

# General Specifications

## AXF Magnetic Flowmeter Integral Flowmeter Remote Flowtube

ADMAG AXF™

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 utilities are "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. FOUNDATION Fieldbus protocol type is also available.



Integral  
Flowmeter

Remote Flowtube

## FEATURES

Refer to GS 01E20F02-01E for Fieldbus communication type marked with "⊗"

### 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 model code AXF□□□□□-□□□□□2 for removable electrodes to add 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 cover.

### All Stainless As Standard

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

### Conductivity Limits

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

Size 2 mm to 10 mm (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 ( /HF2) for sizes 25 mm to 200 mm (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.

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**Preset Totalizer / Batching**

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

**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 15 mm to 400 mm (0.5 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.

The infra-red switches enable the users to set parameters without opening the cover.

**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.

**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 /HF2)

**Output Signals: “⊗”**

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

**Input Signal: “⊗”**

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

**Communication Protocols: “⊗”**

BRAIN or HART communication signal (Superimposed on the 4 to 20 mA DC signal)

**Communication Line Conditions: “⊗”**

Load Resistance for BRAIN communication.:

250 to 600 Ω (including cable resistance)

Load Resistance for HART communication.:

230 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 m or ft

R = resistance in W (including barrier resistance)

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

C<sub>f</sub> = 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 μF or less

Load Inductance: 3.3 mH or less

Input Impedance of Communicating Device:

10 kΩ or more (at 24 kHz)

**Data Security During Power Failure:**

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

**Indicator:**

Full dot-matrix LCD (32x132 pixels) (\*2)

**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.

\*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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**Protection/Rating:**

General-purpose / Sanitary type / Flame proof type :  
IP66, IP67, NEMA 4X  
Explosion proof type :  
refer to description of "Enclosure" in "Hazardous Area Classification".

**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 Material:**

Case and Cover: Aluminum alloy

**Wiring Port / Threads / Mounting:**

- Electrical Connection: ANSI 1/2NPT female  
ISO M20 x 1.5 female
- Direction of electrical connection can be changed even after delivery  
Note: In case of submersible types the direction can not be changed after delivery.
- Terminal Connections: M4 size screw terminal

**Grounding:**

- Grounding resistance 100 Ω or less  
When optional code /A is selected, grounding resistance 10 W or less shall be applied.
- In case of explosion proof type follow the domestic electrical requirements as regulated in each country.

**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 (hand-held terminal). (\*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 counted one pulse at a time according to the setting of totalization pulse weights. For forward and reverse flow measurement functions, the totalized values of the flow direction (forward or reverse) and the flow direction are displayed on the indicator together with the units. The difference of totalized values between the forward and reverse flow rate can be displayed.  
Totalization for the reverse flow rate is carried out only when "Forward and reverse flow measurement functions" is selected. (\*2)

**Damping Time Constant:**

Time constant (63% response) can be set from 0.1 s to 200.0 s. (\*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), m<sup>3</sup>, kl (kiloliter), l (liter), cm<sup>3</sup>  
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 20 mA 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)

\*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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**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)

**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:**

- IP66, NEMA4X General-Purpose Use/Sanitary Style/Explosion proof style
- IP68 (can be used for temporary submergence) Submersible Style (only for Remote Flowtube)
- In case of Explosion proof type refer to description of "Enclosure" in "Hazardous Area Classification".

**Coating / Paint:**

- General-Purpose Use/Explosion proof Style:
  - Size 2.5 to 125 mm (0.1 to 5.0 in) (Wafer type),
  - Size 2.5 to 125 mm (0.1 to 5.0 in) (Process connection code B (-B□□) or D (-D□□) of flange type):
    - Flowtube housing: No coating (Stainless steel surface)
    - Flange (Flange type only): No coating (Stainless steel surface)
  - Terminal Box and Cover (Remote Flowtube):
    - Polyurethane corrosion-resistant coating:
    - Coating color: Mint green (Munsell 5.6 BG 3.3/2.9 or its equivalent)
  - Size 150 to 300 mm (6.0 to 12 in) (Wafer type),
  - Size 150 to 400 mm (6.0 to 16 in) (Process connection code B of flange type),
  - Size 50 to 2600 mm (2.0 to 104 in) (Process connection code C of flange type):
    - Flowtube housing, Flange (Flange type only),
    - Terminal Box and Cover (Remote Flowtube):
      - Polyurethane corrosion-resistant coating
      - Coating color: Mint green (Munsell 5.6 BG 3.3/2.9 or its equivalent)

