

AK-411S RF / LoRa®

Remote Reading and Prepaid

Ultrasonic Hot Water Meters



GENERAL

- MID Certificated • RF Readings
- Supports Wireless MBUS Protocol
- Integrated LoRa® module-chipset allows both LoRa® and FSK modulation
- Supports LoRaWAN® - Class A Protocol • Built-in buzzer
- Selectable Frequency Band EU 863-870 Mhz
- Segment or Graphic LCD, backlit display option
- Ultrasonic principle assures very high sensitivity even at low flow
- Contactless card usage ensures isolation against external affects
- Battery life up to 10 years
- Suitable for hot water up to 90°C
- No measurement of air
- Reverse flow detection
- Wide dynamic measuring range and low pressure loss
- Solid stainless steel reflector • IP 68 protection class
- Can be mounted all positions desired
- Leakage control system, • 3 years of warranty
- Service and spare parts available for 10 years
- Environmental Classes

Climatic : -25°C/+60°C | Mechanic: M1/O | Elektromagnetic: E2

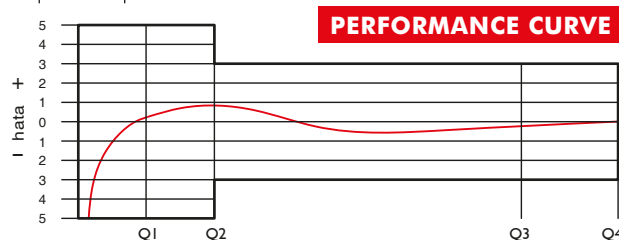
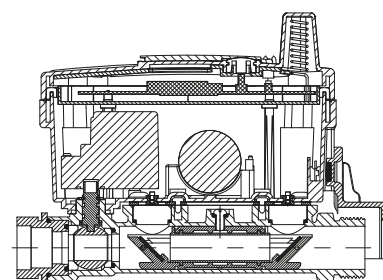
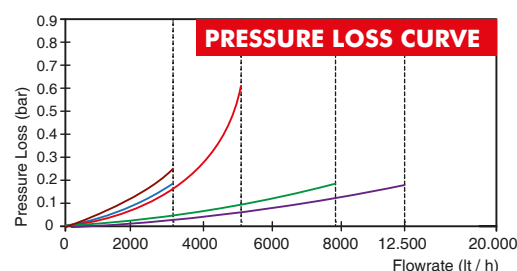
• $Q2 \leq Q \leq Q4$ Maximum Permissible Error

Class 2 Water Meters; $\% \pm 2$ (Water Temp. $\leq 30^\circ\text{C}$), $\% \pm 3$ (Water Temp. $> 30^\circ\text{C}$)

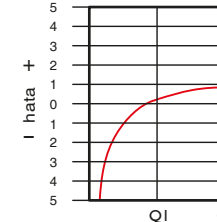
Class 1 Water Meters; $\% \pm 1$ (Water Temp. $\leq 30^\circ\text{C}$), $\% \pm 2$ (Water Temp. $> 30^\circ\text{C}$)

• $Q1 \leq Q < Q2$ Maximum Permissible Error

Class 2 Water Meters; $\% \pm 5$ | Class 1 Water Meters; $\% \pm 3$



PERFORMANCE DATA

Nominal Diameter		DN	15		20		25	32	40
Overload Flowrate	Q4	m³/h	3,125	3,125	5	7,875	12,5	20	
Permanent Flowrate	Q3	m³/h	2,5	2,5	4	6,3	10	16	
Transitional Flowrate	Q2	m³/h	0,010	0,010	0,016	0,0252	0,040	0,064	
Minimum Flowrate	Q1	m³/h	0,0062	0,0062	0,010	0,0158	0,025	0,04	
Q3/Q1 (MI-001 OIML R49)		-	≤400	≤400	≤400	≤400	≤400	≤400	
Pressure Loss Class		bar	0,16	0,25	0,63	0,16	0,16	0,16	
Mounting on the network		-	All Positions						
Maximum Registration Capacity		m³	999999						
Initial Flow		Qi	3						
Maximum Working Pressure		bar	16						
Maximum Working Temperature		°C	90						
Smallest Reading Resolution		m³	0,00001						
Accuracy Class		-	Class 1/Class 2						

DIMENSIONS

		With / Without Valve					Composite Without Valve	Brass With Valve	
Nominal diameter	DN	15	20	25	32	40	40	40	mm
Connecting diameter	D	G 3/4	G 1	G 1 1/4	G 1 1/2	G 2	G 2	G 2	B
Total overall meter height	H	147	147	153	159	167	215	215	mm
Axis height	h	19	19	21,9	24,9	30	40	40	mm
Width	B	102	102	102	102	102	126	126	mm
Length	L	190	190	225	230/260	200	464	464	mm
Length with connections	LB	270	270	345	360/390	330	594	594	mm
LCD Screen Length		55x30	55x30	55x30	55x30	55x30	55x30	55x30	mm
LCD Screen Angle		30°	30°	30°	30°	30°	30°	30°	mm
Unit weight		1,18	1,20	1,4/1,7	1,5/1,9	1,2/1,7	4,1/4,5	7,8/8,3	kg
Package Weight (without con.)		6,75	6,85	8,42	9,00	7,90	5,30	9,00	kg
Package Weight (with con.)		7,55	7,80	10,62	12,40	12,85	5,60	9,30	kg
Quantity per package		5	5	5	5	5	1	1	pcs
Package dimensions		17x52x23	17x52x23	26x52x30	26x52x30	26x52x30	13x60x22	13x60x22	cm

