



ELIS PLZEŇ a.s.



**ULTRASONIC FLOW METERS FLOMIC FL5034, FL5035
FLOMIC FL5054, FL5055**

The battery-powered **FLOMIC FL5034, FL5035 and FLOMIC FL5054, FL5055 ultrasonic flow meters** are intended for operational and invoicing measurements of instantaneous flow rate, pressure and consumption in water piping in observance of standard EN 14154 in water works, water distribution systems and other industrial applications. These flow meters are in compact or remote version with the IP 68 protection class. They are characterised by high measurement accuracy and long-term stability over a wide range of measured values. The meters do not need any external power supply, do not include any moving parts and, have significantly lower hydraulic losses. The technical parameters and other features of the FLOMIC flow meters make them suitable not only for water consumption measurements, but also for water-leak tracking and monitoring of the general condition of water-supply networks, where the meter output signals can be connected via data transfer systems to remote computer control stations. The measurement method utilised by these meters is a single-beam (FL503x) or dual-beam (FL505x) transit-time pulse method based on evaluation of the time needed for an ultrasonic signal to cross the distance between two measuring transducers. In the standard version, the meter measures instantaneous flow rate (in m³/hour) and the total volume of water passed through the meter (in m³) in the given flow direction. The measured data are converted into passive pulse output signals.

OPTIONAL METER ACCESSORIES:

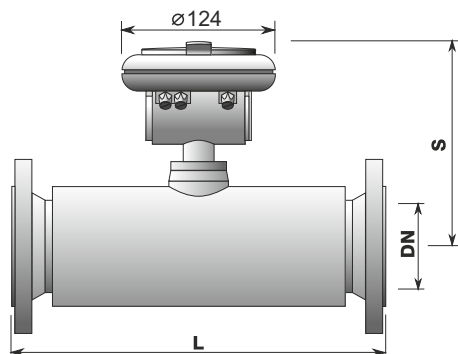
- bi-directional flow rate and volume measurements with visual and electronic indication of the actual flow rate direction
- measurement and display of instantaneous water pressure values within the range of 1 to 16 bar
- using a passive current output signal 4 to 20 mA, monitoring the instantaneous flow rate or flow pressure values
- measured data storage with user-selectable sampling period of 1 minute to 1 year
- actual and stored data reading via the USB or RS 232 interface
- connection to a remote data transfer system by means of a GSM module
- use of alternative measurement units (Gal/min, or litre/sec)
- application of the meter within drinking-water supply systems
- power supply via the 4 to 20 mA current line

FLOMIC FL5054, FL5055

TECHNICAL PARAMETERS

FLOMIC FL5034, FL5035

		32	40	50	65	80	100	125	150	200	250	300
nominal diameter		32	40	50	65	80	100	125	150	200	250	300
overload flowrate Q ₄ [m ³ /h]		20	31,25	50	78,75	125	200	250	312,5	500	787,5	1250
permanent flowrate Q ₃ [m ³ /h]		16	25	40	63	100	160	200	250	400	630	1000
minimum flowrate Q ₁ [m ³ /h]	FL503x	0,05	0,079	0,127	0,2	0,25	0,4	0,5	0,625	1,0	1,575	2,50
	FL505x		0,0625	0,1	0,157	0,2	0,32	0,4	0,5	0,8	1,26	2,0
pulse output constant k _i [litres/pulse]		10	10	25	50	50	100	100	100	250	250	500
flowrate ratio Q ₃ /Q ₁ for T30	FL503x	315	315	315	315	400	400	400	400	400	400	400
	FL505x		400	400	400	500	500	500	500	500	500	500
water pressure class		MAP 16 (FL503x, FL505x from DN 100 – DN 300), or MAP 40 (FL503x, FL505x)										
temperature class		T50 (FL5034, FL5054), T130 (FL5035, FL5055)										
flow-profile sensitivity class	before meter	U5 (FL5054, FL5055), U10 (FL5034, FL5035)										
	after meter	D3 (FL5054, FL5055), D5 (FL5034, FL5035)										
pressure loss class		ΔP 25										
climatic and mechanical resistance class		B (optional O)										
electromagnetic environment		E1, E2										
flowrate sampling period		1 s										
display unit		single line 8 character LC display										
power supply		Li battery 3.6 V/19 Ah - lifetime 8 years in standard meter version										
protection class		IP 68										
output signal		measured flow-rate values indicated in the form of passive pulse output U = 3 to 30 V, I = 0.002 to 10 mA, t _{imp} = 30 ms										
optional accessories		passive current output 4 to 20 mA, U = 10 to 24 V										
	bi-directional flow-rate measurement	+ passive pulse output, U = 3 to 30 V, I = 0.002 to 10 mA, t _{imp} = 30 ms										
		– passive pulse output, U = 3 to 30 V, I = 0.002 to 10 mA, t _{imp} = 30 ms										
		passive current output 4 to 20 mA, U = 10 to 24 V, in combination with passive electric contact for indication of the actual flow-rate direction										
		optically isolated interfaces USB, RS 232, RS 232 + USB converter GSM module										



FL5034 (compact version), FL5035 (remote version) FL5054 (compact version), FL5055 (remote version)

BASIC DIMENSION AND WEIGHT

diameter [mm]	32	40	50	65	80	100	125	150	200	250	300
L [mm]	360	360	360	360	360	360	360	360	450	450	450
S [mm]	175	180	185	190	200	210	225	235	255	280	305
weight [kg] 1.6 MPa						18	19	20	29	46	59
weight [kg] 4.0 MPa	10	10	12	13	16	18	21	22	38	71	85