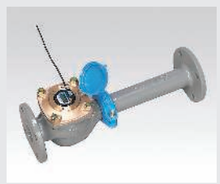
Water Meter

Our water meter features

TOYOKEIKI's water meters have 3 major categories, the smallest single jet domestic meters, the multi jet domestic & commercial meters and the waltman large meters. Some meters have pulse output functions.

Type	None output	Pulse output
Single jet	 TD 13 DN:15	 EA 13 DN:15
Multi jet	 TD 20/25/30/40 DN:20,25,30,40	 EA 20/25 DN:20,25
Waltman		 JEA30/40 DN:30,40
Waltman (with vertical turbine shaft)	 TFWD series DN:50,75,100  BFWD series DN:50,75,100	 TFEA series DN:50,75,100  BFEA series DN:50,75,100

Single jet

TD13 / EA13

TD13 is a single jet compact water meter. The dry registers support its good accuracy and the long term reliability. All meters of TD series are made of the lead free copper alloy and suitable for domestic and commercial drinking water supply. TD13 is so short as 100mm while TD13L is 165mm long. EA13 has a microcontroller in the register box to output pulses and multi information.

TD13L
None output

EA13
Pulse output

Water Meter Specifications

Model	TD13	TD13L	EA13	EAL13
Q3 Nominal Flow Rate (m^3/h)	2.5	2.5	2.5	2.5
R (Q3/Q1)	100	100	100	100
Q1 Minimum Flow Rate (m^3/h)	0.025	0.025	0.025	0.025
Q2 Transitional Flow Rate (m^3/h)	0.04	0.04	0.04	0.04
Q4 Overload Flow Rate (m^3/h)	3.125	3.125	3.125	3.125
Maximum Pressure Loss at Q3 (MPa)	0.063	0.063	0.063	0.063
Maximum Admissible Pressure (MPa)	1	1	1	1
Pulse Value (L/pulse)	NA	NA	10 (or the optional value)	10 (or the optional value)

Multi jet
TD 20/25/30/40

TD series uses multi jet technology. Their dry registers support its good accuracy and the long-term reliability. All of them are made of lead-free copper alloy and suitable for domestic and commercial drinking water supply.

TD20
None output

Water Meter Specifications

Model	TD20	TD25	TD30	TD40
Q3 Nominal Flow Rate (m³/h)	4.0	6.3	10	10
R (Q3/Q1)	100	100	100	100
Q1 Minimum Flow Rate (m³/h)	0.04	0.063	0.1	0.1
Q2 Transitional Flow Rate (m³/h)	0.064	0.1008	0.16	0.16
Q4 Overload Flow Rate (m³/h)	5.0	7.875	12.5	12.5
Maximum Pressure Loss at Q3 (MPa)	0.063			
Maximum Admissible Pressure (MPa)	1			

Multi jet　Waltman
EA 20/25　JEA 30/40

EA series and JEA series use multi jet technology. Their dry registers support its good accuracy and the long-term reliability. All of them are made of lead-free copper alloy and suitable for domestic and commercial drinking water supply. They also have a microcontroller in the register box to output pulses and multi-information.

EA20
Pulse output

JEA40
Pulse output

Water Meter Specifications

Model	EA20	EA25	JEA30	JEA40
Q3 Nominal Flow Rate (m³/h)	4.0	6.3	10	16
R (Q3/Q1)	100	100	100	100
Q1 Minimum Flow Rate (m³/h)	0.04	0.063	0.1	0.16
Q2 Transitional Flow Rate (m³/h)	0.064	0.1008	0.16	0.256
Q4 Overload Flow Rate (m³/h)	5.0	7.875	12.5	20
Maximum Pressure Loss at Q3 (MPa)	0.063			
Maximum Admissible Pressure (MPa)	1			
Pulse Value (L/pulse)	10 (or the optional value)			100 (or the optional value)

Advanced Use of Water Meter
Telemetering System (AMR)

The meter(s) is connected by cable to the counting devices.
The metermen do not need to get in to high security residences (areas).
This system provides you not only easy meter reading but also detecting leaking or other unusual matter.

Electronic Meter

Cable Connection

Electronic Counter

Centralized Reading System

Electronic Counter
Warning Signals

On the electronic counter, you can check the meter value and warning information such as water leakage.

Warnings	Signals
Reverse flow warning	The small arrow blinks (inside the large arrow)
Leakage warning (during leaking)	The teardrop signal blinks
Leakage warning (leakage occurred in the past)	The teardrop signal appears
Large flow rate warning Excessive flow warning	The signal on the left blinks
Meter battery voltage drop warning	The battery signal blinks

Waltman (with vertical turbine shaft)

TFWD series

TFWD series is the vertical waltmann water meter with a dry register. It is used for wide range flow rate. The body is made of ductile iron.

TFWD50
None output

Waltman (with vertical turbine shaft)

TFEA series

TFEA series is the vertical waltmann water meter with a dry register. It is used for wide range flow rate. The body is made of ductile iron. It has a microcontroller in the register box to output pulses and multi information.