**Sanitary Type:**

- Size 15 to 125 mm (0.5 to 5.0 in.):
  - Housing: No coating (Stainless steel surface)
  - Adapter : No coating (Stainless steel surface)
  - Terminal Box and Cover (Remote Flowtube):
    - Polyurethane corrosion-resistant coating
    - Coating color: Mint green (Munsell 5.6 BG 3.3/2.9 or its equivalent)
- Submersible Type: Non-tar epoxy coating (black)

**Flowtubes (Remote / Integral flowmeter)****Combined Converter Selection :**

- A remote flowtube for sizes of up to 400 mm can be combined with the AXFA11 Converter or the AXFA14 Converter. If a combined converter is changed from AXFA11 to AXFA14 or vice versa, a new meter factor must be adjusted by flow calibrations.
- In case that size 250 mm (10 in) or larger is used in low conductivity or high concentration slurries, please use the AXFA11 Converter.
- A remote flowtube for sizes of 500 mm or larger can be combined with the AXFA11 Converter only.
- 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)

**Available O-Ring (Replaceable electrode type only)**

Fluororubber (Part number G9303SE)

**Wiring port/Threads/Mounting (Remote Flowtube):**

- Electrical Connection: ANSI 1/2 NPT female  
ISO M20 x 1.5 female
- Direction of Electrical Connection: The direction can be changed even after delivery.
  - Note: In case of submersible types, or, or sizes of 1100 mm or larger, the direction can not be changed after delivery.
- Terminal Connection at Terminal Box: M4 size screw

**Grounding:**

Grounding resistance 100 Ω or less

Note: In case of explosion proof type, follow the domestic electrical requirements as regulated in each country.

\*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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### Available Materials for Flowtubes

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

Part Name		Material
Flowtube housing		Stainless steel-JIS SCS11
Flange		Stainless steel-JIS SUS304 or SUSF304 (AISI 304 SS/EN 1.4301 equivalent)
Mini-Flange	Wafer Style PFA/Polyurethane Rubber lining	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	Wafer Style PFA/Polyurethane Rubber lining	Stainless steel-JIS SCS13 (EN 1.4308 equivalent)
	Wafer Style/Union Joint Ceramics lining	Alumina ceramics (99.9%)
	Flange Style PFA lining	Stainless steel-JIS SCS13 (EN 1.4308 equivalent) and SUS304 (AISI 304 SS/EN 1.4301 equivalent)
	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		
Flowtube housing		Stainless steel-JIS SUS304 (AISI 304 SS/EN 1.4301 equivalent)		
Flange	Process Connection code: B**	Stainless steel-JIS SUS304 or SUSF304 (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/ Natural Soft Rubber/ EPDM Rubber lining	Size 25 mm (1.0 in) (Lay Length code 1)	Stainless steel- EN 1.4308 (SCS13 equivalent)	
		Size 25 mm (1.0 in) (Lay Length code 2)	Stainless steel-JIS SUS430 (ASTM 4300/DIN X6Cr17/EN 1.4016 equivalent)	
		Size 32 mm (1.25 in) to 125 mm (5.0 in)	Stainless steel-JIS SUS430 (ASTM 4300/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 SUS304 (AISI 304 SS/EN 1.4301 equivalent)	
	Pipe	Wafer Style PFA/Polyurethane Rubber/ Natural Soft Rubber/ EPDM Rubber lining	Size 25 mm (1.0 in) (Lay Length code 1)	Stainless steel- EN 1.4308 (SCS13 equivalent)
			Size 25 mm (1.0 in) (Lay Length code 2)	Stainless steel-JIS SUS304 (AISI 304 SS/EN 1.4301 equivalent)
Size 32 mm (1.25 in) to 125 mm (5.0 in)			Stainless steel-JIS SUS304 (AISI 304 SS/EN 1.4301 equivalent)	
Flange Style PFA/Polyurethane Rubber/ Natural Soft Rubber/ EPDM Rubber lining		Size 25 mm (1.0 in)	Stainless steel- EN 1.4308 (SCS13 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 32 mm (1.25 in) to 125 mm (5.0 in)	Stainless steel-JIS SUS304 (AISI 304 SS/EN 1.4301 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		

