

Turbine Flow Meter

StaTurb TF400 Series - Sanitary

Introduction

The Staturb TF400 series turbine flow meter is engineered specifically for sanitary applications across the food, beverage, pharmaceutical industries and more. It is available in 6 different sizes, covering a flow range of 3 L/min to 950 L/min, with a variety of end fittings and sensors available to meet diverse requirements.



Characteristics

- Low pressure loss
- Fast response
- High accuracy
- High repeatability
- Customization available

Applications

- Food and Beverage
- Pharmaceutical
- Process water
- Demineralized water
- Hydrophilic medium
- Ethanol

Specifications

Size	1/2"...2" (DN15...DN50)
Applicable medium	Liquids
Accuracy	1%; 0.5% of reading
Repeatability	0.1%
Pressure rating	Up to 290 psi (20 bar)
Ambient Temperature	-40...185°F (-40...85°C)
Medium Temperature	-40...266°F (-40...130°C)
Materials	Body: 316L SS Flow straightener: 316L SS Rotor: 316L SS Rotor shaft: 316 stainless steel Bearing: Rulon Retaining ring: 304 SS
End Fitting	Tri-clamp 1" (25.4mm) Tri-clamp 2" (50.5mm) Tri-clamp 2.5" (64mm)

Flow Range

Gal/min

Part Code	Meter Size (Inches)	End Fitting (Inches)	Flow Range (Gal/min)	Max. Pressure (psi)
R15	1/2"	1"	0.8...10	290
R15A	1/2"	1"	1.6...18	290
R20	3/4"	2"	3.5...35	290
R25	1"	2"	7.1...71	290
R40	1-1/2"	2"	13...130	230
R50	2"	2-1/2"	25...250	230

L/min

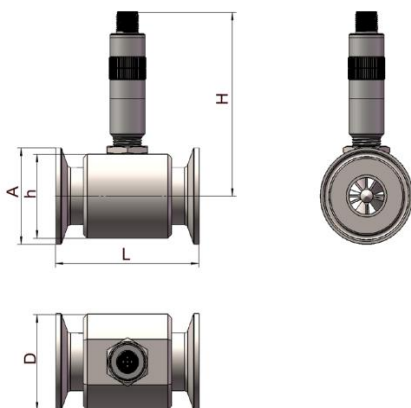
Part Code	Meter Size (mm)	End Fitting (mm)	Flow Range (L/min)	Max. Pressure (bar)
R15	15	25.4	3...38	20
R15A	15	25.4	6...68	20
R20	20	50.5	13...135	20
R25	25	50.5	27...270	20
R40	40	50.5	50...500	16
R50	50	64	95...950	16

* The provided data applies to a 10:1 turndown ratio.

A 20:1 ratio can be provided upon request, resulting in a 50% reduction in the lower flow limit compared to the values listed.

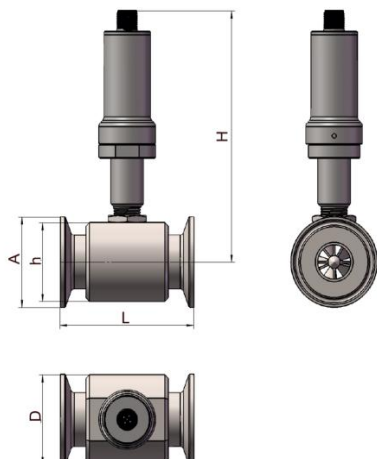
Dimensions in mm

Pulse output with M12 x 1 connector



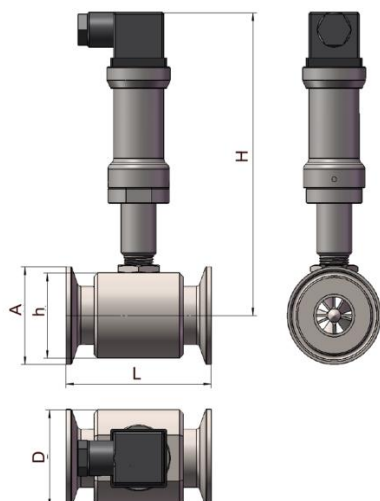
Part Code	A	h	L	H	D
R15(A)	25.4	27	64	90	33
R20	50.5	34	64	93	40
R25	50.5	44	78	96	50
R40	50.5	60	120	103	66
R50	64	72	120	109	78

