



Integral-MK UltraMaXX

Thermal energy meter



Your benefits

- First combination of ultrasonic technology and measuring capsule system:
 - **Exceptional measuring dynamics**
 - **Safe and durable**
 - **Easy meter replacement**
- Backward compatible:
Measuring capsule also fits existing Integral-MK MaXX housings
- Compact design:
Minimal installation space required on site
- Large display:
Improved readability
- Detachable calculator:
Flexible installation possible (compact/split)
- Display of operating faults and dirt warning:
Increased operational reliability

Applications

- Heat consumption measurement in building services
- Heat meter for local or remote reading

Properties

- Ultrasonic heat and cooling meter with measuring capsule
- $q_p 1,5$ and $q_p 2,5$ available
- Powered by 10-year battery or via M-Bus (backup battery included)
- Measuring capsule can be rotated on site to the desired display position
- Maximum operating pressure PN 16 bar
- Temperature measuring range 0–150 °C
- Temperature sensor Pt 500, also suitable for existing Integral-MK MaXX housings with thermowells
- Billing date function (18 end-of-month values)
- Maximum values (only large housing version)
- **CE** Conformity according to the European Measuring Instruments Directive (MID)
- Standard EN 1434

Options

- Local readout version (battery powered, small calculator housing)
- Version with 2 pulse outputs for heating and cooling energy (battery powered, small calculator housing)
- Version with M-Bus interface and 4 water meter inputs (battery powered, large calculator housing)
- Version with M-Bus interface and 2 water meter inputs (M-Bus powered, large calculator housing)
- Usable as heat meter, cooling meter, or combined heat and cooling meter
- Retrofit external EquaScan-hMIU radio module

Technical Data

Volume measuring device

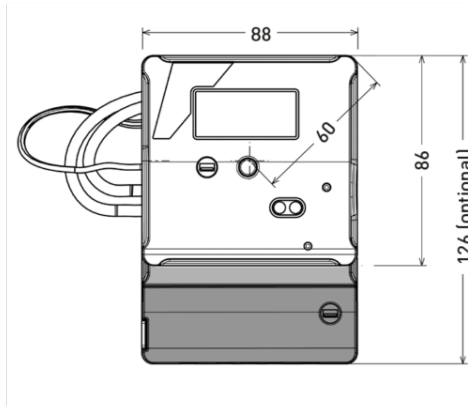
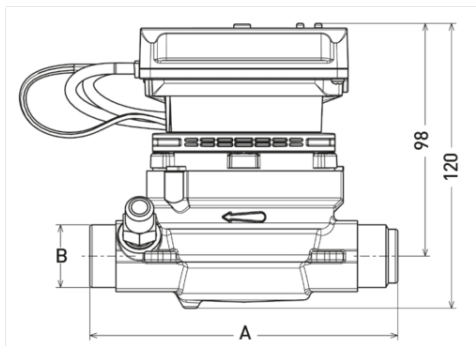
Nominal diameter	q _p	m ³ /h	1,5	2,5
Maximum flow rate	q _s	m ³ /h	3	5
Start-up value	q _{start}	l/h	2	5
Kvs value		m ³ /h	3	5
Nominal pressure	PN	bar	16	16
Operating temperature		max. °C	90	90
Approval			MID bzw. EN 1434	
Protection class			IP67	IP67
Connection cable		m	0,5	0,5

