KRANTI
WATER METER
SINCE 1980

IS 779:1994
CM/L-1298460
ISO 9001:2008 & 14401:2004 Registered Firm
DNV Certification B.V., THE NETHERLANDS
MGMT.SYS.
RvA C 024

KRANTI
WATER METER
SINCE 1980

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RvA C 024

DOMESTIC SERIES
WATER METER
CATALOGUE

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APPROVALS

1. BUREAU OF INDIAN STANDARDS
2. FLUID CONTROL RESEARCH INSTITUTE, KERALA.
3. SCIENTIFIC & INDUSTRIAL TESTING & RESEARCH CENTRE, COIMBATORE
4. NATIONAL TEST HOUSE, GHAZIABAD
5. NATIONAL PHYSICAL LABORATORY, DELHI
6. MUNICIPAL CORPORATION OF GREATER MUMBAI
7. MAHARASHTRA JEEVAN PRADHIKARAN
8. CIDCO
9. DELHI JAL BOARD
10. MUNICIPAL CORPORATION CHANDIGARH
11. MUNICIPAL CORPORATION NASHIK
12. KARNATAKA WATER SUPPLY SEWERAGE & DRAINAGE BOARD
13. GOVERNMNET OF MIZORAM
14. PUBLIC HEALTH ENGINEERING DEPARTMENT JAMMU & KASHMIR
15. PUBLIC HEALTH ENGINEERING DEPARTMENT, GOA
16. HARYANA WATER SUPPLY & SEWERAGE BOARD
17. MUNICIPAL CORPORATION SHIMLA
18. U.P. JAL NIGAM
19. PUBLIC HEALTH ENGINEERING DEPARTMENT, RAJASTHAN
20. PUNJAB WATER SUPPLY & SEWERAGE BOARD
21. ALL MUNICIPAL CORPORATIONS PUNJAB
22. TAMILNADU WATER SUPPLY & SEWERAGE BOARD

because ...every drop counts

INDEX

Company Profile

TIME LINE

1966 Started operations with foundry of Brass Casting under the name of B.M. Sharma Molding Works.

1971 Manufacturing of Hand Pump Parts.

1980 Aman Engineering Works was established for manufacturing of “Kranti” Water Meters.

1985 Got the first Govt. Contract from BMC for Water Meters.

1989 Production Capacity Increased to 50000 Water Meters Annually.

1995 Introduced fully automatic injection molding machines for manufacturing of plastic parts.

2000 Production Capacity Increased to 200000 Water Meters Annually.

2005 Introduced ‘Kranti’ brand Industrial Valves & Boiler Mouintings.

2006 Introduced fully Automatic CNC machines for complete process.

2007 Shifted to new premises with an area of 12000 Sq. Meter.

2008 Got Quality Excellence Award.

2010 Production Capacity increased to 400000 Water Meters Annually.

2012 Become the only Indian Water Meters Manufacturer to successfully Execute supply & Installation of Water meters under ADB Funding.

2013 Legacy Continues ……

We, ‘Aman Engineering Works’ are India's Leading and Largest Water Meters Manufactures under the brand name “KRANTI”. We are serving for Nation since 1980. The true strength of our company lies within its foundry divisions where it employs the best quality of raw materials and ultra modern technologies and equipment's to manufacture superb quality products.

Our production flexibility and resource capabilities allows us to make accurate products in minimum industry lead time. Over the years, we have steadily and progressively continued providing quality products and graduated to become one of the largest manufacturing companies of its kind, in India. Our growth is demonstrated by our fully integrated machining plant that surpasses 500000 water meters per annum.

Aman Engineering Works will continue going beyond ourselves, pursuing the excellence & providing the service to the global customer to pay back the community, towards a better glory in the future.

For over 30 years, ‘Aman Engineering Works’ has been premium supplier to all the Government, Semi-Government, Municipal Corporations and Public Health Engineering Departments of India and Industry giants like BHEL, TATA, NTPC, DLF, Reliance, ADANI Group, NCC Limited, Ansal Group, IL&FS, Jains and many more.

Our Dealer Networks are wide spread across India. We have more than 500 dealers and 15 Sales Executives to look after sales and after sales service.

DIRECTOR'S MESSAGE

To embark on a journey of success one needs the tools of preparedness, foresight and strategy. These lead to the path of growth and high quality operation. It is imperative to combine these three forces in an industry, where every drop of Water acts like a pivot tilting the pan balance of life in favour of fitness and wellbeing.

Every water meter from Aman Engineering Works reflects over 30 years of experience in the development and production of highly accurate meters. Our extensive range is the answer to the individual requirements of the municipal and private water industry.

KRANTI's innovative solutions enable our customers to build a sustainable future for their business, their customers and the environment.

I would like to thank all my employees for being the backbone of the organization and proving it time and again that we exist for a purpose - a purpose to surpass our customer's expectations.

Subash Sharma *(Mg. Director)*

DIRECTOR'S MESSAGE

Aman Engineering Works was established in the year 1980 and since then we have emerged to become a strong organization that our customers can entrust.
.
We continuously explore, set new benchmarks and bring about paradigm change, thus keeping our organization always ahead of the curve. Our customers keep raising the bar and expect us to exceed their expectations, providing us an opportunity to think differently and act differently; to innovate and deliver value-added products and services.

And yes, we continue to deliver and excel as our workforce is always focused on helping our customers to achieve their goals. Our success is a result of our employee's commitment to stringent delivery standards and determination to deliver the one thing that our customers and investors want most – RESULTS.

This journey of over 30 years would not have been as exciting and fulfilling without the unconditional support of all our customers. I would like to express my deep gratitude and indebtedness to them and hope to improve each day to serve you better.

Ashok Sharma *(Director)*

Sometimes best is a temporary condition. Somebody is always there to knock you off the pedestal. Or the next best thing comes along to replace today's best thing. You can be best for a while, but not forever. That's why we don't aim to be best. Our goal is to be better and better. To keep setting the bar higher and higher. To keep moving the goal further and further out. To keep designing faster and better and more creatively. To work harder and smarter.

“Whether we're selling products or providing services, it's our comprehensive understanding of every aspect of manufacturing that sets us apart. And that understanding has important implications for reducing cost, saving time and enhancing quality.”

As I look at the growth over the years since our inception in 1980, I am extremely proud of what we have achieved, and even more excited about our outlook for an equally promising future. We have successfully transitioned from a local start-up to become a respected firm, garnering business from across the nation, while earning our client’s trust along the way.

