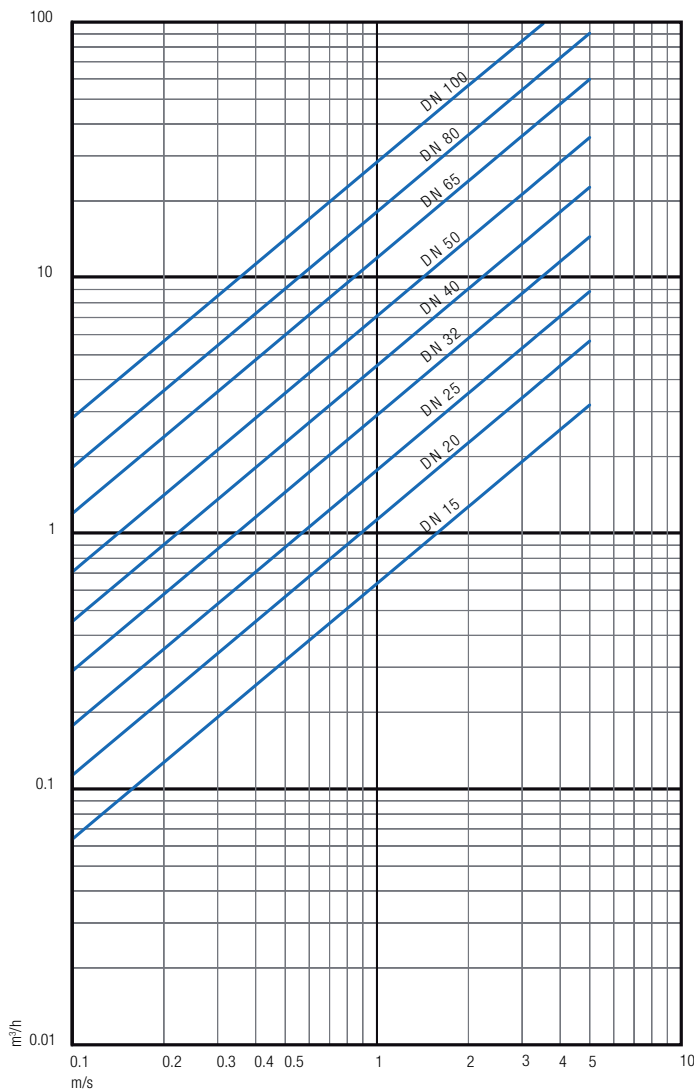


# Dimensions

Nominal diameter DN	mm	15	20	25	32	40	50	65	80	100
	inches	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
L	mm	110	130	150	150	150	200	200	225	250
AF	mm	65	65	65	81	86	101	121	131	156
a	mm	13	15	17	-	-	-	-	-	-
T	inches	3/4	1	1 1/4	Wafer	Wafer	Wafer	Wafer	Wafer	Wafer
Di	mm	10	13	16	21	26	32.5	42.25	52	65
Da	mm	63	63	63	81	86	101	121	131	156



# Sizing Diagram

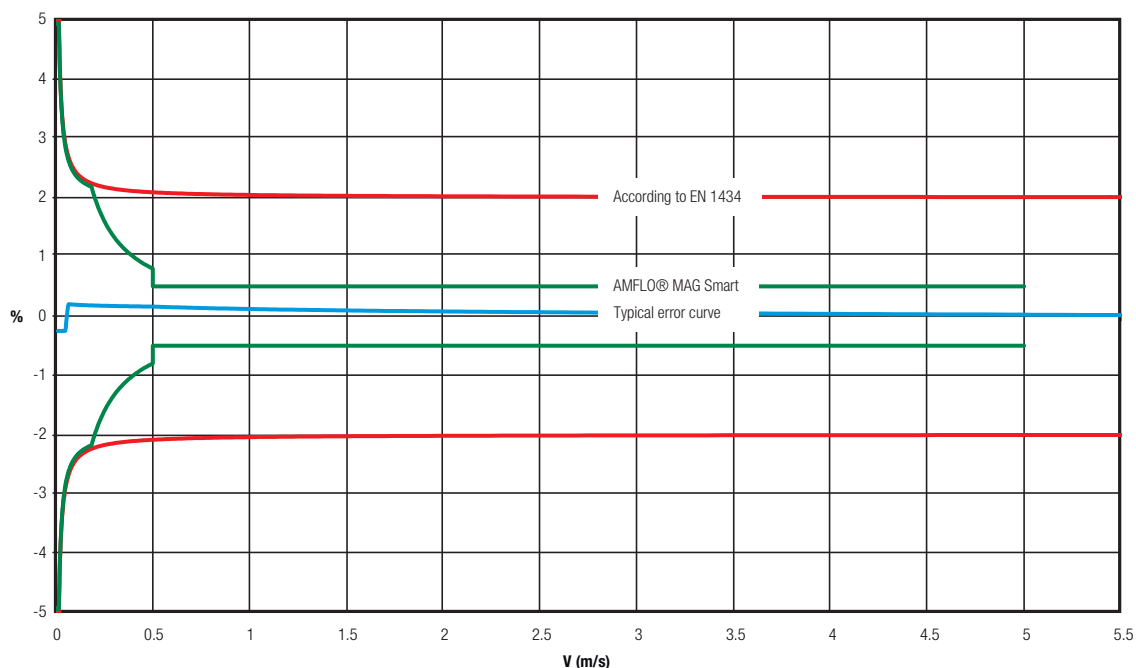


## Formula for flow rate

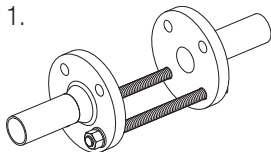
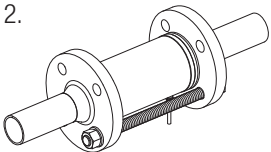
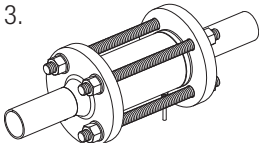
$$v = Q * 353.68 / DN^2$$

v: [m/s]  
 Q: [m³/h]  
 DN: [mm]

## Measuring error limits



## Easy mounting (with optional mounting set)

1.  → put in threaded rods
2.  → put in item and gaskets
3.  → just tighten, finished!

DN	mm	32 / 40	50	65	80	100
Art. No.		80571	80572	80573*	80574	80575

\* For flanges DN 65 with four holes order Art. No. 80572!

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