ElecTo

ELECTO SONIC

ELECTRONIC ULTRASONIC METER

ElecTo SONIC is the ultrasonic meter offering built–in data communication thanks to its innovative electronic register with multi–protocol radio communication facilities. It ensures excellent performance in all installation conditions and is insensitive to the chemical and physical characteristics of water. It is the ideal solution for Utility installations. Its wide 9–characters LCD display (digits and symbols) makes it very easy to read, while providing additional information to both users and operators. ElecTo SONIC supports remote data reading with fixed and mobile system, while offering maximum interoperability.

## maddalena®

### M E T E R I N G   E X P E R T I S E
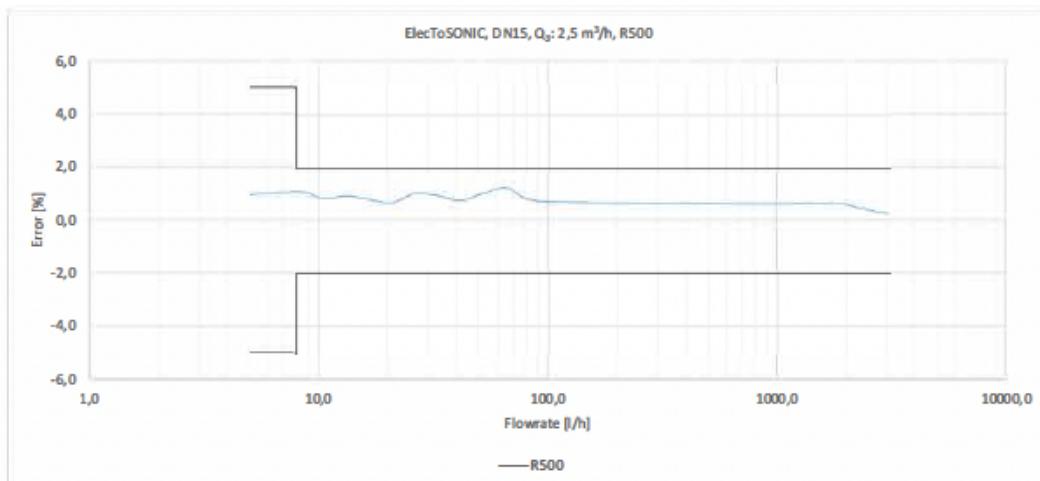
ELECTO SONIC

FEATURES
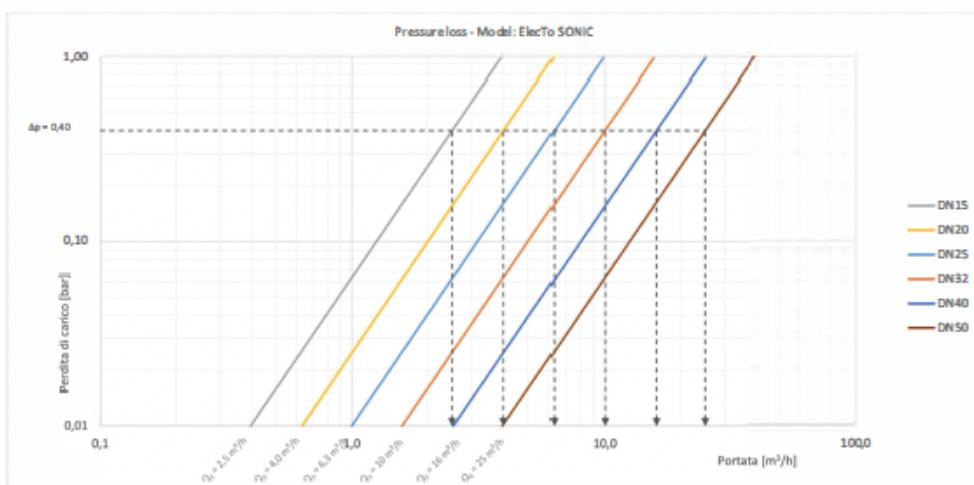
▪ Ultrasonic measuring technology
▪ DN: 15 to 50
▪ MID certificate: R MAX 800
▪ Health certifications available for a number of countries
▪ IP68 protection rating
▪ 9–characters display (digits and symbols)
▪ Datalogging with a storage capacity of over 11,000 values
▪ Integrated wM–Bus and LoRaWAN radio (battery life with default configuration 16 years)
▪ Integrated radio option NB–IoT (13 years by default in ELC0)
▪ Optimized antenna for maximum radio range
▪ Fault detection: low water temperature, low battery, empty line / air, overconsumption, no consumption, reversed meter, leakage, backflow and expiry of testing period
▪ Local NFC interface
▪ Programming and testing kit available upon request
▪ For further information on electronic register and radio transmission functions, please refer to the instruction manual