Guided by a firm focus on customer centricity and sustainability, today we remain committed to the same ideals and objectives that have driven our success over the last 30 years. Values ingrained into our corporate culture include zero compromise on quality and consistent value for money for our customers.

Paras Sharma *(C.E.O)*
B.E. Mech.

The present day business environment is not for the entrepreneur who wait for the lady luck to bestow its blessings upon them. As i take myself as executive in my family owned business, I am dedicate myselff to have Discipline in my work which I always believe in ”The key to success”.

At ‘Aman Engineering Works.’ my aim is to provide our highly valued customers the complete value of their money by providing superlative quality range of products at the most economic prices. To put in briefly “We care for our customers”.

In the market which is driven by acute competition, where even survival is no mean achievement, ours is a brand which has not only stood its ground but also set benchmark of excellence. To carry this Legacy, we prepare ourselves to keep a step further then the nearest competition.

Innovation is the watch for us in every aspect, Quality management, Production facilities, Marketing strategies and Service support which provides our worthy Customers -“The Best”

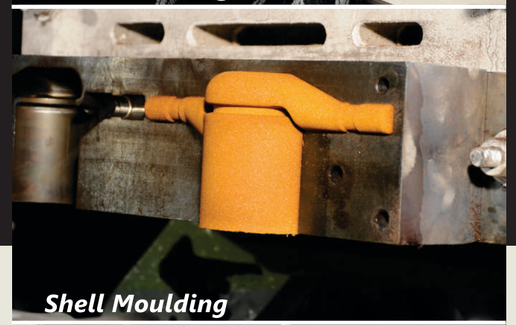
We have been and would continue to emphasis in arousing a Healthy Competition in the market.

Aman Sharma *(C.O.O)*
B.E. Ece., MBA Mkt. & I.B.

KRANTI
WATER METER

Process


Auto Cad Design


Shell Moulding


Pouring of Molten Metal

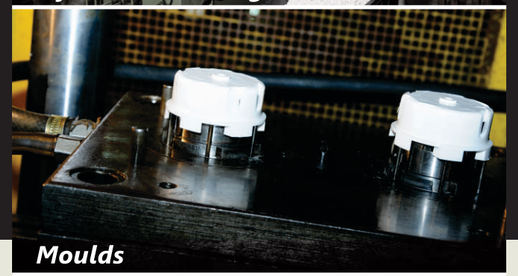

Shot Blasting


Grinding


CNC Machines


Painting


Injection Moulding


Moulds


Dial Printing


Drums Printing


Assembly


Testing


Final Inspection


Packing

Process

KRANTI® WATER METER

KAM-G Multi Jet Dry Dial

Check on every drop

Features

- Inferential Type Dry Dial Mechanical Driven, Non Magnetic Drive.
- Straight Reading Cyclometer Type, 7-inline consequetive Digits with one central pointer for easy reading.
- Innovative Design with Wiper for Clear Reading.
- Wide Range of products 15mm to 50mm.

Applications

Domestic, Agriculture and Industrial use.

Standards

IS 779:1994

IS 779:1994
CLASS-A
CM/L-1298460

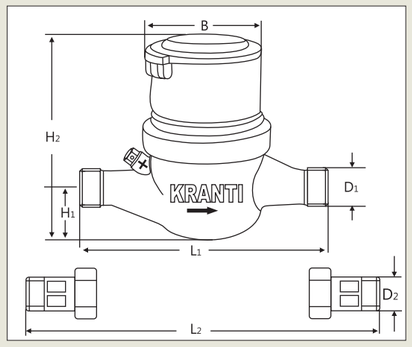
Water meters using the multi-jet principle are the best cost/performance, long life, flow measurement instruments.

PERFORMANCE DATA

Nominal Sizes mm	Nominal Sizes Inches	Metero-logical Class	Qmax Minimum Flow Rate (m^3/h)	Qn Nominal Flow Rate (m^3/h)	Qt Transitional Flow Rate (L/h)	Qmin Minimum Flow Rate (L/h)	Maximum Register Capacity (m^3)	Minimum Register Capacity (L)	Accuracy Between Qmax & Qt	Accuracy Between Qt & Qmin
15	1/2"	Class-A	3	1.5	150	60	99999.999	0.1	± 2%	± 5%
20	3/4"	Class-A	5	2.5	250	100	99999.999	0.1		
25	1"	Class-A	7	3.5	350	140	99999.999	0.1		
40	1½"	Class-A	20	10	1000	400	99999.999	0.1		
50	2"	Class-A	30	15	1500	600	99999.999	0.1		

DIMENSIONS

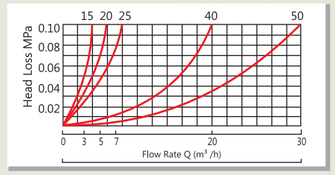
Model		KAM-G	KAM-G	KAM-G	KAM-G	KAM-G
Nominal Size	(mm)	15	20	25	40	50
	(Inches)	1/2	3/4	1	1½	2
D1 - Meter Connection Thread ISO 228/1		G3/4 B	G1 B	G1¼ B	G2 B	G2½ B
D2- Meter Connection Pipe ISO 7/1		R½	R¾	R1	R1½	R2
L1 - Length without Couplings (mm)		165	190	260	300	330
L2 - Length with Couplings (mm)		250	290	380	430	470
B - Width (mm) (Max.)		100	130	170	210	270
H1 - Centerline Height (Max.)		50	60	65	75	115
H2 - Overall Height (Max.)		180	240	260	300	300



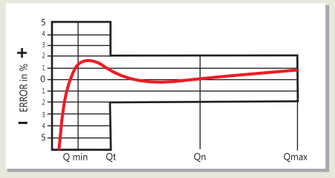
Working Conditions :

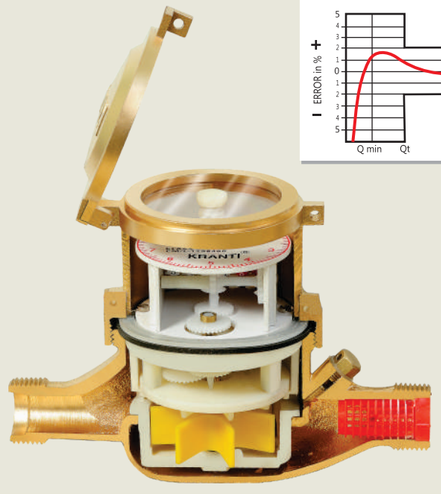
- Water Temperature ≤ 50°c
- Water Pressure ≤ 1MPa
- Pressure Loss ΔP<0.1MPa at Q_{max}
  ΔP<0.025MPa at Q_n
- Maximum Pressure-16 Bar

