ElecTo Bulk

FEATURES

Ultrasonic water meter

- Ideally suited for bulk metering
- Sizes available: DN 50 to DN 200 (DN 250 to DN 400 on request)
- Maximum operating temperature: 50 °C
- Liquid crystal display
- Magnetically operated button
- Low starting rate; minimum flow rate is 1/3 of the flow rate of traditional water meters
- Temperature detection and alarm symbols
- Alarm for anomalous water use
- Ultrasonic signal quality detection
- No moving parts, wear-resistant, long-term operation
- May be installed in any position
- Battery service life: 13 years
- Protection rating IP68
- Pressure sensor for pipe pressure monitoring available on request
- A pulse output comes as a standard (M-Bus, RS485, infrared or wireless output available on request)
- Compatible with GB/T 26831, CJ/T 188 and MODBUS RTU communication protocols (optional)
- Directive 2014/32/EU approved

HYDRAULIC PERFORMANCE

Accuracy class		2
Q_3/Q_1 ratio		500:1 (further R values on request)
Maximum reading m^3h	**DN50-DN100**	9999999,99999
	DN 125-DN 200 (DN 250-DN 400 on request)	99999999,99999
Maximum working pressure		1,6 MPa (1,0 MPa on request)
Temperature class		T50 (T30 on request)
Flow profile sensitivity classes		U3-D0
Protection rating		IP68 (IP65 with external power supply)
Power supply		3,6 V lithium battery (220 V ac, 24 V dc)
Battery service life		13 years
Environmental and mechanical conditions		Class C (class B, class I optional)
Electromagnetic class		Class E1 (class E2)
Liquid		Water
Installation position		Any

STANDARD SIZES

DN	**mm**	**50**	**65**	**80**	**100**	**125**	**150**	**200**
Overload flow rate Q_4	**m^3/h**	31.25	50	78.75	125	200	312.5	500
Permanent flow rate Q_3	**m^3/h**	25	40	63	100	160	250	400
Transitional flow rate Q_2	**m^3/h**	0.08	0.128	0.2016	0.32	0.512	0.8	1.28
Minimum flow rate Q_1	**m^3/h**	0.05	0.08	0.126	0.2	0.32	0.5	0.8
Head loss		25	25	25	25	25	25	25
Pulses/litre	**P=L**	1P=10L	1P=10L	1P=10L	1P=10L	1P=100L	1P=100L	1P=100L
Pulse duration	**ms**	100	100	100	100	100	100	100

OPTIONAL SIZES

DN	**mm**	**250**	**300**	**350**	**400**
Overload flow rate Q_4	**m^3/h**	787.5	1250	1250	2000
Permanent flow rate Q_3	**m^3/h**	630	1000	1000	1600
Transitional flow rate Q_2	**m^3/h**	2.016	3.2	3.2	5.12
Minimum flow rate Q_1	**m^3/h**	1.26	2	2	3.2
Head loss		25	25	10	10
Pulses/litre	**P=L**	1P=100L	1P=100L	1P=100L	1P=100L
Pulse duration	**ms**	100	100	100	100

DIMENSIONS

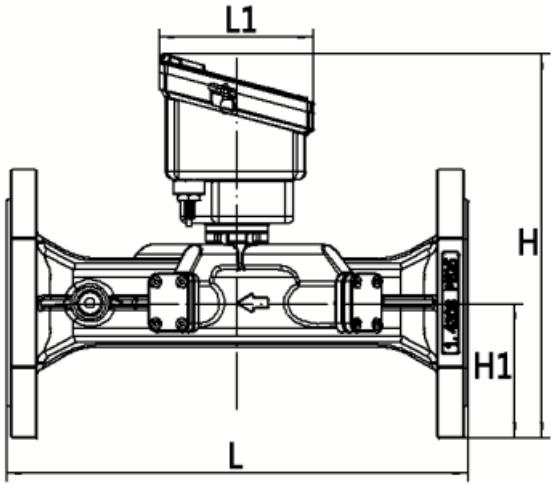
PN	PN10/PN16						PN10	PN16
DN (mm)	50	65	80	100	125	150	200	200
L	200	200	225	250	250	300	350	350
L1	120	120	120	120	123	120	120	120
H	245	250	275	290	380	400	470	470
H1	65	70	90	100	125	130	170	170
W	123	123	123	123	123	123	123	123
B	172	190	205	230	250	285	340	340
D	165	185	200	220	250	285	340	340
K	125	145	160	180	210	240	295	295
n×ΦD1	4×Φ18	4×Φ18	8×Φ18	8×Φ18	8×Φ18	8×Φ22	8×Φ22	12×Φ22