TFEA50
Pulse output

Water Meter Specifications

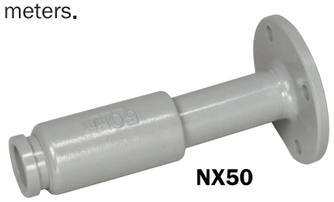
Model	TFWD50	TFWD75	TFWD100
Q3 Nominal Flow Rate (m³/h)	40	63	100
R (Q3/Q1)	100	100	100
Q1 Minimum Flow Rate (m³/h)	0.4	0.63	1.0
Q2 Transitional Flow Rate (m³/h)	0.64	1.008	1.6
Q4 Overload Flow Rate (m³/h)	50	78.75	125
Maximum Pressure Loss at Q3 (MPa)	0.063		
Maximum Admissible Pressure (MPa)	1		

Water Meter Specifications

Model	TFEA50	TFEA75	TFEA100
Q3 Nominal Flow Rate (m³/h)	40	63	100
R (Q3/Q1)	100	100	100
Q1 Minimum Flow Rate (m³/h)	0.4	0.63	1.0
Q2 Transitional Flow Rate (m³/h)	0.64	1.008	1.6
Q4 Overload Flow Rate (m³/h)	50	78.75	125
Maximum Pressure Loss at Q3 (MPa)	0.063		
Maximum Admissible Pressure (MPa)	1		
Pulse Value (L/pulse)	100 (1000, or the other optional value)		1000 (100, or the other optional value)

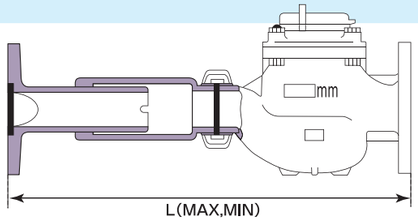
Telescopic tube "NX series" "TX series" "NXS series"

They are telescopic inlet pipes for large-sized water meters. The extension and contraction width can be secured at 100 mm or more, so they make it easy to replace large water meters.



NX50

Note:TX series will be bolted. Some telescopic pipes support meters with outlet pipes of 50mm - 100mm. The extension and contraction dimensions of TX and outlet pipes are different from NX's dimensions.



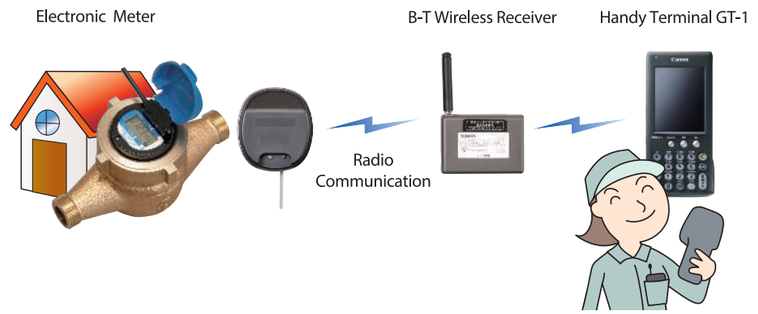
Unit : mm

Model	Standard installation dimension	Extension and contraction dimension		
	L	L(MAX)	L(MIN)	Width
NX50	560	605	475	130
NX75	630	675	540	135
NX100	750	775	620	155
NX150	1,000	1,070	865	205
TX200	1,160	1,230	1,110	130

Advanced Use of Water Meter

Wireless Meter Reading System

This is the system that meterman can connect to the meter through radio communication.
This system helps meterman when they need to read meters at difficult places.



Waltman (with vertical turbine shaft)

BFWD series

BFWD series is the vertical-waltmann-type large water meter with a dry register. It can be used for wide range flow rate. The body is made of ductile iron. Its flange type might be customized by requests.

BFWD50
None output

Water Meter Specifications

Model	BFWD50	BFWD75	BFWD100
Q3 Nominal Flow Rate (m³/h)	40	63	100
R (Q3/Q1)	100	100	100
Q1 Minimum Flow Rate (m³/h)	0.4	0.63	1.0
Q2 Transitional Flow Rate (m³/h)	0.64	1.008	1.6
Q4 Overload Flow Rate (m³/h)	50	78.75	125
Maximum Pressure Loss at Q3 (MPa)	0.063		
Maximum Admissible Pressure (MPa)	1		

Waltman (with vertical turbine shaft)

BFEA series

BFEA series is the vertical-waltmann-type large water meter with a dry register. It can be used for wide range flow rate. The body is made of the ductile iron. Its flange type might be customized by requests. It has the embedded microcontroller to output the pulse and multi information.

BFEA series
Pulse output

Water Meter Specifications

Model	BFEA50	BFEA75	BFEA100
Q3 Nominal Flow Rate (m³/h)	40	63	100
R (Q3/Q1)	100	100	100
Q1 Minimum Flow Rate (m³/h)	0.4	0.63	1.0
Q2 Transitional Flow Rate (m³/h)	0.64	1.008	1.6
Q4 Overload Flow Rate (m³/h)	50	78.75	125
Maximum Pressure Loss at Q3 (MPa)	0.063		
Maximum Admissible Pressure (MPa)	1		
Pulse Value (L/pulse)	100 (1000, or the other optional value)		1000 (100, or the other optional value)

ISO 9001

ISO 9001 is the certification for internationally recognized quality management system that improves the ability to manufacture and deliver high quality products.In February 1994, our water meters, LP gas meters, and city gas meters with AMR (automatic meter reading) were designated as ISO 9001.In September 2012, our installation of solar panels and their ancillary service were also designated as ISO 9001.

Automatic leak test system

Performance test

ISO 14001

ISO 14001 is the certification for internationally recognized environmental management system that aims to protect environment. In November 2000, we have acquired the ISO 14001 at Matsumoto factory. The designation also includes water meters, LP gas meters, city gas meters with AMR.

Piston prober for verification test