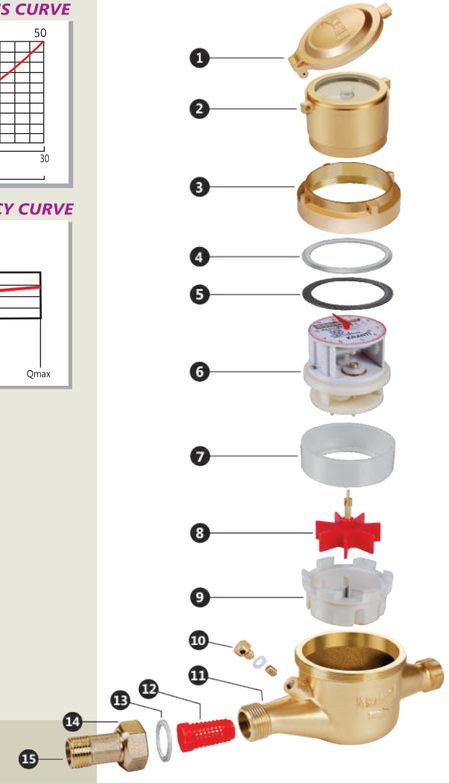
HEAD LOSS CURVE



ACCURACY CURVE







KAM-G

KRANTI WATER METER

KBM-G Multi Jet Dry Dial

Check on every drop

Features

- Inferential Type Dry Dial, Multi Jet, Magnetic Transmission.
- Straight Reading Cyclometer Type register for the most comfortable reading position of 7 rollers & 2 pointers.
- Only one moving part - the impeller - in contact with the water for minimum wear & utmost reliability.
- All the materials in contact with water, consciously selected by the known resistance to corrosion.
- Wide Range of products 15mm to 50mm.

Standards

IS 779:1994
ISO 4064:1993

Applications

Domestic, Agriculture and Industrial use.

IS 779:1994
CLASS-B
CM/L-1298460

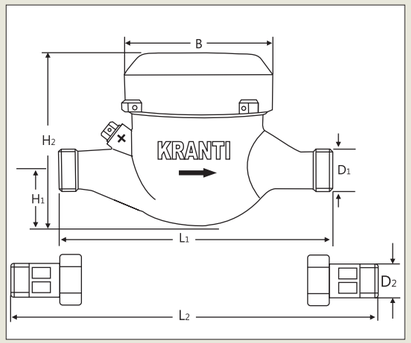
KRANTI Class-B is impeller (Turbine) Multi Jet Water meter with magnetic transmission. After entering the meter, the water flow is split into several smaller flows by the vane wheel case, that are going to hit the turbine simultaneously in various points keeping it perfectly balanced.

PERFORMANCE DATA

Nominal Sizes mm	Nominal Sizes Inches	Metero-logical Class	Qmax Minimum Flow Rate (m^3/h)	Qn Nominal Flow Rate (m^3/h)	Qt Transitional Flow Rate (L/h)	Qmin Minimum Flow Rate (L/h)	Maximum Register Capacity (m^3)	Minimum Register Capacity (L)	Accuracy Between Qmax & Qt	Accuracy Between Qt & Qmin
15	1/2"	Class-B	3	1.5	120	30	99999.9999	0.05	± 2%	± 5%
20	3/4"	Class-B	5	2.5	200	50	99999.9999	0.05		
25	1"	Class-B	7	3.5	280	70	99999.9999	0.05		
40	1½"	Class-B	20	10	800	200	99999.9999	0.05		
50	2"	Class-B	30	15	1200	300	99999.9999	0.05		

DIMENSIONS

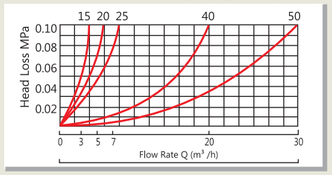
Model		KBM-G	KBM-G	KBM-G	KBM-G	KBM-G
Nominal Size	(mm)	15	20	25	40	50
	(Inches)	1/2	3/4	1	1½	2
D1 - Meter Connection Thread ISO 228/1		G3/4 B	G1 B	G1¼ B	G2 B	G2½ B
D2- Meter Connection Pipe ISO 7/1		R½	R¾	R1	R1½	R2
L1 - Length without Couplings (mm)		165	190	260	300	330
L2 - Length with Couplings (mm)		250	290	380	430	470
B - Width (mm) (Max.)		100	130	170	210	270
H1 - Centerline Height (Max.)		50	60	65	75	115
H2 - Overall Height (Max.)		180	240	260	300	300



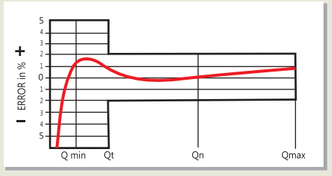
Working Conditions :

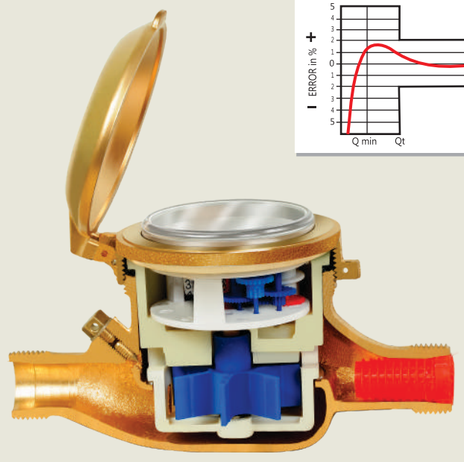
- Water Temperature ≤ 50°c
- Water Pressure ≤ 1MPa
- Pressure Loss ΔP<0.1MPa at Q_{max}
  ΔP<0.025MPa at Q_n
- Maximum Pressure-16 Bar

HEAD LOSS CURVE



ACCURACY CURVE





KBM-G

KRANTI® WATER METER

BESTO
Multi Jet Dry Dial

Check on every drop

Features

- State-of-art design with German technology.
- Magnetic Transmission, Dry type register.
- Only one moving part - the impeller - in contact with the water for minimum wear & utmost reliability.
- International Designed indicator register with 5 rollers & 4 pointers.
- The inlet filter at the inlet of the meter body permit cleaning it without breaking the meteorological seal.
- Glass window is unconditionally guaranteed for best visibility.
- Wide Range of products 15mm to 50mm.