Analog output with M12 x 1 connector



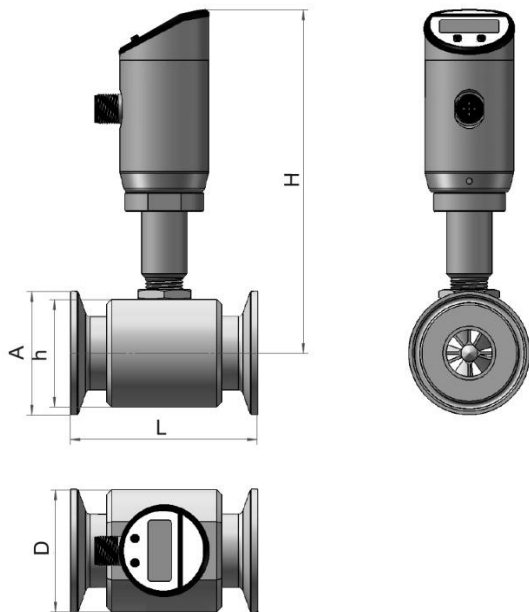
Part Code	A	h	L	H	D
R15(A)	25.4	27	64	134	33
R20	50.5	34	64	137	40
R25	50.5	44	78	140	50
R40	50.5	60	120	147	66
R50	64	72	120	153	78

Analog output with solenoid connector



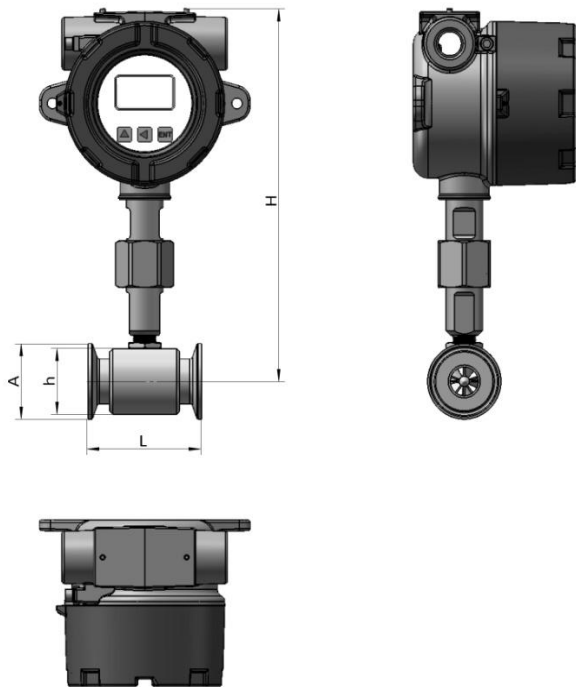
Part Code	A	h	L	H	D
R15(A)	25.4	27	64	150	33
R20	50.5	34	64	153	40
R25	50.5	44	78	157	50
R40	50.5	60	120	163	66
R50	64	72	120	169	78

Digital display



Part Code	A	h	L	H	D
R15(A)	25.4	27	64	134	33
R20	50.5	34	64	137	40
R25	50.5	44	78	141	50
R40	50.5	60	120	147	66
R50	64	72	120	153	78

Ex-proof



Part Code	A	h	L	H	D
R15(A)	25.4	27	64	243	33
R20	50.5	34	64	246	40
R25	50.5	44	78	250	50
R40	50.5	60	120	256	66
R50	64	72	120	263	78

Order Code

Example: TF400-R25B

1. Model

TF400- Sanitary Turbine Flow Meter

2. Part Code (see flow range for details)

R15 Flow Meter Size 1/2"
End Fitting Size 1" (25.4mm)
Flow Range: 0.8...10 gal/min

R15A Flow Meter Size 1/2"
End Fitting Size 1" (25.4mm)
Flow Range: 1.6...18 gal/min

R20 Flow Meter Size 3/4"
End Fitting Size 2" (50.5mm)
Flow Range: 3.5...35 gal/min

R25 Flow Meter Size 1"
End Fitting Size 2" (50.5mm)
Flow Range: 7.1...71 gal/min

R40 Flow Meter Size 1-1/2"
End Fitting Size 2" (50.5mm)
Flow Range: 13...130 gal/min

R50 Flow Meter Size 2"
End Fitting Size 2-1/2" (64mm)
Flow Range: 25...250 gal/min

S other connection available on request

3. Accuracy

A 0.5% of reading

B 1% of reading

Sensor Options

1. Model

S1000- Sensor for turbine flow meter

2. Pickup

R RF

3. Output

P1 Pulse output
P2 Linearized pulse output
A Analog output
D Digital transmitter
E Ex-proof transmitter

4. Temperature

T1 -40...212°F (-40...100°C)
T2 -40...302°F (-40...150°C)
T3 -40...446°F (-40...230°C)

See sensor's datasheet for details



Pulse output



Analog output



Digital display



Ex-proof digital display