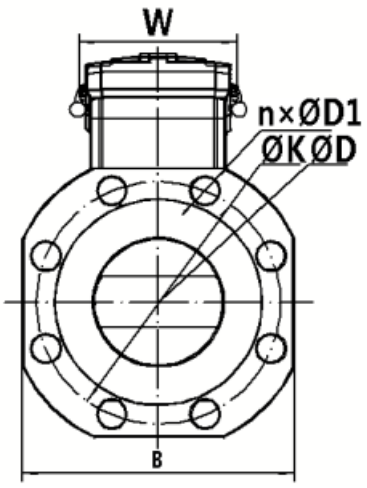
OPTIONAL DIMENSIONS

PN	PN10				PN16			
DN (mm)	250	300	350	400	250	300	350	400
L	450	500	500	600	450	500	500	600
L1	120	120	120	120	120	120	120	120
H	525	575	635	690	530	580	640	695
H1	198	223	253	283	203	230	260	290
W	123	123	123	123	123	123	123	123
B	395	445	505	565	405	460	520	580
D	395	445	505	565	405	460	520	580
K	350	400	460	515	355	410	470	525
n×ΦD1	12×Φ22	12×Φ22	16×Φ22	16×Φ26	12×Φ26	12×Φ26	16×Φ26	16×Φ30