Standards
IS 779:1994
ISO 4064:1993

Applications
Domestic, Agriculture and Industrial use.

IS 779:1994
CLASS-B
CM/L-1298460

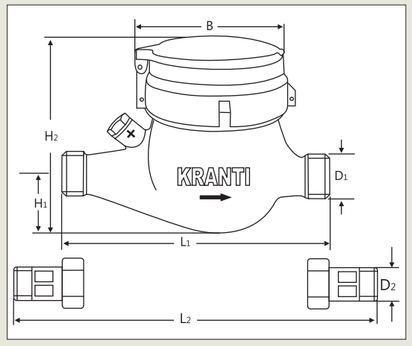
Wide Clearances in the measuring chamber and negligible area of contact between static and moving parts are the main reasons for the high reliability of this design even in hard water.

PERFORMANCE DATA

Nominal Sizes mm	Nominal Sizes Inches	Metero-logical Class	Qmax Minimum Flow Rate (m^3/h)	Qn Nominal Flow Rate (m^3/h)	Qt Transitional Flow Rate (L/h)	Qmin Minimum Flow Rate (L/h)	Maximum Register Capacity (m^3)	Minimum Register Capacity (L)	Accuracy Between Qmax & Qt	Accuracy Between Qt & Qmin
15	1/2"	Class-B	3	1.5	120	30	99999.9999	0.05	± 2%	± 5%
20	3/4"	Class-B	5	2.5	200	50	99999.9999	0.05		
25	1"	Class-B	7	3.5	280	70	99999.9999	0.05		
40	1½"	Class-B	20	10	800	200	99999.9999	0.05		
50	2"	Class-B	30	15	1200	300	99999.9999	0.05		

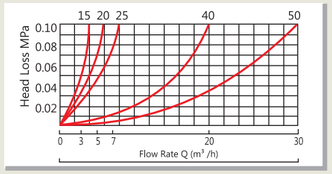
DIMENSIONS

Model		BESTO	BESTO	BESTO	BESTO	BESTO
Nominal Size	(mm)	15	20	25	40	50
	(Inches)	1/2	3/4	1	1½	2
D1 - Meter Connection Thread ISO 228/1		G3/4 B	G1 B	G1¼ B	G2 B	G2½ B
D2- Meter Connection Pipe ISO 7/1		R½	R¾	R1	R1½	R2
L1 - Length without Couplings (mm)		165	190	260	300	270/330
L2 - Length with Couplings (mm)		250	290	380	430	470
B - Width (mm) (Max.)		100	130	170	210	270
H1 - Centerline Height (Max.)		50	60	65	75	115
H2 - Overall Height (Max.)		180	240	260	300	300

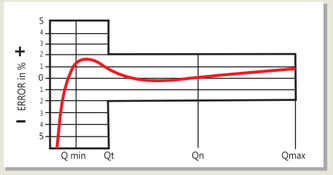


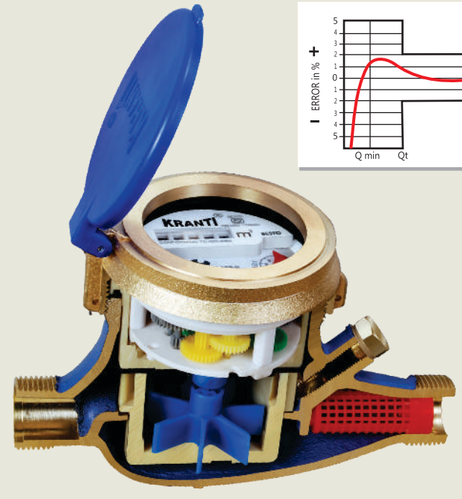
Working Conditions :
- Water Temperature ≤ 50°c
- Water Pressure ≤ 1MPa
- Pressure Loss ΔP<0.1MPa at Q_{max}
  ΔP<0.025MPa at Q_n
- Maximum Pressure-16 Bar

HEAD LOSS CURVE



ACCURACY CURVE





BESTO

KRANTI WATER METER

KBS Single Jet Dry Dial

Check on every drop

features

- Magnetic Transmission, Dry type register.
- Compact design & Light weight.
- Register can be rotated in any direction for convenient reading.
- Vacuum Sealed Register, frost resistant, keeps clear reading for long time.
- Only one moving part - the impeller - in contact with the water for minimum wear & utmost reliability.
- Straight Reading Cyclometer type register for the most comfortable reading position of 7 rollers & 2 pointers.

Applications

Domestic, Agriculture and Industrial use.

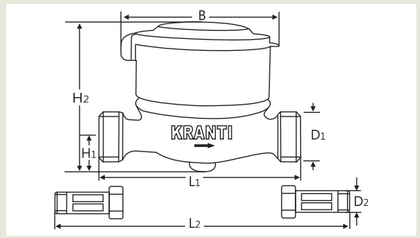
Standards

IS 779:1994
ISO 4064:1993

PERFORMANCE DATA

Nominal Sizes mm	Nominal Sizes Inch.	Metero-logical Class	Qmax (m^3/h)	Qn (m^3/h)	Qt (L/h)	Qmin (L/h)	Maximum Reading (m^3)	Minimum Reading (L)
15	1/2"	Class-B	3	1.5	120	30	99999.9999	0.05

IS 779:1994
CLASS-B
CM/L-1298460



Accuracy :

- From minimum flow rate (***Qmin***) inclusive, to transitional flow rate (***Qt***), exclusive : ± 5%
- From transitional flow rate (***Qt***) inclusive, to maximum flow rate (***Qmax***), exclusive : ± 2%

Working Conditions :

- Water Temperature ≤ 50°c
- Water Pressure ≤ 1MPa
- Pressure Loss ΔP<0.1MPa at Q_{max} ΔP<0.025MPa at Q_n
- Maximum Pressure-16 Bar

DIMENSIONS

Model	KBS
Nominal Size (mm)	15
(Inches)	1/2
D1 - Meter Connection Thread ISO 228/1	G3/4 B
D2- Meter Connection Pipe ISO 7/1	R½
L1 - Length without Couplings (mm)	110
L2 - Length with Couplings (mm)	250
B - Width (mm) (Max.)	100
H1 - Centerline Height (Max.)	50
H2 - Overall Height (Max.)	180

KRANTI WATER METER

KBM Multijet Jet Dry Dial

Check on every drop

features

- Vacuum Sealed Register, frost resistant, keeps clear reading for long time.
- Cost Effective - High Performance.
- Magnetic Transmission, Dry type register.
- Register can be rotated in any direction for convenient reading.
- Only one moving part - the impeller - in contact with the water for minimum wear & utmost reliability.
- Available in 15mm & 20mm.

