

The AXF magnetic flowmeter series are sophisticated products with outstanding reliability and ease of operation, developed on the basis of decades of field-proven experience.

The combination of replaceable electrodes and a diagnostic function to detect adhesion level on the electrodes, improves dramatically maintenance intervals.

The AXF utilizes a "Dual Frequency Excitation Method" or an optional "Enhanced Dual Frequency Excitation Method" for severe applications. These excitation methods provide you with superior fluid noise suppression, higher stability and faster response time.

Note: The "Dual Frequency Excitation Method" is Yokogawa's unique technology.



Integral Flowmeter

Remote Flowtube

FEATURES

Accuracy

- 0.35% of rate (standard)
- 0.2% of rate (optional)

Adhesion (Electrode Coating) Diagnosis

By constantly monitoring the level of insulating substance on the electrodes, it is possible to determine when maintenance is required.

Empty Pipe Detection

The unit can detect if the pipe is full or drained / empty.

Removable Electrodes

If electrode coating is expected select the option removable electrodes (/ 2) for enhanced maintainability.

Display mode, 1 Line / 2 Line / 3 Line

Select between various flow parameters and 1 line, 2 line or 3 line display mode to customize our clear and versatile process indicator. The backlit LCD indicator is full dot-matrix style. At alarm condition a full description of the countermeasure is indicated.

Optical Infrared Switches / Easy Setup Grouping

These "touch through glass" optical switches allow adjustment of all meter parameters without opening the enclosure.

All Stainless As Standard

For all sizes up to 100mm (4 in) meterbody parts are stainless (incl. flanges) as standard. (Terminal box / converter housing is aluminium alloy).

Conductivity Limits

- Size 15mm to 125mm (0.5 to 5.0 in) :
≥ 1 μs/cm
- Size 150mm to 400mm (6 to 16 in) :
> 3μs/cm
- Size 2mm to 10mm (0.1 to 0.4 in) :
≥ 5 μs/cm

Excitation Mode Selection

"Dual Frequency Excitation Method" as standard on all models. YOKOGAWA's "Enhanced Dual Frequency Excitation Method" is a problem solving option (/HF1 or /HF2) for sizes 25mm to 200mm (1 in to 8 in). This option enables the flowmeter to provide significant noise reduced measurements for difficult applications, such as high concentration slurry or low conductive fluids. This option is recommended for close loop control applications with noisy media.

Multi-Range / Autorange Function

Status input enables different range selections on request. Autorange function is also possible up to 4 ranges.

Bidirectional Flow Measurement

Flow indication and totalization in both directions is standard.

Preset Totalizer / Batching

A totalizer preset controlled by the status input is available for batch operations.

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Positive Zero Return (PZR / 0% Signal Lock)
Status input will force display and all outputs to 0%.

Flexible Direction for Wiring Ports

The converter or the terminal box for general-purpose use and the sanitary style can be rotated arbitrarily to change the direction of the electrical connections.

Various Sanitary Connections

Various sanitary process connections are available, such as Tri-Clamp, ISO, DIN and SMS.

Extra Small Size Flange Style

The flange style is now available from 2.5 mm size.

Lay Length to ISO 13359

Flanged flowtubes styles, sizes 15mm to 400mm (1/2 in to 16 in), have lay length according to ISO 13359.

"Easy Setup" Parameters

The most frequently used parameters are arranged in a group at the top.

High-Speed Pulse Output:

The pulse rate goes up to 10,000 pps (pulse/second) for use with high speed applications such as short time batch processes.

Programmable Input / Output Configuration

The integral flowmeter provides capability to customize the number of signal inputs and outputs.

to 20 mA DC output signal.

Communication Line Conditions:

Load Resistance: 250 to 600 Ω (including cable resistance)

Distance from Power Line: 15 cm (6 in.) or more (Parallel wiring should be avoided.)

HART:

Communication Distance:

Up to 1.5 km (0.9 mile), when using multiple twisted pair cables. Communication distance varies depending on the type of cable used.

Cable Length For Specific Applications:

Use the following formula to determine the cable length for specific applications.

$$L = \frac{65 \times 10^6}{(R \times C)} - \frac{(C_f + 10,000)}{C}$$

where:

L = length in meters or feet

R = resistance in Ω (including barrier resistance)

C = cable capacitance in pF/m or pF/ft

C_f = maximum shunt capacitance of receiving devices in pF/m or pF/ft

Note: HART is a registered trademark of the HART Communication Foundation.

BRAIN:

Communication Distance:

Up to 2 km (1.25 miles), when polyethylene insulated PVC-sheathed cables (CEV cables) are used.

Communication distance varies depending on the type of cable and wiring used.

Load Capacitance: 0.22 μ F or less

Load Inductance: 3.3 mH or less

Input Impedance Of Communicating Device:
10 k Ω or more (at 24 kHz)

Data Security During Power Failure:

Data (parameters, totalizer value, etc.) storage by EEPROM. No back-up battery required. (*2)

Indicator:

Full dot-matrix LCD (323132 pixels)

Lightning Protection :

The lightning protection is built into the current output, pulse/alarm/status input and output terminals as standard. If option code /A is selected, an additional protection is built into the power terminals.

Protection / Rating:

IP67, NEMA4X

STANDARD SPECIFICATIONS

Converter

Excitation Method:

- Standard dual frequency excitation:
Size 2.5 to 400 mm (0.1 to 16 in.)
- Enhanced dual frequency excitation:
Size 25 to 200 mm (1.0 to 8.0 in.)
(for optional code /HF1 or /HF2)

Output Signals:

- One Current Output: 4 to 20 mA DC (load resistance: 0 to 750 Ω , including cable resistance)
- One Pulse Output (*1):
Transistor contact output (open collector) :
Limits : 30 V DC (OFF), 200 mA (ON)
Output rate 0.0001 to 10,000 pps (pulse/second)
- One Alarm Output (*1):
Limits : Transistor contact output (open collector) :
30 V DC (OFF), 200 mA (ON)
- Two Status Outputs (*1):
Transistor contact output (open collector) :
Limits : 30 V DC (OFF), 200 mA (ON)

Input Signal:

One Status Input: Dry contact
Load Resistance: 200 Ω or less (ON), 100 k Ω or more (OFF). (*1)

Communication Protocols:

The flowmeter provides communication signals for two standards : HART and BRAIN
The information is in both cases superimposed on the 4

*1: Select one of the following 3 choices

- 1 Pulse output, 1 Status/Alarm output
- 1 Status/Alarm output, 1 Status input
- 2 Status/Alarm outputs

*2: For models without an indicator, the hand-held terminal is necessary to set parameters.

Coating / Paint:

Case and Cover: Polyurethane corrosion-resistant
 Coating Color: Mint green coating (Munsell 5.6 BG
 3.3/2.9 or its equivalent)

Converter Housing Material:

Case and Cover : Aluminum alloy

Wiring Port Threads / Mounting:

- Electrical Connection: ANSI 1/2 NPT female
 ISO M20 x 1.5 female
- Terminal Connections : M4 size screw terminal
- Grounding: grounding resistance 100 Ω or less
 When optional code /A is selected, Class C grounding
 (grounding resistance 10 Ω or less) shall be applied.

Functions**How to Set Parameters:**

The indicator's LCD and three infra-red switches enable users to set parameters without opening the cover. Parameters can also be set by means of the HHT. (*2)

Displayed Languages:

Users can choose one of the following languages :
 English, French, German, Italian, Japanese or Spanish. (*2)

Display Customisation:

- Select
- 1- line to 3- line mode
- Flowrate as
 - Instantaneous flow rate
 - Instantaneous flow rate (%)
 - Instantaneous flow rate (bar graph)
- Current output value (mA)
- Totalized value
- Tag No.
- Electrode diagnostic results (*2)

Totalizer Functionality:

The flow rate is accumulated one pulse at a time according to the selected pulse rate settings. For bidirectional ranges, the totalized values of the flow direction (forward or reverse) and the flow rate are displayed together with engineering units. The difference between the forward and reverse totalizer can be displayed as totalized value. The reverse flow rate is not computed if the single range forward mode is selected. (*2)

Damping Time Constant:

Time constant (63% response) can be set from 0.1 second to 200.0 seconds. (*2)

Span / Full Scale Flow Range Setting (20mA):

Span flows can be programmed in units such as volume flow rate, mass flow rate, time, or flow rate value. The velocity unit can also be set. (*2)

Volume Flow Rate Unit: kcf, cf, mcf, Mgal (US), kgal (US), gal (US), mgal (US), kbbbl (US)*, bbl (US)*, mbbbl (US)*, μbbbl (US)*, MI (megaliter), m³, kl (kiloliter), l (liter), cm³

Mass Flow Rate Unit (Density must be set.): lb (US-pound), klb (US), t (ton), kg, g

Velocity Unit: ft, m (meter)

Time Unit: s (sec), min, h (hour), d (day)

* "US oil" or "US Beer" can be selected.

The converter will provide 20mA output current at the programmed span / full scale flow range.

Pulse Output:

Scaled pulses can be generated by programming the "pulse unit" and the "pulse scale" parameters.

Pulse Width: Duty cycle 50% or fixed pulse width (0.05, 0.1, 0.5, 1, 20, 33, 50, 100 ms) can be selected arbitrarily.

Output Rate: 0.0001 to 10,000 pps (pulse/second) (*1)

Multi-range / Auto Range Span Function:

Status input enables to select up to two ranges. For automatic range switching, the status of up to four ranges can be shown in status outputs and on the indicator. (*1)(*2)

Fwd / Rev Flow Measurement Functions:

Flows in both forward and reverse directions can be measured. The status is shown in status outputs and on the indicator during reverse flow measurement. (*1)(*2)

Totalization Switch:

The status is output if a totalized value becomes equal or greater than the set value. (*1)

Preset Totalization:

The parameter setting or status input enables the totalized value to be preset to a setting value or zero. (*1)

Positive Zero Return (PZR / 0% Signal Lock) :

Status input will force display and all outputs to 0%. (*1)(*2)

Alarm Selection Function:

Alarms are classified into the System Alarms (hard failures), Process Alarms (such as 'Empty Pipe', 'Signal Overflow' and 'Adhesion Alarm'), Setting Alarms, and Warnings. Whether alarms should be generated or not can be selected for each item. The current output generated for an alarm can be selected arbitrarily from among 2.4 mA or less, fixed to 4 mA, 21.6 mA or more, or HOLD. (*2)

Alarm Output:

Alarms are generated only for the items selected via the 'Alarm Selection Function' if relevant failures occur. (*1)

Self Diagnostic Functions:

If alarms are generated, details of the System Alarms, Process Alarms, Setting Alarms and Warnings are displayed together with concrete descriptions of countermeasures. (*2)

*1: Select one of the following 3 choices

- 1 Pulse output, 1 Status/Alarm output
- 1 Status/Alarm output, 1 Status input
- 2 Status/Alarm outputs

*2: For models without an indicator, the hand-held terminal is necessary to set parameters.

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Flow Upper/Lower Limit Alarms:

If a flow rate becomes greater or smaller than the set value, this alarm is generated. In addition, two upper limits (H, HH) and two lower limits (L, LL) can be set. If a flow rate gets higher or lower than any of the set values, the status is output. (*1)

Adhesion (Electrode Coating) Diagnostics:

This function enables monitoring of the adhesion level of insulating substances to the electrodes. Depending on the status of adhesion, users are notified by a warning or an alarm via status outputs. If replaceable electrodes are used, they can be removed and cleaned if adhesion occurs. (*1)(*2)

Protection / Rating:

- IP67, NEMA4X General-Purpose Use/Sanitary Style/ Explosion proof style
- IP68 (can be used for temporary submergence) Submersible Style (only for Remote Flowtube)

Coating / Paint:

Coating for all models of remote and integral flowmeter style :

- Polyurethan Mint Green
Munsell 5.6 BG 3.3/2.9 or its equivalent as standard.

Exceptions :

- Body and Flanges are stainless, no coating size 2.5 to 100mm (0.1 to 4.0 inch) in flange style and wafer style.
- Non-tar epoxy coating (black) submersible style

Materials, Fabrication Style and Sizes

Available Materials Flowtubes

Size 2.5 mm (0.1 in.) to 15 mm (0.5 in.)

Part Name		Material
Housing		Stainless steel-JIS SCS11
Flange		Stainless steel-JIS SUS304 (AISI 304 SS/EN 1.4301 equivalent)
Mini-Flange	Wafer Style PFA/Polyurethane rubber	Stainless steel-JIS SCS13 /EN 1.4308 equivalent
	Wafer Style Ceramics lining [only for 15 mm (0.5 in.)]	Stainless steel-JIS SUS316L (AISI 316 SS/EN 1.4404 equivalent)
	Sanitary Style [only for 15 mm (0.5 in.)]	Stainless steel-JIS SCS13 /EN 1.4308 equivalent
Pipe	Flange/Wafer Style PFA/Polyurethane rubber	Stainless steel-JIS SCS13 /EN 1.4308 equivalent
	Wafer Type/Union Joint Ceramics lining	Alumina ceramics (99.9%)
	Sanitary Style [only for 15 mm (0.5 in.)]	Stainless steel-JIS SCS13 /EN 1.4308 equivalent
Terminal Box (Remote Flowtube)		Aluminum alloy

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Size 25 mm (1 in.) to 125 mm (5 in.)

Part Name		Material	
Housing		Stainless steel-JIS SUS304 (AISI 304 SS/EN 1.4301 equivalent)	
Flange	Process Connection code: B**	Stainless steel-JIS SUS304 (AISI 304 SS/EN 1.4301 equivalent)	
	Process Connection code: C** [(Size 50 mm (2.0 in.) to 125 mm (5.0 in.)]	Carbon steel-JIS SS400	
Mini-Flange	Wafer Style PFA/Polyurethane rubber	Size 25 mm (1.0 in.)	Stainless steel- EN 1.4308 SCS 13 equivalent
		Size 32 mm (1.25 in.) to 125 mm (5.0 in.)	Stainless steel-JIS SUS430 (ASTM 43000/DIN X6Cr17/EN 1.4016 equivalent)
	Wafer Style Ceramics lining	Size 25 mm (1.0 in.) to 50 mm (2.0 in.)	Stainless steel-JIS SUS316L (AISI 316L SS/EN 1.4404 equivalent)
		Size 80 mm (3.0 in.), 100 mm (4.0 in.)	Stainless steel-JIS SUS304 (AISI 304 SS/EN 1.4301 equivalent)
	Sanitary Style	Size 25 mm (1.0 in.)	Stainless steel-JIS SCS13 /EN 1.4308 equivalent
		Size 32 mm (1.25 in.) to 125 mm (5.0 in.)	Stainless steel-JIS SUS430 (ASTM 43000/DIN X6Cr17/EN 1.4016 equivalent)
Pipe	Flange/Wafer Style PFA/Polyurethane rubber	Size 25 mm (1.0 in.)	Stainless steel- EN 1.4308 SCS 13 equivalent
		Size 32 mm (1.25 in.) to 125 mm (5.0 in.)	Stainless steel-JIS SUS304 (AISI 304 SS/EN 1.4301 equivalent)
	Wafer Style Ceramics lining	Size 25 mm (1.0 in.) to 100 mm (4.0 in.)	Alumina ceramics (99.9%)
		Size 25 mm (1.0 in.)	Stainless steel-JIS SCS13 /EN 1.4308 equivalent
	Sanitary Style	Size 25 mm (1.0 in.)	Stainless steel-JIS SCS13 /EN 1.4308 equivalent
		Size 32 mm (1.25 in.) to 125 mm (5.0 in.)	Stainless steel-JIS SUS304 (AISI 304 SS/EN 1.4301 equivalent)
Terminal Box (Remote Flowtube)		Aluminum alloy	

T04.EPS

Size 150 mm (6 in.) to 400 mm (16 in.)

Part Name		Material
Housing		Carbon steel-JIS SPCC
Flange	Process Connection code: B**	Stainless steel-JIS SUS304 or SUS304F (AISI 304 SS/EN 1.4301 equivalent)
	Process Connection code: C**	Carbon steel-JIS SS400
Mini-Flange	Wafer Style PFA/Polyurethane rubber	Carbon steel-JIS SS400
	Wafer Style Ceramics lining [available with 150 mm (6.0 in.), 200 mm (8.0 in.)]	Stainless steel-JIS SUS304 (AISI 304 SS/EN 1.4301 equivalent)
Pipe	Flange Type/Wafer Style PFA/Polyurethane rubber	Stainless steel-JIS SUS304 (AISI 304 SS/EN 1.4301 equivalent)
	Wafer Style Ceramics lining [available with 150 mm (6.0 in.), 200 mm (8.0 in.)]	Alumina ceramics (99.9%)
Terminal Box (Remote Flowtube)		Aluminum alloy

T05.EPS

Available Materials for Lining:

- Fluorocarbon PFA* lining
- Polyurethane rubber or Alumina ceramics lining
- *PFA is FDA (U.S. Food and Drug Administration) approved material.

Electrodes

Available Material for Electrodes :

- JIS SUS316L (AISI 316L SS/EN 1.4404 or its equivalent)
- Hastelloy*1 C276 or its equivalent
- Titanium, Tantalum, Platinum-Iridium, Tungsten Carbide, Platinum-Alumina cermet (only for ceramics lining)

Electrode Construction:

Non-replaceable Electrode Style

Externally Inserted :

In all General -Purpose Use and Submersible style flowtubes with PFA or polyurethan rubber liner.

Internally Inserted :

In all Sanitary style flowtubes

Integral / sinterfused :

In all flowtubes with ceramic liner.

Replaceable Electrode Style

Electrode parts can be put into units to facilitate replacement or mounting at customer site.

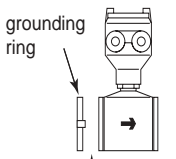
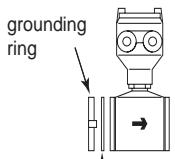
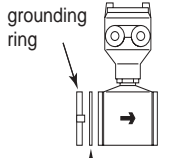
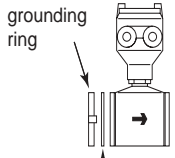
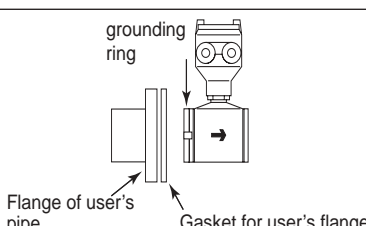
The optional dedicated tool (F9807SK) is required.

Available Materials for Grounding Rings / Grounding Electrodes:

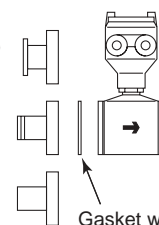
- Grounding Ring (plate type)
JIS SUS316 (AISI 316 SS/EN 1.4401 or its equivalent), JIS SUS316L (AISI 316L SS/EN 1.4404 or its equivalent), Hastelloy*1 C276 or equivalent, Titanium
- Grounding Electrode (electrode type)*2
Fluorocarbon PFA lining + grounding electrodes (when Tantalum or Platinum-Iridium is selected)

*1: Hastelloy is a registered trademark of Haynes International Inc.

*2: Available with sizes 2.5 to 200 mm (0.1 to 8.0 in.), PFA and ceramics liner only.

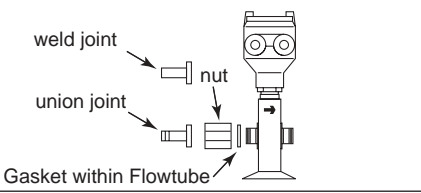
Use	General-Purpose Use / Submersible Style	
Lining	PFA/Polyurethane Rubber	Ceramics
Standard	 <p>grounding ring</p> <p>No gasket within Flowtube</p>	 <p>grounding ring</p> <p>Gasket within Flowtube</p>
	Gasket Material (within Flowtube)	
	—	Fluororesin with ceramic fillers (Valqua #7020)
Optional code (GA, GC, GD, or GF)	 <p>grounding ring</p> <p>Gasket within Flowtube</p>	 <p>grounding ring</p> <p>Gasket within Flowtube</p>
	Gasket Material (within Flowtube)	
	GA: Fluororubber for PVC pipes (Viton®) GC: Acid-resistant fluororubber for PVC pipes (Viton®) GD: Alkali-resistant fluororubber for PVC pipes (Viton®) GF*: Fluororesin with alkali-resistant carbons for metal pipes *1: GF is applicable only for ceramics lining.	
Optional code (BCF, BSF, BCC, or BSC)	 <p>grounding ring</p> <p>Flange of user's pipe</p> <p>Gasket for user's flange</p>	
	Gasket Material (for user's flange)	
	BCF, BSF: PTFE-sheathed non-asbestos BCC, BSC: Chloroprene rubber	

T23-1.EPS

Use	Sanitary S tyle
Lining	PFA
Standard	 <p>Adapter for clamp connection</p> <p>Adapter for union connection</p> <p>Adapter for butt weld connection</p> <p>Gasket within Flowtube</p>
	Gasket Material (within Flowtube)
	EPDM (ethylene propylene) rubber
Optional code (GH)	GH: Silicone rubber

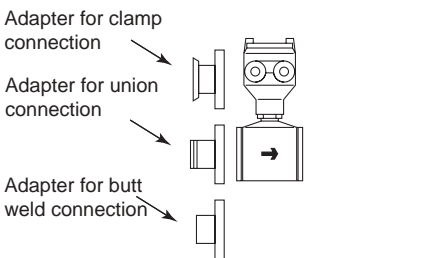
T23-2.EPS

Available Joints :

Lining	Ceramic Weld · Union Joints (size 10 mm or less)	
Standard		
	Materials for Weld · Union Joint	
	Process Connection Code GUM: weld joint	Stainless steel (JIS SUS316L (ANSI 316L SS/EN 1.4404 equivalent))
Process Connection Code GUN, GUR: union joint		

Note: Contact Yokogawa office if PVC union joint is required.

T23-3.EPS

Use	Sanitary S tyle
Standard	
	Materials for Adapters (clamp, union, butt weld)
	Stainless steel (JIS SUS316L (ANSI 316L SS/EN 1.4404 equivalent))

T23-4.EPS

Available O-Ring (Replaceable electrode type)
Fluororubber

Wiring Port Threads / Mounting:

- Electrical Connection: ANSI 1/2 NPT female
ISO M20 x 1.5 female
- Terminal Connection at Terminal Box: M4 size screw
- Grounding: grounding resistance 100 Ω or less

Combined Converter:

- Flowtubes and converters are interchangeable if exchanged within one model-family. The specified accuracy will not be influenced. However, if the converter model is changed from AXFA14 (round style) to AXFA11 (wall mount style) or vice versa the meter factors must be readjusted according to its flowcalibration.
- In case that size 250 mm (10 in.) or larger is used for severe fluid noise due to low conductivity or high concentration slurry, please use the AXFA11 Converter.
- Maximum Cable Length:
 - Combination of AXF remote Flowtube and AXFA11:
up to 200 m (660 ft)
 - Combination of AXF remote Flowtube and AXFA14:
up to 100 m (330 ft)

Overview About Sizes, Styles and Options

Unit: mm (in.)

Use	Process Connection	Lining	Remote Flowtube	Integral Flowmeter	High Grade Accuracy 0.2% of Rate (*3)	Enhanced Dual Frequency Excitation (Optional code HF1,HF2) (*3)	Replaceable Electrode (Electrode structure code 2)
General-purpose use	Wafer	PFA	2.5 (0.1), 5 (0.2), 10 (0.4), 15 (0.5), 25 (1.0), 32 (1.25), 40 (1.5), 50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0), 150 (6.0), 200 (8.0), 250 (10), 300 (12)		25 (1.0), 32 (1.25), 40 (1.5), 50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0), 150 (6.0), 200 (8.0)	25 (1.0), 32 (1.25), 40 (1.5), 50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0), 150 (6.0), 200 (8.0)	25 (1.0), 32 (1.25), 40 (1.5), 50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0), 150 (6.0), 200 (8.0), 250 (10), 300 (12)
		Polyurethane Rubber	25 (1.0), 32 (1.25), 40 (1.5), 50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0), 150 (6.0), 200 (8.0), 250 (10), 300 (12)		—	25 (1.0), 32 (1.25), 40 (1.5), 50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0), 150 (6.0), 200 (8.0)	25 (1.0), 32 (1.25), 40 (1.5), 50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0), 150 (6.0), 200 (8.0), 250 (10), 300 (12)
		Ceramics (*1)	15 (0.5), 25 (1.0), 40 (1.5), 50 (2.0), 80 (3.0), 100 (4.0), 150 (6.0), 200 (8.0)		25 (1.0), 40 (1.5), 50 (2.0), 80 (3.0), 100 (4.0), 150 (6.0), 200 (8.0)	25 (1.0), 40 (1.5), 50 (2.0), 80 (3.0), 100 (4.0), 150 (6.0), 200 (8.0)	—
	Flange	PFA	2.5 (0.1), 5 (0.2), 10 (0.4), 15 (0.5), 25 (1.0), 32 (1.25), 40 (1.5), 50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0), 150 (6.0), 200 (8.0), 250 (10), 300 (12), 350 (14), 400 (16)		25 (1.0), 32 (1.25), 40 (1.5), 50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0), 150 (6.0), 200 (8.0)	25 (1.0), 32 (1.25), 40 (1.5), 50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0), 150 (6.0), 200 (8.0)	25 (1.0), 32 (1.25), 40 (1.5), 50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0), 150 (6.0), 200 (8.0), 250 (10), 300 (12), 350 (14), 400 (16)
		Polyurethane Rubber	25 (1.0), 32 (1.25), 40 (1.5), 50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0), 150 (6.0), 200 (8.0), 250 (10), 300 (12), 350 (14), 400 (16)		—	25 (1.0), 32 (1.25), 40 (1.5), 50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0), 150 (6.0), 200 (8.0)	25 (1.0), 32 (1.25), 40 (1.5), 50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0), 150 (6.0), 200 (8.0), 250 (10), 300 (12), 350 (14), 400 (16)
	Union Joint	Ceramics (*2)	2.5 (0.1), 5 (0.2), 10 (0.4)		—	—	—
Submersible Style	Wafer	PFA	15 (0.5), 25 (1.0), 32 (1.25), 40 (1.5), 50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0), 150 (6.0), 200 (8.0), 250 (10), 300 (12)	—	25 (1.0), 32 (1.25), 40 (1.5), 50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0), 150 (6.0), 200 (8.0)	25 (1.0), 32 (1.25), 40 (1.5), 50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0), 150 (6.0), 200 (8.0)	—
		Polyurethane Rubber	25 (1.0), 32 (1.25), 40 (1.5), 50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0), 150 (6.0), 200 (8.0), 250 (10), 300 (12), 350 (14), 400 (16)	—	—	25 (1.0), 32 (1.25), 40 (1.5), 50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0), 150 (6.0), 200 (8.0)	—
	Flange	PFA	15 (0.5), 25 (1.0), 32 (1.25), 40 (1.5), 50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0), 150 (6.0), 200 (8.0), 250 (10), 300 (12), 350 (14), 400 (16)	—	25 (1.0), 32 (1.25), 40 (1.5), 50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0), 150 (6.0), 200 (8.0)	25 (1.0), 32 (1.25), 40 (1.5), 50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0), 150 (6.0), 200 (8.0)	—
		Polyurethane Rubber	25 (1.0), 32 (1.25), 40 (1.5), 50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0), 150 (6.0), 200 (8.0), 250 (10), 300 (12), 350 (14), 400 (16)	—	—	25 (1.0), 32 (1.25), 40 (1.5), 50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0), 150 (6.0), 200 (8.0)	—
Sanitary Style	Clamp: Tri-Clamp (*4), DIN32676 ISO2852/SMS3016 Union: DIN11851 ISO2853 (*5) SMS1145 (*6) Butt Weld: DIN11850, ISO2037	PFA	15 (0.5), 25 (1.0), 32 (1.25), 40 (1.5), 50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0)		25 (1.0), 32 (1.25), 40 (1.5), 50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0)	25 (1.0), 32 (1.25), 40 (1.5), 50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0)	—

T21.EPS

*1: AXF standard lay length dimensions for wafer style ceramics linings are the same as those for ADMAG ceramics linings.

