



- Transit-time Ultrasonic Flowmeter
- Doppler Ultrasonic Flowmeter
- Partially Filled Pipe & Open Channel Flowmeter



Configuration Code:

ART	Handheld Transit-time Ultrasonic Flowmeter
	Power supply
A	85-265VAC
	Output Selection 1
N	N/A
2	RS232 Output
3	Data storage function
	Output Selection 2
	Same as above
	Transducer Type
S	DN20-50 -35-85X5
M	DN40-5000 -35-85X5
B	DN20-50 -35-200X5
A	DN40-5000 -35-200X5
	Transducer Rail
N	None
RS	DN20-50
RM	DN40-600 (For larger pipe size, pls contact us.)
	Pipeline Diameter
DNX	e.g.DN50—50mm, DN4500-1500mm
	Cable length
5m	5m (standard 5m)
Xm	Common cable Max 300m(standard 5m)
XmH	High temp, cable Max 300m

ART -A -2/LTCH-M -N -DN100 -5m (example configuration)

Description:
 Power supply: 85-265VAC; output: RS232; transducer type: M for DN40-5000 -35-85°C without transducer rails; without PT1000 temperature sensor; DN100 application; 5m transducer cables.



Features:

- 50 hours rechargeable battery, multi-line color LCD display.
- Data logger function.
- The heat measurement function by configuring with paired temperature sensors.
- Non-invasive transducers.
- Wide bi-directional flow range of 0.01 m/s to 12 m/s. Wide liquid temperature range: -35X5-200X5.
- Works reliably in both clean and somewhat dirty liquids with turbidity<10000ppm.
- Lightweight and easily transportable in box.

Specifications:

Transmitter:

Measurement principle	Ultrasonic transit-time difference correlation principle
Flow velocity range	0.01 to 12 m/s, bi-directional
Resolution	0.25mm/s
Repeatability	0.2% of reading
Accuracy	±1.0% of reading at rates >0.3 m/s;±0.003 m/s of reading at rates<0.3 m/s
Response time	0.5s
Sensitivity	0.003m/s
Damping of displayed value	0-99s(selectable by user)
Liquid Types Supported	Both clean and somewhat dirty liquids with turbidity <10000 ppm
Power Supply	AC: 85-265V Up to 50 hours with fully charged internal batteries
Enclosure type	Portable
Degree of protection	IP66
Operating temperature	-20°C to +60°C
Housing material	ABS
Display	4.3" color LCD display, 16 keys
Units	User Configured (English and Metric)
Rate	Rate and Velocity Display
Totalized	gallons, ft3, barrels, lbs, liters, m3,kg
Thermal energy	unit GJ, kWh can be optional
Communication	4-20mA,OCT, RS232, RS485 (Modbus),Data Logger, GPRS
Size	270X215X175mm
Weight	3kg

Transducer:

Degree of protection	IP65 according to EN60529.(IP67 or IP68 Upon request)
Suited Liquid Temperature	-35°C-200°C
Pipe diameter range	20-50mm for type B, 40-5000mm for type A
Transducer Size	Type B 40(h)*24(w)*22(d)mm Type A 46(h)*31(w)*28(d)mm
Material of transducer	Aluminum + Peek
Cable Length	Std: 5m
Temperature Sensor	PT1000 clamp-on Accuracy: ±0.1%

Configuration Code:

ART	Portable Transit-time Ultrasonic Flowmeter
	Power supply
A	85-265VAC
	Output Selection 1
N	N/A
1	4-20mA (accuracy 0.1%)
2	OCT
3	RS232 Output
4	RS485 Output (ModBus-RTU Protocol)
5	Data storage function
6	GPRS
	Output Selection 2
	Same as above
	Output Selection 3
	TransducerType
B	DN20-50 -35-200°C
A	DN40-5000 -35~200t
	Temperature Input Sensor
N	None
T	Clamp-on PT1000(DN20-1000) (0-200C)
	Pipeline Diameter
DNX	e.g.DN2Q—20mm, DN5000-5000mm
	Cable length
5m	5m (standard 5m)
Xm	Common cable Max 300m(standard 5m)
XmH	High temp, cable Max 300m

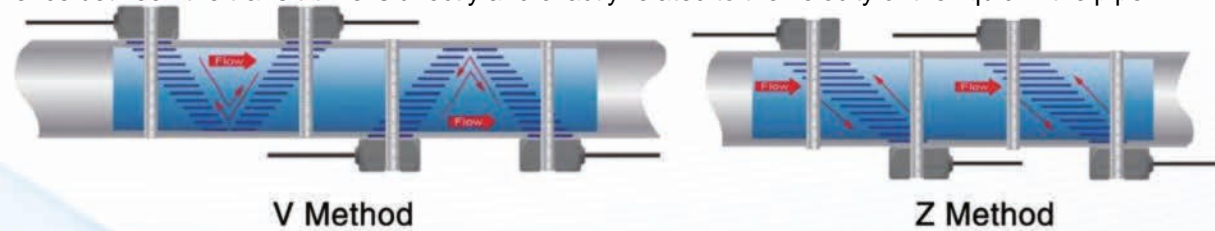
ART -A -1 -2 -5 /LTP -A -N-DN100 -5m (example configuration)

Description:

Power supply: 85-265VAC; output: 4-20mA, OCT & Data storage function; transducer type: A for DN40-5000 -35-200X1; Without PT1000 temperature sensor; DN100 application; 5m transducer cables.