Applications

Domestic, Agriculture and Industrial use.

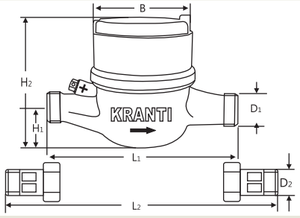
Standards

IS 779:1994
ISO 4064:1993

PERFORMANCE DATA

Nominal Sizes mm	Nominal Sizes Inch.	Metero-logical Class	Qmax (m^3/h)	Qn (m^3/h)	Qt (L/h)	Qmin (L/h)	Maximum Reading (m^3)	Minimum Reading (L)
15	1/2"	Class-B	3	1.5	120	30	99999.9999	0.05
20	3/4"	Class-B	5	2.5	200	50	99999.9999	0.05

IS 779:1994
CLASS-B
CM/L-1298460



Accuracy :

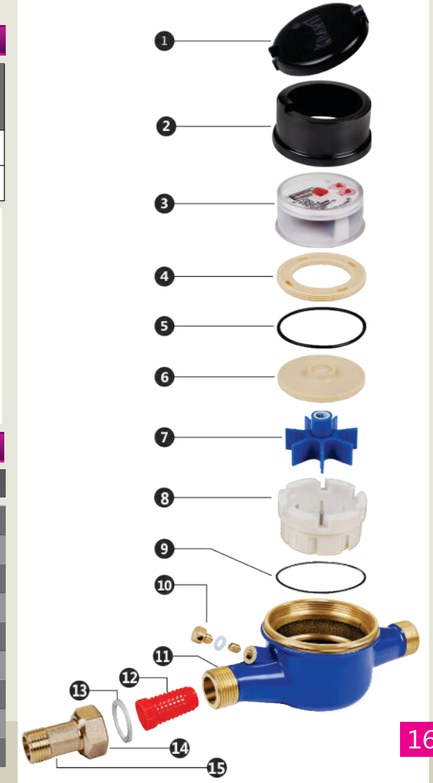
- From minimum flow rate (***Qmin***) inclusive, to transitional flow rate (***Qt***), exclusive : ± 5%
- From transitional flow rate (***Qt***) inclusive, to maximum flow rate (***Qmax***), exclusive : ± 2%

Working Conditions :

- Water Temperature ≤ 50°c
- Water Pressure ≤ 1MPa
- Pressure Loss ΔP<0.1MPa at Q_{max} ΔP<0.025MPa at Q_n
- Maximum Pressure-16 Bar

DIMENSIONS

Model	KBM	KBM
Nominal Size (mm)	15	20
(Inches)	1/2	3/4
D1 - Meter Connection Thread ISO 228/1	G3/4 B	G1 B
D2- Meter Connection Pipe ISO 7/1	R½	R¾
L1 - Length without Couplings (mm)	165	190
L2 - Length with Couplings (mm)	250	290
B - Width (mm) (Max.)	100	130
H1 - Centerline Height (Max.)	50	60
H2 - Overall Height (Max.)	180	240



KRANTI WATER METER

KRP-C Rotary Piston

Check on every drop

Volumetric Rotary Piston Water Meter

Features

- Ensure high sensitivity & accurate registration throughout a wide flow range.
- Mechanical transmission movement equates to maximum reliability.
- Corrosion resistant body.
- Liquid - Sealed register.
- Easy Reading & Long term Clear reading.
- Low starting flow rate.
- Internal Non-Return Valve.
- Internal Strainer.
- Can be equipped with read switch option.

Applications

Domestic, Agriculture and Industrial use.

Standards

ISO 4064
Class-C

Description of the Register

Nominal diameter	Dn15/ DN20
Number of black numbered roller	4
Number of red numbered roller	4

Installation Requirements

- The meter can be installed in any position.
- Pipeline must be flushed before installation.
- The meter should be constantly full of water during operation.
- The meter must be installed with the direction of the flow as in dicated by the arrow cast in the meter body.

PERFORMANCE DATA

Nominal Sizes mm	Nominal Sizes Inches	Metero-logical Class	Qmax Minimum Flow Rate (m^3/h)	Qn Nominal Flow Rate (m^3/h)	Qt Transitional Flow Rate (L/h)	Qmin Minimum Flow Rate (L/h)	Maximum Register Capacity (m^3)	Minimum Register Capacity (L)	Accuracy Between **Qmax** & **Qt**	Accuracy Between **Qt** & **Qmin**
15	1/2"	Class-C	3	1.5	22.5	15	9999.9999	0.02	± 2%	± 5%
20	3/4"	Class-C	5	2.5	37.5	25	9999.9999	0.02		

Construction :

The meter mainly consists of lower body, a measuring unit, a transmission assembly, a register, a upper body & others. The lower body secures the internal parts

Working Conditions :

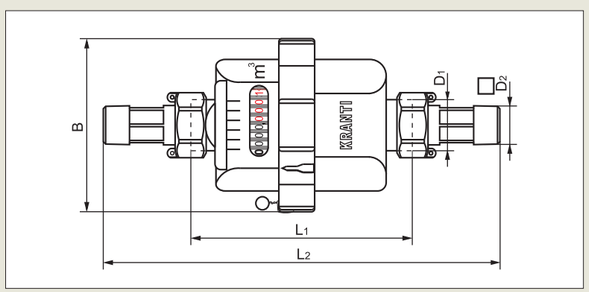
- Water Temperature ≤ 40°c
- Water Pressure ≤ 1.6MPa

Working Principle :

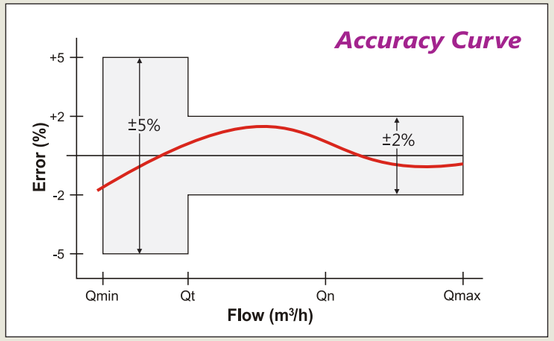
- The working principle is based on a calibrated chamber of known capacity and a rotary piston activated by the energy of the flow passing through.
- The piston rotates while the chamber fills up and empties. with a constant volume of water. By counting these cycles, the register indicates the total volume that has been register.