*2: AXF standard lay length dimensions for union joint style ceramics linings are the same as those for ADMAG ceramics linings.

*3: Enhanced dual frequency excitation is not available for models with High grade accuracy

*4: Not available with 32 mm (1.25 in.), 125 mm (5.0 in.)

*5: Not available with 125 mm (5.0 in.)

*6: Not available with 32 mm (1.25 in.), 125 mm (5.0 in.)

HAZARDOUS AREA CLASSIFICATION

CENELEC ATEX (KEMA):

All instruction manuals for ATEX Ex related products are available in English, German and French. Should you require Ex related instructions in your local language, you have to contact your nearest Yokogawa office or representative.

No.KEMA03ATEX2435

AXF002C - AXF400C

(Integral Flowmeter)

CENELEC ATEX(KEMA) Flame proof Type

Group II Category 2G

EEx dme [ia] IIC T6 ... T3

Electrode Circuit Um : 250Vac/dc

Excitation Circuit : 140V max.

Enclosure : IP67, IP66

Temperature Code	Max. P rocess Temperature	Min. P rocess Temperature
T6	+70°C(+158°F)	-40°C(-40°F)
T5	+85°C(+185°F)	-40°C(-40°F)
T4	+120°C(+248°F)	-40°C(-40°F)
T3	+130°C(+266°F)	-40°C(-40°F)

T27.EPS

Ambient Temp. : -40°C to +60°C (-40°F to +140°F)

CENELEC ATEX(KEMA) Type of Protection "Dust"

Group II Category 2G, 1D

Maximum surface temperature :

Max. S urface Temperature	Max. P rocess Temperature
T75°C(+167°F)	+70°C(+158°F)
T85°C(185°F)	+85°C(+185°F)
T100°C(+212°F)	+120°C(+248°F)
T115°C(+239°F)	+130°C(+266°F)

T29_1.EPS

(Remote Flowtube)

CENELEC ATEX(KEMA) Flame proof Type

KEMA03ATEX2435

Group II Category 2G

EEx dme [ia] IIC T6 ... T3

Electrode Circuit Um : 250Vac/dc

Excitation Circuit : 170V max.

Enclosure : IP67, IP66

Temperature Code	Max. P rocess Temperature	Min. P rocess Temperature
T6	+70°C(+158°F)	-40°C(-40°F)
T5	+85°C(+185°F)	-40°C(-40°F)
T4	+120°C(+248°F)	-40°C(-40°F)
T3	+150°C(+302°F)	-40°C(-40°F)

T28.EPS

Ambient Temp. : -40°C to +60°C (-40°F to +140°F)

CENELEC ATEX(KEMA) Type of Protection "Dust"

Group II Category 2G, 1D

Maximum surface temperature :

Max. S urface Temperature	Max. P rocess Temperature
T75°C(+167°F)	+70°C(+158°F)
T85°C(185°F)	+85°C(+185°F)
T100°C(+212°F)	+120°C(+248°F)
T115°C(+239°F)	+150°C(+302°F)

T29.EPS

FM:

AXF002C - AXF400C

(Integral flowmeter)

Explosion proof Class I, Division 1, Groups A, B, C & D.

Dust ignition proof Class II/III, Division 1, Groups E, F & G.

Intrinsically safe (electrodes) Class I, Division 1, Groups A, B, C & D.

"SEAL ALL CONDUITS WITHIN 18 INCHES"

"WHEN INSTALLED IN DIV.2,SEALS NOT REQUIRED"

Electrode circuit Vmax : 250Vac/dc

Excitation Circuit : 140V max.

Enclosure : NEMA 4X

Temperature Code	Max. P rocess Temperature	Min. P rocess Temperature
T6	+70°C(+158°F)	-40°C(-40°F)
T5	+85°C(+185°F)	-40°C(-40°F)
T4	+120°C(+248°F)	-40°C(-40°F)
T3	+130°C(+266°F)	-40°C(-40°F)

T27.EPS

Ambient Temp. : -40°C to +60°C (-40°F to +140°F)

(Remote Flowtube)

Explosion proof Class I, Division 1, Groups A, B, C & D.

Dust ignition proof Class II/III, Division 1, Groups E, F & G.

Intrinsically safe (electrodes) Class I, Division 1, Groups A, B, C & D.

"SEAL ALL CONDUITS WITHIN 18 INCHES"

"WHEN INSTALLED IN DIV.2,SEALS NOT REQUIRED"

Electrode circuit Vmax : 250Vac/dc

Excitation Circuit : 140V max.

Enclosure : NEMA 4X

Temperature Code	Max. P rocess Temperature	Min. P rocess Temperature
T6	+70°C(+158°F)	-40°C(-40°F)
T5	+85°C(+185°F)	-40°C(-40°F)
T4	+120°C(+248°F)	-40°C(-40°F)
T3	+150°C(+302°F)	-40°C(-40°F)

T28.EPS

Ambient Temp. : -40°C to +60°C (-40°F to +140°F)

Note : Installation shall be in accordance with the manufacture's instructions and National Electric code, ANSI/NFPA-70.

CSA:

AXF002C - AXF400C

(Integral flowmeter)

For CSA C22.2 Series

Explosion proof Class I, Division 1, Groups A, B, C & D.

Dust ignition proof Class II/III, Division 1, Groups E, F & G.

Intrinsically safe (electrodes) Class I, Division 1, Groups A, B, C & D.

“SEAL ALL CONDUITS WITHIN 50cm of the enclosure”

“WHEN INSTALLED IN DIV.2,SEALS NOT REQUIRED”

For CSA E79 Series

Flame proof zone 1, Ex dme [ia IIC T6 ... T3

Intrinsically safe (electrodes) for zone 0, Ex ia IIC T6...T3

Electrode circuit Vmax : 250Vac/dc

Excitation Circuit : 140V max.

Temperature Code	Max. Process Temperature	Min. Process Temperature
T6	+70°C(+158°F)	-40°C(-40°F)
T5	+85°C(+185°F)	-40°C(-40°F)
T4	+120°C(+248°F)	-40°C(-40°F)
T3	+130°C(+266°F)	-40°C(-40°F)

T27.EPS

Ambient Temp. : -40°C to +60°C (-40°F to +140°F)

(Remote Flowtube)

For CSA C22.2 Series

Explosion proof Class I, Division 1, Groups A, B, C & D.

Dust ignition proof Class II/III, Division 1, Groups E, F & G.

Intrinsically safe (electrodes) Class I, Division 1, Groups A, B, C & D.

“SEAL ALL CONDUITS WITHIN 18 INCHES”

“WHEN INSTALLED IN DIV.2,SEALS NOT REQUIRED”

For CSA E79 Series

Flame proof zone 1, Ex dme [ia IIC T6 ... T3

Intrinsically safe (electrodes) for zone 0, Ex ia IIC T6...T3

Electrode circuit Vmax : 250Vac/dc

Excitation Circuit : 170V max.

Enclosure : Type 4X, IP66, IP67

Temperature Code	Max. Process Temperature	Min. Process Temperature
T6	+70°C(+158°F)	-40°C(-40°F)
T5	+85°C(+185°F)	-40°C(-40°F)
T4	+120°C(+248°F)	-40°C(-40°F)
T3	+150°C(+302°F)	-40°C(-40°F)

T28.EPS

Ambient Temp. : -40°C to +60°C (-40°F to +140°F)

STANDARD PERFORMANCE

Reference Conditions:

Similar to BS EN 29104 (1993); ISO9104 (1991)

- Fluid temperature: +10°C to +30°C (+50°F to +86°F)
- Ambient temperature: +20°C to +30°C (+68°F to +86°F)
- Warm-up time: 30 min
- Straight runs:
 - Upstream > 10 x DN
 - Downstream > 5 x DN
- Properly grounded
- Properly centered

Accuracy (at reference conditions)

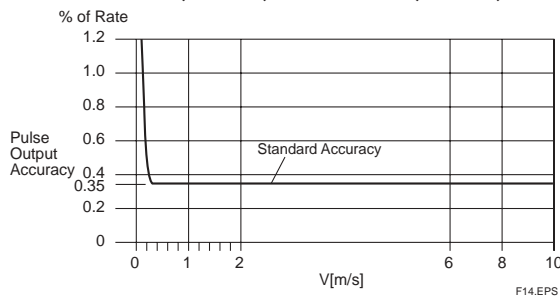
Pulse Output Accuracy:

PFA/Ceramics Lining:

Size mm (in.)	Flow Velocity V m/s (ft/s)	Standard Accuracy (Calibration code B)	Flow Velocity V m/s (ft/s)	High Grade Accuracy (Calibration code C)
2.5 (0.1) to 15 (0.5)	V < 0.3 (1)	1.0 mm/s	—	—
	0.3 ≤ V ≤ 10 (1) (33)	0.35% of Rate		
25 (1.0) to 200 (8.0)	V < 0.15 (0.5)	0.5 mm/s	V < 0.15 (0.5)	0.5 mm/s
	0.15 ≤ V ≤ 10 (0.5) (33)	0.35% of Rate	0.15 % V < 1 (0.5) (3.3)	0.18% of Rate + 0.2mm/s
			1 % V %10	0.2% of Rate
250 (10) to 400 (16)	V < 0.15 (0.5)	0.5 mm/s	—	—
	0.15 ≤ V ≤ 10 (0.5) (33)	0.35% of Rate		

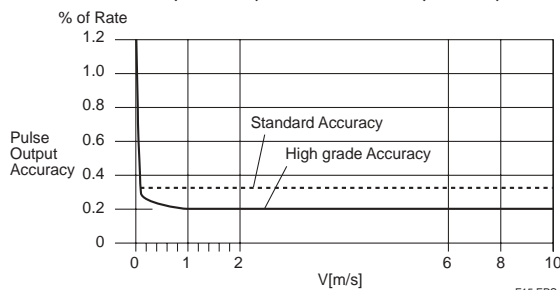
T08.EPS

Size 2.5 mm (0.1 in.) to 15 mm (0.5 in.)



F14.EPS

Size 25 mm (1.0 in.) to 400 mm (16 in.)



F15.EPS

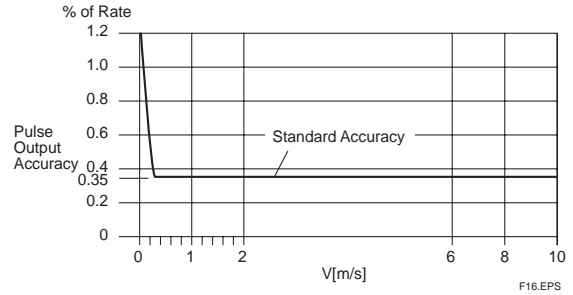
Pulse Output Accuracy:

Polyurethane Lining:

Size mm (in.)	Flow Velocity V m/s (ft/s)	Standard Accuracy (Calibr. code B)
25 (1.0) to 400 (16)	V < 0.3 (1.0)	1.0 mm/s
	0.3 ≤ V ≤ 10 (1.0) (33)	0.35% of Rate

T09.EPS

Size 25 mm (1.0 in.) to 400 mm (16 in.)



F16.EPS

Pulse Output Accuracy:

Enhanced dual frequency excitation

(Optional code /HF2):

Standard accuracy + 1mm/s

Current Output Accuracy: Plus 0.05% of Span

Repeatability:

0.1% of Rate (V ≥ 1 m/s (3.3 ft/s))

0.05% of Rate + 0.5 mm/s (V < 1 m/s (3.3 ft/s))

Maximum Power Consumption:

Integral Flowmeter: 12W

Remote Flowtube: Combined with AXFA11: 20W

Combined with AXFA14: 12W

Insulation Resistance (Performance/Requirements):

Integral Flowmeter (*1) :

100 MΩ between power terminals and ground terminal at 500 V DC

100 MΩ between power terminals and each output/status input terminal at 500 V DC

20 MΩ between ground terminal and each output/status input terminal at 100 V DC

20 MΩ between output/status input terminals at 100 V DC

Remote Flowtube:

100 MΩ between excitation terminals and each signal terminal at 500 V DC

100 MΩ between signal terminals at 500 V DC



CAUTION

- *1: • Before performing the Insulation Resistance Test or the Voltage Breakdown Test, disconnect the ground terminal if the power terminal has a lightning protector (optional code A).
- Following the relevant test, wait for more than 10 seconds after the power supply has been turned off before removing the cover.
- After testing, be sure to use a resistance for discharge and return the short bar to its correct position.
- Screws must be tightened to a torque of 1.18 Nm or more.
- After closing the cover, the power supply can be restored.

Withstand Voltage (Performance):

Integral Flowmeter (*1) :

- 500 V AC between power terminals and ground terminal for two seconds.

Remote Flowtube (optional code FF1):

- 500V AC between signal terminals (A and B) and ground terminal for 1 minute.
- 2000V AC between signal terminals (A and B) and exitation terminals (EX1 and EX2) for 1 minute.

Remote Flowtube (optional code KF2):

- 1500V AC between signal terminals (A and B) and ground terminal for 1 minute.
- 2000V AC between signal terminals (A and B) and exitation terminals (EX1 and EX2) for 1 minute.
- 1500V AC between exitation terminals (EX1 and EX2) and ground terminal for 1 minute.

**CAUTION**

- *1: • Before performing the Insulation Resistance Test or the Voltage Breakdown Test, disconnect the ground terminal if the power terminal has a lightning protector (optional code A).
- Following the relevant test, wait for more than 10 seconds after the power supply has been turned off before removing the cover.
 - After testing, be sure to use a resistance for discharge and return the short bar to its correct position.
 - Screws must be tightened to a torque of 1.18 Nm or more.
 - After closing the cover, the power supply can be restored.

Safety Requirement Standards:

EN61010

- Altitude at installation site: Max. 2000 m above sea level
- Installation category based on IEC1010: Overvoltage category II ("II" applies to electrical equipment which is supplied from the fixed installation like distribution board.)
- Pollution degree based on IEC1010
Pollution degree 2 ("Pollution degree" describes the degree to which a solid, liquid, or gas which deteriorates dielectric strength or surface resistivity is adhering. "2" applies to a normal indoor atmosphere.)

EMC Conformity Standards:

EN61326

EN61000-3-2, EN61000-3-3

AS/NZS 2064

Pressure Equipment Directive (PED):

Module: H

Type of Equipment: Piping

Type of Fluid: Liquid and Gas

Group of Fluid: 1 and 2

General-Purpose Use/Submersible Type:

MODEL	DN (mm) (*1)	PS (MPa) (*1)	PS DN (MPa · mm)	CATEGORY(*2)
AXF002G/C	2.5	4	10	Article 3, (*3) paragraph 3
AXF005G/C	5	4	20	Article 3, (*3) paragraph 3
AXF010G/C	10	4	40	Article 3, (*3) paragraph 3
AXF015G/W/C	15	4	60	Article 3, (*3) paragraph 3
AXF025G/W/C	25	4	100	Article 3, (*3) paragraph 3
AXF032G/W/C	32	4	128	II
AXF040G/W/C	40	4	160	II
AXF050G/W/C	50	4	200	II
AXF065G/W/C	65	2	130	II
AXF080G/W/C	80	2	160	II
AXF100G/W/C	100	2	200	II
AXF125G/W/C	125	2	250	II
AXF150G/W/C	150	2	300	II
AXF200G/W/C	200	2	400	III
AXF250G/W/C	250	2	500	III
AXF300G/W/C	300	2	600	III
AXF350G/W/C	350	1	700	III
AXF400G/W/C	400	1	800	III

T10-1.EPS

Sanitary Type:

MODEL	DN (mm) (*1)	PS (bar) (*1)	PS D (bar · mm)	CATEGORY (*2)
AXF015H	15	10	150	Article 3, (*3) paragraph 3
AXF025H	25	10	250	Article 3, (*3) paragraph 3
AXF032H	32	10	320	I
AXF040H	40	10	400	I
AXF050H	50	10	500	I
AXF065H	65	10	650	I
AXF080H	80	10	800	I
AXF100H	100	10	1000	I
AXF125H	125	10	1250	I

T10-2.EPS

*1: PS: Maximum allowable pressure for Flowtube
DN: Nominal size

*2: For details, see "Table 6 covered by ANNEX II of EC Directive on Pressure Equipment Directive 97/23/EC."

*3: AXF002G to AXF025G/W, AXF015H and AXF025H are outside the scope of PED's CE marking.

NORMAL OPERATING CONDITIONS

Ambient Temperature: -40° to 60°C (-40°F to 140°F)

- *1: Minimum temperature should also be limited according to minimum fluid temperature of linings.
- *2: Indicator's operating range (integral flowmeter) : -20° to 60°C (-5°F to 140°F)
- *3: Maximum temperature should be 50°C (120°F) in the case of Power supply code 2 (integral flowmeter).

Ambient Humidity: 0 to 100%

Lengthy continuous operation at 95% or more is not recommended.

Power Supply (integral type):

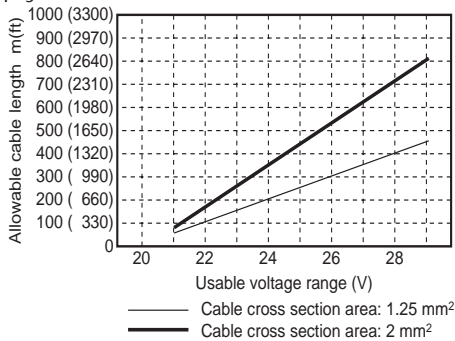
Power supply suffix code 1:

- AC specifications
Rated power supply: 100 to 240 V AC, 50/60 Hz
(Operating voltage range: 80 to 264 V AC)
- DC specifications
Rated power supply: 100 to 120 V DC
(Operating voltage range: 90 to 130 V DC)

Power supply suffix code 2:

- AC specifications
Rated power supply: 24 V AC, 50/60 Hz
(Operating voltage range: 20.4 to 28.8 V AC)
- DC specifications
Rated power supply: 24 V DC
(Operating voltage range: 20.4 to 28.8 V DC)

Supplied Power and Cable Length for Power Supply Code 2



F01.EPS

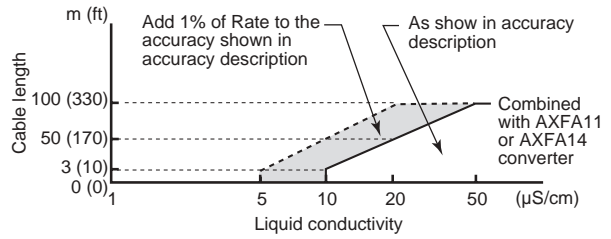
Fluid Conductivity:

- Size 2.5 to 10 mm (0.1 to 0.4 in.): 5 μS/cm or larger
- Size 15 to 125 mm (0.5 to 5 in.): 1 μS/cm or larger
- Size 150 to 400 mm (6 to 16 in.): 3 μS/cm or larger

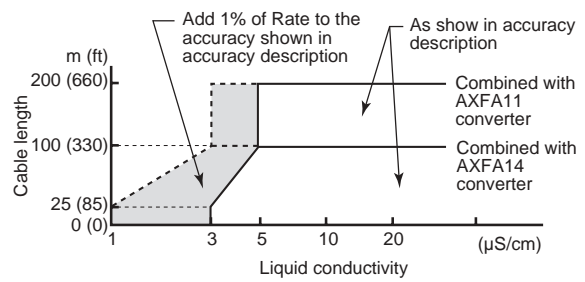
Note: In the case of fluids which have large flow noise (pure water, pure alcohol or others), low conductivity or low viscosity, please contact Yokogawa office for application support.

Cable Length and Liquid Conductivity (Remote Flowtube):

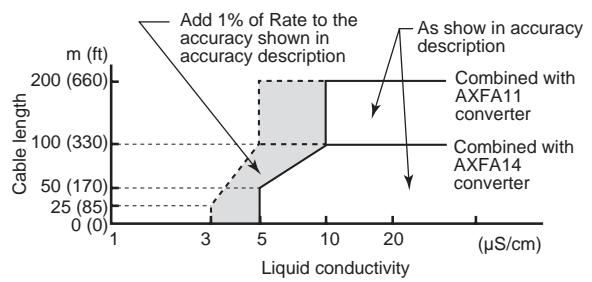
Size 2.5 to 10 mm (0.1 to 0.4 in.)



Size 15 to 125 mm (0.5 to 5.0 in.)



Size 150 to 400 mm (6.0 to 16 in.)



F03.EPS

Note: In case that size 250 or 300 mm (10 or 12 in.) is used for high conductivity fluid (ex. caustic soda, seawater), please use the flange type.

Measurable Flow Rate Range:

SI Units (Size: mm, Flow rate: m³/h)

Size (mm)	0 to Min. Span Flow Rate (0.1 m/s)	0 to Max. Span Flow Rate (10 m/s)
2.5	0 to 0.0018 m ³ /h	0 to 0.1767 m ³ /h
5	0 to 0.0071	0 to 0.7068
10	0 to 0.0283	0 to 2.8274
15	0 to 0.0637	0 to 6.361
25	0 to 0.1768	0 to 17.671
32	0 to 0.2897	0 to 28.967
40	0 to 0.4524	0 to 45.23
50	0 to 0.7069	0 to 70.68
65	0 to 1.1946	0 to 119.45
80	0 to 1.8096	0 to 180.95
100	0 to 2.8275	0 to 282.74
125	0 to 4.418	0 to 441.7
150	0 to 6.362	0 to 636.1
200	0 to 11.310	0 to 1,130.9
250	0 to 17.672	0 to 1,767.1
300	0 to 25.447	0 to 2,544.6
350	0 to 34.64	0 to 3,463
400	0 to 45.24	0 to 4,523

T11.EPS

English Units (Size: in., Flow rate: GPM)

Size	0 to Min. Span Flow Rate (0.33ft/s)	0 to Max. Span Flow Rate (33ft/s)
0.1	0 to 0.0081 GPM	0 to 0.8031 GPM
0.2	0 to 0.0322	0 to 3.212
0.4	0 to 0.1286	0 to 12.850
0.5	0 to 0.2008	0 to 20.078
1.0	0 to 0.8032	0 to 80.31
1.25	0 to 1.004	0 to 100.39
1.5	0 to 1.8071	0 to 180.70
2.0	0 to 3.213	0 to 321.2
2.5	0 to 5.020	0 to 501.9
3.0	0 to 7.229	0 to 722.8
4.0	0 to 12.851	0 to 1,285.0
5.0	0 to 20.079	0 to 2,007.8
6.0	0 to 28.914	0 to 2,891.3
8.0	0 to 51.41	0 to 5,140
10	0 to 80.32	0 to 8,031
12	0 to 115.66	0 to 11,565
14	0 to 157.42	0 to 15,741
16	0 to 205.61	0 to 20,560

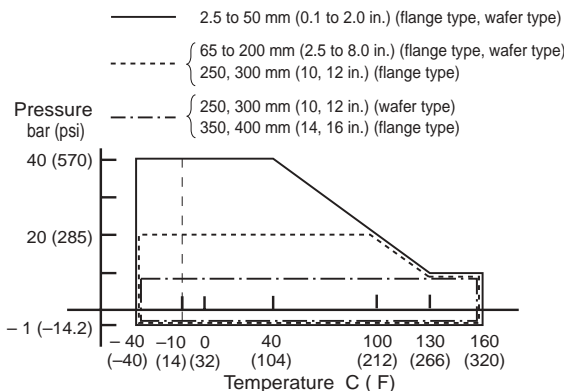
T24.EPS

Fluid Temperature and Pressure:

The following figures show maximum allowable fluid pressure for the flowtube itself. Further fluid pressure should also be limited according to the flange rating.

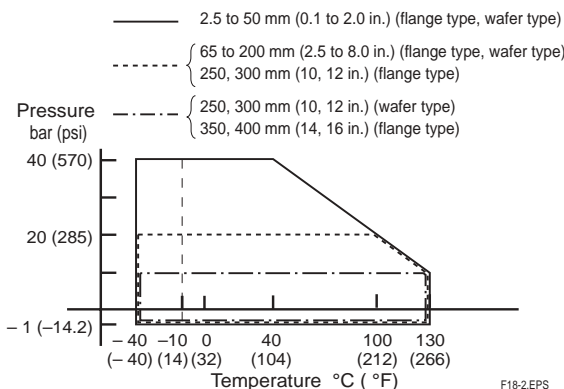
PFA Lining (*1)

General-Purpose Use and Submersible style, Explosion proof style, Remote Flowtube (electrode structure code 1: Non-replaceable electrode)



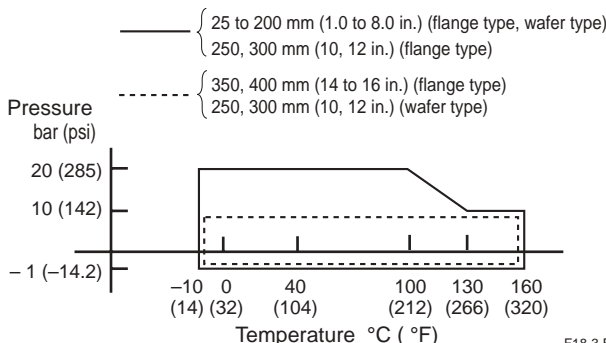
F18-1.EPS

General-Purpose Use, Integral flowmeter and Explosion proof style (electrode structure code 1: Non-replaceable electrode)



F18-2.EPS

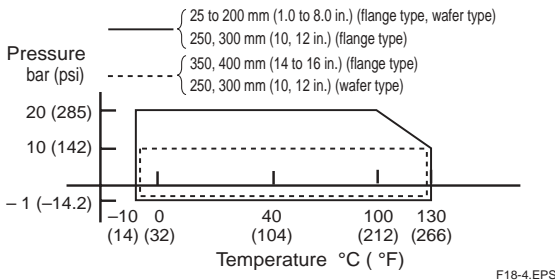
General-Purpose Use, Remote Flowtube (electrode structure code 2: replaceable electrode)



F18-3.EPS

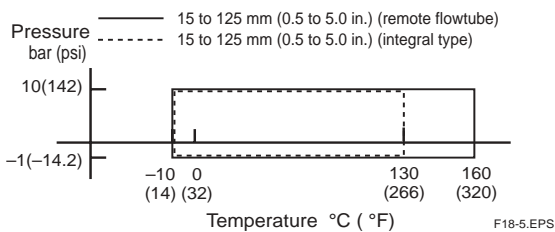
*1: For wafer style of 32 mm (1.25 in.) or larger, or for carbon steel flange types (process connection code: C**) of 50 mm (2.0 in.) or larger, the minimum temperature is -10°C (14°F). For explosion proof style, for integral flowmeter maximum temperature is +130°C (+266°F), for remote flowtube maximum temperature is +150°C (+302°F). See "HAZARDOUS AREA CLASSIFICATION"

General-Purpose Use, Integral flowmeter (electrode structure code 2: replaceable electrode)



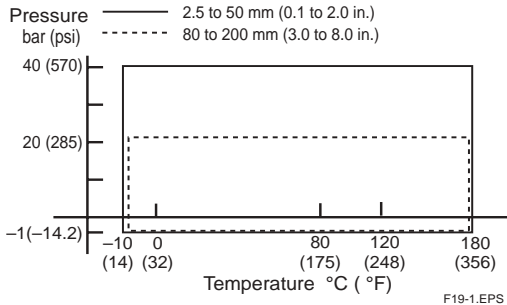
Note: For replaceable electrodes for fluid temperatures of 10°C or less, please contact your Yokogawa office.