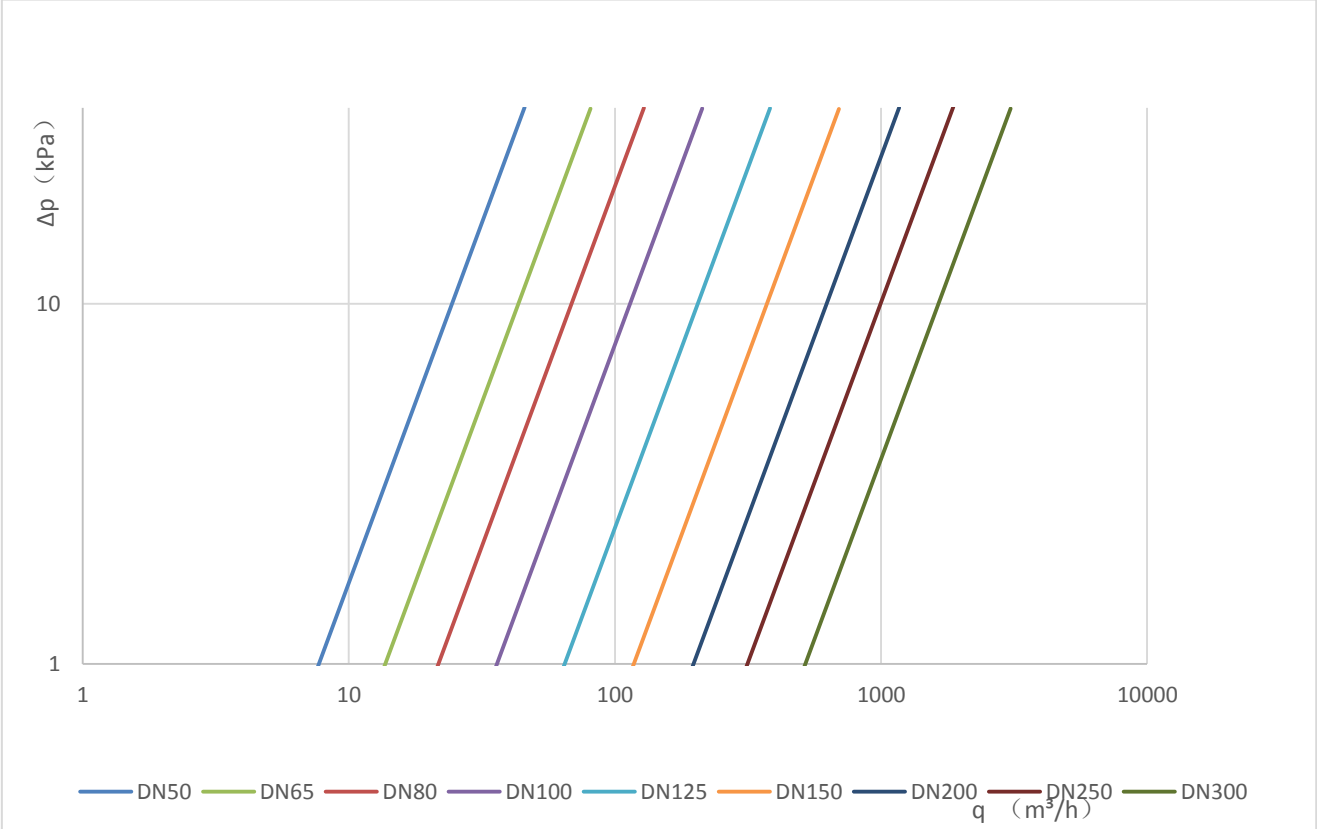
CONNECTIONS

Wire	Signal	Description
White	Pulses	Pulse signal both with forward flow and backflow
Yellow	Direction	Contact closed = backflow
Green	Tampering	Contact open = tampering
Brown	Ground	Common ground signal
Grey	Forward pulses count	In the event of backflow, the meter internally counts the volume flowed. When the forward flow is restored, no pulses are generated until the value of the volume flowed is zero.

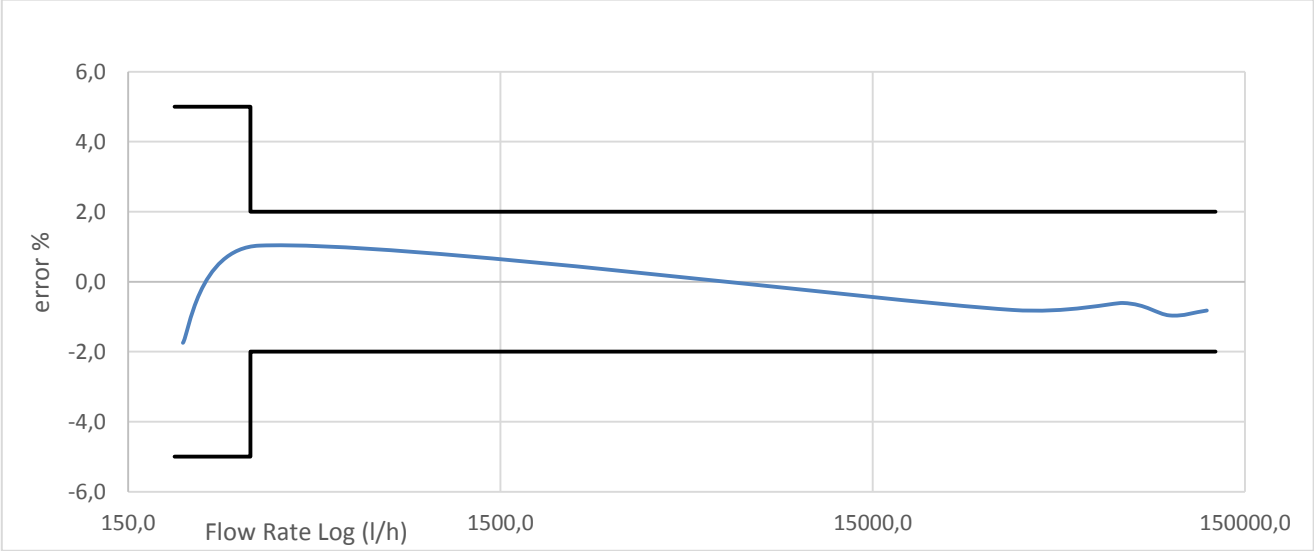




HEAD LOSS



ERROR CURVE



1.1 01/19| Subject to technical change

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