

# ELSTER KENT C4000 IN LINE COMBINATION METER

Two Great Meters Combined to Count Every Drop



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Elster Kent Metering has raised the bar in combination meters by marrying the H 4000 bulk flow meter with the V 220 precision volumetric meter in one sturdy body. The result is a new benchmark in combination meters yielding:

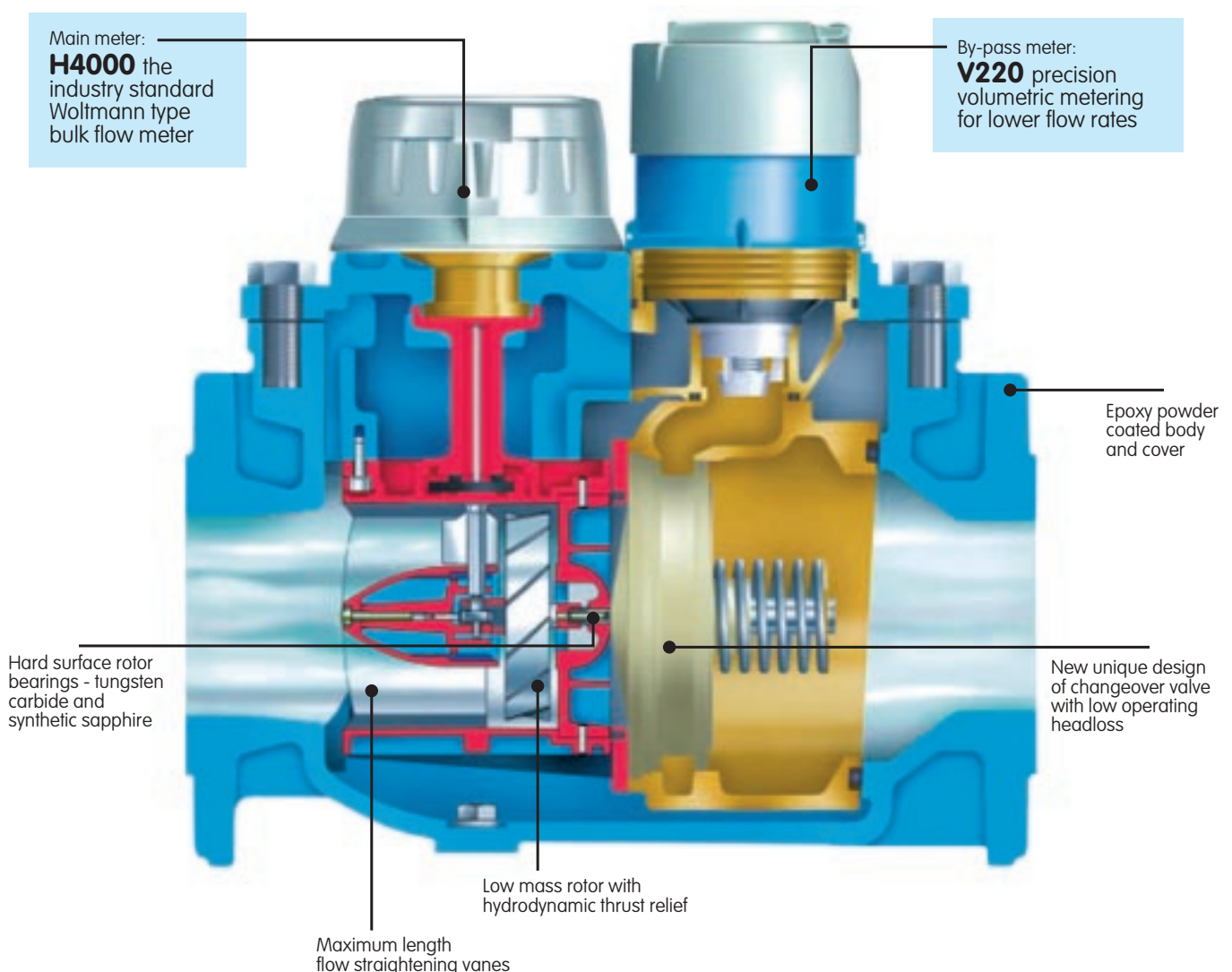
- Woltmann type bulk flow meter to class B accuracy (main meter)
- Low flow measurement to class D accuracy (by pass meter)
- Easy to service in situ (no need to remove meter body from pipework to service)
- Easy access to changeover valve
- Compact in-line construction
- Lowest  $q_{min}$  15 litres per hour
- Pulse output facility for both meters at no extra cost
- Available 50mm - 100mm

- 1/4" pressure tapping monitoring pressure
- Extremely wide measuring range

Available in a range of three sizes and suitable for flow rates up to 250 m<sup>3</sup>/h, the new C4000 meter combines two outstanding Elster Metering technologies in one extremely compact unit. The innovative in-line design of the meter provides important benefits, during installation and throughout its working lifetime.