Principle of measurement:

The ART1100 transit time flow meter utilizes two pairs transducers that function as ultrasonic transmitters and receivers. The transducers are installed on the outside of a closed pipe at a specific distance from each other. The transducers can be mounted in V-method where the sound transverses the pipe twice, or W-method (rarely used) where the sound transverses the pipe four times, or in Z-method where the transducers are mounted on opposite sides of the pipe and the sound crosses the pipe once. This selection of the mounting method depends on pipe and liquid characteristics. The flow meter operates by alternately transmitting and receiving a frequency modulated burst of sound energy between the two pairs transducers and measuring the transit time that it takes for sound to travel between the two pairs transducers. The difference between the transit-time is directly and exactly related to the velocity of the liquid in the pipe.



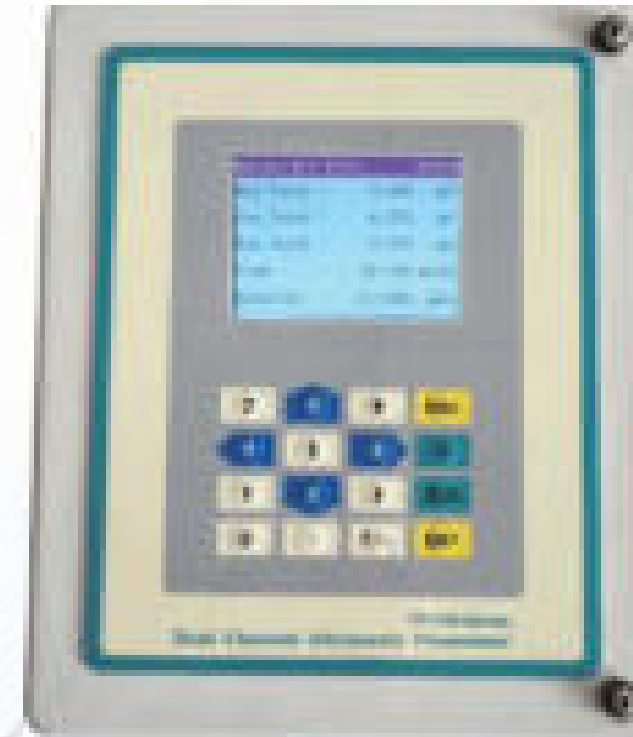
$$Vf = Kdt / TL$$

Where:

- Vf: Liquid velocity
- K: Constant
- dt: Difference in time of flight
- TL: Average Transit Time

Applications:

- Water, sewage (with low particle content) and sea water, water supply and drainage water.
- Process liquids; Liquors.
- Milk, yoghurt milk.
- Gasoline kerosene diesel oil.
- Power supply.
- The flow patrolling and examining.
- Metallurgy, Laboratory.
- Energy-conservation, economize on water.
- Food and medicine.
- Heat measures, Heat balance.
- On-the-spot check-up, standard, the data are judged, Pipeline leak detection.



Features:

- Dual channels ultrasonic transit-time sensor for high accuracy 0.5%.
- Easy to install, cost effective, and require no pipe cutting or processing interrupt.
- Wide liquid temperature range: -35'0-200'D.
- Data logger function.
- Thermal energy measurement capability can be optional.
- For commonly used pipe materials and diameters from 20mm to 5m.
- Wide bi-directional flow range of 0.01m/s to 15 m/s.
- User-friendly configuration.
- With the ability of dynamic zero.

Specifications:

Transmitter:

Measurement principle	Ultrasonic transit-time difference correlation principle
Flow velocity range	0.01 to 15 m/s, bi-directional
Resolution	0.1mm/s
Repeatability	0.15% of reading
Accuracy	± 0.5%R
Response time	0.5s
Sensitivity	0.001m/s
Damping of displayed value	0-99s(selectable by user)
Liquid Types Supported	Both clean and somewhat dirty liquids with turbidity <10000 ppm
Power Supply	AC: 85-265V DC: 12-24V
Enclosure type	Wall-mounted
Degree of protection	IP66 according to EN60529
Operating temperature	-10X5to + 60X5
Housing material	Fiberglass
Display	3.5" color LCD display, 16 keys
Units	User Configured (English and Metric)
Rate	Rate and Velocity Display
Totalized	gallons, ft3, barrels, lbs, liters, m3,kg
Thermal energy	unit GJ, KWh can be optional
Communication	4-20mA, OCT, Relay, RS485(Modbus), Datalogger, GPRS, NB-IoT
Size	244*196*114mm
Weight	2.4kg

Transducer:

Degree of protection	Standard IP65; IP67, IP68 can be optional
Suited Liquid Temperature	-35X5-200'0
Pipe diameter range	20-50mm for type B; 40-5000mm for type A
Transducer Size	Type B 40(h)*24(w)*22(d)mm Type A 46(h)*31(w)*28(d)mm
Material of transducer	Aluminum + Peek
Cable Length	Std:5m
Temperature Sensor	PT1000 clamp-on Accuracy: ±0.1%

Configuration Code:

ART1100-DC	Wall-mounted Dual Channels Clamp On Ultrasonic Flowmeter
	Power supply
A	85-265VAC
D	24VDC
S	Solar supply
	Output Selection 1
N	N/A
1	4-20mA (accuracy 0.1%)
2	OCT
3	Relay Output (Totalizer or Alarm)
4	RS232 Output
5	RS485 Output (ModBus-RTU Protocol)
6	Data storage function
7	GPRS
	Output Selection 2
	Same as above
	Output Selection 3
	Transducer Type
B	DN20-50 -35-200X5
A	DN40-5000 -35-20013
2B	DN20-50 -35-200X5, two pairs of sensors
2A	DN40-5000 -35-200X5, two pairs of sensors
	Temperature Input Sensor
N	None
T	Clamp-on PT1000(DN20-1000) (0-200°C)
	Pipeline Diameter
DNX	e.g.DN20—20mm, DN5000-5000mm
	Cable length
10m	10m (standard 10m)
Xm	Common cable Max 300m (standard 10m)
XmH	High temperature, cable Max 300m

ART1100 -A-1 -2 -3 /LTDC -2A -N -DN100 -10m (example configuration)

Description:

Power supply: 85-265VAC; output: 4-20mA, OCT, Relay output; transducer type: 2A for DN40-5000 -35-20010; without PT1000 temperature sensor, DN100 application; 10m transducer cables.