DIMENSIONS

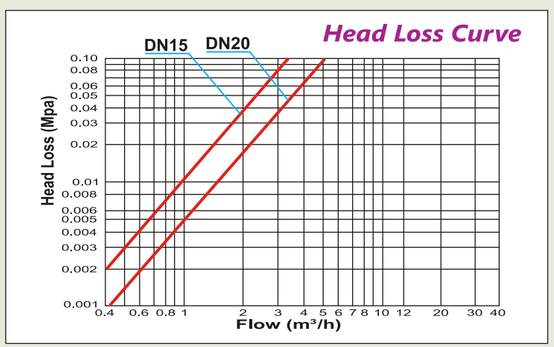
Model		KRP-C	KRP-C
Nominal Size	(mm)	15	20
	(Inches)	1/2	3/4
D1 - Meter Connection Thread ISO 228/1		G3/4 B	G1 B
D2- Meter Connection Pipe ISO 7/1		R½	R¾
L1 - Length without Couplings (mm)		115	130
L2 - Length with Couplings (mm)		209	234
B - Width (mm)		86	86

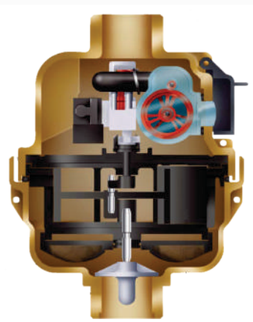


Accuracy Curve



Head Loss Curve





KRP-C

KRANTI

KHO Multi Jet Dry Dial

WATER METER HOT WATER METER

Check on every drop

features

- Inferential Type Dry Dial Mechanical Driven.
- Circular Multipointer Pattern type register with all pointers reading clockwice.
- Innovative Design with Wiper for Clear Reading.
- All the materials in contact with Hot water, consciously selected by the known resistance to corrosion.
- Suitable for **HOT WATER** with maximum temperature 90°.
- Wide Range of products 15mm to 50mm.

Standards

as per IS 779:1994

Applications

Domestic, Agriculture and Industrial use.

PERFORMANCE DATA

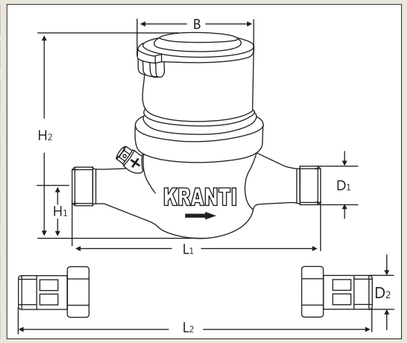
Nominal Sizes mm	Nominal Sizes Inches	Metero-logical Class	Qmax Minimum Flow Rate (m^3/h)	Qn Nominal Flow Rate (m^3/h)	Qt Transitional Flow Rate (L/h)	Qmin Minimum Flow Rate (L/h)	Maximum Register Capacity (m^3)	Minimum Register Capacity (L)	Accuracy Between Qmax & Qt	Accuracy Between Qt & Qmin
15	1/2″	Class-A	3	1.5	150	60	9999.99	1.0	± 3%	± 5%
20	3/4″	Class-A	5	2.5	250	100	9999.99	1.0		
25	1″	Class-A	7	3.5	350	140	9999.99	1.0		
40	1½″	Class-A	20	10	1000	400	9999.99	1.0		
50	2″	Class-A	30	15	1500	600	9999.99	1.0		

Working Conditions :

- Water Temperature ≤ 90°c
- Water Pressure ≤ 1MPa
- Pressure Loss (a)ΔP<0.1MPa at Q_{max} (b)ΔP<0.025MPa at Q_n
- Maximum Pressure-16 Bar

DIMENSIONS

Model		KHO	KHO	KHO	KHO	KHO
Nominal Size	(mm)	15	20	25	40	50
	(Inches)	1/2	3/4	1	1½	2
D1 - Meter Connection Thread ISO 228/1		G3/4 B	G1 B	G1¼ B	G2 B	G2½ B
D2- Meter Connection Pipe ISO 7/1		R½	R¾	R1	R1½	R2
L1 - Length without Couplings (mm)		165	190	260	300	330
L2 - Length with Couplings (mm)		250	290	380	430	470
B - Width (mm) (Max.)		100	130	170	210	270
H1 - Centerline Height (Max.)		50	60	65	75	115
H2 - Overall Height (Max.)		180	240	260	300	300



Rite

RITE Multi Jet Dry Dial

Check on every drop

features

- Inferential Type Dry Dial, Multi Jet, Magnetic Transmission.
- Straight Reading Cyclometer Type register for the most comfortable reading position of 7 rollers & 2 pointers.
- Only one moving part - the impeller - in contact with the water for minimum wear & utmost reliability.
- All the materials in contact with water, consciously selected by the known resistance to corrosion.
- Size Range 15mm.

Standards

IS 779:1994
ISO 4064:1993

Applications

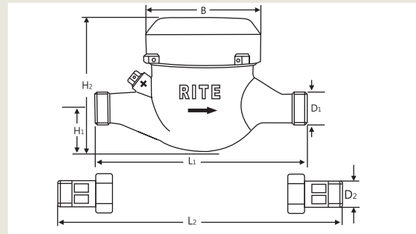
Domestic, Agriculture and Industrial use.

