

## GENERAL

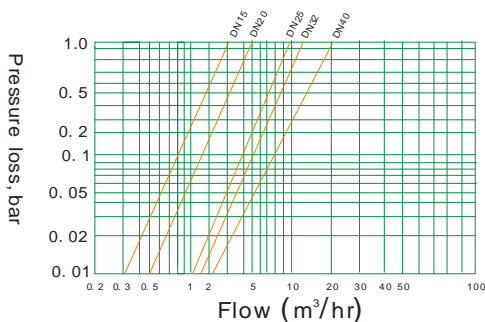
**ALIA WATER** The AWF400 Series is a multi-jet wing dry type water meter. It features of accurate measurement, long service life and high repeatability, which is widely used in family, industry and agriculture and so on. With simple structures, the installation is convenient. It can directly read the totalizer, with optional RS485 output or reed switch pulse output.

## FEATURES

- ❑ Multi-jet dry type water meter
- ❑ With standard threaded connection
- ❑ Max. medium temperature up to 50 °C
- ❑ Available with reed switch pulse output or RS485 output
- ❑ Magnetic drive dry-type structure, simple and clear display
- ❑ 4 or 5 digit oversize character wheel display
- ❑ Low pressure loss and high flow capacity, suitable for water supply line
- ❑ With a highly wear-resistant bearing system, enhanced product's stability, reliability and maximum flow capacity

## STANDARD SPECIFICATION

- Size : 15 mm, 20 mm, 25 mm, 32 mm, 40 mm
- Material
  - Housing : Cast iron / Copper alloy / Stainless Steel 304
  - Gear, Counter : ABS
- Q3 / Q1 (R) : 50, 80, 100
- Accuracy : +/-2% (Q4-Q2), +/-5% (Q2-Q1)
- Repeatability : +/-0.3% of reading
- Operating Temperature : 0-50 °C
- Ambient Temperature : 2-55 °C
- Ambient Humidity : 0-100% RH
- Protection Class : IP68
- Totalizer
  - : 5 Digit + 4 Pointer (No-Output)
  - : 5 Digit + 4 or 3 Pointer (Pulse Output)
  - : 4 Digit + 4 Pointer (Remote Output)



Head Loss Curve



Standard

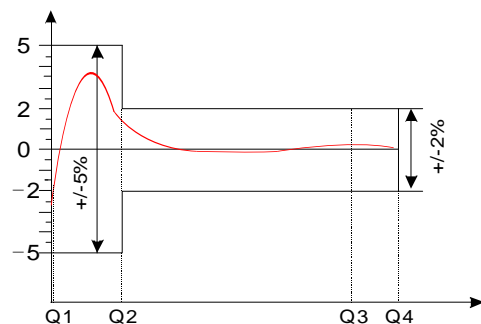


Pulse Output



RS485 Output

- Resolution : 0.001 m<sup>3</sup> / 0.0001 m<sup>3</sup>
- Communication : RS485 signal
  - Power Supply : 5-15 VDC, Current < 5 mA
  - Power Line : Red (+), Black (-)
  - Communication Line : Yellow (A), Blue (B)
- Pulse Output : Reed Switch (0.1 m<sup>3</sup> / Pulse)
  - Load : 9-24 VDC, 400 mA Max.
- Pressure Loss : Less than 1 bar
- Connection : Thread
- Operating Pressure : Max. 10 bar
- Structure : Compact Version
- Installation : Horizontal
  - : Vertical (option)



Accuracy Curve



**FLOW RANGE**

Normal Size	Normal Flowrate Q3 (m <sup>3</sup> /hr)	Max. Flowrate Q4 (m <sup>3</sup> /hr)	Transitional Flowrate Q2 (m <sup>3</sup> /hr)			Min. Flowrate Q1 (m <sup>3</sup> /hr)			Q4 / Q3	Q2 / Q1	Smallest readable <sup>1)</sup> m <sup>3</sup>	Indicating Range <sup>2)</sup> m <sup>3</sup>
			R50	R80	R100	R50	R80	R100				
DN15 (1/2")	2.5	3.125	0.08	0.05	0.04	0.05	0.031	0.025	1.25	1.6	0.0001	99999.9999
DN20 (3/4")	4.0	5.0	0.128	0.08	0.064	0.08	0.05	0.04			0.0001	99999.9999
DN25 (1")	6.3	7.875	0.202	0.126	0.10	0.126	0.079	0.063			0.0001	99999.9999
DN32 (1-1/4")	10	12.5	0.320	0.20	0.16	0.20	0.126	0.10			0.0001	99999.9999
DN40 (1-1/2")	16	20	0.512	0.32	0.256	0.32	0.20	0.16			0.0001	99999.9999

Accuracy in Range Q1-Q2: +/-5%, Q2-Q4: +/-2%, Base on OIML R49 EN14154 and ISO 4064:2014

1),2):RS485 output: Smallest readable: 0.0001, Indicating Range: 9999.9999  
Pulse Output: DN15-D25: Smallest readable: 0.0001, Indicating Range: 99999.9999 / DN32-DN40: Smallest readable: 0.001, Indicating Range: 99999.999

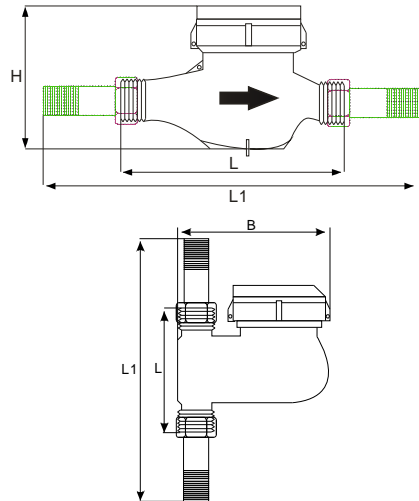
**DIMENSIONS**

**Horizontal Pipe**

Normal Size	H (mm)	L (mm)	L1 (mm)	Thread on meter	Thread of coupling
DN15 (1/2")	109	165	258	3/4" BSP	R 1/2"
DN20 (3/4")	111	195	299	1" BSP	R 3/4"
DN25 (1")	117	225	345	1-1/4" BSP	R 1"
DN32 (1-1/4")	125	230	354	1-1/2" BSP	R 1-1/4"
DN40 (1-1/2")	153	245	373	2" BSP	R 1-1/2"

**Vertical Pipe**

Normal Size	B (mm)	L (mm)	L1 (mm)	Thread on meter	Thread of coupling
DN15 (1/2")	142	96	191	3/4" BSP	R 1/2"
DN20 (3/4")	157	100	205	1" BSP	R 3/4"
DN25 (1")	162	110	225	1-1/4" BSP	R 1"



**COMPONENTS**



**MODEL SELECTION GUIDE**

AWF400 Series							
Example: AWF400-15-CI-NNH-CP							
AWF400-	XX	-XX	-X	X	X	-XX	Description
Size	15-40						15, 20, 25, 32, 40 mm
Housing Material	-CI						Cast Iron
	-CP						Copper Alloy
	-SS						Stainless Steel 304
Flow Range Q3 / Q1	-N						R50
	-M						R80
	-H						R100
Output	N						None
	P						Pulse (0.1 m <sup>3</sup> / pulse) (Except for 304 housing by vertical installation)
	R						RS485 (For cast iron housing only)
Installation Direction	H						Horizontal
	V						Vertical (For DN15, DN20 and DN25 only)
Option	-NN						None
	-CP						Coupling * 1 pair (Material: copper alloy, S.S. 304 (for S.S. 304 housing))
	-CV						Check valve, Material: POM (Polyformaldehyde)