Insertion Dual-Channel Ultrasonic Flowmeter



Features:

- Hot-tapped installation, no pipe line flow interrupted.
- No moving parts, no pressure drop, no maintenance.
- The accuracy is $\pm 0.5\%$ for dual channels insertion ultrasonic flowmeter.
- A wide range of flow measurement, high flow rate can reach 15m/s.
- High-temperature transducer is suitable to liquids of $-35^{\circ}\text{C} \sim 150^{\circ}\text{C}$.
- Wide bi-directional flow range of 0.01 to 15m/s, and wide range of pipe sizes from DN65-6000.
- Data logger function.
- The heat measurement function by configuring with paired temperature sensors.
- With the ability of dynamic zero.

Specifications:

Transmitter:

Measurement principle	Ultrasonic transit-time difference correlation principle
Flow velocity range	0.01 to 15 m/s, bi-directional
Resolution	0.1mm/s
Repeatability	0.15% of reading
Accuracy	$\pm 0.5\%R$
Response time	0.5s
Sensitivity	0.001m/s
Damping of displayed value	0-99s(selectable by user)
Liquid Types Supported	Both clean and somewhat dirty liquids with turbidity <10000 ppm
Power Supply	AC: 85-265V DC: 12-24V
Enclosure type	Wall-mounted
Degree of protection	IP66 according to EN60529
Operating temperature	-10°C to $+60^{\circ}\text{C}$
Housing material	Fiberglass
Display	3.5" color LCD display, 16 keys
Units	User Configured (English and Metric)
Rate	Rate and Velocity Display
Totalized	gallons, ft ³ , barrels, lbs, liters, m ³ ,kg
Thermal energy	unit GJ, KWh can be optional
Communication	4-20mA, OCT, Relay, RS485(Modbus), Datalogger, GPRS, NB-IoT
Size	244*196*110mm
Weight	2.4kg

Transducer:

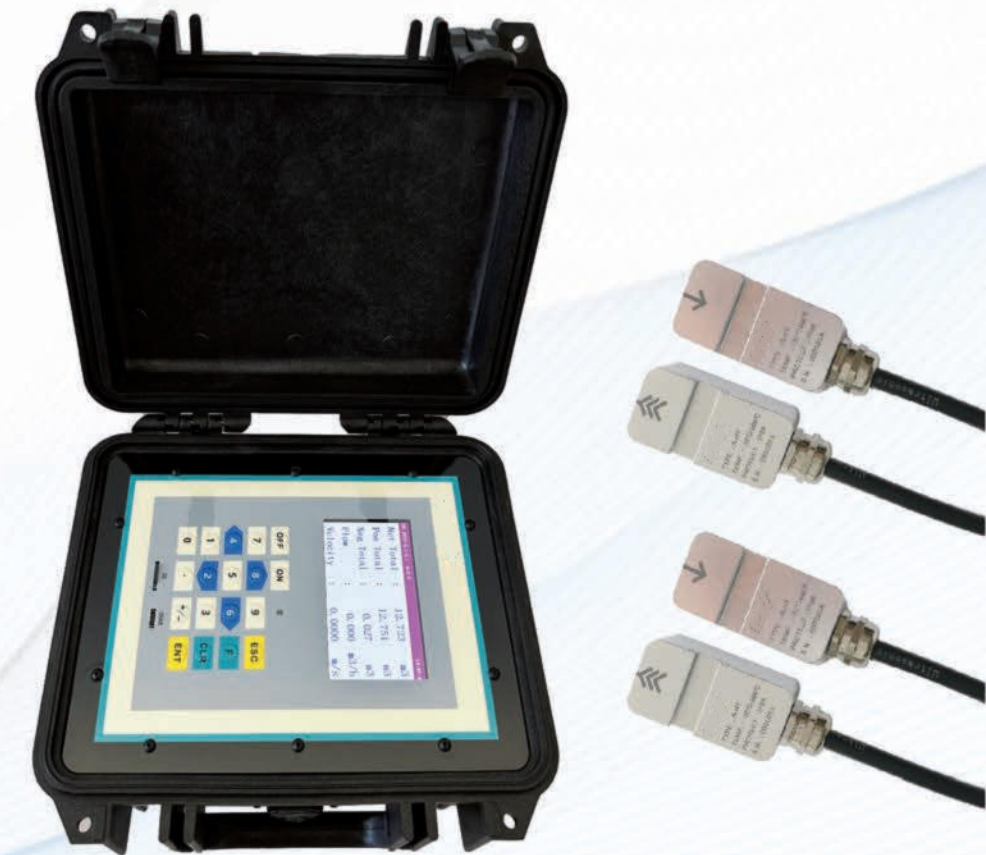
Transducers Type	Insertion
Degree of protection	IP65, IP67 or IP68 according to EN60529
Suited Liquid Temperature	$-35-150^{\circ}\text{C}$
Pipe diameter range	S for 65mm-6000mm
Transducer Size	$\phi 58*199\text{mm}$
Material of transducer	SUS304 + Peek
Cable Length	Std: 10m

