

# CALOR 40

## CALOR 40 Heat consumption meter

The CALOR 40 heat consumption meter is intended for measuring the heat delivered by heat transferring media, e.g. into delivery stations, industrial or residential buildings, into individual housing estates and/or for various technological processes and plants.

Among others, also for measurement of cold. It is noted for high reliability, accuracy and stability of metrology parameters. The display unit indicates the total energy, heat output, instantaneous rate of flow, flow volume, reverse volume, date and time, monthly records, daily records, tariff values, failure duration records and in the case of malfunction also its description.



## MAIN MERITS

- high accuracy flow measurement over full-scale range
- long-time stability of metrology parameters
- local readout of all archived data
- simple and trouble-free operation
- does not cause pressure losses
- high abrasion resistance
- the flow sensor can be modified to very aggressive or alkaline fluids
- data transmission via GSM

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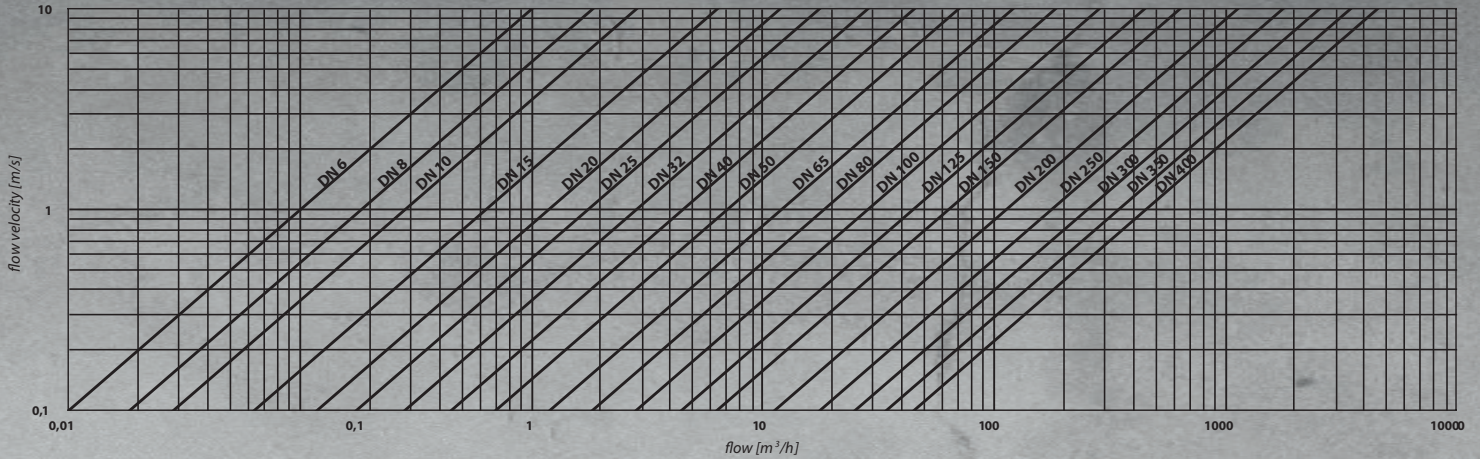
Power	230 VAC (50/60 Hz), 24 VAC/VDC with polarity reversal protection
Input power	6 VA
Design	compact ( $T_{max}$ 90 °C), separated (standard cable length 3 m)
Diameter nominal	DN 10÷600
Lining material	rubber (hard, soft, with potable water test certificate), PTFE, PFA, ceramics, E-CTFE
Electrode material	CrNi steel DIN 1.4571, Hastelloy C4, Titanium, Tantalum
Sensor material	stainless steel and structural steel with polyurethane coating
Process connections	sandwich, flanged DIN (EN1092), threaded (EN ISO 228-1), food grade (DIN 11851 fitting, clamp)
Max. temperature of the fluid	170 °C (according to lining and design)
Range of temperature difference	3÷168 °C
Pressure	PN10, PN16, PN25, PN40
Min. conductivity of the fluid	20 $\mu$ S (at a lower conductivity, upon agreement with the manufacturer)
Flow meter accuracy	class 2 according to ČSN EN 1434
Display unit	LCD 2x 16 characters
Outputs	2x pulse (passive), current loop 4÷20 mA, RS485 (M-BUS/Mod-Bus protocol), Amset C30
Inputs	2x pulse inputs for external meters
Flow sensor degree of protection	IP65, IP67, IP68
Electronics degree of protection	IP54
Temperature sensors	PT 500 (4-wire or 2-wire)