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

Part Name		Material
Flowtube housing		Carbon steel-JIS SPCC
Flange	Process Connection code: B**	Stainless steel-JIS SUS304 or SUSF304 (AISI 304 SS/EN 1.4301 equivalent)
	Process Connection code: C**	Carbon steel-JIS SS400
Mini-Flange	Wafer Style PFA/Polyurethane Rubber/Natural Soft Rubber/ EPDM Rubber lining	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)
)ni Pipe	Flange Style /Wafer Style PFA/Polyurethane Rubber/Natural Soft Rubber/ EPDM Rubber lining	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

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### Available Materials for Lining:

Fluorocarbon PFA\*1 lining  
Polyurethane Rubber lining  
Natural Soft Rubber lining\*2  
EPDM Rubber lining\*3

Alumina ceramics lining

\*1: PFA is FDA (U.S. Food and Drug Administration) approval material.

\*2: Natural soft rubber is a material which can reduce wear of the lining due to fluids mixed with slurries.  
If the concentration of mixed slurries is high, contact Yokogawa as necessary measures need to be taken separately for the electrodes.

\*3: EPDM rubber lining is superior in the ozone proof.

### Available Material for Electrodes:

Stainless steel, JIS SUS316L (AISI 316L SS/EN 1.4404 or its equivalent)

Hastelloy C276 / 2.4819 or its equivalent (\*1)

Titanium, Tantalum, Platinum-Iridium, Tungsten Carbide, Platinum-Alumina cermet (only for ceramic lining).

Note : For sanitary type SUS316L only

Electrode Construction:

Non-replaceable Electrode Style

Externally Inserted :

In all General-Purpose Use, Submersible style and Explosion proof style flowtubes with PFA or polyurethane rubber liner.

Internally Inserted :

In all Sanitary style flowtubes (AXF□□□H)

In all EPDM lined flowtubes (-□□G□□□)

Integral / sinterfused :

In all flowtubes with ceramic lining.

Replaceable Electrode Style

A cassette electrode can be mounted/dismounted into unit to facilitate removing or mounting at customer site.

The optional dedicated tool (F9807SK/Z with Z = KEM 00667-01) is required.

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

Replacable electrodes are available for the following AXF standard:

Use	Process Connection	Available Size	Lining	Electrode Material
General-Purpose Use	Wafer	25 to 300 mm (1.0 to 12 in)	PFA/ Polyurethane Rubber	JIS SUS316L (AISI 316L SS/EN 1.4404 equivalent) <sup>(*)1</sup>
	Flange	25 to 400 mm (1.0 to 16 in)		

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Replacement model for earlier ADMAG or ADMAG AE:

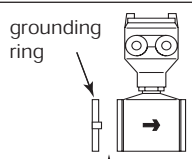
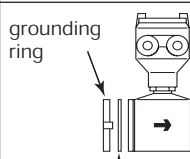
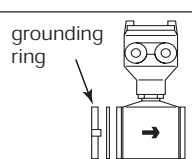
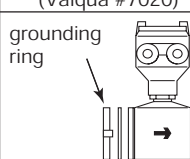
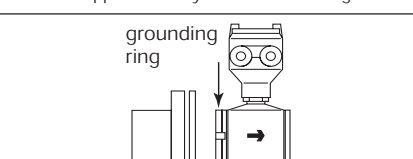
Use	Process Connection	Available Size	Lining	Electrode Material
General-Purpose Use	Flange	150 to 250 mm (6.0 to 10 in)	PFA/ Polyurethane Rubber	JIS SUS316L (AISI 316L SS/EN 1.4404 equivalent) <sup>(*)1</sup>