ART	Dual Channels Insertion Type Ultrasonic Flowmeter
Power supply	
A	85-265VAC
D	24VDC
S	Solar supply
Output Selection 1	
N	N/A
1	4-20mA (accuracy 0.1%)
2	OCT
3	Relay Output (Totalizer or Alarm)
4	RS232 Output
5	RS485 Output (ModBus-RTU Protocol)
6	Data storage function
7	GPRS
Output Selection 2	
Same as above	
Output Selection 3	
Transducer Type	
S	DN65-6000 -35-150C
2S	DN65-6000 -35-1501!, two pairs of sensors
Temperature Input Sensor	
N	None
T	PT1000
Pipeline Diameter	
DNX	e.g.DN20—20mm, DN5000-5000mm
Cable length	
10m	10m (standard 10m)
Xm	Common cable Max 300m (standard 10m)
XmH	High temperature, cable Max 300m

ART-DI -A-1 -2 -3 /LTDI -2S -N - DN100 - 10m (example configuration)

Description:

Power supply: 85-265VAC; output: 4-20mA, OCT, Relay output;
transducer type: 2S for DN65-6000 -35-15013; without PT1000 temperature sensors; DN100 application; 10m transducer cables.



Features:

- 50-hour battery (rechargeable), color multi-line display.
- Data logger function.
- The heat measurement function by configuring with paired temperature sensors.
- Non-invasive transducers.
- Wide bi-directional flow range of 0.01 m/s to 15 m/s. Wide liquid temperature range: -35'0-200'C.
- Works reliably in both clean and somewhat dirty liquids with turbidity<10000ppm.
- Lightweight and easily transportable in box.
- The accuracy is ±0.5%.
- With the ability of dynamic zero.

Specifications:

Transmitter:

Measurement principle	Ultrasonic transit-time difference correlation principle
Flow velocity range	0.01 to 15 m/s, bi-directional
Resolution	0.1mm/s
Repeatability	0.15% of reading
Accuracy	± 0.5%R
Response time	0.5s
Sensitivity	0.001m/s
Damping of displayed value	0-99s(selectable by user)
Liquid Types Supported	Both clean and somewhat dirty liquids with turbidity <10000 ppm
Power Supply	AC: 85-265V DC: 12-24V
Enclosure type	Portable
Degree of protection	IP66 according to EN60529
Operating temperature	-10°C to + 60°C
Housing material	ABS
Display	4.3" color LCD display, 16 keys
Units	User Configured (English and Metric)
Rate	Rate and Velocity Display
Totalized	gallons, ft3, barrels, lbs, liters, m3,kg
Thermal energy	unit GJ, kWh can be optional
Communication	4-20mA, OCT, RS485(Modbus), Datalogger, GPRS
Size	270*215*175mm
Weight	2.4kg

Transducer:

Degree of protection	Standard IP65; IP67, IP68 can be optional
Suited Liquid Temperature	-35°C~200°C
Pipe diameter range	20-50mm for type B; 40-5000mm for type A
Transducer Size	Type B 40(h)*24(w)*22(d)mm Type A 46(h)*31(w)*28(d)mm
Material of transducer	Aluminum + Peek
Cable Length	Std: 5m
Temperature Sensor	PT1000 clamp-on Accuracy: ±0.1%

Configuration Code:

ART-DP	Portable Dual Channels Clamp On Ultrasonic Flowmeter
	Power supply
A	85-265VAC
	Output Selection 1
N	N/A
1	4-20mA (accuracy 0.1%)
2	OCT
3	RS232 Output
4	RS485 Output (ModBus-RTU Protocol)
5	Data storage function
6	GPRS
	Output Selection 2
	Same as above
	Output Selection 3
	Transducer Type
B	DN20-50 -35-200°C
A	DN40-5000 -35-200°C
2B	DN20-50 -35-200°C, two pairs of sensors
2A	DN40-5000 -35-200°C, two pairs of sensors
	Temperature Input Sensor
N	None
T	Clamp-on PT1000(DN20-1000) (0-200°C)
	Pipeline Diameter
DNX	e.g.DN20—20mm, DN5000-5000mm
	Cable length
5m	5m (standard 5m)
Xm	Common cable Max 300m (standard 5m)
XmH	High temperature, cable Max 300m

ART-DP -A -1 -2-3 /LTDP - 2A -N - DN100 - 5m (example configuration)

Description:

Power supply: 85-265VAC; output: 4-20mA, OCT, Relay output:

transducer type: 2A for DN40-5000 -35-200°C; without PT1000 temperature sensors; DN100 application: 5m transducer cables.

Doppler Ultrasonic Flowmeter

General:

The ART6100 Doppler ultrasonic flow meter is designed to measure volumetric flow of solids-bearing or aerated liquid within closed conduit, the pipe line must be full of liquids, and there must be a certain amount of air bubbles or suspended solids in liquid.

Transducers are clamp-on(DF6100-EC/EP) or hot-tapped insertion(DF6100-EI) types, user don't need to shut down the pipe flow when install transducers.

