

# ELSTER KENT M100 OPTIMA Multi-Jet Water Meters

Fan Wheel & Wet Dial for Cold Water



## Built To Class "C" Specification

The M100 Optima multi-jet fan wheel water meter is designed and built to comply with Class C metering specifications.

The meter cartridge has been redesigned to give exceptionally accurate readings at the bottom end of the measuring range. Improved accuracy under low flow conditions ensures that less water escapes measurement, therefore generating more revenue for the authority.

Furthermore, the new cartridge design and the high tech materials used in its manufacture will keep the meter within the legal Class C specification for a longer period of time. This adds to the meter's "in the ground" life and improves the cost/benefit ratio.

The M100 Optima range, a firm favourite with many authorities for decades, retains its DZR brass body and dimension specifications.

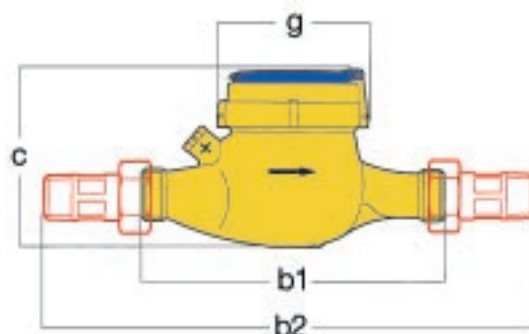
### Flow Rates Specifications:

METER SIZE	*15mm	*20mm	*25mm	*40mm
Max Flow Rate $q_s$ +/- 2% (m <sup>3</sup> /h)	3	5	7	20
Permanent Flow Rate $q_p$ +/- 2% (m <sup>3</sup> /h) <small>SANS specification</small>	1.5	2.5	3.5	10
Permanent Flow Rate $q_p$ +/- 2% (m <sup>3</sup> /h) <small>(Actual)</small>	2.1	3.5	4.9	14
Transitional Flow Rate $q_t$ +/- 2% (l/h)	22.5	37.5	52.5	150
Minimum Flow Rate $q_{min}$ +/- 5% (l/h) <small>SANS specification</small>	15	25	35	100
Minimum Flow Rate $q_{min}$ +/- 5% (l/h) <small>(Actual)</small>	12	20	20	60
Starting Flow (l/h)	6	6	10	25
Maximum Working Pressure (kPa)	1600	1600	1600	1600
Counter resets to zero (m <sup>3</sup> )	100 000	100 000	100 000	100 000

\*Columns for 15mm, 20mm, 25mm and 40mm reflect Class C accuracy  
Operating temperature: cold water up to 50°C

### Dimensions:

METER SIZE	mm	15	20	25	40
Length b1	mm	165	165	260	300
Length b2	mm	251	266	373	438
Width g	mm	100	100	100	100
Height c	mm	110	110	110	145
Mass	kg	1.5	1.65	2.2	4.8