Installation kit EAT

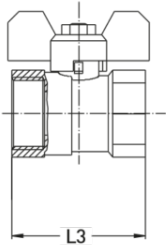
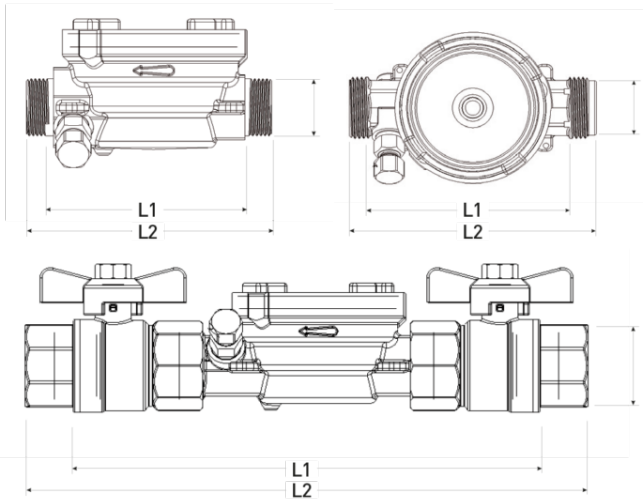
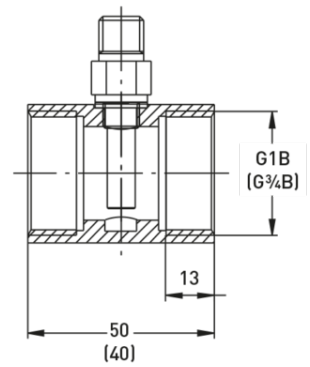
Nominal diameter	DN	mm	15	20
Length housing	A	mm	110	130
Connection thread (EAT)	B G...A	Inch	¾	1
Short-term max. temperature		max. °C	110	110

Installation kits	Connection lengths			Connection thread
	L1	L2	L3	
EAT ¾"	88	110	-	G¾B
EAT 1"	106	130	-	G1B
EAT ¾" KH	176	200	-	G¾"
EAT 1" KH	202	230	-	G1"
KH ¾"	-	-	60	G¾"
KH 1"	-	-	66	G1"

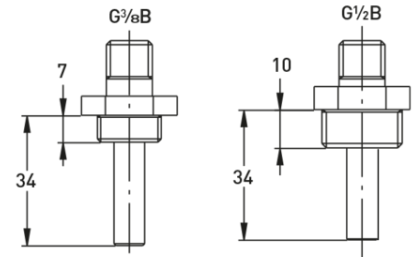
Dimension Diagram



Supply adapter with thermowell to EAT q_p 1,5 (q_p 2,5)



Single thermowell (option)



Installation position

Pipeline:	horizontal	—
	vertical	
Head of meter	upwards	↑
	downwards	↔

Calculator performance data

18 reference date values (end-of-month values)		
EEPROM (non-volatile memory)		
Temperature range		0 to 150 °C
Temperature difference		3 to 150 K
LCD display (8 digits)	kWh MWh m ³	99999999 (Standard) 99999,999 99999,999
Lithium battery operating lifetime		10 years
Environmental class		EN 1434-Klasse C, MID: E1, M1
Protection class		IP54
Ambient temperature		+5 to +55°C

Temperature sensor performance data, thermowell installation or direct installation

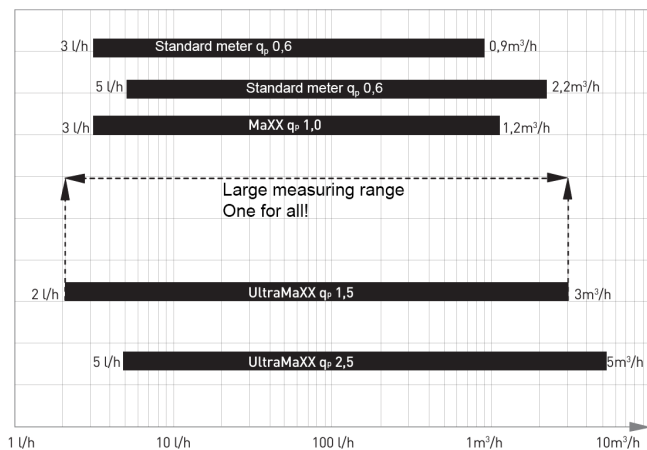
Sensor element	Pt 500
Execution	Design cable sensor Ø6 mm ¹⁾
Cable length (coiled cable)	2x1,2m

(Other versions and lengths available as options)

¹⁾ Also always suitable for existing or already installed EAT installation sets with thermowells (Integral-MK MaXX, backward compatible)

Flow measuring ranges

Measuring range of the Integral-MK UltraMaXX q_p 1.5 (Class C) compared to the Integral-MK MaXX and standard meters q_p 0.6 and q_p 1.5 (Class B)



Pressure lost curve