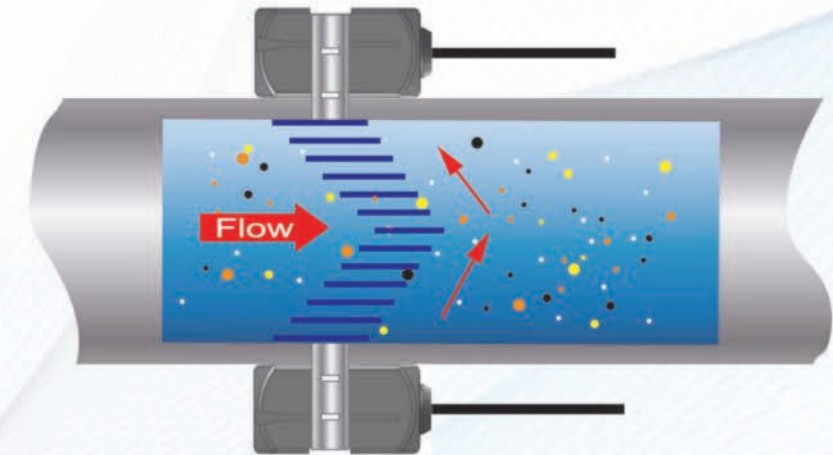
The Doppler ultrasonic flow meter can display flow rate and flow totalizer, etc., and is configured with 4-20mA, Relays, OCT outputs.

Applications:

- Raw sewage
- Activated sludge
- Ground water
- Pulp and paper slurries
- Chemical slurries
- Drainage
- Mining recirculation



Principle of Measurement:



The flowmeter operates by transmitting an ultrasonic sound from its transmitting transducer, the sound will be reflected by useful sonic reflectors suspended within the liquid and recorded by the receiving transducer. If the sonic reflectors are moving within the sound transmission path, sound waves will be reflected at a frequency shifted (Doppler frequency) from the transmitted frequency. The shift in frequency will be directly related to the speed of the moving particle or bubble. This shift in frequency is interpreted by the instrument and converted to various user defined measuring units.

There must be some particles large enough to cause longitudinal reflection – particles larger than 100 micron.

When install the transducers, the installation location must have enough straight pipe length upstream and downstream. Commonly, the upstream needs 10D and downstream needs 5D straight pipe length, where D is pipe diameter.



Features:

- It is suitable for pipe sizes ranging from 40 to 4000mm.
- For dirty liquids, a certain amount of air bubbles or suspended solids shall be contained.
- Excellent low flow rate measurement ability, low to 0.05m/s.
- A wide range of flow measurement, high flow rate can reach 12m/s.
- High-temperature transducer is suitable to liquids of -3513 ~ 200X1.
- Do not need to shut down the pipe flow when installing the transducers.
- User-friendly configuration.
- 4-20mA, Relay and OCT outputs.
- Accuracy: 2.0% calibrated span.

Specifications:

Transmitter:

Measurement principle	Doppler ultrasonic
Resolution	0.25mm/s
Repeatability	0.5% of reading
Accuracy	0.5% – 2.0% F.S.
Response time	2-60s for optional
Flow Velocity Range	0.05- 12 m/s
Liquid Types Supported	Liquids containing 100ppm of reflectors and at least 20% of the reflectors are larger than 100 micron.
Power Supply	AC: 85-265V DC: 24V/500mA
Enclosure type	Wall-mounted
Degree of protection	IP66 according to EN60529
Operating temperature	-20°C to +60°C
Housing material	Fiberglass
Measurement Channels	1
Display	2 line * 8 characters LCD, 8-digit rate or 8-digit total (resettable)
Units	User Configured (English and Metric)
Rate	Rate and Velocity Display
Totalized	gallons, ft3, barrels, lbs, liters, m3,kg
Communication	4-20mA,Relay and OCT output
Keypad	4pcs buttons
Size	244(h)*196(w)*114(d)mm
Weight	2.4kg

Transducer:

Transducers Type	Clamp-on
Degree of protection	IP65. IP67 or IP68 according to EN60529
Suited Liquid Temperature	Std. Temp.: -35°C~85°C High Temp.: -35°C~200°C
Pipe diameter range	40-4000 mm
Transducer Size	60(h)*34(w)*32(d)mm
Material of transducer	Aluminum (standard temperature); Peek (high temperature)
Cable Length	Std: 10m

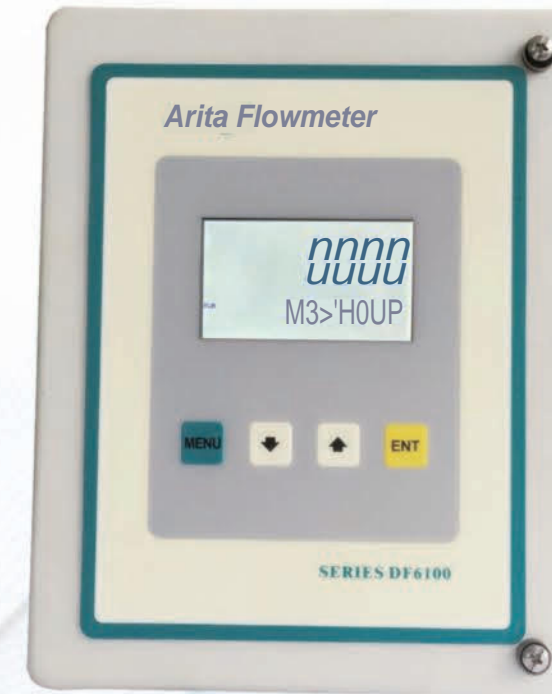
Configuration Code:

ART6100-EC Wall-mounted Doppler Clamp-on Ultrasonic Flowmeter

Power supply	
A	85-265VAC
D	24VDC
S	65W Solar supply
Output Selection 1	
N	N/A
1	4-20mA
2	Relay
3	OCT
Output Selection 2	
	Same as above
Sensor Type	
D	Standard Clamp-on transducer (DN40-4000)
Transducer Temperature	
S	-35-85C
H	-35~200'C
Pipeline Diameter	
DNX	e.g.DN40—40mm, DN4000—4000mm
Cable length	
10m	10m (standard 10m)
Xm	Common cable Max 300m(standard 10m)
XmH	High temp, cable Max 300m

ART6100-EC—A — 1 — N /LDC— D — S — DN100 — 10m (example configuration)

Description:
 Power supply. 220VAC; output: 4-20mA; transducer type: standard for DN40-4000; transducer temperature: -35 = 85°C; DN100 application; 10m transducer cables.



