

## ► Brunata ETR single-jet water meter for utility water

Single-jet impeller meter used for allocation of hot and cold utility water.

### Characteristics

- Single-jet utility water meter
- 'Easy-to-read', mechanical roller counter (can be rotated 355°)
- Nickered measuring chamber
- Suitable for use with cold water to 40 °C
- Suitable for use with hot water to 90 °C
- Reading in cubic metre with three digits
- Horizontal and vertical installation (please see reverse page)
- Magnet-proof pulse generator for remote reading
- Approved according to EEC, verified
- Approval class: B (horizontal installation)

### Further information

Brunata ETR water meter is a single-jet impeller water meter in completely dry-running design with roller counter. In order to minimise damages caused by impurities or lime in the water the meters are designed to give maximum protection to shafts and bearings.

Meters with pulse generators come with a 1.5-metre cable, and pulse value 10 litres/pulse.

The meters can be installed horizontally as well as vertically. The roller counter should not turn downwards but it can be rotated 355° for easier reading.

### Accessories

- Fitting pipe: stainless, brass, galvanised
- Water meter joining G $\frac{3}{4}$ B" x  $\frac{1}{2}$ "
- Joining with ball valve G $\frac{3}{4}$ B" x  $\frac{1}{2}$ "
- Joining with ball valve and dirt filter  $\frac{3}{4}$ " x  $\frac{1}{2}$ "
- Non-return valve for filter ball valve
- Installation kit for replacement of larger meter



Type	Article no.*
<b>Cold-water meter without pulse generator, max 40 °C</b>	
ETR-K	19-7900-H
<b>Hot-water meter without pulse generator, max 90 °C</b>	
ETR-V	19-7901-H
<b>Cold-water meter, 10 litres/pulse, max 40 °C</b>	
ETR-K10-K	19-7910-H
<b>Hot-water meter, 10 litres/pulse, max 90 °C</b>	
ETR-K10-V	19-7911-H
<b>Joining</b>	<b>22-0203-A</b>

The article numbers mentioned above apply to an overall length of 80 mm

\*Please note: If an 80 mm version is used, the maximum depth of the union nut of the meter joining is 8,5 mm as measured from the contact surface of the gasket.

Brunata is a 100% Danish owned company. We have more than 90 years of experience within developing and producing heat cost allocators, heating accounts and meter service. We have a quality control system fulfilling DS/EN ISO 9001 and 14001. Please contact us if you have any questions or would like further information.

## Technical data

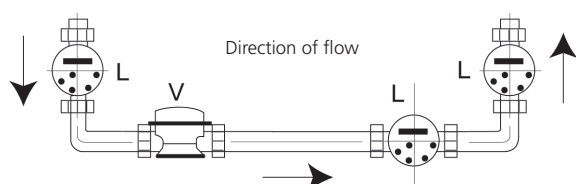
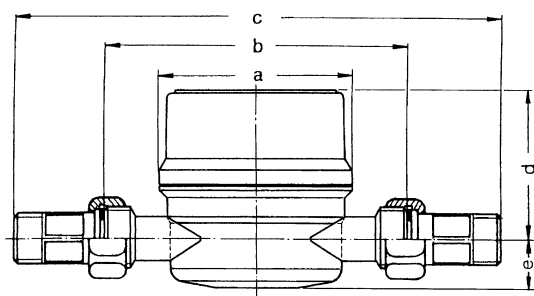
Type				ETR horizontal installation	ETR vertical installation
Nominal flow rate		$q_n$	m <sup>3</sup> /h	1.5	1.5
Maximum flow rate	transitory	$q_{max}$	m <sup>3</sup> /h	3.0	3.0
Transition flow rate		$q_t$	l/h	120	150
Minimum flow rate		$q_{min}$	l/h	30	60
Starting flow rate		$q_{start}$	l/h	Approx. 8.5	Approx. 15
EU accuracy class	Horizontal installation			B	-
	Vertical installation			-	A
Accuracy of measurement	Verification limits	$q_{min}-q_t$		± 5 %	
		$q_t-q_{max}$		± 2 %	
Max temperature	Cold-water meter	Class B		40 °C	
	Hot-water meter	Class B		90 °C	
Pressure class				PN10	
Pressure drop at $q_n$		$\Delta p$	kPa	25	
Approval no.	Cold-water meter	40 °C		D 78 / 6.131.107	
	Hot-water meter	90 °C		D 86 / 6.331.78	
Pulse output	Passive reed switch	Litres/pulse		10	

## Dimensions

Type			ETR		
Nominal connection		mm	15	15	15
	a	mm		70	
Length	b	mm	80	110	130
	c	mm	159	189	209
Height	d	mm		53	
	e	mm		17.5	
Connecting thread	Meter	Inches	G $\frac{3}{4}$ B	G $\frac{3}{4}$ B	G $\frac{3}{4}$ B
	Coupling	Inches	R $\frac{1}{2}$	R $\frac{1}{2}$	R $\frac{1}{2}$
Installation position			Vertical or horizontal		
Cable length at pulse output		m	1.5		

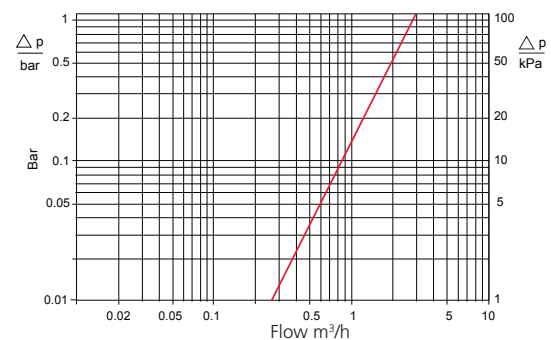
Please note: Standard joining, not included when delivered

## Dimensional outline



Correct installation options  
 H = Horizontal installation  
 V = Vertical Installation

## Head loss graph



Please note that Brunata makes reservations against operation errors due to lime or blocking of the water meter. Brunata recommends installing a filter ball valve before the meter.