TYPICAL ERROR CURVE

ElecToSONIC, DN15, Q₃: 2,5 m³/h, R500

HEAD LOSS DIAGRAM

Pressure loss - Model: ElecTo SONIC

METROLOGICAL PERFORMANCE

Size						
	mm	15		20		25
	in	½		¾		1

Module B no.	IT–041–22–2213				
Module D no.	0119–SJ–A010–08				
Q_3/Q_1 = R Referred to installation position	Any ≤ 500	Any ≤ 800	Any ≤ 500	Any ≤ 800	
MID standard performance *					
Q_3	m³/h	1,6	2,5	4,0	6,3
Q_4	m³/h	2	3,13	5	7,88
R		**315**	**500**	**315**	**500**
Q_1	l/h	5,08	5	7,94	12,60
Q_2	l/h	8,13	8	12,7	20,16

* Other values of R available upon request.

TECHNICAL DATA

Maximum permissible error between Q_1 and Q_2 (excluded)		+/– 5%		
Maximum permissible error between Q_2 (included) and Q_4		+/– 2% with water temperature ≤ 30°C +/– 3% with water temperature > 30°C		
Temperature class		T50		
Flow profile sensitivity classes		U0 – D0		
Starting flow rate	l/h	2,5	4	7
Head loss		ΔP40		
Nominal pressure	bar	16		
Maximum reading	m³	999.999		
Minimum reading	l	0,001		
Indicative weight	kg	0,99	1,10	2,2

METROLOGICAL PERFORMANCE
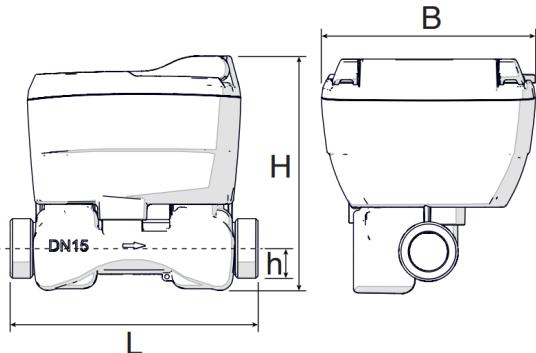
Size	mm	32	40	50
	in	1 ¼	1 ½	2

Module B no.		IT−041−22−2213		
Module D no.		0119−SJ−A010−08		
$Q_3/Q_1 = R$ Referred to installation position		Any ≤ 800		
MID standard performance *				
Q_3	m³/h	10	16	25
Q_4	m³/h	12,50	20	31,25
R		**500**		
Q_1	l/h	20	32	50
Q_2	l/h	32	51,2	80

* Other values of R available upon request.

TECHNICAL DATA

Maximum permissible error between Q_1 and Q_2 (excluded)		+/− 5%		
Maximum permissible error between Q_2 (included) and Q_4		+/− 2% with water temperature ≤ 30°C +/− 3% with water temperature > 30°C		
Temperature class		T50		
Flow profile sensitivity classes		U0 − D0		
Starting flow rate	l/h	10	16	25
Head loss		ΔP40		
Nominal pressure	bar	16		
Maximum reading	m³	999.999		
Minimum reading	l	0,001		
Indicative weight	kg	2,2	2,6	3,1

DIMENSIONS

Size	mm	15	20	25
	in	½	¾	1

Thread	in	G ¾ B | G 1 B	G 1 B	G 1 ¼ B
L	mm	110/145/165	105*/130/165/190	150/160/260
H	mm	104	105	119
h	mm	19	21,5	25
B	mm		95	

Size	mm	32	40	50
	in	1 ¼	1 ½	2

Thread	in	G 1 ½ B	G 2 B	G 2 ½ B
L	mm	160/260	200/300	300
H	mm	119	126	143
h	mm	29	34	38,5
B	mm		95	98

* only R500