Features:

- Do not need to shut down the pipe flow when installing the transducers.
- It is suitable for pipe sizes ranging from 65 to 4000mm.
- For dirty liquids, a certain amount of air bubbles or suspended solids shall be contained.
- Excellent low flow rate measurement ability, low to 0.05m/s.
- A wide range of flow measurement, high flow rate can reach 12m/s.
- High-temperature transducer is suitable to liquids of -35*0 - 150V.
- User-friendly configuration.
- 4-20mA, Relay and OCT outputs.
- Accuracy: 2.0% calibrated span.

Specifications:

Transmitter:

Measurement principle	Doppler ultrasonic
Resolution	0.25mm/s
Repeatability	0.2% of reading
Accuracy	0.5% – 2.0% F.S.
Response time	2-60s for optional
Flow Velocity Range	0.05- 12 m/s
Liquid Types Supported	Liquids containing 100ppm of reflectors and at least 20% of the reflectors are larger than 100 micron.
Power Supply	AC: 85-265V DC: 24V/500mA
Enclosure type	Wall-mounted
Degree of protection	IP66 according to EN60529
Operating temperature	-20°C to +60°C
Housing material	Fiberglass
Measurement Channels	1
Display	2 line * 8 characters LCD, 8-digit rate or 8-digit total (resettable)
Units	User Configured (English and Metric)
Rate	Rate and Velocity Display
Totalized	gallons, ft3, barrels, lbs, liters, m3,kg
Communication	4-20mA, Relay and OCT output
keypad	4pcs buttons
Size	244(h)*196(w)*114(d)mm
Weight	2.4kg

Transducer:

Transducers Type	Insertion
Degree of protection	IP67 or IP68 according to EN60529
Suited Liquid Temperature	Std. Temp.: -35°C~85°C High Temp.: -35C-150C
Pipe diameter range	65-4000 mm
Transducer Size	ϕ58*199mm
Transducer material	SUS304 (Std. Temp.); SUS304 + Peek (High Temp.)
Cable Length	Std: 10m

Configuration Code:

ART6100-EI Inersion Doppler Ultrasonic Flowmeter

Power supply	
A	85-265VAC
D	24VDC
S	65W Solar supply
Output Selection 1	
N	N/A
1	4-20mA
2	Relay
3	OCT
Output Selection 2	
	Same as above
Sensor Type	
D	Standard Insertion Transducer (DN65-4000)
Transducer Temperature	
S	-35~85°C
H	-35~150C
Pipeline Diameter	
DNX	e.g.DN65—65mm, DN1000—1000mm
Cable length	
10m	10m (standard 10m)
Xm	Common cable Max 300m(standard 10m)
XmH	High temp, cable Max 300m

ART6100-EI -A - 1 - N /LDI- D - S - DN100 - 10m (example configuration)

Description:

Power supply: 110VAC; output: 4-20mA; transducer type: standard insertion transducer for DN65-4000;transducer temperature: -35~85°C; DN100 application; 10m transducer cables.

Portable Doppler Ultrasonic Flowmeter



Features:

- Rechargeable battery can work up to 50 hours.
- It is suitable for pipe sizes ranging from 40 to 4000mm.
- For dirty liquids, a certain amount of air bubbles or suspended solids shall be contained.
- Excellent low flow rate measurement ability, low to 0.05m/s.
- A wide range of flow measurement, high flow rate can reach 12m/s.
- High-temperature transducer is suitable to liquids of -35°C ~ 200°C .
- Do not need to shut down the pipe flow when installing the transducers.
- User-friendly configuration.
- 4-20mA, OCT outputs.

Specifications:

Transmitter:

Measurement principle	Doppler ultrasonic
Resolution	0.25mm/s
Repeatability	0.5% of reading
Accuracy	0.5% – 2.0% F.S.
Response time	2-60s for optional
Flow Velocity Range	0.05- 12 m/s
Liquid Types Supported	Liquids containing 100ppm of reflectors and at least 20% of the reflectors are larger than 100 micron.
Power Supply	AC: 85-265V Up to 50 hours with fully charged internal batteries
Enclosure type	Portable
Degree of protection	IP65 according to EN60529
Operating temperature	-20°C to $+60^{\circ}\text{C}$
Housing material	ABS
Measurement Channels	1
Display	2 line * 8 characters LCD, 8-digit rate or 8-digit total (resettable)
Units	User Configured (English and Metric)
Rate	Rate and Velocity Display
Totalized	gallons, ft3, barrels, lbs, liters, m3,kg
Communication	4-20mA, OCT output
Keypad	6pcs buttons
Size	270X125X175mm
Weight	3kg

Transducer:

Transducers Type	Clamp-on
Degree of protection	IP65. IP67 or IP68 according to EN60529
Suited Liquid Temperature	Std. Temp.: -35°C ~ 85°C High Temp.: -35°C ~ 200°C
Pipe diameter range	40-4000 mm
Transducer Size	60(h)*34(w)*32(d)mm
Material of transducer	Aluminum (standard temperature); Peek (high temperature)
Cable Length	Std: 5m

Configuration Code:

ART6000 -EP Portable Doppler Ultrasonic Flowmeter

A Power Supply : 85-265 VAC Output Selection 1

N N/A
1 4-20mA

2 OCT

Output Selection 2

Same as above

Sensor Type

D Standard Clamp-on transducer (DN40-4000)

Transducer Temperature

S -35~85°C

H -35~200°C

Pipeline Diameter

DNX e.g. DN40—40mm, DN4000—4000mm

Cable length

5m 5m (standard 5m)

Xm Common cable Max 300m(standard 5m)

XmH High temp, cable Max 300m

ART6000 -EP— A — 1 — N /LDP— D — S — DN600 — 5m (example configuration)

Description:

Power supply: 85-265VAC; output: 4-20mA; transducer type: standard for DN40-4000; transducer temperature: -35 ~ 85°C; DN600 application; 5m transducer cables.