PERFORMANCE DATA

Nominal Sizes mm	Nominal Sizes Inch.	Metero-logical Class	Qmax (m^3/h)	Qn (m^3/h)	Qt (L/h)	Qmin (L/h)	Maximum Reading (m^3)	Minimum Reading (L)
15	1/2″	Class-B	3	1.5	120	30	99999.9999	0.05

IS 779:1994

CLASS-B
CM/L-1298460



Accuracy :

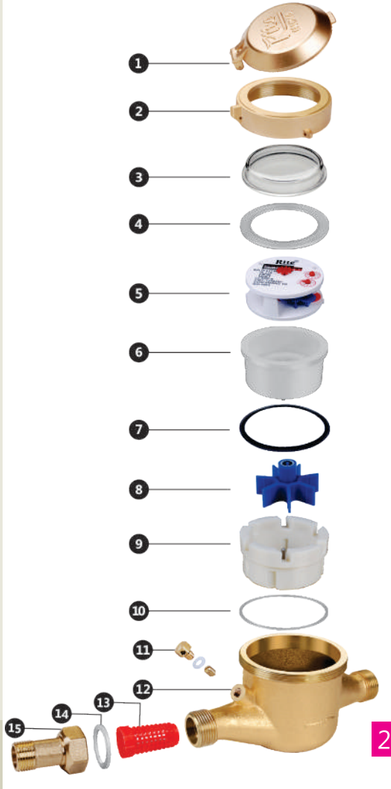
- From minimum flow rate (***Qmin***) inclusive, to transitional flow rate (***Qt***), exclusive : ± 5%
- From transitional flow rate (***Qt***) inclusive, to maximum flow rate (***Qmax***), exclusive : ± 2%

Working Conditions :

- Water Temperature ≤ 50°c
- Water Pressure ≤ 1MPa
- Pressure Loss ΔP<0.1MPa at Q_{max} ΔP<0.025MPa at Q_n
- Maximum Pressure-16 Bar

DIMENSIONS

Model		RITE
Nominal Size	(mm)	15
	(Inches)	1/2
D1 - Meter Connection Thread ISO 228/1		G3/4 B
D2- Meter Connection Pipe ISO 7/1		R½
L1 - Length without Couplings (mm)		165
L2 - Length with Couplings (mm)		250
B - Width (mm) (Max.)		100
H1 - Centerline Height (Max.)		50
H2 - Overall Height (Max.)		180

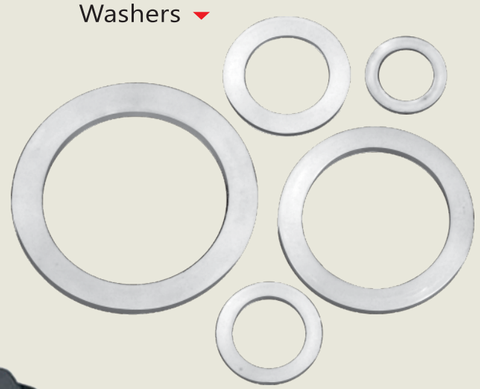


Nipples

Nuts

Filters

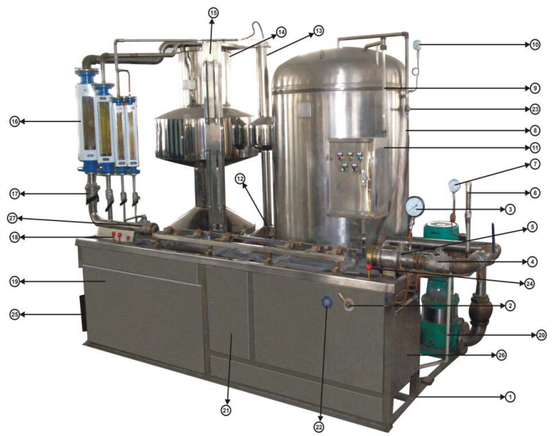
Washers



Meter Box

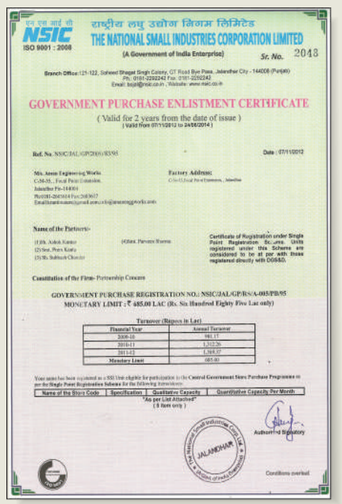
'Y' Type Strainer

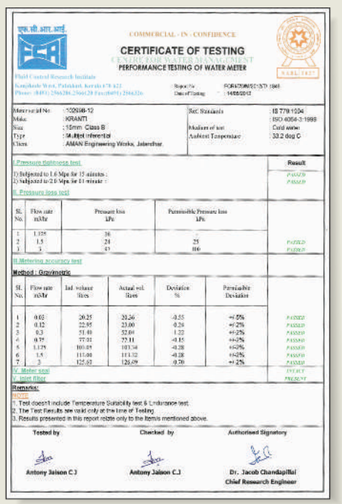
TEST BENCH FOR WATER METER (15mm-50mm)

