PRISMA
Instruments
& Gauge Bourdon France

DUS-TT-FC

Compact Wall-mounted Ultrasonic Flowmeter

Features

• **High measurement accuracy**
Accuracy: 1%

• **Wide measuring range**
DN15 to DN6000 ~ according to transducer type

• **Energy meter option**
Measurement of thermal energy and refrigeration

• **Varied communication interface**
Inputs: RS-485 Modbus RTU ~ 1x 4-20 mA ~ 1x Pulse ~ 1x Relay
Outputs: 3x 4-20mA

• **Integrated data logger**
SD card slot

• **IP67 Flowmeter ~ IP68 Transducers**
Suitable for wet environments, protected against water spray

• **Compact Design & Robust**
Dimensions: 13 cm × 15 cm × 8 cm ~ Weight: 1 kg

Modbus   〈Ex〉   **IP67**   **ISO** C €

DUS-TT-Ex Atex

Présentation

DUS-TT-FC ultrasonic flowmeter is an design and very compact Wall-mount clamp-on ultrasonic flow meter. It uses the latest digital technology and low-voltage broadband pulse transmission. The instrument is tolerant of liquids with small amounts of air bubbles or suspended solids found in most industrial environments. With distinctive features such as high accuracy, high reliability.

DUS-TT-FC can be applied to a wide range online measurent. With his Convertor protection class IP67 & transducer protection class IP68, It can be used in a very humid environment in complete safety.

A variety of liquid applications can be accommodated : ultra-pure liquids, portable water, chemicals, raw sewage, reclaimed water, cooling water, river water, plant effluent…

Designed to be user friendly, easy to operate. Users can finish installations within just a few minutes.

Suitable for measurement in many different working conditions.

Application

- Service and maintenance

- Replacement of defective devices

- Support of commissioning process and installation

- Performance and efficiency measurement
  - Evaluation and assessments
  - Capacity measurement of pumps
  - Monitoring of regulating valves

- Energy efficiency audits

- water industry - hot water, cooling water, potable water, sea water...

- Petrochemical industry

- Chemical industry -chlorine, alcohol, acids, .thermal oils.etc

- Refrigeration and air conditioning systems

- Food , beverage and pharmaceutical industry

- Power supply, nuclear power plants, thermal & hydropower plants Heat energy boiler feed water...

- Metallurgy and mining applications

Assembly type

Clamp-On Transducers

Intrusif Transducers

On Pipe

Clamp-On Heat meter option

Spécification

Reference : DUS-TT-FC	
Type	Standard ~ Option ATEX (Ex II 2G Ex d IIB T6)
Principle	Ultrasonic flowmeter with transit time
Accuracy	±1%
Output	1x 4-20 mA ~ 1x impulsion ~ 1x relay
Inputs	3x 4-20 mA, qccuracy 0.1 % (acquisition of temperature, pressure or level signal)
Communication	RS485 Modbus RTU Interface
Datalogger	SD Slot
Display	Backlit LCD display 2x 20 characters
Commands	16 keys
Environnement	-20°C ~ 60 °C
Material	IP67 molded aluminum
Fluid	Any single, clear liquid that can transmit ultrasound (up to 2% suspended particles)
Pipe Type	Any pipe uniform with a single material
DN	15~6000 mm
Pipe Length	10D upstream, 5D downstream, 30D pump
Temperature	Environnement -20 ~ 60 °C
Turbidity	Not more 10000 ppm
Velocity	0~± 12 m/s
Humidity	85% RH; the transducers can measure under water, depth ≤2m
Power Supply	DC8~36V or AC85~264V
Consumption	1,5 W
Dimensions	Standard : 138*150*85 mm ~ 1 Kg

TRANSDUCERS 2x 5m cable in standard				
Types	Ref.	DN mm	Temperatures	Accuracy
Clamp-On	TS	DN15~100	-40 °C~90°C	1%
	TM	DN50~1000	-40 °C~90°C	
	TL	DN300~6000	-40 °C~90°C	
Clamp-On High Temperature	TS-HT	DN15~100	-40 °C~160°C	1 %
	TM-HT	DN50~700	-40 °C~160°C	
Insertion	TI	DN80~6000	-40 °C~160°C	1%
	TIL			
In line	G3	DN15~25	-40 °C~160°C	0,5%
	G2	DN32~40		
	G1	DN50~6000		

TRANSDUCTEUR With Mounting rail
RS   DN15~DN100 mm ~ Temperature -30 °C~90°C
RM   DN50~DN300 mm ~ Temperature-30 °C~90°C
RL   DN300~DN700 mm ~ Temperature -30 °C~90°C
RS-HT DN15~DN100 mm ~ Temperature -30 °C~160°C
RM-HT DN50~DN300 mm ~ Temperature -30 °C~160°C

Rail avec réglette

Heatmeter option

RTD PT100				
Types	**References**	**DN**	**Temperatures**	**Stop Process**
Clamp-on	**SNI**	≥DN40	-40~160°C	NO
Clamp-on	**SNI2**	≥DN15	-40~160°C	NO
Insertion	**SI-1**	≥DN50	-40~160°C	Yes
Insertion faible Low DN	**SI-2**	< DN50	-40~160°C	Yes
Insertion in charge	**SI-3**	≥DN50	-40~160°C	NO

Mounting kit

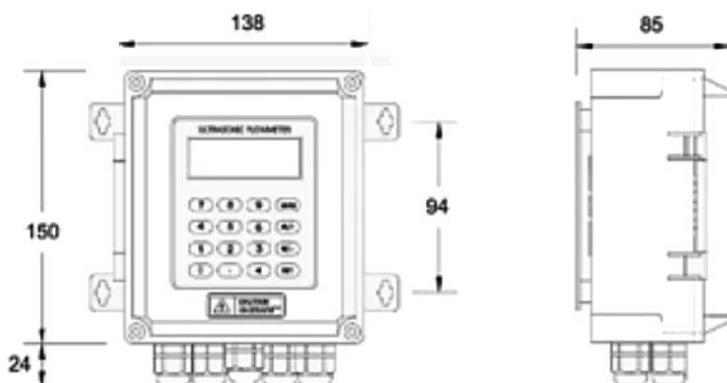Mounting bracket

Wall-mounted

Rail mounting

Dimensions

138

85

150

94

24

Codification

Reference   : *DUS-TT- FC*   X X X X

Model
1 -   Standard
2 -   **Ex** ATEX (Ex II 2G Ex d IIB T6)

Transducers Type

TS	DN15~DN100 mm
TM	DN50~DN1000 mm
TL	DN300~DN6000 mm
TS-HT	DN15~DN100 mm
TM-HT	DN50~DN700 mm
TI	DN80~DN6000 mm
TIL	DN80~DN6000 mm
G3	DN15~DN25 mm
G2	DN32~DN40 mm
G1	DN50~DN6000 mm
Ex-M	DN50~DN4000 mm Atex

OPTION Heat Meter
PT100 RTD

SNI	DN $\geq$ DN50
SI-1	DN $\geq$ DN50
SI-2	DN $<$ DN50
SI-3	DN $\geq$ DN50

Mounting Rail
RS
RM
RL
RS-HT
RM-HT
RL-HT