### Outstanding accuracy maximises revenue collection

Designed for bulk flow applications where wide variations in flow occur, the C4000 makes every drop count. At high or medium flow rates, the primary Woltmann type metering chamber provides metering substantially exceeding class B specifications. At lower flow rates the secondary V220 volumetric meter performs to class D specifications.





## Compact, practical and easy-to-install

The 'in-line' design of the C4000 facilitates a short overall length with significantly reduced width compared to conventional by-pass meters. Furthermore, the need to differentiate between left or right-handed by-pass meters has been eliminated. This makes specifying easier and allows reduced stock inventories.

## Easy access for maintenance

The C4000 unit features an easy-change metering insert, carrying both primary and secondary metering modules. For calibration, maintenance or replacement, this can be removed as a complete assembly – leaving the meter housing in the pipe. Alternatively, access only to the secondary V220 meter can be gained by removing it from the metering insert.

## Metering you can depend on

Like all Elster meters, the C4000 is designed and manufactured to rigorous quality standards for trouble-free operation – whatever its working environment. Wear-resistant jewelled rotor bearings, tungsten carbide thrust pads and stub spindles and factory-potted, moisture resistant electrical connections are just a few examples of the C4000's excellent design details rated IP68.

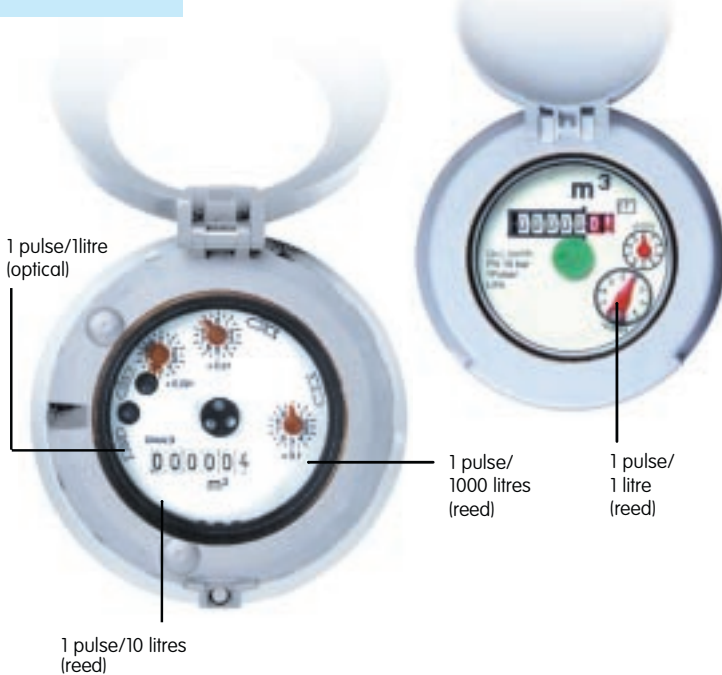
## Choice of pulse output options

The C4000 meter is available with a choice of pulse output options for a wide variety of applications including revenue billing, automatic meter reading, data logging and process control applications. If required, two pulses can simultaneously provide data for both long term logging and specific fine analysis, enabling individual measurements to be taken without interrupting ongoing data capture.

The reed switch for the pulse output can easily be fitted on site without disturbing the calibration seal or interrupting the water supply. The C4000 meter has two high integral, copper can registers which are sturdy, reliable and remain condensation free.