Sanitary style (electrode structure code 1: Non-replaceable electrode)

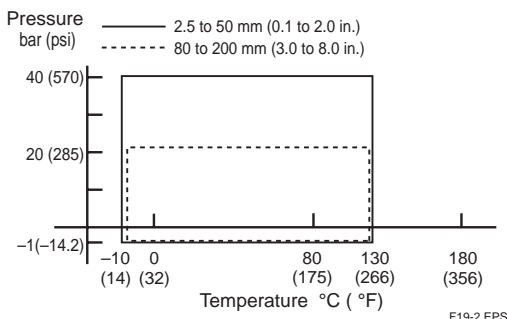


Ceramic Liner

General-Purpose Use and Explosion proof style, Remote Flowtube (electrode structure code 1: Non-replaceable electrode)



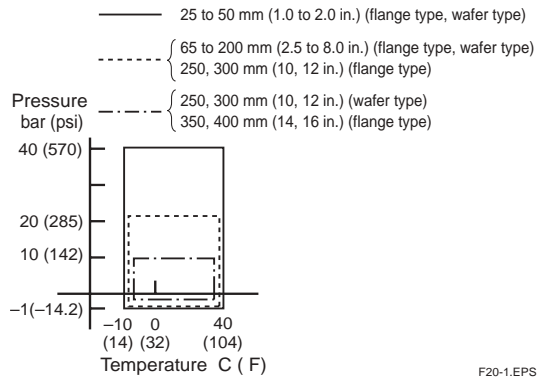
General-Purpose Use, Integral flowmeter (electrode structure code 1: Non-replaceable electrode)



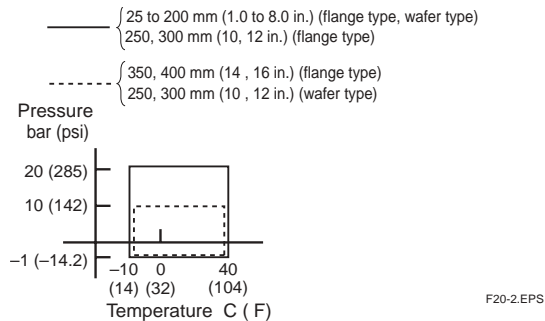
*1: For explosion proof style, for integral flowmeter maximum temperature is +130°C (+266°F), for remote flowtube maximum temperature is +150°C (+302°F)

Polyurethane Lining

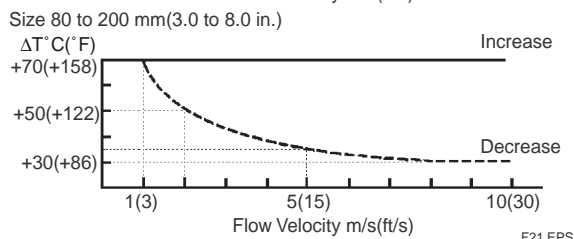
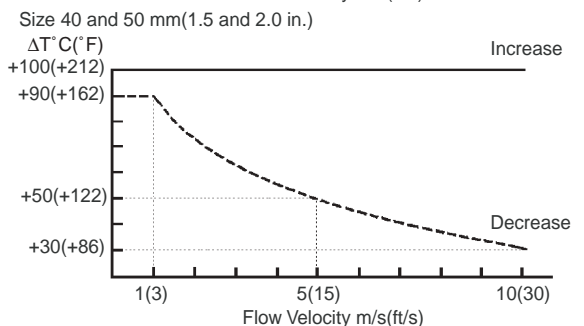
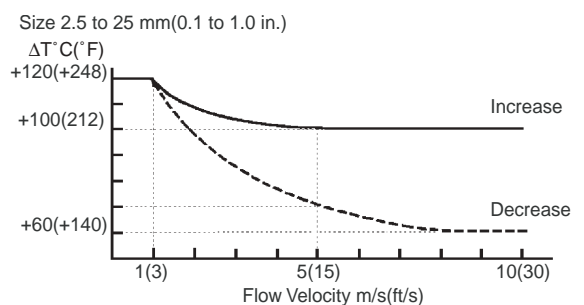
General-Purpose Use and Submersible style, Remote Flowtube (electrode structure code 1: Non-replaceable electrode)



General-Purpose Use, Integral flowmeter (electrode structure code 2: replaceable electrode)



Reasonable Figure for Thermal Shock of Creamic Liner:



“Decrease” means that the temperature of a measured fluid drops rapidly, while “increase” means that the temperature rises rapidly. The maximum allowable ranges in both cases are indicated by the curves shown in the diagrams, with the solid line indicating the maximum increase, and the broken line the maximum decrease.

ΔT : Change in temperature of measured fluid in one second

Flow velocity: flow velocity of the measured fluid

Allowable Conditions for Cleaning Sanitary Style Linings

Steam or hot water cleaning: Max.temp.= 150 °C (302°F), time= 60 minutes or less

Vibration Conditions:

Level of vibration in conformity with IEC 60068-2-6 (SAMA 31.1-1980)

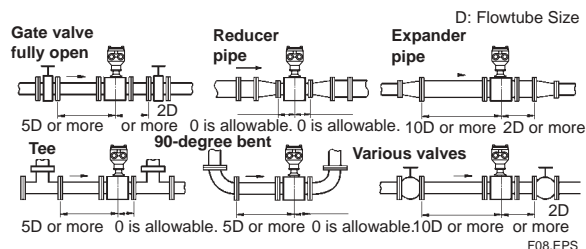
- Integral flowmeter: 1 G or less (frequency 500 Hz or less)
- Remote Flowtube: 2 G or less (frequency 500 Hz or less)

Note: Avoid locations with much vibration (where the pipe vibration frequency is 500 Hz or more), which may cause damage to the equipment.

CAUTIONS FOR INSTALLATION

Mounting of Flowmeters and Required Lengths of Straight Runs

(See JIS B7554 “Electromagnetic flowmeters.”)



Required straight runs

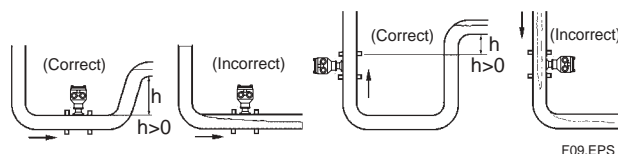
- *1: Do not install anything in the vicinity that may interfere with the magnetic field, induced signal voltages, or flow velocity distributions of the flowmeter.
- *2: A straight run may not be required on the downstream side of the flowmeter. However, if a downstream valve or other fitting causes irregularity deviation in flows, provide a straight run of 2D to 3D on the downstream side.
- *3: Highly recommend to mount valves on the downstream side so that deviated flows do not occur in the flowtube and to avoid startup from an empty condition.

Maintaining Stable Fluid Conductivity

Do not install the flowmeter where fluid conductivity tends to become uneven. If chemicals are fed near the upstream side of an electromagnetic flowmeter, they may affect the flowmeter’s indications. To avoid this situation, it is recommended that the chemical feed ports be located on the downstream side of the flowmeter. If it is unavoidable that chemicals must be fed on the upstream side, provide a sufficient length of straight run (approximately 50D) to ensure the proper mixture of fluids.

Piping Configuration

- Pipes must be fully filled with liquids. It is essential that pipes remain filled at all times, or flow rate indications may be affected and measurement errors may be caused. Pipes shall be designed so as to fill the flowtube with fluids. Vertical mounting is effective in cases where fluids tend to separate or solid matter may be precipitated. When employing vertical mounting, direct the fluids from the bottom to the top to ensure that pipes remain fully filled.



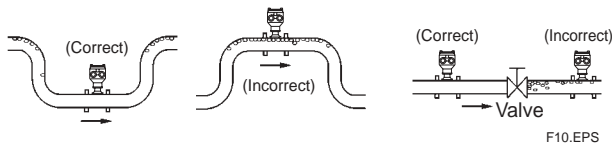
Mounting Positions

• Avoid Air Bubbles.

If air bubbles enter a measurement pipe, flow rate indications may be affected and measurement errors may be caused.

In cases where fluids contain air bubbles, piping must be designed to prevent them from accumulating in the measurement pipe of a flowtube.

If a valve exists near the flowtube, try to mount the flowtube on the valves upstream side in order to prevent a possible reduction of pressure inside the pipe, thereby avoiding the possibility of air bubbles.

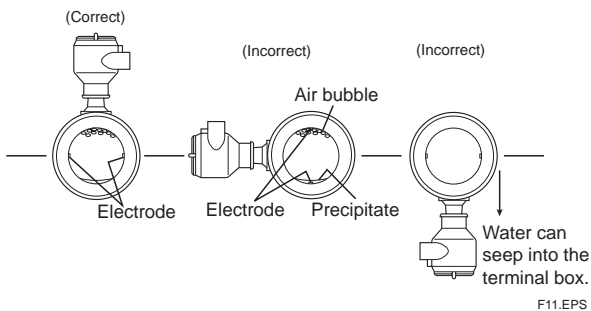


Avoiding Air Bubbles

• Mounting Orientation

If electrodes are perpendicular to the ground, air bubbles near the top or precipitates at the bottom may cause measurement errors.

Ensure that the terminal box of a remote flowtube and converter of an integral style are mounted above the piping to prevent water from entering them.



Mounting Orientation

INNER DIAMETER OF GROUNDING RING

Unit: mm (in.)

Size	AXF Standard		Replacement Model for earlier ADMAG or ADMAG AE
	PFA /Polyurethane rubber	Ceramics	PFA /Polyurethane rubber
2.5 (0.1)	15 (0.59)*1	—	15 (0.59)
5 (0.2)	15 (0.59)*1	—	15 (0.59)
10 (0.4)	15 (0.59)*1	—	15 (0.59)
15 (0.5)	15 (0.59)	15 (0.59)	15 (0.59)
25 (1.0)	28 (1.10)	27 (1.06)	27 (1.06)
32 (1.25)	34 (1.34)	—	—
40 (1.5)	41 (1.61)	40 (1.57)	40 (1.57)
50 (2.0)	53 (2.09)	52 (2.05)	52 (2.05)
65 (2.5)	66 (2.60)	—	—
80 (3.0)	77 (3.03)	81 (3.19)	81 (3.19)
100 (4.0)	102 (4.02)	98 (3.86)	98 (3.86)
125 (5.0)	128 (5.04)	—	—
150 (6.0)	146.1 (5.75)	144 (5.67)	140.7 (5.6)
200 (8.0)	193.6 (7.62)	192 (7.56)	188.9 (7.5)
250 (10)	Wafer: 243.7 (9.60) Flange: 243 (9.57)	—	239.1 (9.41)
300 (12)	Wafer: 294.7 (11.60) Flange: 291.3 (11.47)	—	—
350 (14)	323.4 (12.73)	—	—
400 (16)	373.5 (14.70)	—	—

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*1: The I.D. of the process connection code: DD4, DJ1, DJ2 is 12 mm (0.47 in.)

Note: Please ensure that the I.D. of the gasket does not protrude into the I.D. of the grounding ring and electrode. (This dimension is also applied to when no grounding ring is used)

ACCESSORIES

Remote Flowtube:

- Centering device (wafer type only): 1 pc.
- Hexagonal wrench: 2 pcs.

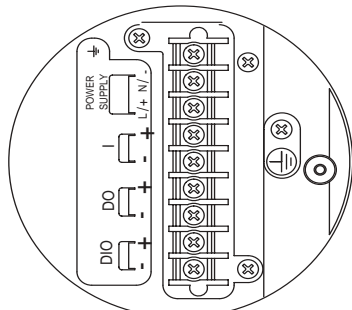
Integral Flowmeter:

- Centering device (wafer type only): 1 pc.
- Time lag Fuse (T2.0A, 250 V): 1 pc.
- Hexagonal wrench: 2 pcs.

TERMINAL CONFIGURATION AND TERMINAL WIRING

Integral Flowmeter

Terminal configuration



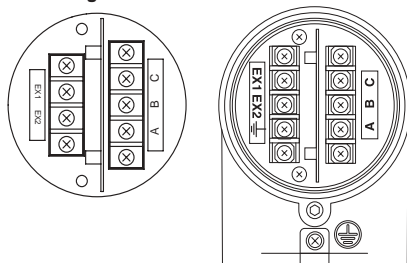
Terminal wiring

Terminal Symbols	Description
⊥	Functional grounding
N/- L/+	Power supply
I+ I-	Current output 4 to 20mA DC
DO+ DO-	Pulse output/Alarm output/ Status output
DIO+ DIO-	Alarm output/Status output Status input
⊥	Protective grounding (Outside of the terminal)

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Remote Flowtube

Terminal configuration



Terminal wiring

Terminal Symbols	Description
A B C	Flow signal output
EX1 EX2	Excitation current input
⊥	Functional grounding (only for explosion proof type)
⊥	Protective grounding (Outside of the terminal)

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Recommended Excitation, Power and Output Cable :

Use polyvinyl chlorid insulated and sheathed portable power cables .

- Outer diameter : 6.6 to 12 mm (0.26 to 0.47 in.)
- Nominal Cross section : 0.5 to 2.5 mm²

MODEL AND SUFFIX CODE

AXF STANDARD (Wafer Type)

General-purpose Use/Submersible Type, PFA/Polyurethane Rubber Lining

Model	Suffix Code	Description	Applicable Model
AXF002	Size 2.5 mm (0.1 in.) Integral Flowmeter/Remote Flowtube	
AXF005	.....	Size 5 mm (0.2 in.) Integral Flowmeter/Remote Flowtube
AXF010	.....	Size 10 mm (0.4 in.) Integral Flowmeter/Remote Flowtube
AXF015	.....	Size 15 mm (0.5 in.) Integral Flowmeter/Remote Flowtube
AXF025	.....	Size 25 mm (1.0 in.) Integral Flowmeter/Remote Flowtube
AXF032	.....	Size 32 mm (1.25 in.) Integral Flowmeter/Remote Flowtube
AXF040	.....	Size 40 mm (1.5 in.) Integral Flowmeter/Remote Flowtube
AXF050	.....	Size 50 mm (2.0 in.) Integral Flowmeter/Remote Flowtube
AXF065	.....	Size 65 mm (2.5 in.) Integral Flowmeter/Remote Flowtube
AXF080	.....	Size 80 mm (3.0 in.) Integral Flowmeter/Remote Flowtube
AXF100	.....	Size 100 mm (4.0 in.) Integral Flowmeter/Remote Flowtube
AXF125	.....	Size 125 mm (5.0 in.) Integral Flowmeter/Remote Flowtube
AXF150	.....	Size 150 mm (6.0 in.) Integral Flowmeter/Remote Flowtube
AXF200	.....	Size 200 mm (8.0 in.) Integral Flowmeter/Remote Flowtube
AXF250	.....	Size 250 mm (10 in.) Integral Flowmeter/Remote Flowtube
AXF300	.....	Size 300 mm (12 in.) Integral Flowmeter/Remote Flowtube
Use	G	General-Purpose Use	Size 15 mm (0.5 in.) to 300 mm (12 in.) Remote Flowtube only Fluorocarbon PFA lining only
	W	Submersible style	
	C	Explosion proof style	
Converter Output Signal and Communication	-D	Integral Flowmeter with 4 to 20mA DC Output and BRAIN Communication	
	-E	Integral Flowmeter with 4 to 20 mA DC Output and HART Communication	
	-N	Remote Flowtube for Combined use with AXFA11	
	-P	Remote Flowtube for Combined use with AXFA14	
Power Supply	1	Integral Flowmeter, 100 V to 240 V AC or 100 to 120 V DC	
	2	Integral Flowmeter, 24V AC/DC	
	N	Remote Flowtube	
Lining	A	Fluorocarbon PFA	Size 25 mm (1.0 in.) to 300 mm (12 in.)
	U	Polyurethane Rubber	
Electrode Material	L	JIS SUS316L (AISI 316L SS/EN 1.4404 Equivalent)	Fluorocarbon PFA lining only Fluorocarbon PFA lining only
	P	Platinum-iridium	
	H	Hastelloy C276 Equivalent	
	T	Tantalum	
	V	Titanium	
	W	Tungsten Carbide	
Electrode Structure	1	Non-replaceable	General-Purpose use, Size 25 mm (1.0 in.) to 300 mm (12 in.) Electrode Material: JIS SUS316L only
	2	Replaceable	
Grounding Ring and Grounding Electrode Material	N	None	Size 2.5 mm (0.1 in.) to 200 mm (8.0 in.) Fluorocarbon PFA lining only Size 2.5 mm (0.1 in.) to 200 mm (8.0 in.), Fluorocarbon PFA lining only
	S	JIS SUS316 (AISI 316 SS/EN 1.4401 Equivalent)	
	L	JIS SUS316L (AISI 316L SS/EN 1.4404 Equivalent)	
	P	Platinum-iridium	
	H	Hastelloy C276 Equivalent	
	T	Tantalum	
Process Connection (*3)	-AA1	ANSI Class 150 Wafer (*1)	Size 2.5 mm (0.1 in.) to 300 mm (12 in.) Size 2.5 mm (0.1 in.) to 200 mm (8 in.) Size 200 mm (8 in.) to 300 mm (12 in.) Size 65 mm (2.5 in.) to 300 mm (12 in.) Size 2.5 mm (0.1 in.) to 50 mm (2.0 in.)
	-AA2	ANSI Class 300 Wafer (*1)	
	-AD1	DIN PN 10 Wafer (*2)	
	-AD2	DIN PN 16 Wafer (*2)	
	-AD4	DIN PN 40 Wafer (*1)(*2)	
Lay Length	1	Standard	
Electrical Connection (Wiring port thread)	-2	ANSI 1/2 NPT female	
	-4	ISO M20x1.5 female	
Indicator (*4)	-1	Integral Flowmeter with indicator (Horizontal)	
	-2	Integral Flowmeter with indicator (Vertical)	
	-N	Integral Flowmeter without indicator /Remote Flowtube	
Calibration	B	Standard	Size 25 mm (1.0 in.) to 200 mm (8.0 in.), Fluorocarbon PFA lining only
	C	High Grade	
	/ ■	Optional code (See the Table of Optional Specifications)	

T15.EPS

*1: For a wafer style of 2.5 to 10 mm (0.1 to 0.4 in.), prepare 15 mm (0.5 in.) diameter nominal flanges on the process pipe side.
(Process connection codes: AA1, AA2, AD4, AJ1, and AJ2)

*2: Even when DIN PN10 or 16 is required for a model of size 2.5 to 50 mm (0.1 to 2.0 in.), select PN40 because there is no difference in the dimensions of the mating faces. (Process connection codes: AD1, AD2, and AD4)
Even when DIN PN10 is required for a model of size 65 to 150 mm (2.5 to 6.0 in.), select PN16 because there is no difference in the dimensions of the mating faces. (Process connection codes: AD1, AD2)

*3: Mating dimensions are based on standards as follow:
ANSI:ASME B 16.5, DIN: DIN 2501, JIS:JIS2220

*4: N shall be always selected for remote flowtubes

In the case of an integral flowmeter, select from among the figures at the right:



*5: ANSI 1/2NPT and ISO M20x1.5 electrical connections are available for ATEX, FM or CSA explosion proof style

AXF STANDARD (Wafer /Union Joint Type)

General-purpose Use, Ceramics Lining

Model	Suffix Code	Description	Applicable Model
AXF002	.....	Size 2.5 mm (0.1 in.) Integral Flowmeter/Remote Flowtube	
AXF005	.....	Size 5 mm (0.2 in.) Integral Flowmeter/Remote Flowtube	
AXF010	.....	Size 10 mm (0.4 in.) Integral Flowmeter/Remote Flowtube	
AXF015	.....	Size 15 mm (0.5 in.) Integral Flowmeter/Remote Flowtube	
AXF025	.....	Size 25 mm (1.0 in.) Integral Flowmeter/Remote Flowtube	
AXF040	.....	Size 40 mm (1.5 in.) Integral Flowmeter/Remote Flowtube	
AXF050	.....	Size 50 mm (2.0 in.) Integral Flowmeter/Remote Flowtube	
AXF080	.....	Size 80 mm (3.0 in.) Integral Flowmeter/Remote Flowtube	
AXF100	.....	Size 100 mm (4.0 in.) Integral Flowmeter/Remote Flowtube	
AXF150	.....	Size 150 mm (6.0 in.) Integral Flowmeter/Remote Flowtube	
AXF200	.....	Size 200 mm (8.0 in.) Integral Flowmeter/Remote Flowtube	
Use	G	General-Purpose Use	
	C	Explosion proof style	
Converter Output Signal and Communication	D	Integral Flowmeter with 4 to 20 mA DC Output and BRAIN Communication	
	E	Integral Flowmeter with 4 to 20 mA DC Output and HART Communication	
	N	Remote Flowtube for Combined use with AXFA11	
	P	Remote Flowtube for Combined use with AXFA14	
Power Supply	1	Integral Flowmeter, 100 V to 240 V AC or 100 to 120 V DC	
	2	Integral Flowmeter, 24 V AC/DC	
	N	Remote Flowtube	
Lining	C	Ceramics	
Electrode Material	E	Platinum-alumina Cermet	
Electrode Structure	1	Non-replaceable	
Grounding Ring and Grounding Electrode Material	N	None	Size 2.5 mm (0.1 in.) to 200 mm (8.0 in.)
	S	JIS SUS316 (AISI 316 SS/EN 1.4401 Equivalent)	Size 15 mm (0.5 in.) to 200 mm (8.0 in.)
	L	JIS SUS316L (AISI 316L SS/EN 1.4404 Equivalent)	Size 15 mm (0.5 in.) to 200 mm (8.0 in.)
	P	Platinum-iridium	Size 15 mm (0.5 in.) to 200 mm (8.0 in.)
	H	Hastelloy C276 Equivalent	Size 15 mm (0.5 in.) to 200 mm (8.0 in.)
	T	Tantalum	Size 15 mm (0.5 in.) to 200 mm (8.0 in.)
	V	Titanium	Size 15 mm (0.5 in.) to 200 mm (8.0 in.)
Process Connection (*2)	-AA1.....	ANSI Class 150 Wafer	Size 15 mm (0.5 in.) to 200 mm (8.0 in.)
	-AA2.....	ANSI Class 300 Wafer	Size 15 mm (0.5 in.) to 200 mm (8.0 in.)
	-AD1.....	DIN PN 10 Wafer (*1)	Size 200 mm (8.0 in.) only
	-AD2.....	DIN PN 16 Wafer (*1)	Size 80 mm (3.0 in.) to 200 mm (8.0 in.)
	-AD4.....	DIN PN 40 Wafer (*1)	Size 15 mm (0.5 in.) to 50 mm (2.0 in.)
	-GUW.....	Union Joint (Weld Joint)	Size 2.5 mm (0.1 in.) to 10 mm (0.4 in.)
	-GUN.....	Union Joint (1/4NPT Male for 2.5 or 5 mm dia.: 3/8NPT Male for 10 mm dia.)	Size 2.5 mm (0.1 in.) to 10 mm (0.4 in.)
	-GUR.....	Union Joint (R1/4 Male for 2.5 or 5 mm dia.: R3/8 Male for 10mm dia.)	Size 2.5 mm (0.1 in.) to 10 mm (0.4 in.)
Lay Length (*3)	1	Standard	
Electrical Connection (wiring port thread)	-2	ANSI 1/2 NPT female	
	-4	ISO M20x1.5 female	
Indicator (*4)	-1 ...	Integral Flowmeter with indicator (Horizontal)	
	-2 ...	Integral Flowmeter with indicator (Vertical)	
	-N ...	Integral Flowmeter without indicator /Remote Flowtube	
Calibration	B ...	Standard	
	C ...	High Grade	Size 25 mm (1.0 in.) to 200mm (8.0 in.)
	/■	Optional code (See the Table of Optional Specifications)	

T16.EPS

*1: Even when DIN PN10 or 16 is required for a model of size 15 to 50 mm (0.5 to 2.0 in.), select PN40 because there is no difference in the dimensions of the mating faces. (Process connection codes:AD1,AD2, and AD4)

Even when DIN PN10 is required for a model of size 80 to 150mm (3.0 to 6.0 in.), select PN16 because there is no difference in the dimensions of the mating faces. (Process connection codes: AD1, AD2)

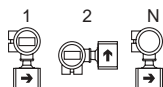
*2: Mating dimensions are based on standards as follow:

ANSI:ASME B 16.5, DIN:DIN 2501, JIS:JIS2220

*3: AXF standard lay length dimension for ceramics linings are the same as those for ADMAG ceramic linings.

*4: N shall be always selected for remote flowtubes.

In the case of an integral flowmeter, select from among the following figures:



*5: ANSI 1/2NPT and ISO M20x1.5 electrical connections are available for ATEX, FM or CSA explosion proof style

AXF STANDARD (Flange Type)
General-purpose Use/Submersible Type, PFA/Polyurethane Rubber Lining

Model	Suffix Code	Description	Applicable Model		
AXF002	Size 2.5 mm (0.1 in.) Integral Flowmeter/Remote Flowtube			
AXF005	Size 5 mm (0.2 in.) Integral Flowmeter/Remote Flowtube			
AXF010	Size 10 mm (0.4 in.) Integral Flowmeter/Remote Flowtube			
AXF015	Size 15 mm (0.5 in.) Integral Flowmeter/Remote Flowtube			
AXF025	Size 25 mm (1.0 in.) Integral Flowmeter/Remote Flowtube			
AXF032	Size 32 mm (1.25 in.) Integral Flowmeter/Remote Flowtube			
AXF040	Size 40 mm (1.5 in.) Integral Flowmeter/Remote Flowtube			
AXF050	Size 50 mm (2.0 in.) Integral Flowmeter/Remote Flowtube			
AXF065	Size 65 mm (2.5 in.) Integral Flowmeter/Remote Flowtube			
AXF080	Size 80 mm (3.0 in.) Integral Flowmeter/Remote Flowtube			
AXF100	Size 100 mm (4.0 in.) Integral Flowmeter/Remote Flowtube			
AXF125	Size 125 mm (5.0 in.) Integral Flowmeter/Remote Flowtube			
AXF150	Size 150 mm (6.0 in.) Integral Flowmeter/Remote Flowtube			
AXF200	Size 200 mm (8.0 in.) Integral Flowmeter/Remote Flowtube			
AXF250	Size 250 mm (10 in.) Integral Flowmeter/Remote Flowtube			
AXF300	Size 300 mm (12 in.) Integral Flowmeter/Remote Flowtube			
AXF350	Size 350 mm (14 in.) Integral Flowmeter/Remote Flowtube			
AXF400	Size 400 mm (16 in.) Integral Flowmeter/Remote Flowtube			
Use	G	General-Purpose Use	Size 15 mm (0.5 in.) to 400 mm (16 in.), Remote Flowtube only Fluorocarbon PFA lining only		
	W	Submersible style			
	C	Explosion proof style			
Converter Output Signal and Communication	-D	Integral Flowmeter with 4 to 20 mA DC Output and BRAIN Communication			
	-E	Integral Flowmeter with 4 to 20 mA DC Output and HART Communication			
	-N	Remote Flowtube for Combined use with AXFA11			
	-P	Remote Flowtube for Combined use with AXFA14			
Power Supply	1	Integral Flowmeter, 100 V to 240 V AC or 100 to 120 V DC			
	2	Integral Flowmeter, 24 V AC/DC			
	N	Remote Flowtube			
Lining	A	Fluorocarbon PFA	Size 25 mm (1.0 in.) to 400 mm (16 in.)		
	U	Polyurethane Rubber			
Electrode Material	L	JIS SUS316L (AISI 316L SS/EN 1.4404 Equivalent)	Fluorocarbon PFA lining only Fluorocarbon PFA lining only		
	P	Platinum-iridium			
	H	Hastelloy C276 Equivalent			
	T	Tantalum			
	V	Titanium			
	W	Tungsten Carbide			
Electrode Structure	1	Non-replaceable	General-Purpose use, Size 25 mm (1.0 in.) to 400 mm (16 in.) Electrode Material: JIS SUS316L only		
	2	Replaceable			
Grounding Ring and Grounding Electrode Material	N	None	Size 2.5 mm (0.1 in.) to 200 mm (8.0 in.), Fluorocarbon PFA lining only Size 2.5 mm (0.1 in.) to 200 mm (8.0 in.), Fluorocarbon PFA lining only		
	S	JIS SUS316 (AISI 316 SS/EN 1.4401 Equivalent)			
	L	JIS SUS316L (AISI 316L SS/EN 1.4404 Equivalent)			
	P	Platinum-iridium			
	H	Hastelloy C276 Equivalent			
	T	Tantalum			
Process Connection (*4)	-BA1	ANSI Class 150 Flange (Stainless Steel)(*1)	Size 2.5 mm (0.1 in.) to 400 mm (16 in.) Size 2.5 mm (0.1 in.) to 300 mm (12 in.) Size 200 mm (8.0 in.) to 400 mm (16 in.) Size 65 mm (2.5 in.) to 300 mm (12 in.) Size 2.5 mm (0.1 in.) to 50 mm (2.0 in.) Size 50 mm (2 in.) to 400 mm (16 in.) Size 50 mm (2 in.) to 300 mm (12 in.) Size 200 mm (8.0 in.) to 400 mm (16 in.) Size 65 mm (2.5 in.) to 300 mm (12 in.) Size 50 mm (2.0 in.) only Size 2.5 mm (0.1 in.) to 10 mm (0.4 in.)		
	-BA2	ANSI Class 300 Flange (Stainless Steel)(*1)			
	-BD1	DIN PN 10 Flange (Stainless Steel)(*2)			
	-BD2	DIN PN 16 Flange (Stainless Steel)(*2)			
	-BD4	DIN PN 40 Flange (Stainless Steel)(*1)(*2)			
	-CA1	ANSI Class 150 Flange (Carbon Steel)			
	-CA2	ANSI Class 300 Flange (Carbon Steel)			
	-CD1	DIN PN 10 Flange (Carbon Steel)(*2)			
	-CD2	DIN PN 16 Flange (Carbon Steel)(*2)			
	-CD4	DIN PN 40 Flange (Carbon Steel)(*2)			
	-DD4	DIN PN 40 Flange (Stainless Steel), DN10(*2)(*3)			
	1	Standard			
	Electrical Connection (wiring port thread)	-2		ANSI 1/2 NPT female	
		-4		ISO M20x1.5 female	
Indicator (*5)	1	Integral Flowmeter with indicator (Horizontal)			
	2	Integral Flowmeter with indicator (Vertical)			
	N	Integral Flowmeter without indicator /Remote Flowtube			
Calibration	B	Standard	Size 25 mm (1.0 in.) to 200 mm (8.0 in.), Fluorocarbon PFA lining only		
	C	High Grade			
	/ ■	Optional code (See the Table of Optional Specifications)			

*1: For a flange style of 2.5 to 10 mm (0.1 to 0.4 in.), prepare 15 mm (0.5 in.) diameter nominal flanges on the process pipe side. (Process connection codes: BA1, BA2, BD4, BJ1, and BJ2).
 *2: Even when DIN PN10 or 16 is required for a model of size 2.5 to 50 mm (0.1 to 2.0 in.), select PN40 because there is no difference in the dimensions of the mating faces. (Process connection codes: BD1, BD2, BD4, CD1, CD2, CD4, and DD4)
 Even when DIN PN10 is required for a model of size 65 to 150 mm (2.5 to 6.0 in.), select PN16 because there is no difference in the dimensions of the mating faces. (Process connection codes: BD1, BD2, CD1, and CD2)
 *3: For a flange type of 2.5 to 10 mm (0.1 to 0.4 in.), prepare 10 mm (0.4 in.) diameter nominal flanges on the process pipe side. (Process connection codes: DJ1, DJ2, and DD4).
 *4: Mating dimensions are based on standards as follow: ANSI: ASME B 16.5, DIN: DIN 2501, JIS: JIS2220
 *5: N shall be always selected for remote flowtubes.
 In the case of an integral flowmeter, select from among the figures at the right:



AXF STANDARD (Clamp/Union/Butt Weld Connection)
Sanitary Type , PFA Lining

Model	Suffix Code	Description	Applicable Model
AXF015	.....	Size 15 mm (0.5 in.), Integral Flowmeter/Remote Flowtube	
AXF025	.....	Size 25 mm (1.0 in.), Integral Flowmeter/Remote Flowtube	
AXF032	.....	Size 32 mm (1.25 in.), Integral Flowmeter/Remote Flowtube	
AXF040	.....	Size 40 mm (1.5 in.), Integral Flowmeter/Remote Flowtube	
AXF050	.....	Size 50 mm (2.0 in.), Integral Flowmeter/Remote Flowtube	
AXF065	.....	Size 65 mm (2.5 in.), Integral Flowmeter/Remote Flowtube	
AXF080	.....	Size 80 mm (3.0 in.), Integral Flowmeter/Remote Flowtube	
AXF100	.....	Size 100 mm (4.0 in.), Integral Flowmeter/Remote Flowtube	
AXF125	.....	Size 125 mm (5.0 in.), Integral Flowmeter/Remote Flowtube	
Use	H	Sanitary Style	
Converter Output Signal and Communication	-D	Integral Flowmeter with 4 to 20 mA DC Output and BRAIN Communication	
	-E	Integral Flowmeter with 4 to 20 mA DC Output and HART Communication	
	-N	Remote Flowtube for Combined use with AXFA11	
	-P	Remote Flowtube for Combined use with AXFA14	
Power Supply	1	Integral Flowmeter, 100 V to 240 V AC or 100 to 120 V DC	
	2	Integral Flowmeter, 24 V AC/DC	
	N	Remote Flowtube	
Lining	A	Fluorocarbon PFA	
Electrode Material	L	JIS SUS316L (AISI 316L SS/EN 1.4404 Equivalent)	
Electrode Structure	1	Non-replaceable	
Grounding Ring	N	None	
Process Connection (*2)	-HAB	Tri-Clamp (3A), JIS SUS316L (AISI 316L SS/EN1.4404 Equivalent)(*1)	Size 15 mm (0.5 in.) to 100 mm (4.0 in.), except 32 mm (1.25 in.)
	-HDB	DIN32676 Clamp, JIS SUS316L (AISI 316L SS/EN1.4404 Equivalent)	Size 15 mm (0.5 in.) to 125 mm (5.0 in.)
	-HKB	ISO2852/SMS3016 Clamp, JIS SUS316L (AISI 316L SS/ EN1.4404 Equivalent)	Size 15 mm (0.5 in.) to 125 mm (5.0 in.)
	-JDB	DIN11851 Union, SUS316L (AISI 316L SS/EN1.4404 Equivalent)	Size 15 mm (0.5 in.) to 125 mm (5.0 in.)
	-JKB	ISO2853 Union, SUS316L (AISI 316L SS/EN1.4404 Equivalent)	Size 15 mm (0.5 in.) to 100 mm (4.0 in.)
	-JSB	SMS1145 Union, SUS316L (AISI 316L SS/EN1.4404 Equivalent)	Size 25 mm (1.0 in.) to 100 mm (4.0 in.)
	-KDB	Butt Weld for DIN 11850 Pipe Connection (SUS316L [AISI 316L SS/EN1.4404 Equivalent])	Size 15 mm (0.5 in.) to 125 mm (5.0 in.)
	-KKB	Butt Weld for ISO 2037 Pipe Connection (SUS316L [AISI 316L SS/EN1.4404 Equivalent])	Size 15 mm (0.5 in.) to 125 mm (5.0 in.)
Lay Length	1	Standard	
Electrical Connection (wiring port thread)	-2	ANSI 1/2 NPT female	
	-4	ISO M20x1.5 female	
Indicator (*3)	-1	Integral Flowmeter with indicator (Horizontal)	
	-2	Integral Flowmeter with indicator (Vertical)	
	-N	Integral Flowmeter without indicator /Remote Flowtube	
Calibration	B	Standard	
	C	High Grade	Size 25 mm (1.0 in.) to 125 mm (5.0 in.)
	/■	Optional code (See the Table of Optional Specifications)	

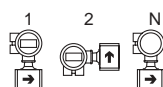
*1: For a tri-clamp type of size 15 mm (0.5 in.), prepare a 3/4 in. tri-clamp on the process pipe side. (Process connection code: HAB).

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*2: The detail dimensions of process connections (clamp/union/butt weld) are shown in the 'EXTERNAL DIMENSIONS' section of the sanitary style.

*3: N shall be always selected for remote flowtubes.

In the case of an integral flowmeter, select from among the following figures.

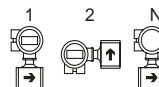


REPLACEMENT MODEL FOR EARLIER ADMAG OR ADMAG AE (Wafer Type)
 General-purpose Use/Submersible Type, PFA/Polyurethane Rubber Lining
 For the Wafer Types of size 250 mm (10 in.), 300 mm (12 in.), AXF Standard shall be selected.

Model	Suffix Code	Description	Applicable Model
AXF002	Size 2.5 mm (0.1 in.) Integral Flowmeter/Remote Flowtube	
AXF005	.....	Size 5 mm (0.2 in.) Integral Flowmeter/Remote Flowtube
AXF010	.....	Size 10 mm (0.4 in.) Integral Flowmeter/Remote Flowtube
AXF015	.....	Size 15 mm (0.5 in.) Integral Flowmeter/Remote Flowtube
AXF025	.....	Size 25 mm (1.0 in.) Integral Flowmeter/Remote Flowtube
AXF040	.....	Size 40 mm (1.5 in.) Integral Flowmeter/Remote Flowtube
AXF050	.....	Size 50 mm (2.0 in.) Integral Flowmeter/Remote Flowtube
AXF080	.....	Size 80 mm (3.0 in.) Integral Flowmeter/Remote Flowtube
AXF100	.....	Size 100 mm (4.0 in.) Integral Flowmeter/Remote Flowtube
AXF150	.....	Size 150 mm (6.0 in.) Integral Flowmeter/Remote Flowtube
AXF200	.....	Size 200 mm (8.0 in.) Integral Flowmeter/Remote Flowtube
Use	G	General-Purpose Use	Size 15 mm (0.5 in.) to 200 mm (8.0 in.), Remote Flowtube only Fluorocarbon PFA lining only
	W	Submersible type	
	C	Explosion proof style	
Converter Output Signal and Communication	-D	Integral Flowmeter with 4 to 20 mA DC Output and BRAIN Communication	
	-E	Integral Flowmeter with 4 to 20 mA DC Output and HART Communication	
	-N	Remote Flowtube for Combined use with AXFA11	
	-P	Remote Flowtube for Combined use with AXFA14	
Power Supply	1	Integral Flowmeter, 100 V to 240 V AC or 100 to 120 V DC	
	2	Integral Flowmeter, 24 V AC/DC	
	N	Remote Flowtube	
Lining	A	Fluorocarbon PFA	Size 25 mm (1.0 in.) to 200 mm (8.0 in.)
	U	Polyurethane Rubber	
Electrode Material	L	JIS SUS316L (AISI 316L SS/EN 1.4404 Equivalent)	Fluorocarbon PFA lining only Fluorocarbon PFA lining only
	P	Platinum-iridium	
	H	Hastelloy C276 Equivalent	
	T	Tantalum	
	V	Titanium	
	W	Tungsten Carbide	
Electrode Structure	1	Non-replaceable	
Grounding Ring and Grounding Electrode Material	N	None	Size 25 mm (1.0 in.) to 200 mm (8.0 in.)(*5)
	S	JIS SUS316 (AISI 316 SS/EN 1.4401 Equivalent)	
	L	JIS SUS316L (AISI 316L SS/EN 1.4404 Equivalent)	
	P	Platinum-iridium	
	H	Hastelloy C276 Equivalent	
	T	Tantalum	
	V	Titanium	
Process Connection (*3)	-AA1	ANSI Class 150 Wafer(*1)	Size 2.5 mm (0.1 in.) to 200 mm (8.0 in.) Size 2.5 mm (0.1 in.) to 200 mm (8.0 in.) Size 200 mm(8.0 in.) only Size 80 mm (3.0 in.) to 200 mm (8.0 in.) Size 2.5 mm (0.1 in.) to 50 mm (2.0 in.)
	-AA2	ANSI Class 300 Wafer(*1)	
	-AD1	DIN PN 10 Wafer(*2)	
	-AD2	DIN PN 16 Wafer(*2)	
	-AD4	DIN PN 40 Wafer(*1)(*2)	
Lay Length	2	Matches an Earlier ADMAG Flowmeter (ADMAG or ADMAG AE) for Replacement	
Electrical Connection (wiring port thread)	-2	ANSI 1/2 NPT female	
	-4	ISO M20x1.5 female	
Indicator (*4)	1	Integral Flowmeter with indicator(Horizontal)	
	2	Integral Flowmeter with indicator(Vertical)	
	N	Integral Flowmeter without indicator /Remote Flowtube	
Calibration	B	Standard	
	/ ■	Optional code (See the Table of Optional Specifications)	

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- *1: For a wafer style of 2.5 to 10 mm (0.1 to 0.4 in.), prepare 15 mm (0.5 in.) diameter nominal flanges on the process pipe side. (Process connection codes: AA1, AA2, AD4, AJ1, and AJ2)
- *2: Even when DIN PN10 or 16 is required for a model of size 2.5 to 50 mm (0.1 to 2.0 in.), select PN40 because there is no difference in the dimensions of the mating faces. (Process connection code: AD4)
 Even when DIN PN10 is required for a model of size 80 to 150 mm (3.0 to 6.0 in.), select PN16 because there is no difference in the dimensions of the mating faces. (Process connection codes: AD1, AD2).
- *3: Mating dimensions are based on standards as follow:
 ANSI: ASME B 16.5, DIN: DIN 2501, JIS: JIS2220
- *4: N shall be always selected for remote flowtubes.
 In the case of an integral type, select from among the figures at the right:
- *5: For a wafer style of size 2.5 mm (0.1 in.) to 10 mm (0.4 in.) without a grounding ring, the AXF standard shall be selected because it has the same lay length.
- *6: ANSI 1/2NPT and ISO M20x1.5 electrical connections are available for ATEX, FM or CSA explosion proof style



REPLACEMENT MODEL FOR EARLIER ADMAG OR ADMAG AE (Flange Type)

General-purpose Use/Submersible Type, PFA/Polyurethane Rubber Lining

For Flange Types of size 15 mm (0.5 in.) to 100 mm (4.0 in.), 300 mm (12 in.) to 400 mm (16 in.), AXF Standard shall be selected.

Model	Suffix Code	Description	Applicable Model
AXF150	.....	Size 150 mm (6.0 in.) Integral Flowmeter/Remote Flowtube	
AXF200	.....	Size 200 mm (8.0 in.) Integral Flowmeter/Remote Flowtube	
AXF250	.....	Size 250 mm (10 in.) Integral Flowmeter/Remote Flowtube	
Use	G	General-Purpose Use	
	W	Submersible style	Remote Flowtube only
	C.....	Explosion proof style	Fluorocarbon PDA lining only
Converter Output Signal and Communication	-D	Integral Flowmeter with 4 to 20 mA DC Output and BRAIN Communication	
	-E	Integral Flowmeter with 4 to 20 mA DC Output and HART Communication	
	-N	Remote Flowtube for Combined use with AXFA11	
	-P	Remote Flowtube for Combined use with AXFA14	
Power Supply	1	Integral Flowmeter, 100 V to 240 V AC or 100 to 120 V DC	
	2	Integral Flowmeter, 24 V AC/DC	
	N	Remote Flowtube	
Lining	A	Fluorocarbon PFA	
	U	Polyurethane Rubber	
Electrode Material	L	JIS SUS316L (AISI 316L SS/EN 1.4404 Equivalent)	
	P	Platinum-iridium	Fluorocarbon PFA lining only
	H	Hastelloy C276 Equivalent	
	T	Tantalum	Fluorocarbon PFA lining only
	V	Titanium	
	W	Tungsten Carbide	
Electrode Structure	1	Non-replaceable	
	2	Replaceable	General-Purpose use, Electrode Material : JIS SUS316L only
Grounding Ring and Grounding Electrode Material	N	None	
	S	JIS SUS316 (AISI 316 SS/EN 1.4401 Equivalent)	
	L	JIS SUS316L (AISI 316L SS/EN 1.4404 Equivalent)	
	P	Platinum-iridium	Size 150 mm (6.0 in.), 200 mm (8.0 in.), Fluorocarbon PFA lining only
	H	Hastelloy C276 Equivalent	
	T	Tantalum	Size 150 mm (6.0 in.), 200 mm (8.0 in.), Fluorocarbon PFA lining only
	V	Titanium	
Process Connection (*2)	-CA1	ANSI Class 150 Flange (Carbon Steel)	Size 150 mm (6.0 in.) to 250 mm (10 in.)
	-CA2	ANSI Class 300 Flange (Carbon Steel)	
	-CD1	DIN PN 10 Flange (Carbon Steel)(*1)	Size 150 mm (6.0 in.) to 250 mm (10 in.)
	-CD2	DIN PN 16 Flange (Carbon Steel)(*1)	
	-CJ1	JIS 10K Flange (Carbon Steel)	Size 200 mm (8.0 in.) to 250 mm (10 in.)
	-CJ2	JIS 20K Flange (Carbon Steel)	
	-CG1	JIS F12 (JIS75M) Flange (Carbon Steel)	Size 150 mm (6.0 in.) to 250 mm (10 in.)
Lay Length	2	Matches an Earlier ADMAG Flowmeter (ADMAG or ADMAG AE) for Replacement	
Electrical Connection (wiring port thread)	-2	ANSI 1/2 NPT female	
	-4	ISO M20x1.5 female	
Indicator (*3)	1	Integral Flowmeter with indicator (Horizontal)	
	2	Integral Flowmeter with indicator (Vertical)	
	N	Integral Flowmeter without indicator /Remote Flowtube	
Calibration	B	Standard	
	/ <input type="checkbox"/>	Optional code (See the Table of Optional Specifications)	

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*1: Even when DIN PN10 is required for a 150 (6.0 in.)-mm model, select PN16 because there is no difference in the dimensions of the mating faces. (Process connection codes: CD1, CD2)

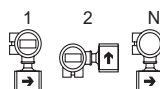
*2: Mating dimensions are based on standards as follow:

ANSI: ASME B 16.5, DIN: DIN 2501, JIS: JIS2220

*3: N shall be always selected for remote flowtubes.

In the case of an integral flowmeter, select from among the following figures:

*4: ANSI 1/2NPT and ISO M20x1.5 electrical connections are available for ATEX, FM or CSA explosion proof style



OPTIONAL SPECIFICATIONS FOR FLOWTUBES

⊆ Available - : Not available

Item	Specifications		Applicable Model						Code	
			General		Explosion proof		Submersible	Sanitary		
			Integral	Remote	Integral	Remote	Remote	Integral		Remote
			AXF***G-D AXF***G-E	AXF***G-N AXF***G-P	AXF***C-D AXF***C-E	AXF***C-N AXF***C-P	AXF***W-N AXF***W-P	AXF***H-D AXF***H-E		AXF***H-N AXF***H-P
Lightning Protector	A lightning protector is built into the power terminals.		s	-	s	-	-	s	-	A
DC Noise Cut Circuit	The DC Noise Cut Circuit is built in. Available for 15 mm (0.5 in.) and larger sizes, and for fluids with the conductivity of 50 µS/cm or higher. Nullifies the empty check and electrode adhesion diagnostic function		s	-	s	-	-	s	-	ELC
Burn Out Down	The output level is set to 0 mA during a CPU failure and is set 2.4 mA or less during an alarm. Standard products are delivered with a setting 25 mA during a CPU failure and 21.6 mA or more during an alarm.		s	-	s	-	-	s	-	C1
NAMUR NE43 Compliant	Output signal limits: 3.8 to 20.5 mA	Failure alarm down-scale. Output status at a CPU failure or an alarm is 2.4 mA (-10%) or less.	s	-	s	-	-	s	-	C2
		Failure alarm up-scale. Output status at a CPU failure or an alarm is 21.6 mA (110%) or more.	s	-	s	-	-	s	-	C3
Active Pulse Output	Active pulses are output in order to drive an external electromagnetic or electronic counter directly using the converter's internal power supply. Nullifies the standard transistor contact pulse output.) Output voltage: 24 V DC ±20% Pulse specifications: • At the drive current of 30 to 150 mA Pulse rate: 0.0001 to 2 pps (pulse/second); Pulse width: 20, 33, 50, or 100 ms		s	-	s	-	-	s	-	EM
Mass Unit Setting	The flow rate span, output pulse weight, and totalizer display pulse weight can be set in terms of mass. Specify the density of the process fluid when ordering in addition to the flow rate span, output pulse weight, and totalizer display pulse weight. The mass flow rate span must not exceed 32000 when ignoring the decimal point. When ordering a remote flowtube, parameters for 'Mass Unit Setting' will be set in the corresponding converter before shipment. Available mass units: t, kg, g, klb, lb Available time units: /d, /h, /min, /s Available density units: kg/m ³ , lb/gal, lb/cf		s	s	s	s	s	s	s	MU









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☒ Available –: Not available

Item	Specifications		Applicable Model						Code	
			General		Explosion proof		Submersible	Sanitary		
			Integral	Remote	Integral	Remote	Remote	Integral		Remote
			AXF***G-D AXF***G-E	AXF***G-N AXF***G-P	AXF***C-D AXF***C-E	AXF***C-N AXF***C-P	AXF***W-N AXF***W-P	AXF***H-D AXF***H-E		AXF***H-N AXF***H-P
Mirror Finished Ceramics	Mirror finishing on the inside of the ceramics tube to Rmax # 1 µm. Available for 5 mm (0.2 in.) and larger sizes.		s	s	s	s	-	-	-	CM
Stainless Steel Tag Plate	A pendant tag plate of JIS SUS304 (AISI 304 SS/EN 1.4301 equivalent) is provided. Choose this option when a pendant tag plate is required in addition to the standard nameplate with the tag number inscribed on it.		s	s	s	s	s	s	s	SCT
Direction change of the electrical connection (*1)	+90 degrees rotated converter (or terminal box) to change the direction of the electrical connection. Available for 400 mm (16 in.) or smaller sizes.		s	s	s	s	s	s	s	RA
	+180 degrees rotated converter (or terminal box) to change the direction of the electrical connection. Available for 400 mm (16 in.) or smaller sizes.		s	s	s	s	s	s	s	RB
	-90 degrees rotated converter (or terminal box) to change the direction of the electrical connection. Available for 400 mm (16 in.) or smaller sizes.		s	s	s	s	s	s	s	RC
Bolts, Nuts, and Gaskets (*2)	Bolts, nuts, and gaskets are provided for wafer connections. Available only for ANSI 150, connections.	Bolts and nuts: Carbon steel; Gaskets: Chloroprene rubber	s	s	s	s	s	-	-	BCC
		Bolts and nuts: Carbon steel; Gaskets: PTFE-sheathed non-asbestos	s	s	s	s	s	-	-	BCF
		Bolts: JIS SUS304 (AISI 304 SS stainless steel equivalent); Nuts: JIS SUS403 (AISI 403SS stainless steel equivalent); Gaskets: Chloroprene rubber	s	s	s	s	s	-	-	BSC
		Bolts: JIS SUS304 (AISI 304 SS stainless steel equivalent); Nuts: JIS SUS403 (AISI 403SS stainless steel equivalent); Gaskets: PTFE-sheathed non-asbestos	s	s	s	s	s	-	-	BSF
Special Gaskets (*3)	Viton® gaskets for use with a PFA or ceramics lining with PVC piping. Valqua #4010, special fluororubber not mixed. Available for 2.5 mm (0.1 in.) to 200 mm (8.0 in.).		s	s	s	s	s	-	-	GA
	Acid-resistant Viton® gaskets for use with a PFA or ceramics lining with PVC piping. Valqua #4010, special fluororubber mixed (mixing #RCD470). Available for 2.5 mm (0.1 in.) to 200 mm (8.0 in.).		s	s	s	s	s	-	-	GC
	Alkali-resistant Viton® gaskets for use with a PFA or ceramics lining with PVC piping. Valqua #4010, special fluororubber mixed (mixing #RCD970). Available for 2.5 mm (0.1 in.) to 200 mm (8.0 in.).		s	s	s	s	s	-	-	GD
	Alkali-resistant carbonized fluororesin gaskets for use with a ceramics lining tube with metal piping. Valqua #7026.		s	s	s	s	-	-	-	GF
	Silicon rubber gaskets for Sanitary Style, provided between the lining and the adapter. Available for the condition of fluid temp. over 120 C (248 F), 160 C (320 F) max.		-	-	-	-	-	s	s	GH
Oil-Prohibited Use	Electrodes, linings, and grounding rings are assembled and packed with polyethylene after being cleaned with water and trichloroethylene and dried with air. The label 'OIL FREE' is affixed.		s	s	s	s	-	-	-	K1
Oil-Prohibited Use with Dehydrating Treatment	Electrodes, linings, and grounding rings are assembled and packed with polyethylene including desiccants after being cleaned with water and trichloroethylene and dried with air. The label 'OIL & WATER FREE' is affixed.		s	s	s	s	-	-	-	K5

T26-2.EPS

Item	Specifications	Applicable Model							Code																
		General		Explosion proof		Submersible	Sanitary																		
		Integral	Remote	Integral	Remote	Remote	Integral	Remote																	
		AXF***G-D AXF***G-E	AXF***G-N AXF***G-P	AXF***C-D AXF***C-E	AXF***C-N AXF***C-P	AXF***W-N AXF***W-P	AXF***H-D AXF***H-E	AXF***H-N AXF***H-P																	
Five-point Calibration in User-specified Span	A flow test based on the comparison method is performed at five points near 0, 25, 50, 75, and 100% of the user-specified span, and a test certificate (QIC) is submitted. Specify the span (100% flow rate) whose corresponding flow velocity lies between 0.1 to 10 m/s (limits imposed by the flowtube performance) and that is less than the maximum line capacity shown below. <table border="1"> <thead> <tr> <th>Size (mm)</th> <th>Max. line capacity (m3/h)</th> </tr> </thead> <tbody> <tr> <td>2.5, 5</td> <td>0.6</td> </tr> <tr> <td>10</td> <td>0.8</td> </tr> <tr> <td>15 to 25</td> <td>5.3</td> </tr> <tr> <td>32 to 50</td> <td>36</td> </tr> <tr> <td>65 to 100</td> <td>155</td> </tr> <tr> <td>125 to 250</td> <td>800</td> </tr> <tr> <td>300 to 400</td> <td>1,500</td> </tr> </tbody> </table>	Size (mm)	Max. line capacity (m3/h)	2.5, 5	0.6	10	0.8	15 to 25	5.3	32 to 50	36	65 to 100	155	125 to 250	800	300 to 400	1,500	s	s	s	s	s	s	s	SC
Size (mm)	Max. line capacity (m3/h)																								
2.5, 5	0.6																								
10	0.8																								
15 to 25	5.3																								
32 to 50	36																								
65 to 100	155																								
125 to 250	800																								
300 to 400	1,500																								
FM Approval	Explosion proof See "HAZARDOUS AREA CLASSIFICATION"	-	-	s	s	-	-	-	FF1																
CENELEC ATEX Certification (KEMA Approval)	Explosion proof See "HAZARDOUS AREA CLASSIFICATION"	-	-	s	s	-	-	-	KF2																
CSA Certification	Explosion proof See "HAZARDOUS AREA CLASSIFICATION"	-	-	s	s	-	-	-	CF1																

*1:	Standard	+90-degree rotation Optional Code RA	+180-degree rotation Optional Code RB	-90-degree rotation Optional Code RC
Integral Flowmeter	Electrical Connection 	Indicator 	Electrical Connection 	Indicator 
Remote Flowtube		Electrical Connection 		Electrical Connection 

*2: When specifying the optional code BCC or BSC for a PFA or ceramics lining, it is advisable to specify the optional code GA, GC, or GD at the same time to prevent potential leakage caused by the difference in elasticity between the flowtube and chloroprene gaskets.

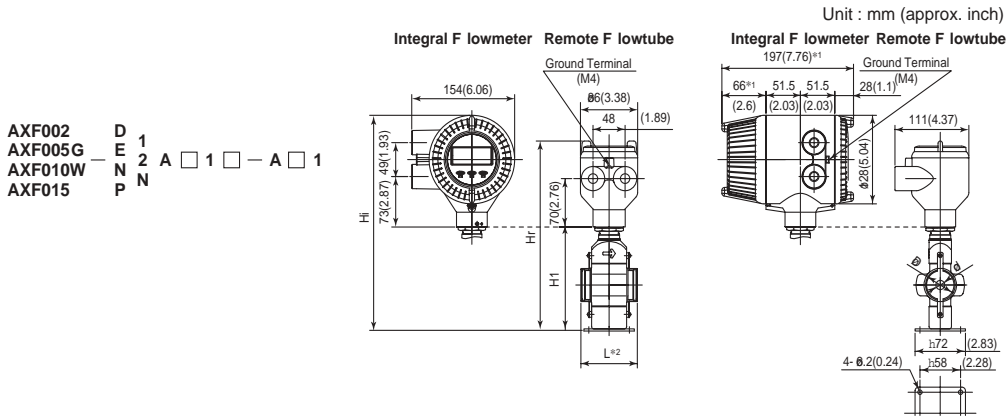
*3: Special gaskets are inserted between the flowtube and the grounding ring or grounding electrode.

*4: Enhanced dual frequency excitation is not available for models with calibration code C (High Grade Accuracy).

T26-4.EPS

EXTERNAL DIMENSIONS

AXF Standard, AXF002-AXF015, Wafer Type, PFA Lining



Model	Size code	002	005	010	015
	Size	2.5(0.1)	5(0.2)	10(0.4)	15(0.5)
	Lining code	A	A	A	A
Remote flowtube	Face-to-face length	L ¹⁺² 81(3.19)			
	Outside dia.	Ø 42(1.65)			
	Inner diameter of Grounding ring	d 15(0.59)			
Integral flowmeter	Height	H1 144(5.67)			
	Max. Height	Hr 268(10.55)			
Remote flowtube	Weight kg (lb) ³	2.4(5.3)			
	Max. Height	Hi 306(12.03)			
Integral flowmeter	Weight kg (lb)	4.1(9.0)			

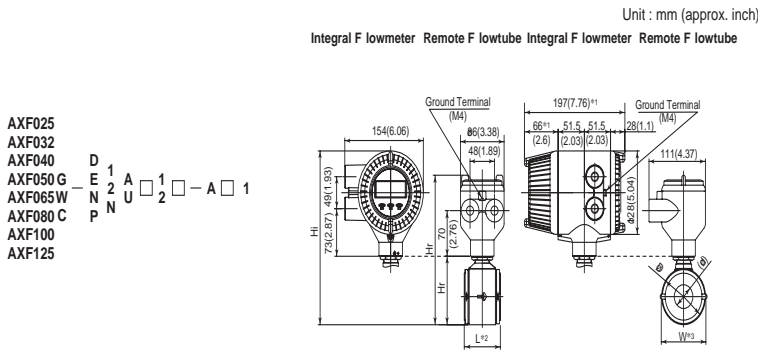
- *1: When indicator code N is selected, subtract 12 mm (0.47 inch) from the value in the figure. For explosion proof style with indicator add 5mm (0.2inch) to it.
- *2: Depending on the selection of grounding ring code and optional code, add the following value to L (face-to-face length).

Grounding Ring Code	S, L, H, V	P, T	N	
	Option Code	None	+0	+26	-2(0.08)
	GA, GC, GD (Special Gaskets)	+8(0.31)	+30(1.18)	-

F22.EPS

- *3: Waterproof glands and a 30 m long cable are attached to each submersible style flowtube. Add 9.5 kg (20.9 lb) to the weight in

AXF Standard, AXF025-AXF125, Wafer Type, PFA /Polyurethane Rubber Lining



Model	Size code	025	032	040	050	065	080	100	125	
	Size	25(1)	32(1.25)	40(1.5)	50(2)	65(2.5)	80(3)	100(4)	125(5)	
	Lining code	A,U	A,U	A,U	A,U	A,U	A,U	A,U	A,U	
Remote flowtube	Face-to-face length	L ¹⁺² 60(2.36) 70(2.76) 70(2.76) 80(3.15) 100(3.94) 120(4.72) 150(5.91) 200(7.87)								
	Outside dia.	Ø 67.5(2.66) 73(2.87) 86(3.39) 99(3.90) 117(4.61) 129(5.08) 155(6.10) 183(7.20)								
	Inner diameter of Grounding ring	d 28(1.10) 34(1.34) 41(1.61) 53(2.09) 66(2.60) 77(3.03) 102(4.02) 128(5.04)								
Integral flowmeter	Width	W ³ 67.5(2.66) 73(2.87) 86(3.39) 99(3.90) 117(4.61) 129(5.08) 155(6.10) 183(7.20)								
	Height	H1 92(3.62) 97(3.82) 111(4.37) 129(5.08) 146(5.75) 157(6.18) 183(7.20) 212(8.35)								
	Max. Height	Hr 216(8.50) 221(8.70) 235(9.25) 253(9.96) 270(10.63) 281(11.06) 307(12.09) 336(13.23)								
Remote flowtube	Weight kg (lb) ³	1.9(4.1) 2.0(4.5) 2.2(4.9) 2.7(5.8) 3.4(7.6) 4.1(9.1) 5.6(12.3) 9.3(20.4)								
	Max. Height	Hi 254(9.98) 259(10.18) 273(10.73) 291(11.44) 308(12.11) 319(12.54) 345(13.56) 374(14.70)								
Integral flowmeter	Weight kg (lb)	3.6(7.8) 3.7(8.2) 3.9(8.7) 4.4(9.6) 5.1(11.3) 5.8(12.9) 7.3(16.0) 11.0(24.2)								

- *1: When indicator code N is selected, subtract 12 mm (0.47 inch) from the value in the figure. For explosion proof style with indicator add 5mm (0.2inch) to it..
- *2: Depending on the selection of grounding ring code and optional code, add the following value to L (face-to-face length).

Grounding Ring Code	S, L, H, V	P, T	N	
	Option Code	None	+0	+26(1.02)	-2(0.08)
	GA, GC, GD (Special Gaskets)	+8(0.31)	+30(1.18)	-

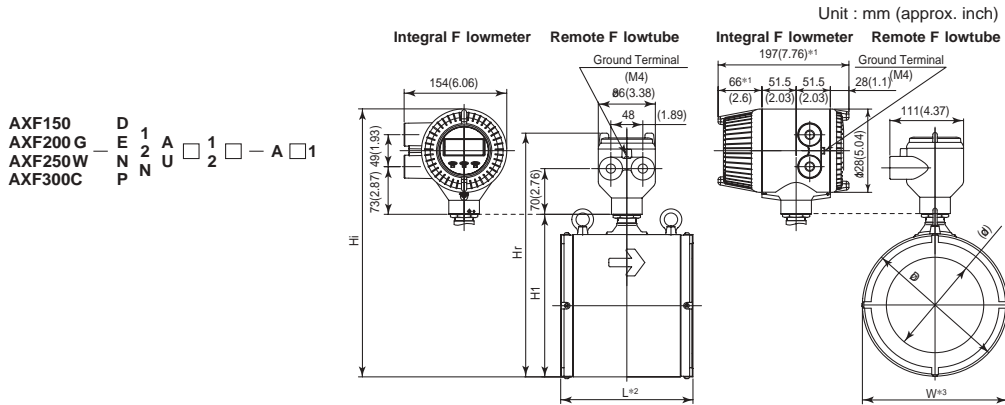
- *3: When electrode structure 2 is selected, add the following value to W (width).

Nominal Size	25	32, 40, 50	65, 80	100	125
W	+52.5(2.06)	+52(2.05)	+49(1.93)	+48(1.89)	+47(1.85)

- *4: Waterproof glands and a 30 m long cable are attached to each submersible type flowtube. Add 9.5 kg (20.9 lb) to the weight in the table.

F23.EPS

AXF Standard, AXF150-AXF300, Wafer Type, PFA /Polyurethane Rubber Lining



Model	Size code	150	200	250	300	
	Size	150(6)	200(8)	250(10)	300(12)	
Remote flowtube	Lining code	A,U	A,U	A,U	A,U	
	Face-to-face length	L ₃ #2	200 ₀ ^{+0.2} (7.87)	250 ₀ ^{+0.2} (9.84)	300 ₀ ^{+0.2} (11.81)	350 ₀ ^{+0.2} (13.78)
Integral flowmeter	Outside dia.	Ø	202(7.95)	252(9.92)	310(12.20)	358(14.09)
	Inner diameter of Grounding ring	d	146.1(5.75)	193.6(7.62)	243.7(9.59)	294.7(11.60)
Remote flowtube	Width	W ^{#3}	202(7.95)	252(9.92)	310(12.20)	358(14.09)
	Height	H1	243(9.57)	293(11.54)	351(13.82)	399(15.71)
Integral flowmeter	Max. Height	Hi	405(15.93)	455(17.89)	513(20.18)	561(22.07)
	Weight kg (lb)		16.2(35.7)	23.8(52.4)	40.7(89.7)	50.0(110.2)

- *1: When indicator code N is selected, subtract 12 mm (0.47 inch) from the value in the figure. For explosion proof style with indicator add 5mm (0.2inch) to it.
- *2: Depending on the selection of grounding ring code and optional code, add the following value to L (face-to-face length).

Nominal Size: 150 to 200mm			
Grounding Ring Code	S, L, H, V	P, T	N
Option Code	None	+0	+34(1.34)
	GA, GC, GD (Special Gaskets)	+10(0.39)	+40(1.57)

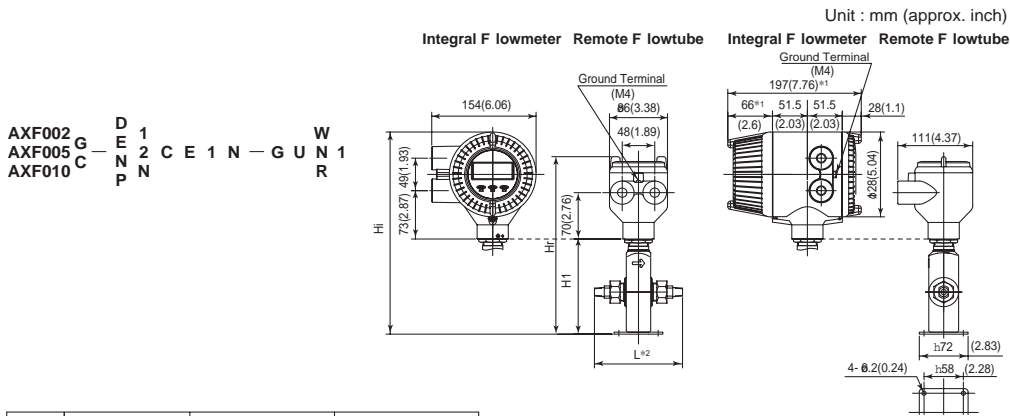
Nominal Size: 250 to 300mm			
Grounding Ring Code	S, L, H, V	P, T	N
Option Code is "None"	+0	-	-2(0.08)

- *3: When electrode structure 2 is selected, add the following value to W(width).

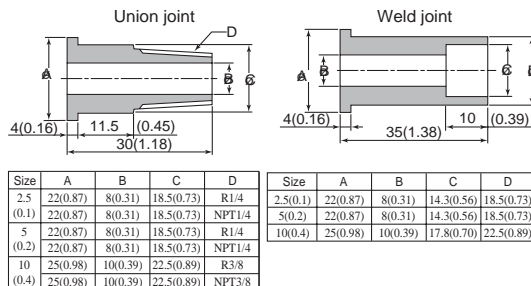
Nominal size	150	200	250	300
W	+49(1.93)	+50(1.97)	+49(1.93)	+53(2.09)

- *4: Waterproof glands and a 30 m long cable are attached to each submersible style flowtube. Add 9.5 kg (20.9 lb) to the weight in F24.EPS

AXF Standard, AXF002-AXF010, Weld · Union Joint, Ceramics Lining



Model	Process connection	GUW (Welding type)			GUN/GUR (Union joint type)		
	Size code	002	005	010	002	005	010
Remote flowtube	Size	2.5 (0.1)	5 (0.2)	10 (0.4)	2.5 (0.1)	5 (0.2)	10 (0.4)
	Lining code	C	C	C	C	C	C
Integral flowmeter	Face-to-face length	L ₃	140(5.51)			130(5.12)	
	Height	H1	144(5.67)			144(5.67)	
Remote flowtube	Max. Height	Hr	268(10.55)			268(10.55)	
	Weight kg (lb)		2.3(5.1)			2.3(5.1)	
Integral flowmeter	Max. Height	Hi	306(12.03)			306(12.03)	
	Weight kg (lb)		4(8.8)			4(8.8)	

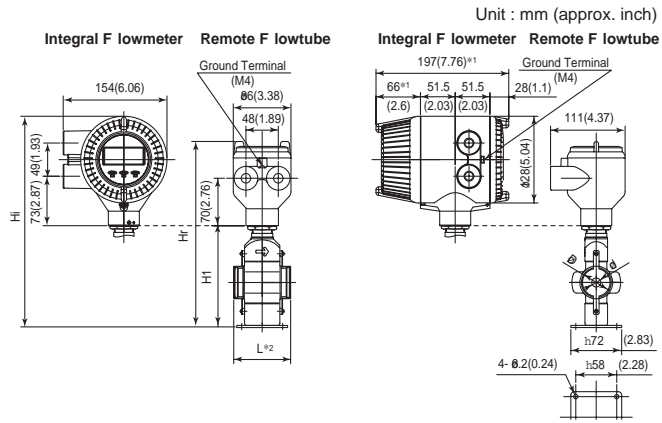


- *1: When indicator code N is selected, subtract 12 mm (0.47 inch) from the value in the figure. For explosion proof style with indicator add 5mm (0.2inch) to it.

F25.EPS

AXF Standard, AXF015, Wafer Type, Ceramics Lining

AXF015^G_C — ^D1₂ ^E2_N ^CC E 1 □ — A □ 1



Model	Size code	015	
	Size	15(0.5)	
	Lining code	C	
Remote flowtube	Face-to-face length	L ₃ ^{0*2}	81(3.19)
	Outside dia.	Ø	42(1.65)
Integral flowmeter	Inner diameter of Grounding ring	d	15(0.59)
	Height	H1	144(5.67)
Remote flowtube	Max. Height	Hr	268(10.55)
	Weight kg (lb)		2.3(5.1)
Integral flowmeter	Max. Height	Hi	306(12.03)
	Weight kg (lb)		4(8.8)

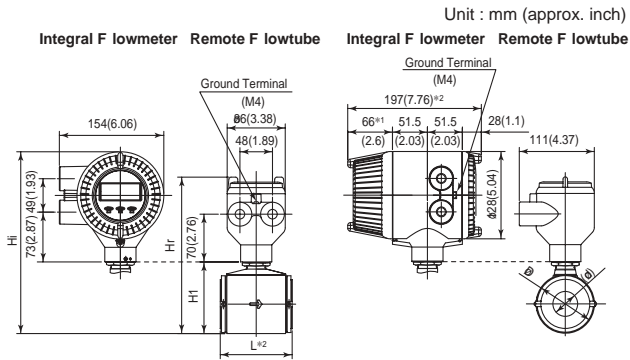
*1: When indicator code N is selected, subtract 12 mm (0.47 inch) from the value in the figure.
For explosion proof style with indicator add 5mm (0.2inch) to it.
*2: Depending on the selection of grounding ring code and optional code, add the following value to L (face-to-face length).

Grounding Ring Code	S, L, H, V	P, T	N
L(Face-to-face length)	+0	+22(0.87)	-6(0.24)

F26.EPS

AXF Standard, AXF025-AXF100, Wafer Type, Ceramics Lining

AXF025
AXF040
AXF050
AXF080
AXF100^G_C — ^D1₂ ^E2_N ^CC E 1 □ — A □ 1



Model	Size code	025	040	050	080	100	
	Size	25(1)	40(1.5)	50(2)	80(3)	100(4)	
	Lining code	C	C	C	C	C	
Remote flowtube	Face-to-face length	L ₃ ^{0*2}	93(3.66)	106(4.17)	120(4.72)	160(6.30)	180(7.09)
	Outside dia.	Ø	67.5(2.66)	86(3.39)	99(3.90)	129(5.08)	155(6.10)
Integral flowmeter	Inner diameter of Grounding ring	d	27(1.06)	40(1.57)	52(2.05)	81(3.19)	98(3.86)
	Height	H1	92(3.62)	111(4.37)	129(5.08)	157(6.18)	183(7.20)
Remote flowtube	Max. Height	Hr	216(8.50)	235(9.25)	253(9.96)	281(11.06)	307(12.09)
	Weight kg (lb)		2.3(5.1)	3.2(7.0)	4.1(9.0)	6.8(15.0)	9.6(21.1)
Integral flowmeter	Max. Height	Hi	254(9.98)	273(10.73)	291(11.44)	319(12.54)	345(13.56)
	Weight kg (lb)		4.0(8.8)	4.9(10.8)	5.8(12.7)	8.5(18.8)	11.3(24.9)

*1: When indicator code N is selected, subtract 12 mm (0.47 inch) from the value in the figure.
For explosion proof style with indicator add 5mm (0.2inch) to it.
*2: Depending on the selection of grounding ring code and optional code, add the following value to L (face-to-face length).

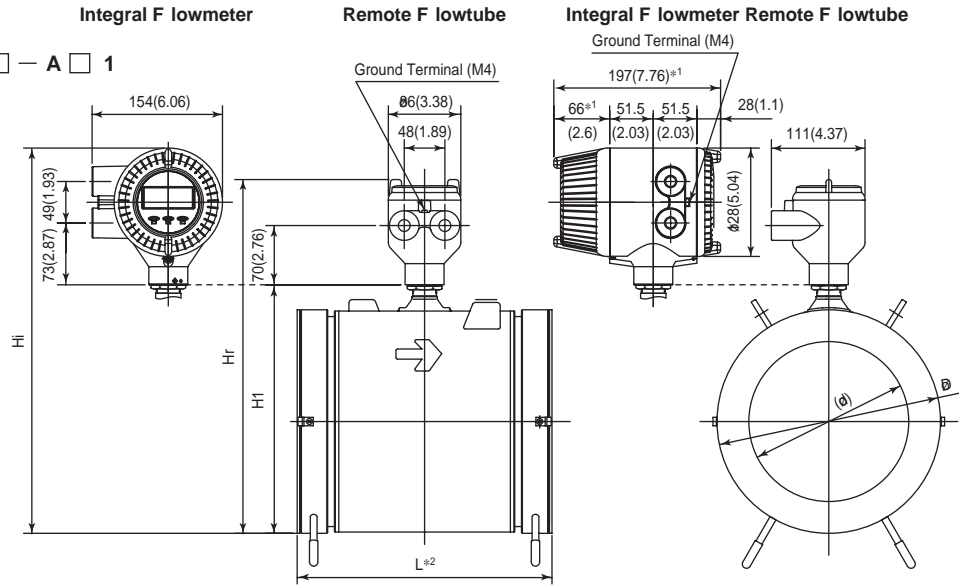
Grounding Ring Code	S, L, H, V	P, T	N
L(Face-to-face length)	+0	+22(0.87)	-6(0.24)

F27.EPS

AXF Standard, AXF150, AXF200, Wafer Type, Ceramics Lining

Unit : mm (approx. inch)

AXF150G — D 1
 AXF200C — E 2
 P N C E 1 □ — A □ 1



Model	Size code	150	200
	Size	150(6)	200(8)
	Lining code	C	C
Remote flowtube	Face-to-face length	L ₋₃ ⁰⁺²	232(9.13) 302(11.89)
	Outside dia.	∅	218(8.58) 268(10.55)
Integral flowmeter	Inner diameter of Grounding ring	∅	144(5.67) 192(7.56)
	Height	H1	259(10.20) 309(12.17)
Remote flowtube	Max. Height	Hr	383(15.08) 433(17.05)
	Weight kg (lb)		20.2(44.5) 33.5(73.9)
Integral flowmeter	Max. Height	Hi	421(16.56) 471(18.52)
	Weight kg (lb)		21.9(48.3) 35.2(77.6)

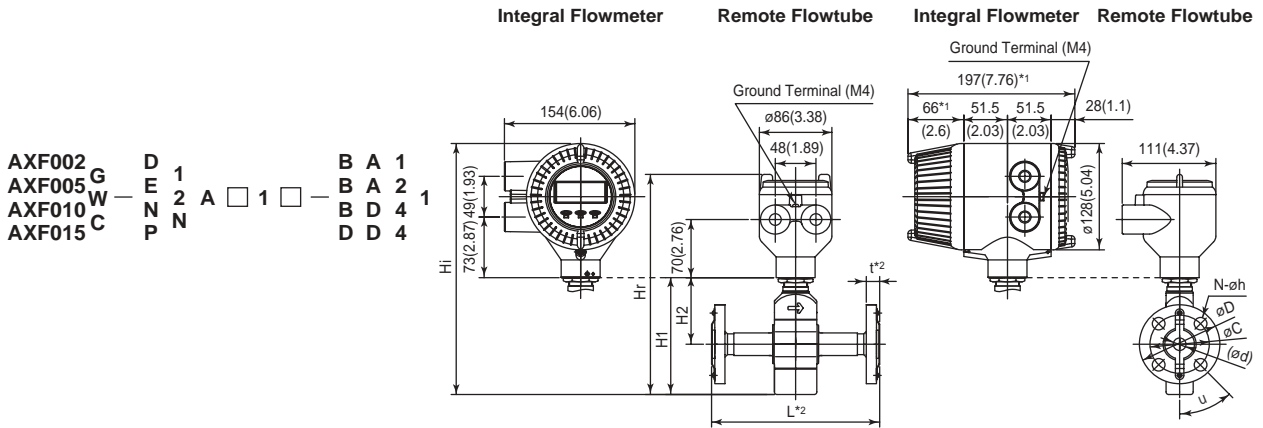
*1: When indicator code N is selected, subtract 12 mm (0.47 inch) from the value in the figure
 For explosion proof style with indicator add 5mm (0.2inch) to it.
 *2: Depending on the selection of grounding ring code and optional code, add the following value to L (face-to-face length).

Grounding Ring Code	S, L, H, V	P, T	N
L(Face-to-face length)	+0	+30(1.18)	-6(0.24)

F28.EPS

AXF Standard, AXF002-AXF015, ANSI/DIN Flange Type, PFA Lining

Unit : mm (approx. inch)



AXF002 G D 1 B A 1
 AXF005 W E N 2 A □ 1 □ - B A 2 1
 AXF010 C P N A □ 1 □ - B D 4 1
 AXF015 C P N D D 4

Model	Process Connection	BA1(ANSI Class 150)				BA2(ANSI Class 300)				BD4(DIN PN40)				DD4(DIN PN40)			
	Size code	002	005	010	015	002	005	010	015	002	005	010	015	002	005	010	
	Size	2.5 (0.1)	5 (0.2)	10 (0.4)	15 (0.5)	2.5 (0.1)	5 (0.2)	10 (0.4)	15 (0.5)	2.5 (0.1)	5 (0.2)	10 (0.4)	15 (0.5)	2.5 (0.1)	5 (0.2)	10 (0.4)	
Lining code		A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
Remote flowtube	Face-to-face length L ^{*2}	150(5.91)				150(5.91)				150(5.91)				150(5.91)			
	Outside dia. øD	88.9(3.50)				95.3(3.75)				95(3.74)				90(3.54)			
	Thickness t ^{*2}	15.2(0.60)				18.2(0.72)				20(0.79)				20(0.79)			
	Inner diameter of Grounding ring ød	15(0.59)				15(0.59)				15(0.59)				15(0.59)			
Integral flowmet.	Pitch circle dia. øC	60.5(2.38)				66.5(2.62)				65(2.56)				60(2.36)			
	Bolt hole interval u ^o	45				45				45				45			
	Hole dia. øh	15.7(0.62)				15.7(0.62)				14(0.55)				14(0.55)			
	Number of holes N	4				4				4				4			
Remote flowtube	Max. Height Hr	265(10.43)				265(10.43)				265(10.43)				265(10.43)			
	Weight kg (lb) ^{*3}	3.3(7.2)				3.7(8.2)				3.9(8.6)				4.0(8.8)			
Integral flowmet.	Max. Height Hi	302(11.89)				302(11.89)				302(11.89)				302(11.89)			
	Weight kg (lb)	5.0(10.9)				5.4(11.9)				5.6(12.4)				5.7(12.5)			

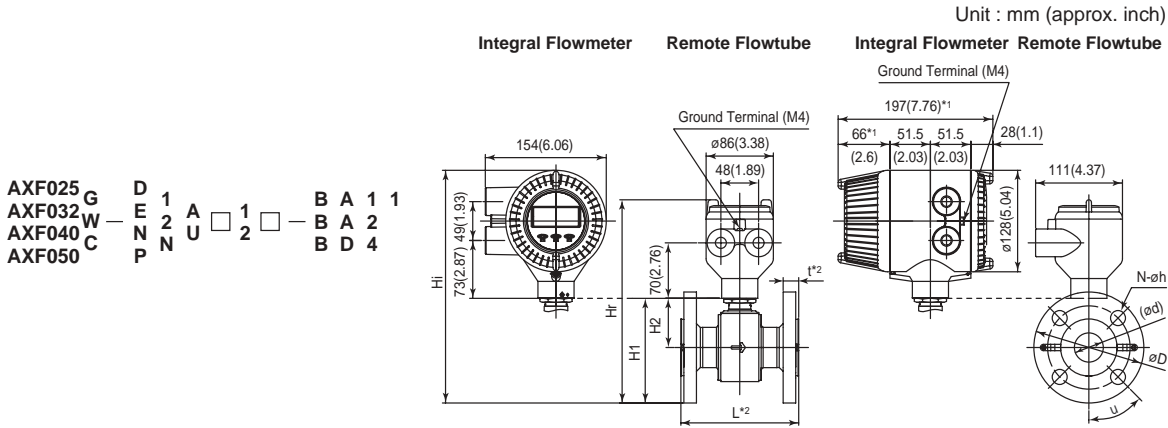
- *1: When indicator code N is selected, subtract 12 mm (0.47 inch) from the value in the figure. For explosion proof style with indicator add 5mm (0.2inch) to it.
- *2: Depending on the selection of grounding ring code and optional code, add the following value to "L" (face-to-face length) and "t" (thickness of flange).

		L		t		L		t		L		t	
Grounding Ring Code		S, L, H, V		P, T		N							
Option Code	None	+0	+0	+26(1.02)	+13(0.51)	-2(0.08)	-1(0.04)						
	GA, GC, GD (Special Gaskets)	+8(0.31)	+4(0.16)	+30(1.18)	+15(0.59)	-	-						

- *3: Waterproof glands and a 30 m long cable are attached to each submersible type flowtube. Add 9.5 kg (20.9 lb) to the weight in the table.

F29.EPS

AXF Standard, AXF025-AXF050, ANSI/DIN Flange Type, PFA /Polyurethane Rubber Lining



Model	Process Connection	BA1(ANSI Class 150)				BA2(ANSI Class 300)				BD4(DIN PN40)			
		Size code	025	032	040	050	025	032	040	050	025	032	040	050
	Size	25 (1)	32 (1.25)	40 (1.5)	50 (2)	25 (1)	32 (1.25)	40 (1.5)	50 (2)	25 (1)	32 (1.25)	40 (1.5)	50 (2)
	Lining code	A,U	A,U	A,U	A,U	A,U	A,U	A,U	A,U	A,U	A,U	A,U	A,U
Remote flowtube	Face-to-face length L ^{*2}	200 (7.87)	200 (7.87)	200 (7.87)	200 (7.87)	200 (7.87)	200 (7.87)	200 (7.87)	200 (7.87)	200 (7.87)	200 (7.87)	200 (7.87)	200 (7.87)
	Outside dia. øD	108.0 (4.25)	117.3 (4.62)	127.0 (5.00)	152.4 (6.00)	124.0 (4.88)	133.4 (5.25)	155.4 (6.12)	165.1 (6.50)	115 (4.53)	140 (5.51)	150 (5.91)	165 (6.50)
	Thickness t ^{*2}	18.2 (0.72)	19.7 (0.78)	21.5 (0.85)	23.1 (0.91)	21.5 (0.85)	23.1 (0.91)	24.6 (0.97)	26.4 (1.04)	22 (0.87)	22 (0.87)	24 (0.94)	24 (0.94)
	Inner diameter of Grounding ring ød	28 (1.10)	34 (1.34)	41 (1.61)	53 (2.09)	28 (1.10)	34 (1.34)	41 (1.61)	53 (2.09)	28 (1.10)	34 (1.34)	41 (1.61)	53 (2.09)
	Pitch circle dia. øC	79.2 (3.12)	88.9 (3.50)	98.6 (3.88)	120.7 (4.75)	88.9 (3.50)	98.6 (3.88)	114.3 (4.50)	127.0 (5.00)	85 (3.35)	100 (3.94)	110 (4.33)	125 (4.92)
Integral flowmeter	Bolt hole interval u ³	45	45	45	45	45	45	22.5	45	45	45	45	
	Hole dia. øh	15.7 (0.62)	15.7 (0.62)	15.7 (0.62)	19.1 (0.75)	19.1 (0.75)	22.4 (0.88)	19.1 (0.75)	14 (0.55)	19 (0.75)	19 (0.75)	19 (0.75)	
	Number of holes N	4	4	4	4	4	4	4	4	4	4	4	
	Height H1	112 (4.40)	120 (4.71)	131 (5.17)	155 (6.11)	120 (4.72)	128 (5.02)	146 (5.73)	162 (6.36)	115 (4.54)	131 (5.15)	143 (5.63)	162 (6.36)
	Height H2	59 (2.28)	61 (2.40)	68 (2.67)	79 (3.11)	58 (2.28)	61 (2.40)	68 (2.67)	79 (3.11)	58 (2.28)	61 (2.40)	68 (2.67)	79 (3.11)
Remote flowtube	Max. Height Hr	236 (9.28)	244 (9.59)	255 (10.05)	279 (10.99)	244 (9.60)	252 (9.90)	270 (10.61)	286 (11.24)	239 (9.42)	255 (10.03)	267 (10.51)	286 (11.24)
	Weight kg (lb) ^{*3}	3.9 (8.5)	4.5 (9.9)	5.4 (11.9)	7.4 (16.4)	5.0 (11.0)	5.8 (12.8)	7.8 (17.1)	9.0 (19.8)	4.7 (10.4)	6.1 (13.6)	6.9 (15.2)	8.7 (19.2)
Integral flowmeter	Max. Height Hi	273 (10.76)	281 (11.06)	293 (11.53)	317 (12.47)	281 (11.07)	289 (11.38)	307 (12.09)	323 (12.72)	277 (10.90)	292 (11.51)	304 (11.98)	323 (12.72)
	Weight kg (lb)	5.6 (12.2)	6.2 (13.6)	7.1 (15.7)	9.1 (20.1)	6.7 (14.7)	7.5 (16.6)	9.5 (20.8)	10.7 (23.6)	6.4 (14.1)	7.8 (17.2)	8.6 (18.9)	10.4 (23.0)

*1: When indicator code N is selected, subtract 12 mm (0.47 inch) from the value in the figure
 For explosion proof style with indicator add 5mm (0.2inch) to it.

*2: Depending on the selection of grounding ring code and optional code, add the following value to "L" (face-to-face length) and "t" (thickness of flange).

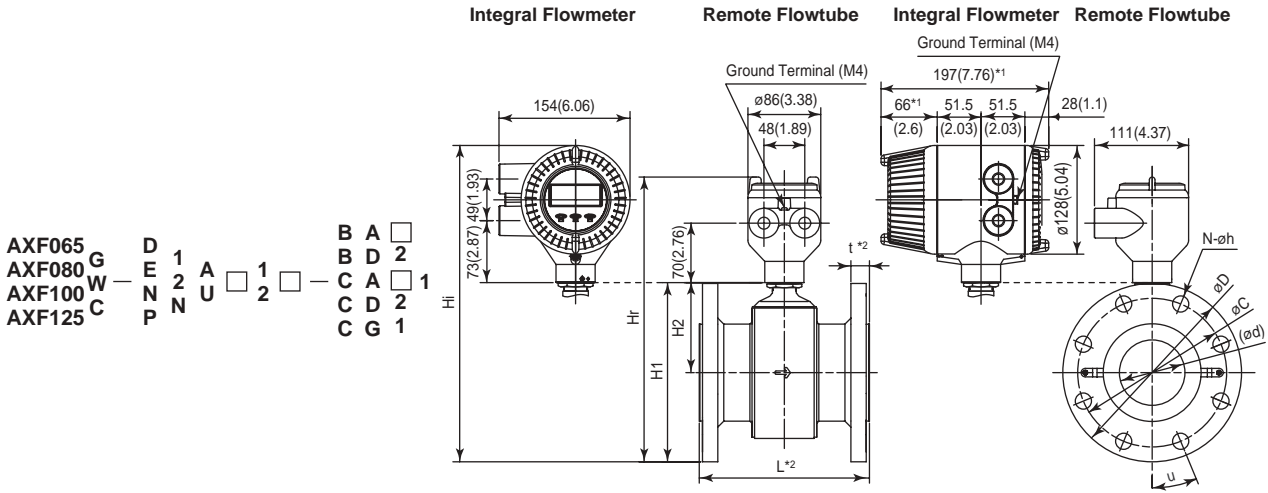
	L	t	L	t	L	t	
Grounding Ring Code	S, L, H, V		P, T		N		
Option Code	None	+0	+0	+26(1.02)	+13(0.51)	-2(0.08)	-1(0.04)
	GA, GC, GD (Special Gaskets)	+8(0.31)	+4(0.16)	+30(1.18)	+15(0.59)	-	-

*3: Waterproof glands and a 30 m long cable are attached to each submersible style flowtube. Add 9.5 kg (20.9 lb) to the weight in the table.

Face to face lay length L is in accordance with ISO 13359.

AXF Standard, AXF065-AXF125, ANSI/DIN Flange Type, PFA /Polyurethane Rubber Lining

Unit : mm (approx. inch)



AXF065 G D 1 A B A
 AXF080 W E N 2 U B D 2
 AXF100 C P 1 2 A C C 1
 AXF125 C P 1 2 A C C 1

Model	Process Connection	BA1,CA1(ANSI Class 150)				BA2,CA2(ANSI Class 300)				BD2,CD2(DIN PN16)			
		065	080	065	100	080	100	125	125	065	080	100	125
	Size code	65	80	65	100	80	100	125	125	65	80	100	125
	Size	(2.5)	(3)	(2.5)	(4)	(3)	(4)	(5)	(5)	(2.5)	(3)	(4)	(5)
	Lining code	A,U	A,U	A,U	A,U	A,U	A,U	A,U	A,U	A,U	A,U	A,U	A,U
Remote flowtube	Face-to-face length L ^{*2}	200 (7.87)	200 (7.87)	200 (7.87)	250 (9.84)	200 (7.87)	250 (9.84)	250 (9.84)	250 (9.84)	200 (7.87)	200 (7.87)	250 (9.84)	250 (9.84)
	Outside dia. øD	190.5 (7.50)	209.6 (8.25)	177.8 (7.00)	254.0 (10.00)	190.5 (7.50)	228.6 (9.00)	254.0 (10.00)	279.4 (11.00)	185 (7.28)	200 (7.87)	220 (8.66)	250 (9.84)
	Thickness t ^{*2}	29.4 (1.16)	32.4 (1.28)	26.4 (1.04)	35.8 (1.41)	27.9 (1.10)	27.9 (1.10)	39.1 (1.54)	24 (0.94)	24 (0.94)	24 (0.94)	25 (1.02)	25 (1.02)
	Inner diameter of Grounding ring ød	66 (2.40)	77 (3.03)	66 (2.40)	102 (3.82)	77 (3.03)	102 (3.82)	128 (5.04)	128 (5.04)	66 (2.40)	77 (3.03)	102 (3.82)	128 (5.04)
Integral flowmeter	Pitch circle dia. øC	149.4 (5.88)	168.1 (6.62)	139.7 (5.50)	200.2 (7.88)	152.4 (6.00)	190.5 (7.50)	215.9 (8.50)	235.0 (9.25)	145 (5.71)	160 (6.30)	180 (7.09)	210 (8.27)
	Bolt hole interval U ⁰	22.5	22.5	45	22.5	45	22.5	22.5	22.5	45	22.5	22.5	22.5
	Hole dia. øh	22.4 (0.88)	22.4 (0.88)	19.1 (0.75)	22.4 (0.88)	19.1 (0.75)	19.1 (0.75)	22.4 (0.88)	22.4 (0.88)	19 (0.75)	19 (0.75)	19 (0.75)	19 (0.75)
	Number of holes N	8	8	4	8	4	8	8	8	4	8	8	8
Remote flowtube	Height H1	182 (7.18)	187 (7.77)	176 (6.93)	233 (9.16)	188 (7.40)	220 (8.66)	247 (9.72)	260 (10.22)	180 (7.07)	193 (7.59)	216 (8.49)	245 (9.65)
	Height H2	87 (3.43)	93 (3.65)	87 (3.43)	106 (4.16)	93 (3.65)	106 (4.16)	120 (4.72)	120 (4.72)	87 (3.43)	93 (3.65)	106 (4.16)	120 (4.72)
Integral flowmeter	Max. Height Hr	306 (12.06)	321 (12.65)	300 (11.81)	357 (14.04)	312 (12.28)	344 (13.54)	371 (14.61)	384 (15.11)	304 (11.95)	317 (12.47)	340 (13.37)	369 (14.53)
	Weight kg (lb) ^{*3}	12.6 (27.7)	16.6 (36.6)	10.8 (23.7)	26.8 (59.1)	12.9 (28.5)	17.7 (39.1)	20.8 (45.9)	34.9 (76.9)	10.6 (23.3)	11.9 (26.2)	14.5 (32.0)	19.3 (42.5)
Remote flowtube	Max. Height Hi	344 (13.53)	359 (14.13)	337 (13.28)	394 (15.52)	349 (13.76)	394 (15.52)	409 (16.08)	421 (16.58)	341 (13.43)	354 (13.94)	377 (14.85)	407 (16.00)
	Weight kg (lb)	14.3 (31.4)	18.3 (40.4)	12.5 (27.5)	28.5 (62.8)	14.6 (32.2)	19.4 (42.8)	22.5 (49.6)	36.6 (80.7)	12.3 (27.1)	13.6 (29.9)	16.2 (35.7)	21.0 (46.2)

*1: When indicator code N is selected, subtract 12 mm (0.47 inch) from the value in the figure
 For explosion proof style with indicator add 5mm (0.2inch) to it.
 *2: Depending on the selection of grounding ring code and optional code, add the following value to "L" (face-to-face length) and "t" (thickness of flange).

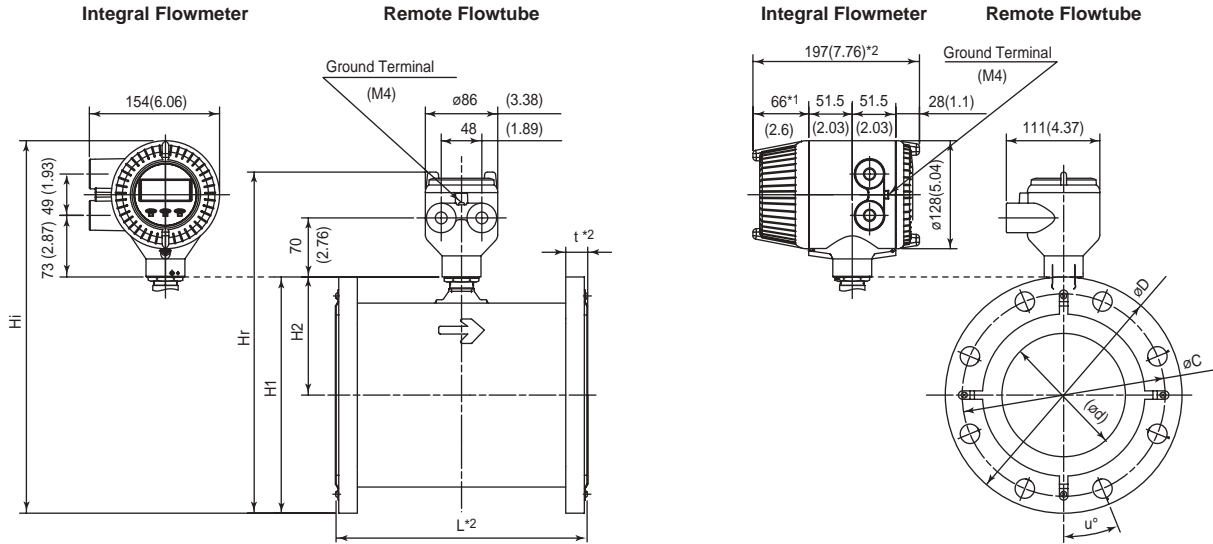
	L	t	L	t	L	t
Grounding Ring Code	S, L, H, V		P, T		N	
Option Code	None	+0	+0	+26(1.02)+13(0.51)	-2(0.08)	-1(0.04)
	GA, GC, GD (Special Gaskets)	+8(0.31)	+4(0.16)	+30(1.18)+15(0.59)	-	-

Face to face lay length L is in accordance with ISO 13359.

AXF Standard, AXF150, AXF200, ANSI/DIN Flange Type, PFA /Polyurethane Rubber Lining

Unit : mm (approx. inch)

AXF150^G — D 1 A □ 1 □ — B A □
 AXF200^C — E 2 U □ 2 □ — B D □
 C — P N □ 1 — C A □
 P — N □ 1 — C D □



Model	Process Connection		BA1/CA1(ANSI Class 150)		BA2/CA2(ANSI Class 300)		BD1/CD1(DIN PN10)		BD2/CD2(DIN PN16)	
	Size code		150	200	150	200	200	150	200	
	Size		150 (6)	200 (8)	150 (6)	200 (8)	200 (8)	150 (6)	200 (8)	
	Lining code		A,U	A,U	A,U	A,U	A,U	A,U	A,U	
Remote flowtube	Face-to-face length	L _o ⁺² ₋₃	300 (11.81)	350 (13.78)	300 (11.81)	350 (13.78)	350 (13.78)	300 (11.81)	350 (13.78)	
	Outside dia.	øD	279.4 (11.00)	342.9 (13.50)	317.5 (12.50)	381.0 (15.00)	340 (13.39)	285 (11.22)	340 (13.39)	
	Thickness	t ⁺²	30.4 (1.20)	33.4 (1.31)	43.5 (1.71)	46.1 (1.81)	29 (1.14)	27 (1.06)	29 (1.14)	
	Inner diameter of Grounding ring	ød	146.1 (5.75)	193.6 (7.62)	146.1 (5.75)	193.6 (7.62)	193.6 (7.62)	146.1 (5.75)	193.6 (7.62)	
	Pitch circle dia.	øC	241.3 (9.50)	298.5 (11.75)	269.7 (10.62)	330.2 (13.00)	295 (11.61)	240 (9.45)	295 (11.61)	
Integral flowmeter	Bolt hole interval	U ^o	22.5	22.5	15	15	22.5	22.5	15	
	Hole dia.	øh	22.4 (0.88)	22.4 (0.88)	22.4 (0.88)	25.4 (1.00)	23 (0.91)	23 (0.91)	23 (0.91)	
	Number of holes	N	8	8	12	12	8	8	12	
	Height	H1	281 (11.05)	337 (13.29)	300 (11.80)	357 (14.04)	336 (13.23)	284 (11.16)	336 (13.23)	
Remote flowtube	Max. Height	Hr	405 (15.93)	461 (18.17)	424 (16.68)	481 (18.92)	460 (18.11)	408 (16.04)	460 (18.11)	
	Weight kg (lb) ^{*3}		30.9 (68.0)	49.2 (108.4)	52.5 (115.7)	78.8 (173.7)	42.5 (93.7)	28.7 (63.2)	41.9 (92.5)	
Integral flowmeter	Max. Height	Hi	442 (17.41)	499 (19.64)	461 (18.16)	518 (20.39)	498 (19.59)	445 (17.52)	498 (19.59)	
	Weight kg (lb)		32.6 (71.8)	50.9 (112.2)	54.2 (119.5)	80.5 (177.5)	44.2 (97.5)	30.4 (66.9)	43.6 (96.2)	

*1: When indicator suffix code N is selected, subtract 12 mm (0.47 inch) from the value in the figure. For explosion proof style with indicator add 5mm (0.2inch) to it..

*2: Depending on the selection of grounding ring code and optional code, add the following value to "L" (face-to-face length) and "t" (thickness of flange).

Grounding Ring Code	L	t	L	t	L	t
	S, L, H, V			P, T		N
Option Code	None	+0	+0	+34(1.34)+17(0.67)	-2(0.08)	-1(0.04)
	GA, GC, GD (Special Gaskets)	+10(0.39)	+5(0.20)	+40(1.57)+20(0.79)	-	-

*3: Waterproof glands and a 30 m long cable are attached to each submersible style flowtube. Add 9.5 kg (20.9 lb) to the

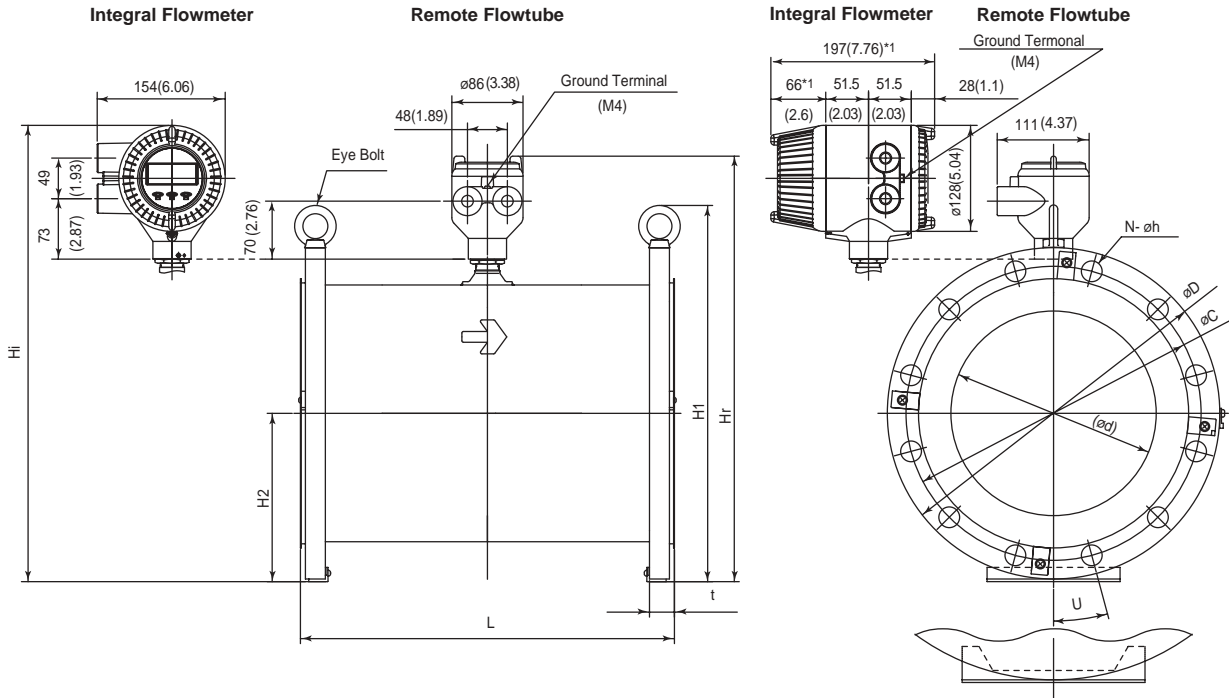
F32.EPS

Face to face lay length L is in accordance with ISO 13359.

AXF Standard, AXF250-AXF400, ANSI/DIN Flange Type, PFA /Polyurethane Rubber Lining

Unit : mm (approx. inch)

AXF250 G D 1 B A □
 AXF300 W E 2 A □ 1 B D □ 1
 AXF350 N N U □ 2 □ C A □
 AXF400 C P N C D □



for AXF300, AXF350, AXF400

Model	Process Connection	BA1/CA1(ANSI Class 150)				BA2/CA2(ANSI Class 300)		BD1/CD1(DIN PN10)				BD2/CD2(DIN PN16)	
		250	300	350	400	250	300	250	300	350	400	250	300
		(10)	(12)	(14)	(16)	(10)	(12)	(10)	(12)	(14)	(16)	(10)	(12)
	Size code	A,U	A,U	A,U	A,U	A,U	A,U	A,U	A,U	A,U	A,U	A,U	A,U
	Size	250	300	350	400	250	300	250	300	350	400	250	300
	Lining code	A,U	A,U	A,U	A,U	A,U	A,U	A,U	A,U	A,U	A,U	A,U	A,U
Remote flowtube	Face-to-face length	450	500	550	600	450	500	450	500	550	600	450	500
	Outside dia.	406.4	482.6	533.4	596.9	444.5	520.7	395	445	505	565	405	460
	Thickness	38.2	39.7	45.0	46.5	55.7	58.3	34	34	36	36	34	36
	Inner diameter of Grounding ring	243	291.3	323.4	373.5	243	291.3	243	291.3	323.4	373.5	243	291.3
	Pitch circle dia.	362.0	431.8	476.3	539.8	387.4	450.9	350	400	460	515	335	410
Integral flowmeter	Bolt hole interval	15	15	15	11.25	11.25	11.25	15	15	11.25	11.25	15	15
	Hole dia.	25.4	25.4	28.4	28.4	28.4	31.8	23	23	23	28	28	28
	Number of holes	12	12	12	16	16	16	12	12	16	16	12	12
Remote flowtube	Height	399	461	503	560	418	480	394	443	489	544	399	450
	Weight kg (lb) ^{*3}	196	220	236	262	196	220	196	220	236	262	196	220
	Max. Height	83.4	104.5	151.5	184.9	133.0	176.7	73.0	79.4	112.5	129.7	74.8	87.9
Integral flowmeter	Height	523	585	627	684	542	604	518	567	613	668	523	574
	Weight kg (lb) ^{*3}	561	623	664	722	580	642	555	604	650	706	560	612
	Max. Height	85.1	106.2	153.2	186.6	134.7	178.4	74.7	81.1	114.2	131.4	76.5	89.6

*1: When indicator suffix code N is selected, subtract 12 mm (0.47 inch) from the value in the figure.

For explosion proof style with indicator add 5mm (0.2inch) to it.

*2: Depending on the selection of grounding ring code and optional code, add the following value to "L" (face-to-face length) and "t" (thickness of flange).

Nominal Size: 250 mm to 300 mm				Nominal Size: 350 mm to 400 mm			
	L	t		L	t	L	t
Grounding Ring Code	S, L, H, V		N	S, L, H, V		N	
Option Code is "None"	+0	+0	-6(0.24) -3(0.12)	+0	+0	-10(0.39) -5(0.20)	

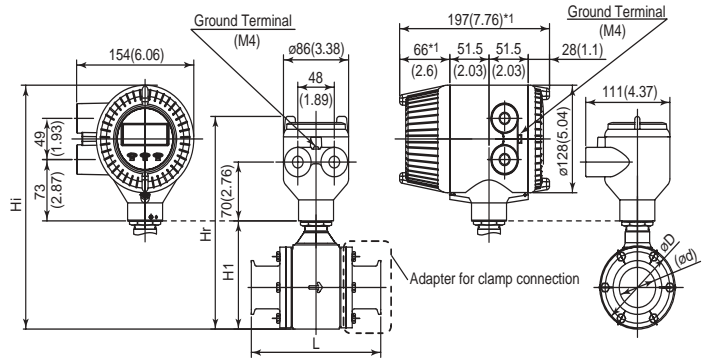
*3: Waterproof glands and a 30 m long cable are attached to each submersible style flowtube. Add 9.5 kg (20.9 lb) to the Face to face lay length L is in accordance with ISO 13359.

AXF Standard, AXF015-AXF125, Sanitary for Clamp Connection, PFA Lining

Unit : mm (approx. inch)

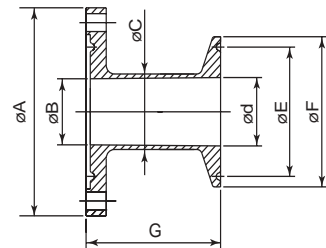
Integral Flowmeter Remote Flowtube Integral Flowmeter Remote Flowtube

AXF015
 AXF025
 AXF032
 AXF040
 AXF050 H — D E N P 1
 AXF065 — 2 A L 1 N — H A B
 AXF080 — H D B 1
 AXF100 — H K B
 AXF125



Model	Process Connection HAB (Tri-Clamp) / HDB (DIN 32676 Clamp) / HKB (ISO2852 Clamp)									
	Size code	015	025	032	040	050	065	080	100	125
	Size	15 (0.5)	25 (1)	32 (1.3)	40 (1.5)	50 (2)	65 (2.6)	80 (3)	100 (4)	125 (5)
	Lining code	A	A	A	A	A	A	A	A	A
Remote flowtube	Face-to-face length $L_{-0.3}$	166 (6.55)	166 (6.55)	166 (6.55)	166 (6.55)	176 (6.94)	196 (7.73)	216 (8.52)	246 (9.70)	316 (12.46)
	Outside dia. $\varnothing D$	73 (2.87)	73 (2.87)	73 (2.87)	86 (3.39)	99 (3.90)	117 (4.61)	129 (5.08)	155 (6.10)	183 (7.20)
Integral flowmeter	Inner dia. $\varnothing d$	HAB	-	22.1 (0.87)	-	34.8 (1.37)	47.5 (1.87)	60.2 (2.37)	72.9 (2.87)	97.4 (3.83)
		HDB	16 (0.63)	26 (1.02)	32 (1.26)	38 (1.50)	50 (1.97)	66 (2.60)	81 (3.19)	100 (3.94)
		HKB	15.2 (0.60)	22.6 (0.89)	31.3 (1.23)	35.6 (1.40)	48.6 (1.91)	60.3 (2.37)	72.9 (2.87)	97.6 (3.84)	135.7 (5.34)
	Height H1	97 (3.82)	97 (3.82)	97 (3.82)	111 (4.37)	129 (5.08)	146 (5.75)	157 (6.18)	183 (7.20)	212 (8.35)
Remote flowtube	Max. Height Hr	221 (8.70)	221 (8.70)	221 (8.70)	235 (9.25)	253 (9.96)	270 (10.63)	281 (11.06)	307 (12.09)	336 (13.23)
	Weight kg (lb)	2.7 (6.0)	2.5 (5.5)	2.6 (5.7)	2.9 (6.4)	3.6 (7.9)	4.8 (10.6)	5.7 (12.6)	8.1 (17.9)	12.1 (26.7)
Integral flowmeter	Max. Height Hi	259 (10.18)	259 (10.18)	259 (10.18)	273 (10.73)	291 (11.44)	291 (11.44)	319 (12.54)	319 (12.54)	374 (14.70)
	Weight kg (lb)	4.4 (9.7)	4.2 (9.3)	4.3 (9.5)	4.6 (10.1)	5.3 (11.7)	6.5 (14.3)	7.4 (16.4)	13.56 (29.9)	14.70 (32.4)

*1: When indicator code N is selected, subtract 12 mm (0.47 inch) from the value in the figure.



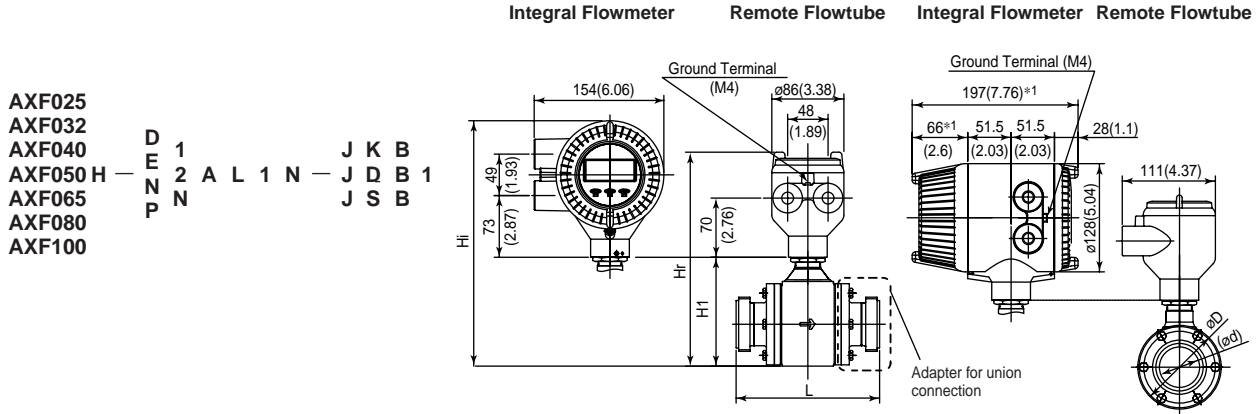
Adapter for clamp connection

Process Connection	HAB (Tri-Clamp)						HDB (DIN 32676 Clamp)						HKB (ISO2852 Clamp)												
	Nominal Size	25	40	50	65	80	100	15	25	32	40	50	65	80	100	125	15	25	32	40	50	65	80	100	125
$\varnothing A$	70 (2.76)	83 (3.27)	96 (3.78)	114 (4.49)	126 (4.96)	152 (5.98)	70 (2.76)	70 (2.76)	70 (2.76)	83 (3.27)	96 (3.78)	114 (4.49)	126 (4.96)	152 (5.98)	180 (7.09)	70 (2.76)	70 (2.76)	70 (2.76)	83 (3.27)	96 (3.78)	114 (4.49)	126 (4.96)	152 (5.98)	180 (7.09)	
$\varnothing B$	22.2 (0.87)	34.6 (1.36)	47.6 (1.87)	59.5 (2.34)	72.3 (2.85)	97 (3.82)	16 (0.63)	22.2 (0.87)	29.4 (1.16)	34.6 (1.36)	47.6 (1.87)	59.5 (2.34)	72.3 (2.85)	97 (3.82)	123 (4.84)	16 (0.63)	22.2 (0.87)	29.4 (1.16)	34.6 (1.36)	47.6 (1.87)	59.5 (2.34)	72.3 (2.85)	97 (3.82)	123 (4.84)	
$\varnothing C$	25.4 (1.00)	38.1 (1.50)	50.8 (2.00)	63.5 (2.50)	76.2 (3.00)	101.6 (4.00)	20 (0.79)	30 (1.18)	36 (1.42)	42 (1.56)	54 (2.13)	70 (2.76)	85 (3.35)	104 (4.09)	129 (5.08)	18 (0.71)	25.6 (1.01)	34.3 (1.35)	38.6 (1.52)	51.6 (2.03)	64.1 (2.52)	76.7 (3.02)	102.5 (4.04)	141.2 (5.56)	
$\varnothing d$	22.1 (0.87)	34.8 (1.37)	47.5 (1.87)	60.2 (2.37)	72.9 (2.87)	97.4 (3.83)	16 (0.63)	26 (1.02)	32 (1.26)	38 (1.50)	50 (1.97)	66 (2.60)	81 (3.19)	100 (3.94)	125 (4.92)	15.2 (0.60)	22.6 (0.89)	31.3 (1.23)	35.6 (1.40)	48.6 (1.91)	60.3 (2.37)	72.9 (2.87)	97.6 (3.84)	135.7 (5.34)	
$\varnothing E$	43.6 (1.72)	43.6 (1.72)	56.3 (2.22)	70.6 (2.78)	83.3 (3.28)	110.3 (4.34)	27.5 (1.08)	43.5 (1.71)	43.5 (1.71)	43.5 (1.71)	56.5 (2.22)	83.5 (3.29)	97 (3.82)	110 (4.33)	146 (5.75)	27.5 (1.08)	43.5 (1.71)	43.5 (1.71)	43.5 (1.71)	56.5 (2.22)	70.6 (2.78)	83.5 (3.29)	110 (4.33)	146 (5.75)	
$\varnothing F$	50.4 (1.98)	50.4 (1.98)	64 (2.52)	77.4 (3.05)	91 (3.58)	118.9 (4.68)	34 (1.34)	50.5 (1.99)	50.5 (1.99)	50.5 (1.99)	64 (2.52)	81 (3.19)	97 (3.82)	110 (4.33)	146 (5.75)	34 (1.34)	50.5 (1.99)	50.5 (1.99)	50.5 (1.99)	64 (2.52)	77.4 (3.05)	91 (3.58)	119 (4.69)	155 (6.10)	
G	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)
Parts No.	F9811 HV	F9811 HX	F9811 HY	F9811 HZ	F9811 JA	F9811 JB	F9811 JD	F9811 JE	F9811 JF	F9811 JG	F9811 JH	F9811 JI	F9811 JJ	F9811 JK	F9811 JL	F9811 JM	F9811 JN	F9811 JP	F9811 JQ	F9811 JR	F9811 JS	F9811 JT	F9811 JU	F9811 JV	F9811 JW

F34.EPS

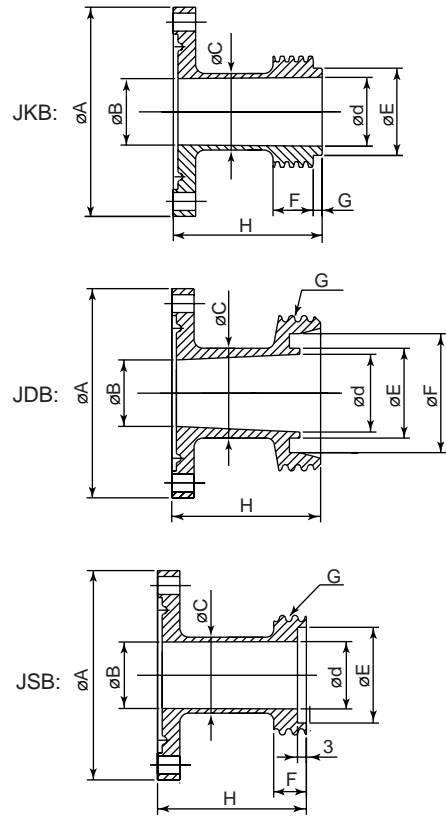
AXF Standard, AXF015-AXF125, Sanitary for Union Connection, PFA Lining

Unit : mm (approx. inch)



AXF025
AXF032
AXF040
AXF050 H — D E N P 1 2 A L 1 N — J K B 1
AXF065 — J S B
AXF080 — J S B
AXF100

Model	Process Connection		JKB (ISO2853 Union) / JDB (DIN 11851 Union) / JSB (SMS1145 Union)									
	Size code		015	025	032	040	050	065	080	100	125	
	Size		15 (0.5)	25 (1)	32 (1.3)	40 (1.5)	50 (2)	65 (2.6)	80 (3)	100 (4)	125 (5)	
Lining code		A	A	A	A	A	A	A	A	A		
Remote flowtube	Face-to-face length L _g	JKB	166 (6.55)	166 (6.55)	166 (6.55)	166 (6.55)	176 (6.94)	196 (7.73)	216 (8.52)	246 (9.70)	-	
		JDB	166 (6.55)	166 (6.55)	166 (6.55)	166 (6.55)	176 (6.94)	196 (7.73)	236 (9.31)	266 (10.49)	326 (12.85)	
		JSB	-	166 (6.55)	166 (6.55)	166 (6.55)	176 (6.94)	196 (7.73)	216 (8.52)	276 (10.88)	-	
Integral flowmeter	Outside dia. øD	JKB	73 (2.87)	73 (2.87)	73 (2.87)	86 (3.39)	99 (3.90)	117 (4.61)	129 (5.08)	155 (6.10)	183 (7.20)	
		JDB	15.2 (0.60)	22.6 (0.89)	31.3 (1.23)	35.6 (1.40)	48.6 (1.91)	60.3 (2.37)	72.9 (2.87)	97.6 (3.84)	-	
		JSB	-	22.5 (0.89)	29.6 (1.17)	35.5 (1.40)	48.5 (1.91)	60.5 (2.38)	72.9 (2.87)	97.6 (3.84)	-	
Remote flowtube	Height H1	JKB	97 (3.82)	97 (3.82)	97 (3.82)	111 (4.37)	129 (5.08)	146 (5.75)	157 (6.18)	183 (7.20)	212 (8.35)	
		JDB	221 (8.70)	221 (8.70)	221 (8.70)	235 (9.25)	253 (9.96)	270 (10.63)	281 (11.06)	307 (12.09)	336 (13.23)	
		JSB	2.6 (5.7)	2.6 (5.7)	2.7 (6.0)	3 (6.6)	3.8 (8.4)	4.9 (10.8)	5.9 (13.0)	8.2 (18.1)	13 (28.7)	
Integral flowmeter	Max. Height Hi	JKB	259 (10.18)	259 (10.18)	259 (10.18)	273 (10.73)	291 (11.44)	308 (12.11)	319 (12.54)	345 (13.56)	374 (14.70)	
		JDB	4.3 (9.5)	4.3 (9.5)	4.4 (9.7)	4.7 (10.4)	5.5 (12.1)	6.6 (14.6)	7.6 (16.8)	9.9 (21.8)	14.7 (32.4)	
		JSB	259 (10.18)	259 (10.18)	259 (10.18)	273 (10.73)	291 (11.44)	308 (12.11)	319 (12.54)	345 (13.56)	374 (14.70)	



*1: When indicator code N is selected, subtract 12 mm (0.47 inch) from the value in the figure.

Adapters for union connection

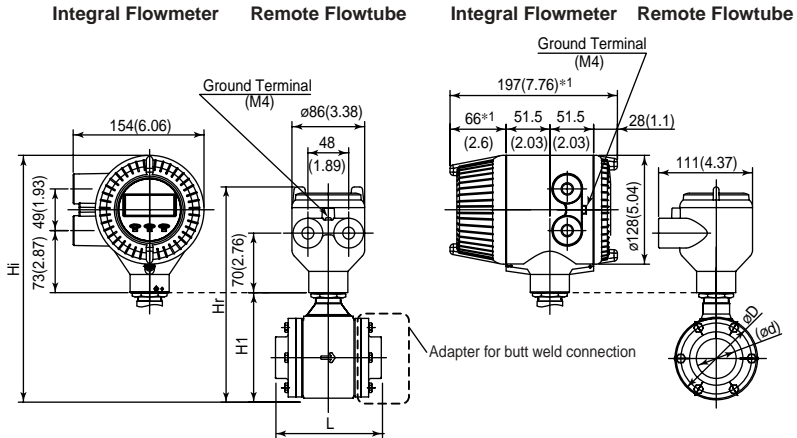
Process Connection Nominal Size	JKB (ISO2853 Union)										JDB (DIN 11851 Union)										JSB (SMS1145 Union)									
	15	25	32	40	50	65	80	100	15	25	32	40	50	65	80	100	125	25	32	40	50	65	80	100						
øA	70 (2.76)	70 (2.76)	70 (2.76)	83 (3.27)	96 (3.78)	114 (4.49)	126 (4.96)	152 (5.98)	70 (2.76)	70 (2.76)	70 (2.76)	83 (3.27)	96 (3.78)	114 (4.49)	126 (4.96)	152 (5.98)	180 (7.09)	70 (2.76)	70 (2.76)	83 (3.27)	96 (3.78)	114 (4.49)	126 (4.96)	152 (5.98)						
øB	16 (0.63)	22.2 (0.87)	29.4 (1.16)	34.6 (1.36)	47.6 (1.87)	59.5 (2.34)	72.3 (2.85)	97 (3.82)	16 (0.63)	22.2 (0.87)	29.4 (1.16)	34.6 (1.36)	47.6 (1.87)	59.5 (2.34)	72.3 (2.85)	97 (3.82)	123 (4.84)	22.2 (0.87)	29.4 (1.16)	34.6 (1.36)	47.6 (1.87)	59.5 (2.34)	72.3 (2.85)	97 (3.82)						
øC	18 (0.71)	25.6 (1.01)	34.3 (1.35)	38.6 (1.52)	51.6 (2.03)	64.1 (2.52)	76.7 (3.02)	102.5 (4.04)	20 (0.79)	30 (1.18)	36 (1.42)	42 (1.65)	54 (2.13)	70 (2.76)	85 (3.35)	104 (4.09)	129 (5.08)	25.4 (1.00)	32 (1.26)	38.1 (1.50)	51 (2.01)	63.5 (2.50)	76.2 (3.00)	102.5 (4.04)						
øD	15.2 (0.60)	22.6 (0.89)	31.3 (1.23)	35.6 (1.40)	48.6 (1.91)	60.3 (2.37)	72.9 (2.87)	97.6 (3.84)	16 (0.63)	26 (1.02)	32 (1.26)	38 (1.50)	50 (1.97)	66 (2.60)	81 (3.19)	100 (3.94)	125 (4.92)	22.5 (0.89)	29.6 (1.17)	35.5 (1.40)	48.5 (1.91)	60.5 (2.38)	72.9 (2.87)	97.6 (3.84)						
øE	21.2 (0.83)	29.2 (1.15)	38.2 (1.50)	42.7 (1.68)	56.2 (2.21)	69.9 (2.75)	82.6 (3.25)	108.7 (4.28)	18 (0.71)	30 (1.18)	36 (1.42)	42 (1.65)	54 (2.13)	71 (2.80)	85 (3.35)	104 (4.09)	130 (5.12)	32 (1.26)	40 (1.57)	48 (1.89)	61 (2.40)	73.5 (2.89)	86 (3.39)	120 (4.72)						
øF	13.5 (0.53)	13.5 (0.53)	13.5 (0.53)	13.5 (0.53)	13.5 (0.53)	13.5 (0.53)	13.5 (0.53)	13.5 (0.53)	25.8 (1.02)	39.8 (1.57)	45.8 (1.80)	51.8 (2.04)	63.8 (2.51)	80.8 (3.18)	94.8 (3.73)	113.8 (4.48)	141.8 (5.58)	11 (0.43)	13 (0.51)	15 (0.59)	15 (0.59)	19 (0.75)	19 (0.75)	30 (1.18)						
G	3 (0.12)	3 (0.12)	3 (0.12)	3 (0.12)	3 (0.12)	3 (0.12)	3 (0.12)	RD34 x1/8"	RD52 x1/6"	RD58 x1/6"	RD65 x1/6"	RD78 x1/6"	RD95 x1/6"	RD110 x1/4"	RD130 x1/4"	RD160 x1/4"	RD40 x1/6"	RD48 x1/6"	RD60 x1/6"	RD70 x1/6"	RD85 x1/6"	RD98 x1/6"	RD132 x1/6"							
H	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	60 (2.36)	60 (2.36)	65 (2.56)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	50 (1.97)	65 (2.56)						
Parts No.	F9811 LA	F9811 LB	F9811 LC	F9811 LD	F9811 LE	F9811 LF	F9811 LG	F9811 LH	F9811 KR	F9811 KS	F9811 KT	F9811 KU	F9811 KV	F9811 KW	F9811 KX	F9811 KY	F9811 KZ	F9811 LK	F9811 LL	F9811 LM	F9811 LN	F9811 LP	F9811 LQ	F9811 LR						

AXF Standard, AXF015-AXF125, Sanitary for Butt Weld, PFA Lining

Unit : mm (approx. inch)

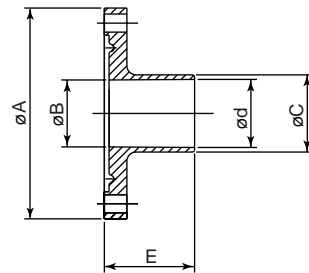
AXF015
AXF032
AXF040
AXF050
AXF065
AXF080
AXF100
AXF125

D 1
E 2
N 1
P 1
H — A L 1 N — K K B 1
K D B 1



Model	Process Connection		KKB (ISO2037 Butt Weld) / KDB (DIN 1185 Butt Weld)									
	Size code		015	025	032	040	050	065	080	100	125	
	Size		15 (0.5)	25 (1)	32 (1.3)	40 (1.5)	50 (2)	65 (2.6)	80 (3)	100 (4)	125 (5)	
	Lining code		A	A	A	A	A	A	A	A	A	
Remote flowtube	Face-to-face length	L ₀	126 (4.98)	126 (4.98)	126 (4.98)	126 (4.98)	136 (5.37)	156 (6.16)	176 (6.94)	206 (8.13)	276 (10.88)	
	Outside dia.	øD	73 (2.87)	73 (2.87)	73 (2.87)	86 (3.39)	99 (3.90)	117 (4.61)	129 (5.08)	155 (6.10)	183 (7.20)	
Integral flowmeter	Inner dia.	ød	KKB	15.2 (0.60)	22.6 (0.89)	31.3 (1.23)	35.6 (1.40)	48.6 (1.91)	60.3 (2.37)	72.9 (2.87)	97.6 (3.84)	135.7 (5.34)
			KDB	16 (0.63)	26 (1.02)	32 (1.26)	38 (1.50)	50 (1.97)	66 (2.60)	81 (3.19)	100 (3.94)	125 (4.92)
	Height	H1	97 (3.82)	97 (3.82)	97 (3.82)	111 (4.37)	129 (5.08)	146 (5.75)	157 (6.18)	183 (7.20)	212 (8.35)	
Remote flowtube	Max. Height	Hr	221 (8.70)	221 (8.70)	221 (8.70)	235 (9.25)	253 (9.96)	270 (10.63)	281 (11.06)	307 (12.09)	336 (13.23)	
	Weight kg (lb)		2.6 (5.7)	2.3 (5.1)	2.5 (5.5)	2.8 (6.2)	3.4 (7.5)	4.5 (9.9)	5.3 (11.7)	7.1 (15.7)	11 (24.3)	
Integral flowmeter	Max. Height	Hi	259 (10.18)	259 (10.18)	259 (10.18)	273 (10.73)	291 (11.44)	308 (12.11)	319 (12.54)	345 (13.56)	374 (14.70)	
	Weight kg (lb)		4.3 (9.5)	4 (8.8)	4.2 (9.3)	4.5 (9.9)	5.1 (11.2)	6.2 (13.7)	7 (15.4)	8.8 (19.4)	12.7 (28.0)	

*1: When indicator code N is selected, subtract 12 mm (0.47 inch) from the value in the figure.



Adapter for butt weld connection

Process Connection	KKB (ISO2037 Butt Weld)								KDB (DIN 1185 Butt Weld)									
	15	25	32	40	50	65	80	100	125	15	25	32	40	50	65	80	100	125
Nominal Size	70 (2.76)	70 (2.76)	70 (2.76)	83 (3.27)	96 (3.78)	114 (4.49)	126 (4.96)	152 (5.98)	180 (7.09)	70 (2.76)	70 (2.76)	70 (2.76)	83 (3.27)	96 (3.78)	114 (4.49)	126 (4.96)	152 (5.98)	180 (7.09)
øA	16 (0.63)	22.2 (0.87)	29.4 (1.16)	34.6 (1.36)	47.6 (1.87)	59.5 (2.34)	72.3 (2.85)	97 (3.82)	123 (4.84)	16 (0.63)	22.2 (0.87)	29.4 (1.16)	34.6 (1.36)	47.6 (1.87)	59.5 (2.34)	72.3 (2.85)	97 (3.82)	123 (4.84)
øB	18 (0.71)	25.6 (1.01)	34.3 (1.35)	38.6 (1.52)	51.6 (2.03)	64.1 (2.52)	76.7 (3.02)	102.5 (4.04)	141.2 (5.56)	20 (0.79)	30 (1.18)	36 (1.42)	42 (1.65)	54 (2.13)	70 (2.76)	85 (3.35)	104 (4.09)	129 (5.08)
øC	15.2 (0.60)	22.6 (0.89)	31.3 (1.23)	35.6 (1.40)	48.6 (1.91)	60.3 (2.37)	72.9 (2.87)	97.6 (3.84)	135.7 (5.34)	16 (0.63)	26 (1.02)	32 (1.26)	38 (1.50)	50 (1.97)	66 (2.60)	81 (3.19)	100 (3.94)	125 (4.92)
øD	30 (1.18)	30 (1.18)	30 (1.18)	30 (1.18)	30 (1.18)	30 (1.18)	30 (1.18)	30 (1.18)	40 (1.57)	30 (1.18)	30 (1.18)	30 (1.18)	30 (1.18)	30 (1.18)	30 (1.18)	30 (1.18)	30 (1.18)	40 (1.57)
E	F9811 NN	F9811 NP	F9811 NQ	F9811 NR	F9811 NS	F9811 NT	F9811 NU	F9811 NV	F9811 NW	F9811 ND	F9811 NE	F9811 NF	F9811 NG	F9811 NH	F9811 NJ	F9811 NK	F9811 NL	F9811 NM

F2E EDC

Dimensions and special informations for Replacement Models for earlier ADMAG or ADMAG AE

Overview About Sizes, Styles and Options (Lay length code 2)

Unit: mm (in.)

Use	Process Connection	Lining	Remote F lowtube	Integral Flowmeter	High G rade Accuracy 0.2% of Rate	Enhanced Dual Frequency E xcitation (Optional code HF1,HF2)	Replaceable E lectrode (Electrode structure code 2)
General-purpose use	Wafer (*6)	PFA	2.5 (0.1), 5 (0.2), 10 (0.4), 15 (0.5), 25 (1.0), 40 (1.5), 50 (2.0), 80 (3.0), 100 (4.0), 150 (6.0), 200 (8.0)	—	—	25 (1.0), 40 (1.5), 50 (2.0), 80 (3.0), 100 (4.0), 150 (6.0), 200 (8.0)	—
		Polyurethane rubber	25 (1.0), 40 (1.5), 50 (2.0), 80 (3.0), 100(4.0), 150 (6.0), 200(8.0)	—	—	25 (1.0), 40(1.5), 50 (2.0), 80(3.0), 100 (4.0), 150 (6.0), 200 (8.0)	—
	Flange (*7)	PFA	150 (6.0), 200 (8.0), 250 (10)	—	—	150 (6.0), 200 (8.0)	150 (6.0), 200 (8.0), 250 (10)
		Polyurethane rubber	150 (6.0), 200 (8.0), 250 (10)	—	—	150 (6.0), 200 (8.0)	150 (6.0), 200 (8.0), 250 (10)
Submersible style	Wafer (*6)	PFA	15 (0.5), 25 (1.0), 40 (1.5), 50 (2.0), 80 (3.0), 100 (4.0), 150 (6.0), 200 (8.0)	—	—	25 (1.0), 40 (1.5), 50 (2.0), 80 (3.0), 100 (4.0), 150 (6.0), 200 (8.0)	—
		Polyurethane rubber	25 (1.0), 40 (1.5), 50 (2.0), 80 (3.0), 100 (4.0), 150 (6.0), 200 (8.0)	—	—	25 (1.0), 40 (1.5), 50 (2.0), 80 (3.0), 100 (4.0), 150 (6.0), 200 (8.0)	—
	Flange (*7)	PFA	150 (6.0), 200 (8.0), 250(10)	—	—	150 (6.0), 200 (8.0)	—
		Polyurethane rubber	150 (6.0), 200 (8.0), 250 (10)	—	—	150 (6.0), 200 (8.0)	—
Explosion proof Style	Wafer (*6)	PFA	2.5 (0.1), 5 (0.2), 10 (0.4), 15 (0.5), 25 (1.0), 40 (1.5), 50 (2.0), 80 (3.0), 100 (4.0), 150 (6.0), 200 (8.0)	—	—	25 (1.0), 40 (1.5), 50 (2.0), 80 (3.0), 100 (4.0), 150 (6.0), 200 (8.0)	—
	Flange (*7)	PFA	150 (6.0), 200 (8.0), 250 (10)	—	—	150 (6.0), 200 (8.0)	—

*6: ADMAG lay length dimensions for wafer style of 250 mm (10 in.), and 300 mm (12 in.) are the same as those for AXF Standard.

T22.EPS

*7: ADMAG lay length dimensions for flange style of 15 mm (0.5 in.) to 100 mm (4.0 in.), or 300 mm (12 in.) to 400 mm (16 in.) are the same as those for AXF Standard.

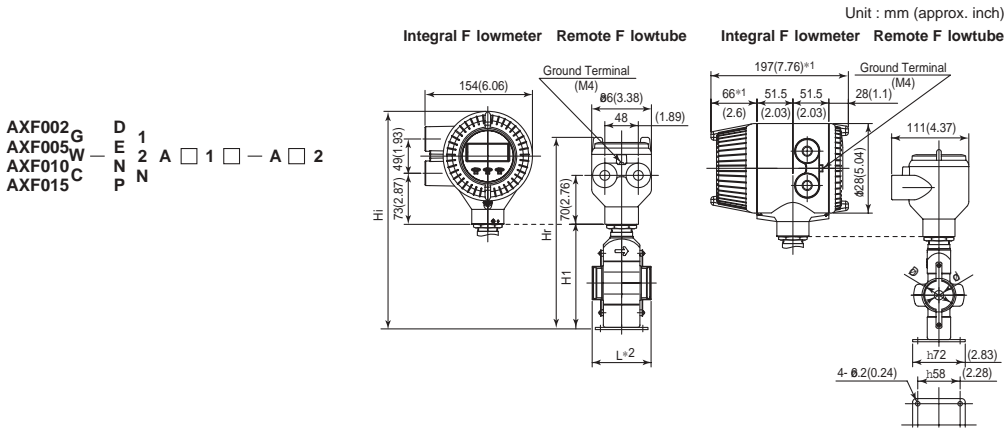
Replaceable electrodes can be selected from the following ranges:

Use	Process Connection	Available Size	Lining	Electrode Material
General-Purpose Use	Flange	150 to 250 mm (6.0 to 10 in.)	PFA/ Polyurethane Rubber	JIS SUS316L (AISI 316L SS/EN 1.4404 equivalent)(*1)

T07.EPS

*1: If any other electrode materials are required, please contact Yokogawa office.

Replacement model for Earlier ADMAG or ADMAG AE, AXF002-AXF015, Wafer TyPFA Lining



Model	Size code		002	005	010	015
	Size		2.5(0.1)	5(0.2)	10(0.4)	15(0.5)
	Lining code		A	A	A	A
Remote flowtube	Face-to-face length	L ₃ ^{±0.2}	85(3.35)			
	Outside dia.	Ø	42(1.65)			
Integral flowmeter	Inner diameter of Grounding ring	Ø	15(0.59)			
	Height	H1	141(5.55)			
Remote flowtube	Max. Height	Hr	265(10.43)			
	Weight kg (lb) ^{*3}		2.4(5.3)			
Integral flowmeter	Max. Height	Hi	303(11.91)			
	Weight kg (lb)		4.1(9.0)			

*1: When indicator code N is selected, subtract 12 mm (0.47 inch) from the value in the figure.
 For explosion proof style with indicator add 5mm (0.2inch) to it.

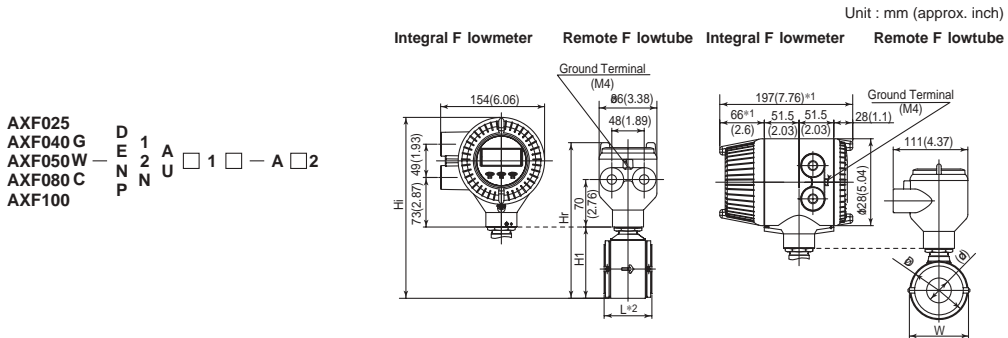
*2: Depending on the selection of grounding ring code and optional

Option Code	Grounding Ring Code	S, L, H, V	P, T	N
	None	+0	+22(0.87)	-6(0.24)
GA, GC, GD (Special Gaskets)	+2(0.08)	+24(0.94)	-	

*3: Waterproof glands and a 30 m long cable are attached to each submersible style flowtube. Add 9.5 kg (20.9 lb) to the weight in the table.

F37.EPS

Replacement model for Earlier ADMAG or ADMAG AE, AXF025-AXF100, Wafer Type, PFA /Polyurethane Rubber Lining



Model	Size code		025	040	050	080	100
	Size		25(1)	40(1.5)	50(2)	80(3)	100(4)
	Lining code		A,U	A,U	A,U	A,U	A,U
Remote flowtube	Face-to-face length	L ₃ ^{±0.2}	93(3.66)	106(4.17)	120(4.72)	160(6.30)	180(7.09)
	Outside dia.	Ø	67.5(2.66)	86(3.39)	99(3.90)	129(5.08)	155(6.10)
Integral flowmeter	Inner diameter of Grounding ring	Ø	27(1.06)	40(1.57)	52(2.05)	81(3.19)	98(3.86)
	Width	W	67.5(2.66)	86(3.39)	99(3.90)	129(5.08)	155(6.10)
Remote flowtube	Max. Height	Hr	216(8.50)	235(9.25)	253(9.96)	281(11.06)	307(12.09)
	Weight kg (lb) ^{*3}		2.3(5.0)	2.9(6.3)	3.5(7.7)	5.8(12.9)	7.9(17.3)
Integral flowmeter	Max. Height	Hi	254(9.98)	273(10.73)	291(11.44)	319(12.54)	345(13.56)
	Weight kg (lb)		4.0(8.7)	4.6(10.1)	5.2(11.4)	7.5(16.6)	9.6(21.1)

*1: When indicator code N is selected, subtract 12 mm (0.47 inch) from the value in the figure.
 For explosion proof style with indicator add 5mm (0.2inch) to it.

*2: Depending on the selection of grounding ring code and

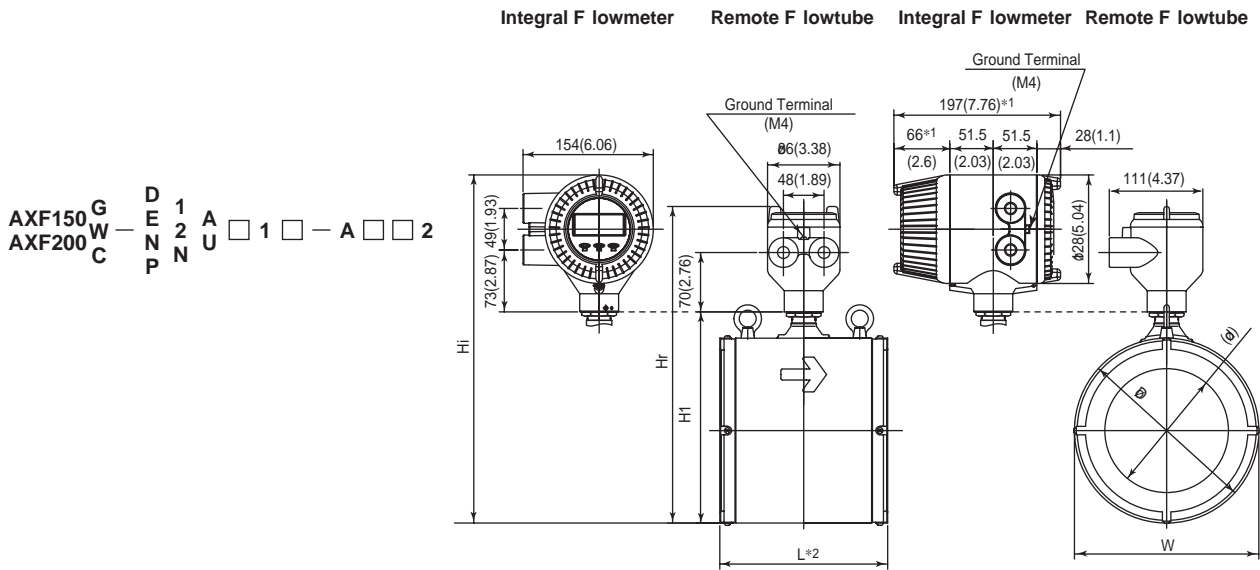
Option Code	Grounding Ring Code	S, L, H, V	P, T	N
	None	+0	+22(0.87)	-6(0.24)
GA, GC, GD (Special Gaskets)	+2(0.08)	+24(0.94)	-	

*3: Waterproof glands and a 30 m long cable are attached to each submersible style flowtube. Add 9.5 kg (20.9 lb) to the weight in the table.

F38.EPS

Replacement model for Earlier ADMAG or ADMAG AE, AXF150, AXF200, Wafer Type, PFA /Polyurethane Rubber Lining

Unit : mm (approx. inch)



AXF150 G D 1
AXF200 W E 2
C P N A U □ 1 □ - A □ □ 2

Model	Size code	150	200	
	Size	150(6)	200(8)	
	Lining code	A,U	A,U	
Remote flowtube	Face-to-face length	L ₋₃ ^{0*2}	230(9.06)	300(11.81)
	Outside dia.	∅	202(7.95)	252(9.92)
Integral flowmeter	Inner diameter of Grounding ring	∅	140.7(5.54)	188.9(7.44)
	Width	W	202(7.95)	252(9.92)
	Height	H1	243(9.57)	293(11.54)
Remote flowtube	Max. Height	Hr	367(14.45)	417(16.42)
	Weight kg (lb)*3		17.9(39.5)	26.8(59.1)
Integral flowmeter	Max. Height	Hi	405(15.93)	455(17.89)
	Weight kg (lb)		19.6(43.2)	28.5(62.8)

*1: When indicator code N is selected, subtract 12 mm (0.47 inch) from the value in the figure.

For explosion proof style with indicator add 5mm (0.2inch) to it.

*2: Depending on the selection of grounding ring code and optional code, add

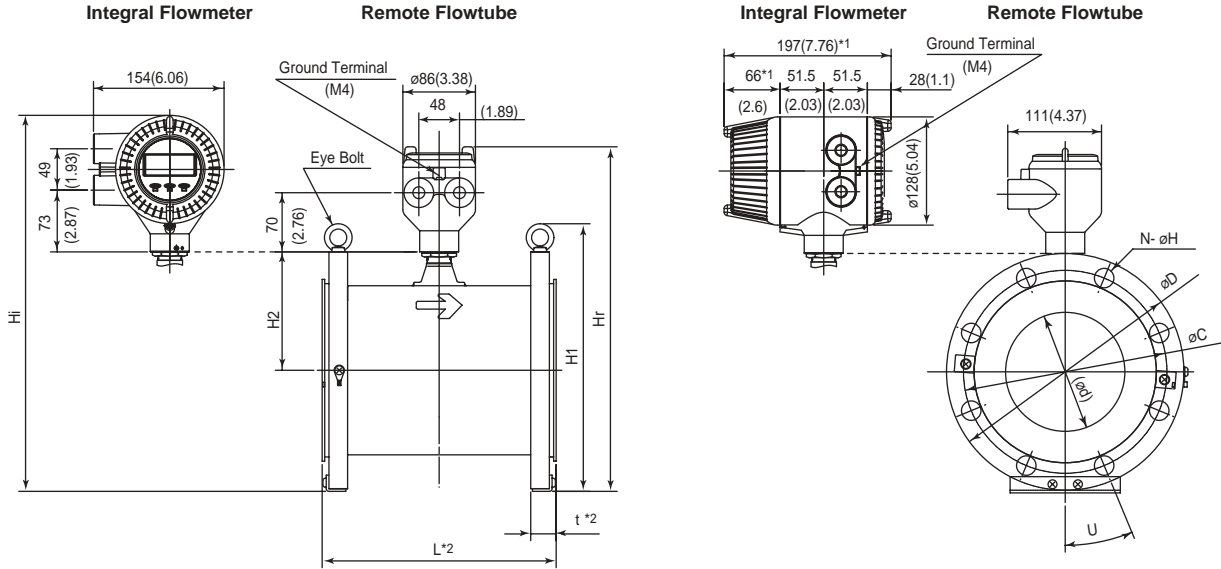
Option Code	Grounding Ring Code	S, L, H, V	P, T	N
	None	+0	+30(1.18)	-6(0.24)
	GA, GC, GD (Special Gaskets)	+2(0.08)	+32(1.26)	-

*3: Waterproof glands and a 30 m long cable are attached to each submersible style flowtube. Add 9.5 kg (20.9 lb) to the weight in the table.

Replacement model for Earlier ADMAG or ADMAG AE, AXF150-AXF250, PFA /Polyurethane Rubber Lining

AXF150 G D
 AXF200 W E 1 A □ 1 □ - C A □ 2
 AXF250 C N N U □ 2 □ - C D □ 2

Unit : mm (approx. inch)



Model	Process Connection	CA1(ANSI Class 150)			CA2(ANSI Class 300)			CD1(DIN PN10)		CD2(DIN PN16)			
		150	200	250	150	200	250	200	250	150	200	250	
	Size code	150	200	250	150	200	250	200	250	150	200	250	
	Size	(6)	(8)	(10)	(6)	(8)	(10)	(8)	(10)	(6)	(8)	(10)	
	Lining code	A,U	A,U	A,U	A,U	A,U	A,U	A,U	A,U	A,U	A,U	A,U	
Remote flowtube	Face-to-face length	L*2	270 ₀ (10.63)	340 ₀ (13.39)	430 ₀ (16.93)	270 ₀ (10.63)	340 ₀ (13.39)	430 ₀ (16.93)	340 ₀ (13.39)	430 ₀ (16.93)	270 ₀ (10.63)	340 ₀ (13.39)	430 ₀ (16.93)
	Outside dia.	øD	279.4 (11.00)	342.9 (13.50)	406.4 (16.00)	317.5 (12.50)	381.0 (15.00)	444.5 (17.50)	340 (13.39)	395 (15.55)	285 (11.22)	340 (13.39)	405 (15.94)
	Thickness	t *2	32.4 (1.28)	35.4 (1.39)	38.2 (1.50)	45.5 (1.79)	48.1 (1.89)	55.7 (2.19)	31 (1.22)	34 (1.34)	29 (1.14)	31 (1.22)	34 (1.34)
	Inner diameter of Grounding ring	ød	140.7 (5.54)	188.9 (7.44)	239.1 (9.41)	140.7 (5.54)	188.9 (7.44)	239.1 (9.41)	188.9 (7.44)	239.1 (9.41)	140.7 (5.54)	188.9 (7.44)	239.1 (9.41)
	Pitch circle dia.	øC	241.3 (9.50)	298.5 (11.75)	362.0 (14.25)	269.7 (10.62)	330.2 (13.00)	387.4 (15.25)	295 (11.61)	350 (13.78)	240 (9.45)	295 (11.61)	355 (13.98)
	Integral flow meter	Bolt hole interval	u ^o	22.5	22.5	15	15	15	11.25	15	15	22.5	22.5	15
Hole dia.		øh	22.4 (0.88)	22.4 (0.88)	25.4 (1.00)	22.4 (0.88)	25.4 (1.00)	28.4 (1.12)	23 (0.91)	23 (0.91)	23 (0.91)	23 (0.91)	28 (1.10)
Number of holes		N	8	8	12	12	12	16	12	12	8	8	12
Height		H1	318 (12.52)	368 (14.49)	451 (17.76)	330 (12.99)	378 (14.88)	466 (18.35)	373 (14.69)	449 (17.68)	320 (12.60)	373 (14.69)	454 (17.87)
Remote flowtube	Height	H2	141 (5.55)	166 (6.54)	196 (7.72)	141 (5.55)	166 (6.54)	196 (7.72)	166 (6.54)	196 (7.72)	141 (5.55)	166 (6.54)	196 (7.72)
	Max. Height	Hr	405 (15.93)	461 (18.17)	523 (20.60)	424 (16.68)	481 (18.92)	542 (21.35)	460 (18.11)	518 (20.37)	408 (16.04)	460 (18.11)	523 (20.57)
	Weight kg (lb)*3		32.1 (70.7)	50.9 (112.2)	77.4 (170.6)	53.7 (118.4)	80.5 (177.5)	127.0 (279.9)	44.2 (97.5)	67.0 (147.7)	29.9 (65.8)	43.6 (96.2)	68.8 (151.7)
Integral flow meter	Max. Height	Hi	442 (17.41)	499 (19.64)	561 (22.07)	461 (18.16)	518 (20.39)	580 (22.82)	498 (19.59)	555 (21.85)	445 (17.52)	498 (19.59)	560 (22.05)
	Weight kg (lb)		33.8 (74.4)	52.6 (115.9)	79.1 (174.4)	55.4 (122.1)	82.2 (181.2)	128.7 (283.6)	45.9 (101.2)	68.7 (151.5)	31.6 (69.6)	45.3 (100.0)	70.5 (155.5)

*1: When indicator suffix code N is selected, subtract 12 mm (0.47 inch) from the value in the figure.

For explosion proof style with indicator add 5mm (0.2inch) to it.

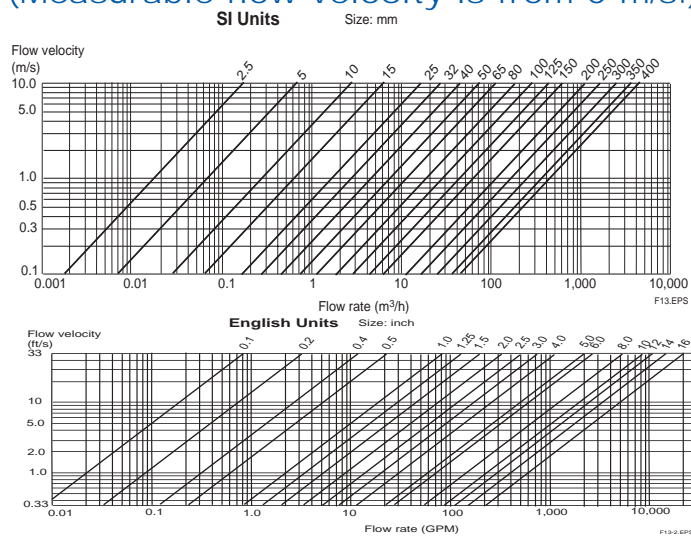
*2: Depending on the selection of grounding ring code and optional code, add the following value to "L" (face-to-face length) and "t" (thickness of

Nominal Size: 150, 200 mm							
	L	t	L	t	L	t	
Grounding Ring Code	S, L, H, V		P, T		N		
Option Code	None	+0	+0	+38(1.50)	+19(0.78)	-6(0.24)	-3(0.12)
	GA, GC, GD (Special Gaskets)	+2(0.08)	+1(0.04)	+40(1.58)	+20(0.79)	-	-

Nominal Size: 250 mm						
	L	t	L	t	L	t
Grounding Ring Code	S, L, H, V		N			
Option Code is "None"	+0	+0	-6(0.24)	-3(0.12)		

*3: Waterproof glands and a 30 m long cable are attached to each submersible type flowtube. Add 9.5 kg (20.9 lb) to the weight in the table.

SIZING DATA (Measurable flow velocity is from 0 m/s.)



RECOMMENDED GASKETS BETWEEN FLOWTUBES AND USER'S FLANGES

Use compressed non-asbestos fiber gaskets, PTFE gaskets or gaskets which have equivalent elasticity. For optional codes GA, GC, and GD, use rubber gaskets or others which have equivalent elasticity (such as Teflon-coated rubber gaskets).

ORDERING INFORMATION

Note 1: When ordering a remote flowtube and a remote converter, specify the flow span, unit, pulse weight, and totalizer display pulse weight for the order details of the flowtube. Then these parameters will then be set in the combined converter before shipment.

Note 2: Some options, if ordered, require the relevant specifications to be input when ordering.

- Model, specification and option codes.
- Converter for combined use (when ordering a remote type flowtube)

Model, suffix code, optional code, and tag number (if specified) of a converter for combined use.

Refer to "ORDERING INFORMATION" of GS 01R20C01-E-H, GS 01R20C02-E-H.
- Tag number

Each tag number can be specified in up to 16 characters in a combination of letters (upper or lower case), numbers, "-" and ".". If specified, the tag number is inscribed on the product's name plate and tag plate (if optional code SCT is selected). If the product is an integral flowmeter, the tag number is also written into the memory of its converter. For HART protocol, up to 8 characters can be specified. If the user wishes to change only the setting to be written into a converter's memory, specify the software tag.

If a tag number is not specified, the relevant product is delivered without it.

4. Flow rate spans and units

Values of flow rate spans shall be specified within five digits (up to 99999) excluding the decimal point if any. AXF products of the integral type are set to the first range in the forward direction. Remote flow tubes are set to the first range in the forward direction of the converter (AXFA11 or AXFA14) with which they are to be combined.

If a flow rate span and its unit are not specified, the relevant product is delivered with the setting at 1 m/s (3.3 ft/s).

5. Output pulse weight

If specified, volume per pulse shall be set. Unless specified, the relevant product is delivered with the setting at 0 pulse/second.

6. Totalizer display pulse weight

If specified, volume per pulse shall be set. Unless specified, the relevant product is delivered with the setting at 0 pulse/second.

7. Fluid name

RELATED INSTRUMENTS

Calibrator for Magnetic Flowmeter (AM012):

GS 01E06K02-00E

BT200 Brain Terminal:

GS 1C0A11-E

AXFA11 Converter :

GS 01R20C01-E-H

AXFA14 Converter :

GS 01R20C02-E-H

EUROPEAN HEADQUARTERS Yokogawa Europe B.V. Databankweg 20 3821 AL AMERSFOORT The Netherlands Tel. +31-33-4641 611 Fax +31-33-4641 610 E-mail: info@yokogawa.nl www.yokogawa-europe.com	BELGIUM Yokogawa Belgium N.V./S.A. Minervastraat 16 1930 ZAVENTEM Tel. +32-2-719 55 11 Fax +32-2-725 34 99	HUNGARY Yokogawa Hungaria Ltd. Alkotás Center 39 C 1123 BUDAPEST Tel. +36-1-355 3938 Fax +36-1-355 3897	AUSTRALIA Yokogawa Australia Pty Ltd. Private mail bag 24 Centre Court D3 25-27 Paul Street North NORTH RYDE, N.S.W. 2113 Tel. +61-2-805 0699 Fax +61-2-888 1844	UNITED STATES OF AMERICA Yokogawa Corporation of America 2 Dart Road NEWMAN, GA 30265-1040 Tel. +1-770-253 70 00 Fax +1-770-251 28 00
THE NETHERLANDS Yokogawa Nederland B.V. Hoofdvlaet 11 3992 DH HOUTEN Tel. +31-30-635 77 77 Fax +31-30-635 77 70	NORTHERN EUROPE Yokogawa Nordic A.B. Finlandsgatan 52, 21 SE-164 74 Kista STOCKHOLM Tel. +46-8-477-1900 Fax +46-8-477-1999	ITALY Yokogawa Italia S.r.l. Vicolo D. Pantaleoni, 4 20161 MILANO Tel. +39-02-66 24 11 Fax +39-02-645 57 02	SOUTH AFRICA Yokogawa South Africa (Pty) Ltd. 67 Port Road, Robertsham Southdale 2135, JOHANNESBURG Tel. +27-11-680-5420 Fax +27-11-680-2022	
AUSTRIA Yokogawa Ges.m.b.H. Central East Europe Franzensgraben 1 A-1030 WIEN Tel. +43-1-206 340 Fax +43-1-206 34 800	FRANCE Yokogawa France S.A. Velizy Valley 18-20 Rue Grange Dame Rose 78140 VELIZY VILLACOUBLAY Tel. +33-1-39 26 10 00 Fax +33-1-39 26 10 30	SPAIN/PORTUGAL Yokogawa Iberia S.A. C/Lezama, 22 28034 MADRID Tel. +34-91-724 20 80 Fax +34-91-355 31 40	UNITED KINGDOM Yokogawa United Kingdom Ltd. Stuart Road, Manor Park, RUNCORN Cheshire WAF 11TR Tel. +44-1-928 597100 Fax +44-1-928 597101	CENTRAL/EAST REGION Via Yokogawa Ges.m.b.H.: Czechia, Slovakia, Poland, Croatia, Slovenia, Yugoslavia, Bulgaria, Romania, Macedonia, Bosnia & Herzegovina
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