# TECHNICAL SHEET

## VOLUMETRIC FLOW VERSUS INSTANTANEOUS FLOW RATE DIAGRAM

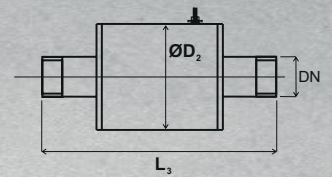
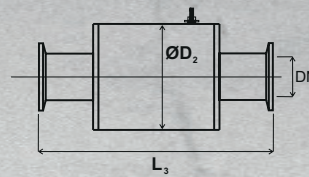
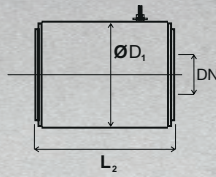
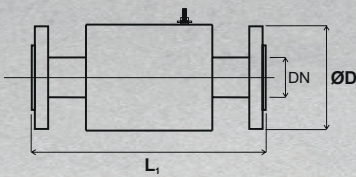


### FLANGE (EN 1092)

### SANDWICH

### CLAMP/FOOD THREAD (DIN32676/DIN11851)

### THREAD (EN ISO 228-1)



Constructional lengths can be modified upon agreement with the manufacturer.

## DIMENSIONAL TABLE

## FLOW RANGES

Connection [mm]	Constructional length [mm]					Outside diameter [mm]		
	Flanged	Sandwich	Threaded (connection)	Food Thread	Food Clamp	Flange		Sensor body
						Flanged	Sandwich	Food connection Threaded
DN	L1	L2	L3	L3	L3	D	D1	D2
10	-	90	193 (3/8")	179	189	-	51	-
15	200	90	196 (1/2")	172	182	95	51	70
20	200	90	206 (3/4")	176	182	105	61	80
25	200	90	206 (1")	186	182	115	71	90
32	200	90	233 (1 1/4")	197	189	135	82	100
40	200	110	256 (1 1/2")	220	210	145	92	116
50	200	110	261 (2")	231	217	160	107	136
65	200	130	-	upon agreement	upon agreement	180	127	151
80	200	130	-	upon agreement	upon agreement	195	142	177
100	250	200	-	-	-	215	168	-
125	250	200	-	-	-	245	194	-
150	300	200	-	-	-	280	224	-
200	350	200	-	-	-	335	284	-
250	450	-	-	-	-	405	-	-
300	500	-	-	-	-	440	-	-
350	550	-	-	-	-	500	-	-
400	600	-	-	-	-	565	-	-
500	600	-	-	-	-	670	-	-
600	600	-	-	-	-	840*	-	-

Instantaneous flow rate corresponding to flow velocity.

Diameter nominal [mm]	$Q_{\min}$ [m³/h] us $Q_{\min}/Q_{\max}$			$Q_{\max}$ [m³/h]
	1/60 (0,2 m/s)	1/100 (0,12 m/s)	1/200 (0,06 m/s)	
	-	-	-	(12 m/s)
DN 10	0,06	0,034	-	3,4
DN 15	0,13	0,076	0,038	7,6
DN 20	0,24	0,142	0,071	14,2
DN 25	0,35	0,21	0,105	21
DN 32	0,6	0,34	0,17	34
DN 40	0,9	0,54	0,27	54
DN 50	1,4	0,84	0,42	84
DN 65	2,4	1,44	0,72	144
DN 80	3,6	2,2	1,1	220
DN 100	5,6	3,4	1,7	340
DN 125	8,9	5,34	2,67	534
DN 150	13	7,6	3,8	760
DN 200	23	13,5	6,75	1350
DN 250	35	21,1	-	2115
DN 300	51	30	-	3050
DN 350	70	41	-	4150
DN 400	90	54	-	5426
DN 500	141	-	-	8480
DN 600	203	-	-	12200

\*Only for PN16. For other requirements, please contact the manufacturer.