### Main meter

### By-pass meter



Illustrations are for diagrammatical purposes only

#### Main Meter

Qty./Rev. ctr. pointer	(Litres)	100	100	100
Max. agg. registration	(m <sup>3</sup> ×10 <sup>6</sup> )	1	1	1
Pulse outputs – reed	(L/P)	10,1000	10,1000	10,1000

#### By-pass Meter

Max. agg. registration	(m <sup>3</sup> ×10 <sup>5</sup> )	1	1	1
Pulse outputs – reed	(L/P)	1	1	1
Meter size	(mm)	50	80	100

## Specifications

### C4000 Combination Meter

Meter size (mm)	50	80	100
Main meter (mechanism)	H4000	H4000	H4000
By-pass meter (insert)	V220	V220	V220
	(20mm)	(20mm)	(20mm)

### Overall Length

ISO 4064 (mm)	300	350	350
DIN 19625 – WS (mm)	270	300	360

### Performance (m<sup>3</sup>/h)

q <sub>max</sub> comb. ±2% acc.	50	200	250
q <sub>n</sub> comb. ±2% acc.	25	120	180
q <sub>n</sub> – by-pass meter ±2% acc.	2.5	2.5	2.5
q <sub>t</sub> comb. ±2% acc.	0.0225	0.0225	0.0225
q <sub>min</sub> comb ±5% acc.	0.015	0.015	0.015
ISO 4064 q <sub>max</sub> . ±2% acc.	30	80	120
Flow at 0.6 bar headloss	31	112	120
Flow at 1.0 bar headloss	40	145	155
Turndown ratio	3,333	13,333	16,667

### Changeover Valve (m<sup>3</sup>/h)

Opening flow	1.8	2.2	2.4
Closing flow	1.2	1.2	1.4

### Dimensions

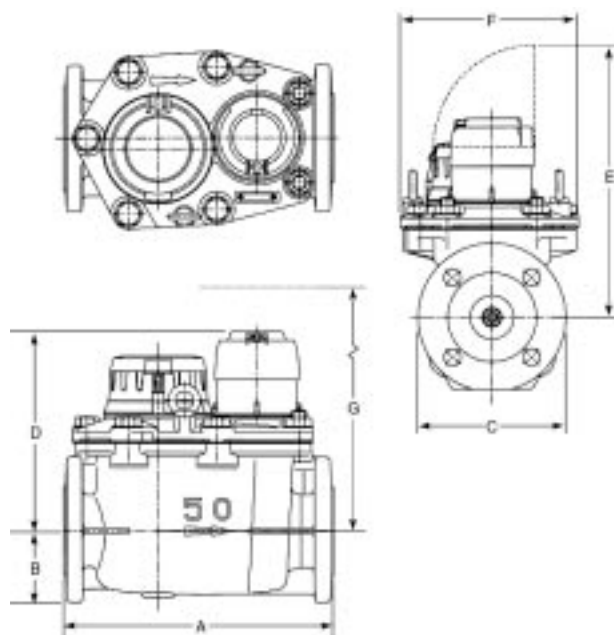
Meter size (mm)	50	80	100
Overall length (A)	300	350	350
Height (B)	80	104	115
Diameter (C)	166	201	228
Height (D)	223	245	252
Height with lid open (E)	304	326	333
Width (F)	201	246	276
Mechanism removal (G)	390	460	490
Weight (complete metre) kg	25	35	41

### Warranty

All goods are tested and inspected prior to despatch. In the event of defects resulting from faulty workmanship or materials, such goods will be replaced/repared at our discretion, free of charge at the factory, but no responsibility will be accepted for any direct or consequential damage. This warranty covers the malfunction of a correctly installed item due to a manufacturing fault, but does not cover wear and tear considered normal at the locality of installation. Meter warranty 3 years from date of manufacture.

### Typical Specification

Compact, in-line combination meter consisting of an H4000 Woltmann Helical Vane inferential type water meter, fitted with an integral non-return, pre-calibrated change over valve and an integral V220 volumetric class C bypass meter and is suitable for vertical, horizontal or inclined installation. For logging purposes, there is a pressure tapping on the H4000 and a pulse output on both the H4000 and V220 by-pass meter as standard. IP68 sealed copper can, glass lens counter. Flanges dual drilled to suit BS10 table D or BS4505 table 16 (SABS 1123)



**elster**  
Kent Metering (Pty) Ltd

PO Box 201 Auckland Park 2006  
www.elsterkent.co.za

**JOHANNESBURG**  
Tel: (011) 470-4900  
Fax: (011) 474-0175

**DURBAN**  
Tel: (031) 266-4915  
Fax: (031) 266-9521

**CAPE TOWN**  
Tel: (021) 511-8465/6  
Fax: (021) 511-8446

**BLOEMFONTEIN**  
Tel: (051) 430-2603  
Fax: (051) 435-1455

**PORT ELIZABETH**  
Tel: (041) 363-1943/2026  
Fax: (041) 363-2127

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

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