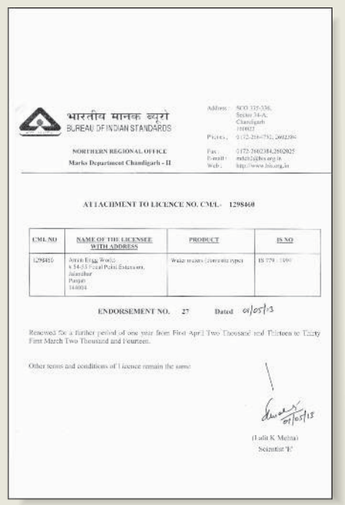


1. **Stainless Steel Frame:** The frame of the test bench is made from very high grade stainless steel tube to provide strength and durability to the machine.
2. **Hydro lever*:** This hydro lever is a special purpose pressure lever for conducting pressure tightness test i.e. 1.6Mpa and 2Mpa
3. **Hydro Gauges:** To check the pressure of the pump.
4. **Valves:** On/Off Valves for conducting the test on the water meters.
5. **Meter locking Cylinder:** To lock the meter or meter tightness.
6. **Temperature indicator:** To check the temperature of the water .It should less than or equal to 45 Degree Celsius as per IS779.
7. **Pressure Gauge:** To check the pressure of line and the pressure for Hydro.
8. **Water Stabilizer:** Many health and safety problems that we face in our communities are directly attributable to an inadequate water supply. The term "inadequate" is used here to refer not to the quantity of water available, but to it's Quality. For years we have had to use more and stronger soaps and detergents to clean the same amount of dirt while our plumbing systems and water heaters slowly close down to a trickle, a drip and then no water at all. The potable water supplied to us is basically electron deficient and not in optimum states of equilibrium. The water stabilizer is employed to fight with this problem. This water stabilizer is made from 2.5mm thickness sheet of stainless steel for provide it the strength and durability. The capacity of the water stabilizer is 1000 liters.
9. **Water Level Indicator:** To check the level of the water. It should be at its maximum stage with the help of 23.
10. **Pressure gauge:** To check and control the pressure in the stabilizer.
11. **Panel Board:** To operate the machine a panel board is provided with three switches i.e. Red, Green, Yellow.
    Initially while starting the machine Red light appears which means the machine is getting the supply and then it converts into Green light which means that the machine is ready to operate. If there is any kind of fault in the machine then yellow light appear i.e. overload, low voltage, reverse rotation of the pump or any kind of electrical deficiency leads to yellow light and then the necessary steps to be taken to rectify the problem.
12. **On/Off Valves:** This on/off valve is used to increase the pressure which is needed to test bigger sizes meter otherwise it should be in the on mode.
13. **Measuring Vessel (0-20L):** To check the quantity of water which had passed through the water meter i.e. 0-10-20L
14. **Measuring Vessel (0-300L):** To check the quantity of water which had passed through the water meter i.e. 0-100-300L.
15. **Water Level Indicator for double vessel:** To check the water level in both the vessels.
16. **Rotameters:** Four rotameters are provided on the machine to adjust the volumetric flow rate for measurement of the water passed through the water meters.
17. **Valves:** To adjust the flow on the rotameters with the help of flow valve.
18. **Open/close lever:** To drain the water from the vessels i.e. one for measuring vessel 0-20L and other for measuring vessel 0-300L.
19. **Water Tank:** To store the water required for testing of water meters. The capacity of water tank is 100L.
20. **Pump:** Wilo Germany make servo pump of capacity 5.5KW with a capacity to operate from 10l/h to 30000L/h.
21. **Tool Box:** Tool box to carry the accessories required for the test bench.
22. **On/Off hydro lever:** To set the pressure for pressure tightness test i.e 1.6Mpa and 2.0Mpa.
23. **Stabilizer air valve**:** To remove the air from the stabilizer. Please do operate it only after starting the pump.
24. **Open/Close lever:** This lever is used to fix or release the meter on the time by operating the cylinder.
25. **Water Tank level Indicator:** To check the water level in the main tank.
26. **Water Hydro master cylinder*:** This cylinder is used for building pressure required for pressure tightness test in combination with point 2.
27. **On/Off Valve:** To set the flow and then close this valve.After inspection of the water meter again open this valve to release the water without altering the flow valve.

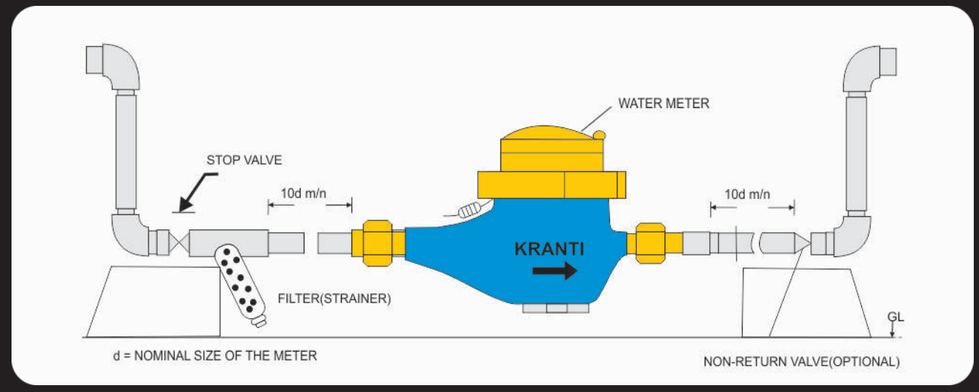
TESTIMONIALS







INSTALLATION



INSTALLATION OF WATER METERS

In order to ensure proper working of the meters, BIS has given guidelines in IS-2401 of 1973 for their installation as per the drawing given in it. At the same time following guidelines should be borne in mind while installing the meters.

(i) The water meter being a delicate instrument shall be handled with great care. Rough handling including jerks or fall is likely to damage it & affect its accuracy.

(ii) The meter shall be installed at a spot where it is readily accessible. To avoid damages and over run of the meter due to intermittent water supply system, it is always advisable to install the meter, so that the top of the meter is below the level of the communication pipes so that meters always contains water, when there is no supply in the line. Also, the minimum straight length condition as per the drawing shall be observed.

(iii) The meter shall preferably be housed in a chamber with a lid for protection ; it should never be buried under-ground nor installed in the open nor under a water tap so that water may not directly fall on the meter. It should be installed inside inspection pits, built out of the bricks or concrete and covered with lid. It should not be suspended.

(iv) The meter shall be so installed that the longitudinal axis is horizontal and the flow of water should be in the direction shown by the arrow cast on body.

(v) Before connecting the meter to water pipe, it should be thoroughly cleaned by installing in the place of the water meter a pipe of suitable length & diameter and letting the passage of a fair amount of water flow through the pipe work to avoid formation of air pockets. It is advisable that the level of pipeline where the meter is proposed to be installed should be checked by a spirit level.

(vi) Before fitting the meter to the pipeline check the union's nuts in the tail pieces and then insert the washers. Thereafter screw the tail pieces on the pipes and install the meter in between the nuts by screwing. In order to avoid its rotation during the operation,the meter should be kept fixed with suitable non metallic clamps. Care should be taken that the washer does not obstruct the inlet and outlet flow of water.

(vii) The protective lid should normally be kept closed and should be opened only for reading the dial.

(viii)The meter shall not run with free discharge to atmosphere if static pressure on the main exceeds 100 m head.

(ix) A meter shall be located where it is not liable to get severe shock of water hammer which might break the system of the meter.

(x) Owing to the fine clearance in the working parts of the meters, they are not suitable for measuring water containing sand or similar foreign matter & in such cases a filter or dirt box of adequate effective area shall be fitted on the upstream side of the meter. It should be noted that the normal strainer fitted inside a meter is not a filter and does not prevent the entry of small particles, such as sand.

(xi) Where intermittent supply is likely to be encountered the meter may be provided with a suitable air valve before the meter in order to reduce inaccuracy and to protect the meter from being damaged. At higher altitude, if meter is installed as above the problem will be eliminated.