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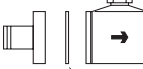

### Available Materials for Grounding Rings / Grounding Electrodes:

- Grounding Ring (plate type)  
Stainless steel JIS SUS316L (AISI 316L SS/EN 1.4404 or its equivalent), Hastelloy<sup>®</sup>2 C276/2.4819 or its equivalent, Titanium,
- Grounding Electrode (electrode type)<sup>\*3</sup>  
Fluorocarbon PFA lining + grounding electrodes (when Tantalum or Platinum-Iridium is selected)

- \*1: If any other electrode materials are required, please contact Yokogawa office.
- \*2: Hastelloy is a registered trademark of Haynes International Inc.
- \*3: Available with sizes 2.5 to 200 mm (0.1 to 8.0 in), PFA and ceramics lining only.

Use	General-Purpose Use/Submersible Style/ Explosion proof Style	
Lining	PFA/Polyurethane Rubber/ Natural Soft Rubber/ EPDM 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 <sup>®</sup> ) GC: Acid-resistant fluororubber for PVC pipes (Viton <sup>®</sup> ) GD: Alkali-resistant fluororubber for PVC pipes (Viton <sup>®</sup> ) GF*1: Fluororesin with alkali-resistant carbons for metal pipes *1: GF is applicable only for ceramics lining.	
Optional code (BSF 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)	
	BSF: PTFE-sheathed non-asbestos BSC: Chloroprene rubber	

T23-1.EPS

Use	Sanitary Style
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 Tmax = 150° C ; CIP capable
Optional code (GH)	GH: Silicone rubber Tmax = 160° C ; CIP capable

T23-2.EPS

## Available Joints :

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

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

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

T23-3.EPS

T23-4.EPS

## Overview about Sizes, Styles and Options

Unit: mm (in.)

Use	Process Connection	Lining	Remote F lowtube	Integral F lowmeter	High G rate Accuracy 0.2% of Rate (*3)	Enhanced Dual F frequency Excitation (Optional code HF2) (*3)	Replaceable E 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)	—	
	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 Type	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)	—	—	—	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)	—
Explosion proof Type	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)	—
		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)	—
		Ceramics (*2)	2.5 (0.1), 5 (0.2), 10 (0.4)	—	—	—	—	—
Sanitary Type (*7)	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)	—

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

\*2: AXF standard lay length dimensions for union joint type 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 15 mm (0.5 in.), 125 mm (5.0 in.)

\*7: Material: Stainless steel (JIS SUS316L (ANSI 316L SS/EN 1.4404 equivalent))

T21.EPS

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 HF2) (*3)	Replaceable Electrode (Electrode structure code 2)	
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)	—	—	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)	—	
		Natural Soft Rubber	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)	—	—	—	50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0), 150 (6.0), 200 (8.0)	—
		EPDM Rubber	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)	—	—	—	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), 500(20), 600 (24), 700 (28), 800 (32), 900(36), 1000(40), 1100(44), 1200(48), 1350(54), 1500(60), 1600(64), 1800(72), 2000(80), 2200(88), 2400(96), 2600(104)	—	—	—	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)	—
		Natural Soft Rubber	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)	—	—	—	50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0), 150 (6.0), 200 (8.0)	—
		EPDM Rubber	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)	—	—	—	50 (2.0), 65 (2.5), 80 (3.0), 100 (4.0), 125 (5.0), 150 (6.0), 200 (8.0)	—
Explosion proof Style	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)	—	
		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)	—	
		Ceramics (*2)	2.5 (0.1), 5 (0.2), 10 (0.4)	—	—	—	—	
Sanitary Style (*7)	Clamp: Tri-Clamp (*4), DIN32676 ISO2852/SMS3016 Union: DIN11851 ISO2853 (*5) SMS1145 (*6) Butt Weld: DIN11850, ISO203	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)	—	

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

T21-2.EPS

\*2: AXF standard lay length dimensions for union joint type 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 15 mm (0.5 in), 125 mm (5.0 in)

\*7: Material of process connections is always 316L



## 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

Applicable Standards:

EN 50014, EN 50018, EN 50019, EN 50020,

EN 50028, EN 50281-1-1, EN 60529, EN 61010-1

### (Integral Flowmeter)

#### CENELEC ATEX (KEMA) Flame proof Type

Group II Category 2G

EEx dme[ia] IIC T6...T3

Electrode Circuit Um: 250 V AC/DC

Excitation Circuit: 140 V max.