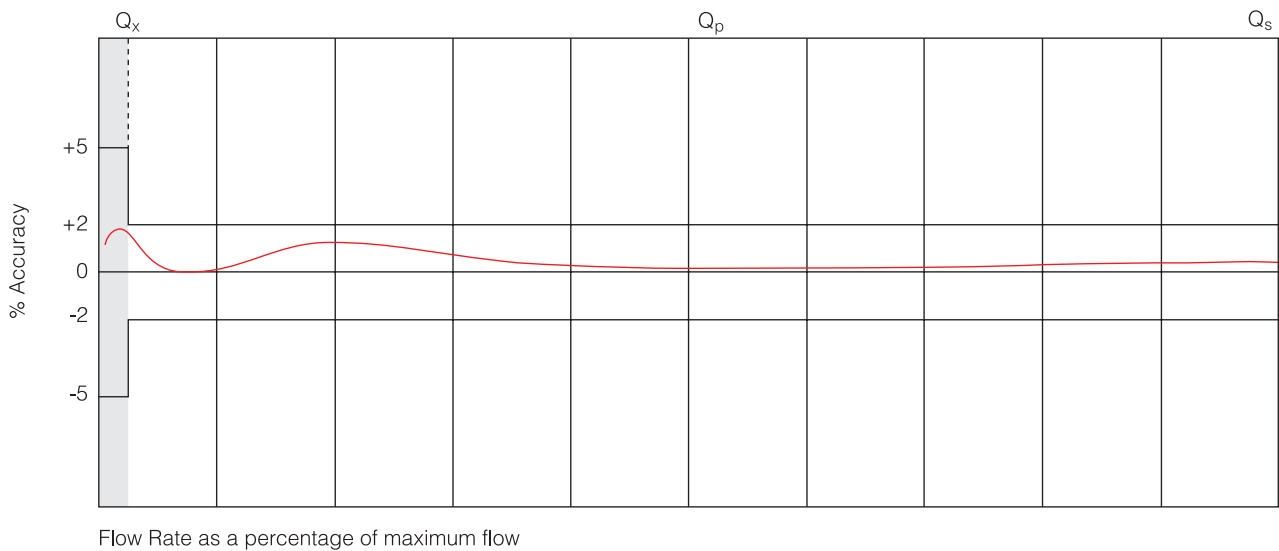


## Features:

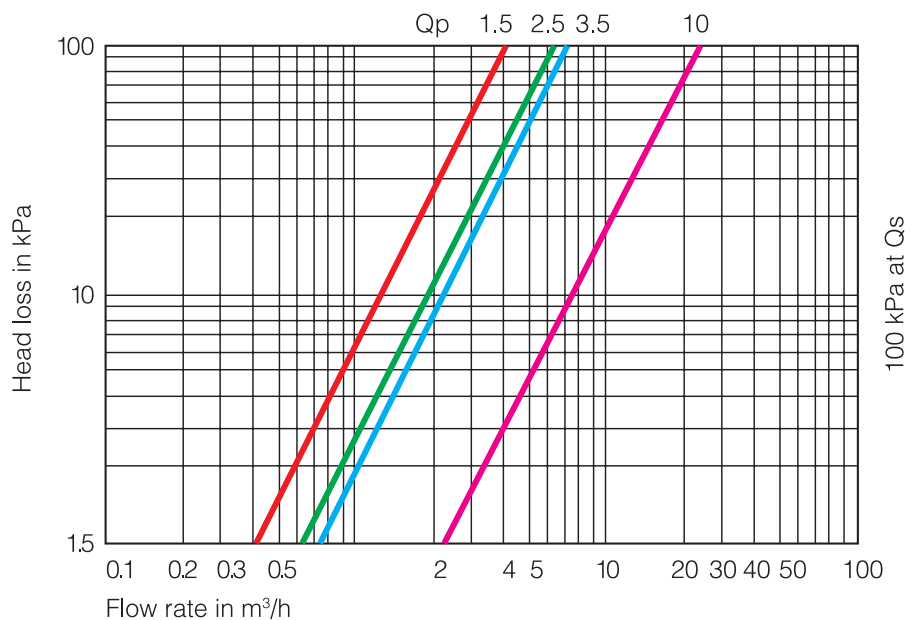
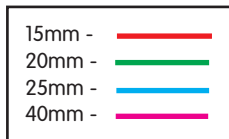
- Meter approved to Class C
- Increased accuracy at low flow rates
- Unbreakable glass lens
- Enlarged measuring range
- Dezincification resistant body
- Lower head loss
- High continuous flow capacity
- \*Replaceable measuring cartridge
- Compact design, built-in pipe strainer, exchangeable without opening of meter or breaking the seal
- No magnetic coupling. Prevents tampering
- Star wheel flow indicator
- Calibration facility (please ask for details)

\* Meter must be tested with new cartridge in accordance with (SANS 1529-1:2003).

