

C3200 Combination cold water meters

Permanent flow rate	m ³ /h	qp	36(36)*	74(90)*	131(170)*	355(355)*
Size	mm		50/15	80/20	100/20	150/30

* Bracketed figures refer to iron bodies version

The C3200 are combination meters which couple a H3000 high capacity meter with a smaller V100 volumetric rotary piston meter to give consistent accuracy over an extended range of flow rates. They are particularly suited to bulk flow metering in areas such as hospitals, factories and sports centres where large variations in flow rate can be expected.



Operation

Wide flow ranges are measured by utilising the low flow capability of a positive displacement meter and the higher flow efficiency of a Woltmann meter. At lower flows the water is directed through the smaller of the two meters. As soon as the flow reaches a pre-determined higher level, differential pressure causes the changeover valve located in the Woltmann meter to open and the flow is directed through both meters. Oscillation at the changeover point is eliminated by the valve's positive method of operation.

The reverse procedure occurs with decreasing flows.

Standard features

- Accuracy over flow range, including changeover points of, $\pm 2\%$
- Choice of bronze or spheroidal graphite iron body

- H3000 meter has high-integrity, copper canned sealed register with scratch-resistant glass
- Registrations available for m³ or imperial gallons
- H3000 meter has centre sweep hand which enables precise readings to be taken
- Compact body length to ISO4064, BS5728 (for meters with interchangeable mechanisms)
- Can be installed in horizontal, vertical or inclined pipelines without loss of accuracy
- Interchangeability of key meter components including the complete V100 by-pass meter, pre-calibrated changeover valve and H3000 mechanism for on-site replacement if required
- Iron meter bodies are finished with blue epoxy powder-coating

Optional features

- Pulse units with submersible or waterproof connections are available for remote reading of both meters
- 1/4" BSP pressure monitoring port incorporated in main meter top cover
- Sealed register with pulse output facility

Flange drilling to suit

Flanges drilled to BS 10 Tables C, D, E.
BS4504 PN 10/16, DIN 2532/3
ANSI B16.1/5 Class 125/150

Performance

Size of meter	mm	50/15	80/20	100/20	150/30
Main meter size	mm	50	80	100	150
Overload flow rate $q_s \pm 2\%$	m³/h	45 (45)*	147 (170)	262 (284)	568 (568)
Permanent flow rate $q_p \pm 2\%$	m³/h	36 (36)	73.5 (90)	131 (170)	355 (355)
Flow at 0.6 bar headloss	m³/h	32.5 (31)	83 (82)	126 (122)	320 (301)
Flow at 1.0 bar headloss	m³/h	42 (40)	107 (106)	163 (158)	430 (389)
Maximum dial registration	millions of m³	1	1	1	10
Centre pointer registration	litres	100	100	100	1000
Sealed register with pulse output facility**	litres/pulse	100 & 1000	100 & 1000	100 & 1000	1000 & 10000
Pulse unit T133	litres/pulse	1 & 10	1 & 10	1 & 10	10 & 100
Pulse unit T131 and T132	litres/pulse	10	10	10	100
Pulse unit T134	litres/pulse	1	1	1	10

V100 by-pass meter

By-pass meter size	mm	15	20	20	30
Minimum flow rate $q_{min} \pm 5\%$	l/h	15.0	25.0	25.0	60.0
Starting flow rate (approximate)	l/h	3.4	3.4	3.4	13.6
Maximum dial registration	thousands of m³	100	100	100	100
Minimum indicated digit	litres	0.2	0.2	0.2	0.2
Pulse unit facility only	litres/pulse	5.0	5.0	5.0	5.0

Changeover valve

Opening flow rate	m³/h	2.0	3.0	3.3	7.2
Closing flow rate	m³/h	1.0	1.5	1.9	4.6
Maximum working pressure	bar	10	10	10	10
Maximum working temperature	°C	50	50	50	50
Weight (approximate)	kg	14	18.5	25.5 (24)	61 (55)

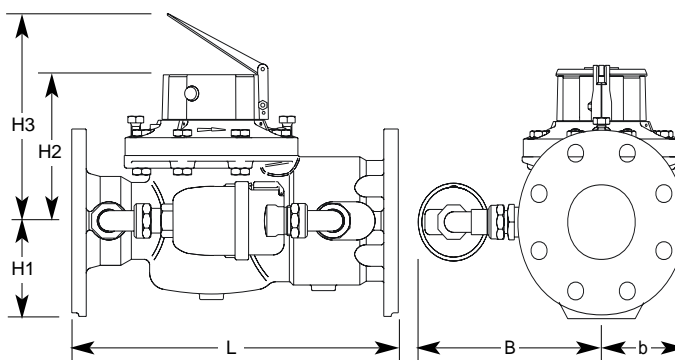
Dimensions (Maximum dimensions quoted as actual dimensions are dependent upon body material)

Overall length – L	mm	300	350	350	500
Width – B	mm	191	216	225	332
Width – b	mm	94	99	115	142
Height to C/L of meter – H1	mm	86	105	120	148
Height above C/L (lid closed) – H2	mm	156	169	189	232
Height above C/L (lid open) – H3	mm	273	286	306	349

*Figures in brackets are relevant to the iron bodies version. **Optional: Each pulse unit adds 33mm to heights H2 and H3. Each pulse unit adds 0.32 kg.

Installation recommendations

The meter should be installed in a clean pipeline, free from any foreign materials. Install the meter with direction of flow as indicated by the arrow cast in the meter case. May be installed in horizontal or inclined lines. To ensure optimum accuracy, particularly when flows approaching the permanent flow are expected, it is recommended that a straight length of pipe equal to and 10 times the nominal meter size be fitted directly to the meter inlet.



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Pressure equipment directive 97/23/EC

This product is applicable in networks for the supply, distribution and discharge of water and associated equipment and is therefore exempt.

The Company's policy is one of continuous improvement and the right is reserved to modify the specifications without notice.