Enclosure: IP66/IP67

Maximum power supply voltage: 250 V AC / 130 V DC

Excitation Circuit: 140 V max.

Enclosure: IP66/IP67

Temperature Class:

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)

#### CENELEC ATEX(KEMA) Type of Protection "Dust"

Group II Category 1D

Electrode Circuit Um: 250 V AC/DC

Maximum power supply voltage: 250 V AC / 130 V DC

Excitation Circuit: 140 V max.

Enclosure: IP66/IP67

Maximum surface temperature :

Max. Surface Temperature	Max. Process 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)
T110 °C (+230 °F)	+130 °C (+266 °F)

T29-1.EPS

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

### (Remote Flowtube)

#### CENELEC ATEX (KEMA) Flame proof Type

KEMA03ATEX2435

Group II Category 2G

EEx dme[ia] IIC T6...T3

Electrode Circuit Um: 250 V AC/DC

Excitation Circuit: 170 V max.

Enclosure: IP66/IP67

Temperature Class :

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)

#### CENELEC ATEX(KEMA) Type of Protection "Dust"

Group II Category 1D

Electrode Circuit Um: 250 V AC/DC

Excitation Circuit : 170 V max.

Enclosure: IP66/IP67

Maximum surface temperature:

Max. Surface Temperature	Max. Process 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

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

**FM:**

AXF002C - AXF400C

Applicable Standards:

FM3600, FM3610, FM3615, FM3810, ANSI/NEMA 250

**(Integral flowmeter)**

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

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

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

"SEAL ALL CONDUITS WITHIN 18 INCHES"

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

Electrode circuit Vmax: 250 VAC/DC

Maximum power supply voltage: 250 V AC / 130 V DC

Excitation Circuit: 140 V max.

Enclosure: NEMA 4X

Temperature Code: T6 (refer to following table)

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)**

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

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

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

"SEAL ALL CONDUITS WITHIN 18 INCHES"

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

Electrode circuit Vmax: 250 VAC/DC

Excitation Circuit: 170 V max.

Enclosure: NEMA 4X

Temperature Code: T6 (refer to following table)

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)

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

**CSA:**

AXF002C - AXF400C

Applicable Standards:

For CSA C22.2 Series:

C22.2 No 0, C22.2 No 0.4, C22.2 No 0.5,

C22.2 No 25, C22.2 No 30, C22.2 No 94,

C22.2 No 157, C22.2 No 1010.1

For CSA E79 Series:

CAN/CSA-E79-0, CAN/CSA-E79-1,

CAN/CSA-E79-7, CAN/CSA-E79-11,

CAN/CSA-E79-18

Certificate: 1481213

**(Integral flowmeter)****For CSA C22.2 Series**

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

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

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

"SEAL ALL CONDUITS WITHIN 50cm of the enclosure"

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

Electrode circuit Vmax: 250 V AC/DC

Maximum power supply voltage 250 V AC / 130 V DC

Excitation Circuit: 140 V max.

Enclosure: NEMA 4X

Temperature Code: (refer to following table)

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)

**For CSA E79 Series**

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

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

Electrode circuit Vmax: 250 VAC/DC

Maximum power supply voltage: 250 V AC / 130 V DC

Excitation Circuit: 140 V max.

Enclosure: NEMA 4X

Temperature Code: (refer to following table)

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)

**(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”

Electrode circuit Vmax: 250 V AC/DC

Excitation Circuit: 170 V max.

Enclosure: NEMA 4X

Temperature Code: T6 (refer to following table)

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)

**For CSA E79 Series**

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

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

Electrode circuit Vmax: 250 V AC/DC

Excitation Circuit: 170 V max.