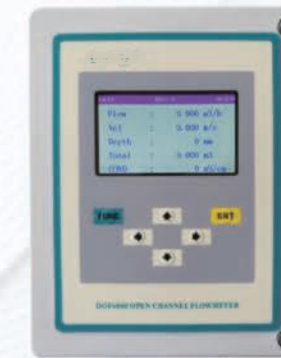
Partially Filled Pipe & Open Channel Flowmeter

General:

The ART6000 series flowmeter consists of Flow calculator and the Ultraflow QSD 6537 Sensor.

The Ultraflow QSD 6537 Sensor is used to measure water velocity, depth, and conductivity of water flowing in rivers, streams, open channels and pipes. When used with a companion Arita ART6000 Calculator, flow rate and total flow can also be calculated.

The flow calculator can calculate the cross-sectional area of partially filled pipe, open channel stream or river, for stream or river, with up to 20 coordinate points describing the river's shape of cross section. It's suitable for various applications.



ART6000-W (Wall-mounted type)

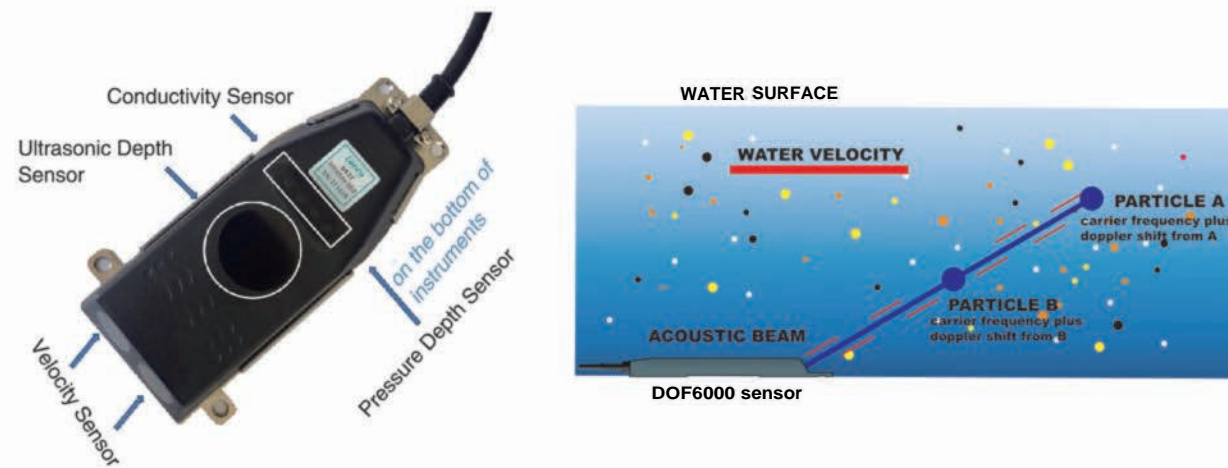


ART6000-P (Portable type)

Features:

- 20 coordinate points to describe the river's shape of cross section.
- One instrument can measure the velocity, depth, conductivity and temperature simultaneously.
- Velocity range : 0.02mm/s to 12m/s bidirectional, accuracy is 1%.
- Depth range: 0 to 10m.
- Measure velocity in both forward flow and back flow.
- Depth is measured by both the pressure sensor and ultrasonic level sensor principles.
- With barometric pressure compensation function.
- IP68 Epoxy-sealed body design, designed for under water installation.
- Separate sensor is with RS485 modbus/SDI-12 output to connect computer directly.

Principle of Measurement:



Application:

- Partially filled pipes
- River and stream
- Irrigation
- Culvert
- Water treatment
- Industrial waste
- Channel
- Sewage treatment
- Environmental monitoring

Specification:

Calculator:

Type	Wall-mounted and Portable can be optional
Power supply	Calculator: 85-265VAC; 12-24VDC (only for wall mounted type)
IP class	Calculator: IP66
Operating temperature	0°C~60°C
Case material	Fiberglass (wall-mounted) ; ABS (portable)
Display	4.3" color LCD
Output	Pulse, 4-20mA(Flow&Depth), RS485/Modbus, Daataloger, GPRS
Size	244x196x114mm(wall-mounted); 270x215x175mm(portable)
Weight	2.4kg (wall-mounted); 3kg (portable)
Data logger	16GB
Application	Partially Filled Pipe: 150-6000mm; Channel: width > 200mm

Sensor:

Velocity	Range	20mm/sec to 12m/sec Bidirectional velocity capability, set using configuration tools
	Accuracy	±1%R
	Resolution	1mm/s
Depth (Ultrasonic)	Range	20mm – 5000mm (5m)
	Accuracy	±1mm
	Resolution	1mm
Depth (Pressure)	Range	0mm to 10000mm (10m)
	Accuracy	±2mm
	Resolution	1 mm
Temperature	Range	0°C - 60°C
	Accuracy	±0.5°C
	Resolution	0.1°C
Electrical Conductivity (EC)	Range	0 to 200,000 pS/cm, Typically ± 1% of measurement
	Accuracy	±1%R
	Resolution	±1 pS/cm recorded as a 16-bit value (0 to 65,535 pS/cm) or a 32-bit value (0 to 262,143 pS/cm)
Tilt (accelerometer)	Range	±70° in roll and pitch axes.
	Accuracy	±1° for angles less than 45°
Output	SDI-12	SDI-12 v1.3, Max. cable 50m
	RS485	Modbus RTU, Max. cable 500m
Environmental	Operating temperature	0°C -+60°C water temperature
	Storage temperature	-20°C -+60°C
	IP class	IP68
Others	Cable	The standard cable is 15m, the maximum option is 500m.
	Sensor material	Epoxy-sealed body, Marine Grade 316 Stainless Steel Mounting Bracket
	Sensor size	135mm x 50mm x 20mm (L x W x H)
	Sensor weight	1kg with 15m of cable

Configuration Code:

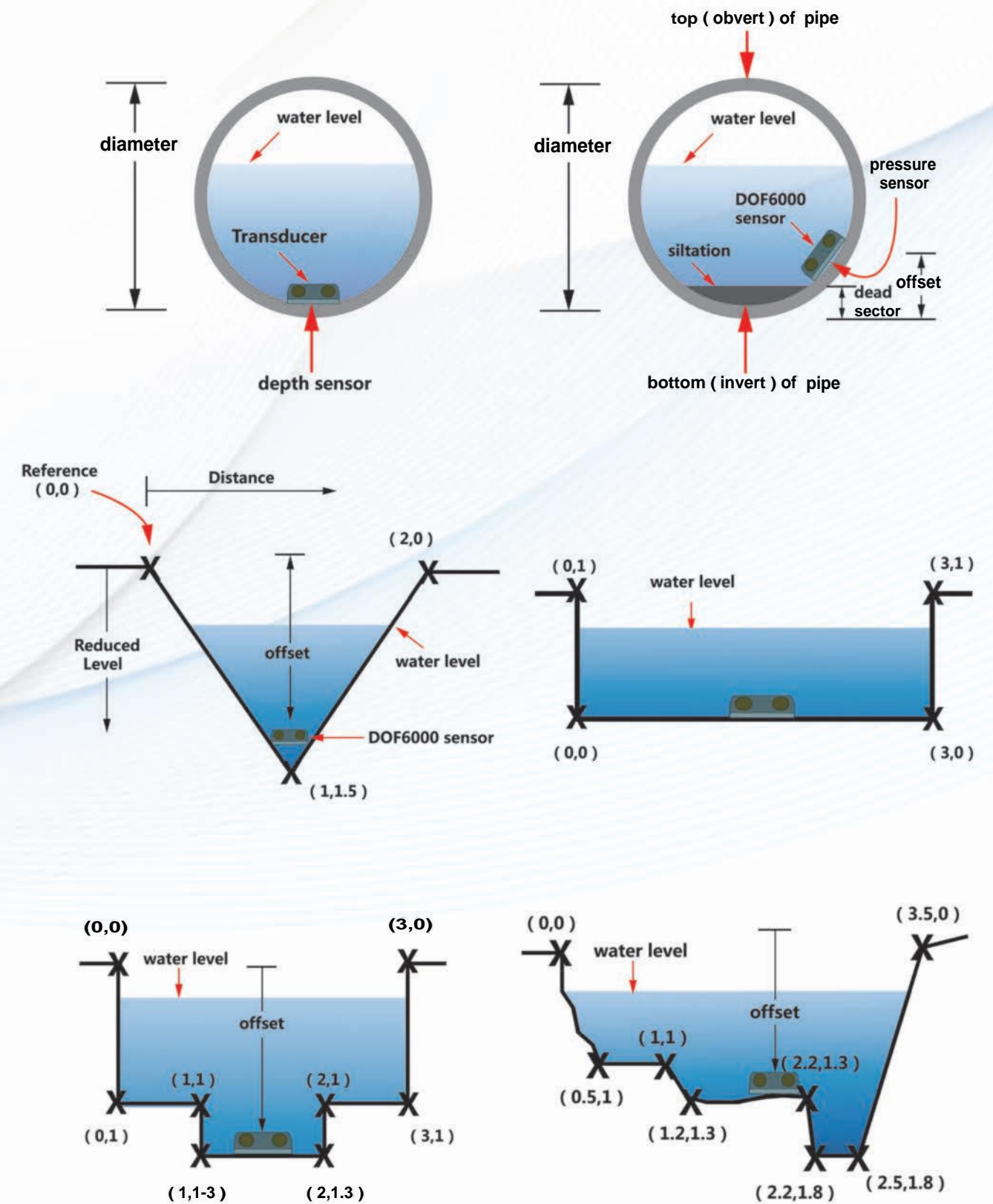
ART6000	Doppler Open Channel Flowmeter
Calculator	
W	Wall-mounted
P	Portable
Power supply	
A	85-265VAC
E	24VDC (only for Wall-mounted Calculator)
Output	
N	None
C	4-20mA
P	Pulse
F	RS485 (Modbus)
D	Data logger
G	GPRS
Level range	
6537	0 to 10m
Sensor cable length	
15m	15m (standard)
XXm	more length, please contact us.

ART6000 - W - A - N / VL - 6537 - 15m (example configuration)

Description:

Wall mounted Doppler Open Channel Flowmeter; Power supply: 85-265VAC; output:none; Sensor level range: 0-10m; 15m sensor cables.

ART6000 Sensor Installation Details:



Application Pictures:

