

## KENT (ELSTER) HEAT METERS

### F27/C27

### THREADED & FLANGED ULTRASONIC WATER ENERGY/HEAT METER



#### Part No. F27/C27

#### COMPACT ULTRASONIC METER FOR HEATING OR COOLING

The Elster Kent F27/C27 is a flexible compact BTU meter with an ultrasonic flow sensor & two temperature sensors for monitoring flow and energy consumption.

The energy calculation is based on measured volume and measured temperature difference's between the high and low temperature sensors. The F27/C27 is designed for good dynamic behaviour. Temperature measurement is carried out every 5 seconds and flow is measured twice every second.

The calculator part of F27/C27 can be supplied battery or mains powered and can be mounted on the flow sensor in four different positions or can be detached and mounted on a wall or panel.

#### Features & Benefits

- Accuracy class 2\*.
- Environmental class C according to EN1434.
- Battery or mains powered LCD display calculator.
- As standard meters are fitted in return pipe-work, optionally can be fitted on supply.
- Temp sensors supplied with 2 meter length of cable
- Pulse & M-Bus output facility with optional RF communication.

#### Pressure & Temperature

Pressure range:-

Threaded:- 16 bar.  
Flanged:- 25 bar.\*

\* DN100 is 16 bar.

Temperature Range:-

Flow meter:- 10°C to 130°C.

Temp sensors:- 0°C to 190°C.

Difference:- 2 to 120 K

Ambient:- 5°C to 55°C.

F27/C27 THREADED SPECIFICATIONS	BSP	3/4	3/4	1	1	1	1 1/4	1 1/4	2
	Qp	0.6	1.5	0.6	1.5	2.5	3.5	6.0	10.0
MAX OVERLOAD FLOW RATE Qs	m³/h	1.2	3	1.2	3	5	7	12	20
MAX CONTINUOUS FLOW RATE Qp	m³/h	0.6	1.5	0.6	1.5	2.5	3.5	6	10
MIN CONTINUOUS FLOW RATE Qmin	l/h	6	15	6	15	25	35	60	100
START UP FLOW RATE	l/h	2.4	6	2.4	6	10	14	24	40
PRESSURE DROP AT Qp	mbar	140	130	140	130	205	65	190	120
DISPLAY		kWh	kWh	kWh	kWh	kWh	MWh	MWh	MWh

F27/C27 FLANGED SPECIFICATIONS	DN	25	25	40	50	65	80	100
	Qp	3.5	6	10	15	25	40	60
MAX OVERLOAD FLOW RATE Qs	m³/h	7	12	20	30	50	80	120
MAX CONTINUOUS FLOW RATE Qp	m³/h	3.5	6	10	15	25	40	60
MIN CONTINUOUS FLOW RATE Qmin	l/h	35	60	100	150	250	400	600
START UP FLOW RATE	l/h	14	24	40	60	100	160	240
PRESSURE DROP AT Qp	mbar	65	190	120	120	70	120	140
DISPLAY		MWh	MWh	MWh	MWh	MWh	MWh	MWh

See Data Sheet 01.13b for dimensions, output data & options



## DIMENSIONS, OUTPUT DATA & OPTIONS

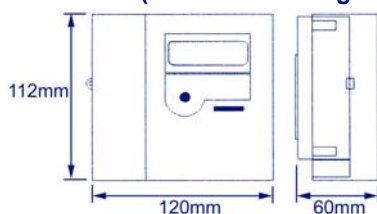
### Threaded

SIZE	A	B	C	D	PROBE	LENGTH	DIAMETER	MOUNTING
3/4	110	-	77	3/4 BSP	TDA26	26mm	3.5mm	M10x1
1	130	-	77	1 BSP	TDA26	26mm	3.5mm	M10x1
1 1/4	260	51	111	1 1/4 BSP	TL045	45mm	5.2mm	Optional
2	300	68	108	2 BSP	TL045	45mm	5.2mm	Optional

### Flanged

SIZE	A	B	C	FLANGES	PROBE	LENGTH	DIAMETER	MOUNTING
DN25	260	51	111	PN16	TL045	45mm	5.2mm	Optional
DN40	300	48	108	PN16	TL045	45mm	5.2mm	Optional
DN50	270	46	106	PN16	TL045	45mm	5.2mm	Optional
DN65	300	52	112	PN16	TL045	45mm	5.2mm	Optional
DN80	300	56	116	PN16	TL045	45mm	5.2mm	Optional
DN100	360	68	128	PN16	TL045	45mm	5.2mm	Optional

### Calculator (Threaded & Flanged)



### LCD Display

Example of a display image, showing accumulated energy.



### Pulse inputs / pulse outputs

The F27/C27 has two pulse outputs, energy (pulse 1) and volume (pulse 2). The pulse outputs are of the type "open collector".

One or both pulse outputs can be changed to pulse inputs. Pulse inputs can be used to log and read other meters, e.g. cold, hot water meters.

### Communication

F27/C27 has a galvanic isolated M-Bus data output, according to EN1434-3. Data can be read through the optical interface or by two wire M-Bus connection (isolated). The F27/C27 can be equipped with an optional board for RF communication.

### Additional Options

Cooling version  
Sensor Pockets for TL045 (85mm & 120mm lengths)  
Ball valves with temp sensor entry points (1/2" & 3/4")  
Factory fitted M-Bus cable (Various lengths)  
RF communication card  
Mounting unions for TL045

### Data

In addition to accumulated energy, other data values are accessible, below is just a few of the many. Contact sales for full list.

- Accumulated volume for the extra pulse inputs
- Error code and accumulated time for the relevant error
- Momentary power
- Momentary flow
- Flow temperature
- Return temperature
- Temperature difference
- Total operating time
- Meter number
- Manufacturing number
- Real time clock with date function
- Pulse value
- Flow sensor placing (high or low temp.)
- Accumulated volume according to flow sensor
- Errors
- Recommended date for battery replacement.