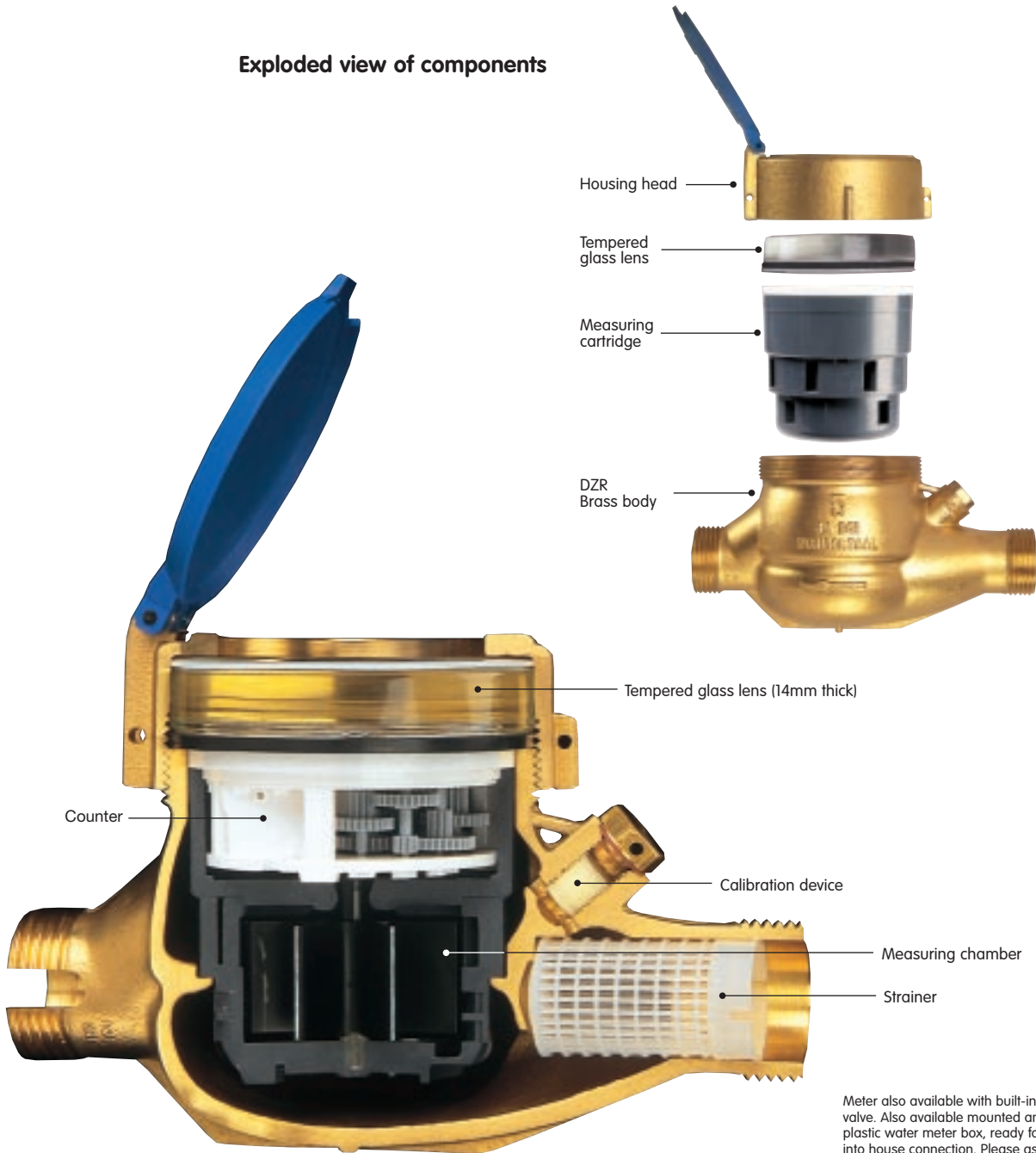
## Typical Accuracy Curve:



## Pressure Drop Graph:



## Exploded view of components



### Approvals:

Department of Trade Metrology. (SANS 1529 – 1:2003) JASWIC

### Typical Specification:

Domestic water meter of multi-jet inferential design with DZR brass body plus moulded and tempered glass lens approved to Class C by Department of Trade Metrology (SANS 1529 – 1:2003). Meter tested and certified in a laboratory approved to SANS 10378: 2005. Must be of the wet dial type and have a mechanical drive.

### 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/repaired 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 5 years from date of manufacture.



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

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