Enclosure Type 4X/IP66/IP67

Temperature Code: T6 (refer to following table)

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

**IECEx:**

AXF002C–AXF400C

Applicable Standard:

IEC 60079-0:2004, IEC 60079-1:2003,

IEC 60079-7:2001,

IEC 60079-11:1999, IEC 60079-18:2004,

IEC 61241-0:2004, IEC 61241-1:2004,

IEC 60529:1999+Edition 2.1:2001

Certificate: IECEx KEM 05.0018

**(Integral Flowmeter)**

IECEx Flameproof Type

Ex demb[ia] IIC T6...T3

Electrode circuit Vmax: 250 V AC/DC

Maximum power supply voltage: 250 V AC/130 V DC

Excitation Circuit: 140 V max

Enclosure: IP66/IP67

Temperature Class:

Temperature Class	Process Temperature
T6	-40 °C to +70 °C (-40 °F to +158 °F)
T5	-40 °C to +85 °C (-40 °F to +185 °F)
T4	-40 °C to +120 °C (-40 °F to +248 °F)
T3	-40 °C to +130 °C (-40 °F to +266 °F)

T27-3.EPS

Ambient Temp.:

PFA Lining; -40 °C to +60 °C (-40 °F to +140 °F)

Ceramics Lining; -15 °C to +60 °C (5 °F to +140 °F)

IECEx Type of Protection “Dust”

ExtDA21 IP6x T95 °C, T105 °C, T120 °C, T130 °C

Electrode Circuit Um: 250 V AC/DC

Maximum power supply voltage: 250 V AC/130 V DC

Excitation Circuit: 140 V max

Enclosure: IP66/IP67

Maximum surface temperature:

Maximum Surface Temperature	Process Temperature
T95 °C (+203 °F)	-40 °C to +70 °C (-40 °F to +158 °F)
T105 °C (+221 °F)	-40 °C to +85 °C (-40 °F to +185 °F)
T120 °C (+248 °F)	-40 °C to +120 °C (-40 °F to +248 °F)
T130 °C (+266 °F)	-40 °C to +130 °C (-40 °F to +266 °F)

T27-7.EPS

Ambient Temp.:

PFA Lining: -40 °C to +60 °C (-40 °F to +140 °F)

Ceramics Lining: -15 °C to +60 °C (5 °F to +140 °F)

**(Remote Flowtube)**

IECEX Flameproof Type  
 Exdemb[ia] IIC T6...T3  
 Electrode Circuit Um: 250 V AC/DC  
 Excitation Circuit: 170 V max  
 Enclosure: IP66/IP67  
 Temperature Class:

Temperature Class	Process Temperature
T6	-40 °C to +70 °C (-40 °F to +158 °F)
T5	-40 °C to +85 °C (-40 °F to +185 °F)
T4	-40 °C to +120 °C (-40 °F to +248 °F)
T3	-40 °C to +150 °C (-40 °F to +302 °F)

T27-5.EPS

Ambient Temp.:  
 PPFA Lining: -40 °C to +60 °C (-40 °F to +140 °F)  
 Ceramics Lining: -15 °C to +60 °C (5 °F to +140 °F)

IECEX Type of Protection "Dust"  
 ExtDA21 IP6x T95 °C, T105 °C, T120 °C, T135 °C  
 Electrode Circuit Um: 250 V AC/DC  
 Excitation Circuit: 170 V max  
 Enclosure: IP66/IP67  
 Maximum surface temperature:

Maximum Surface Temperature	Process Temperature
T95 °C (+203 °F)	-40 °C to +70 °C (-40 °F to +158 °F)
T105 °C (+221 °F)	-40 °C to +85 °C (-40 °F to +185 °F)
T120 °C (+248 °F)	-40 °C to +120 °C (-40 °F to +248 °F)
T135 °C (+275 °F)	-40 °C to +150 °C (-40 °F to +302 °F)

T27-6.EPS

Ambient Temp.:  
 PPFA Lining: -40 °C to +60 °C (-40 °F to +140 °F)  
 Ceramics Lining: -15 °C to +60 °C (5 °F to +140 °F)

**STANDARD PERFORMANCE**

**Reference Conditions:**

- Similar to BSEN 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)**

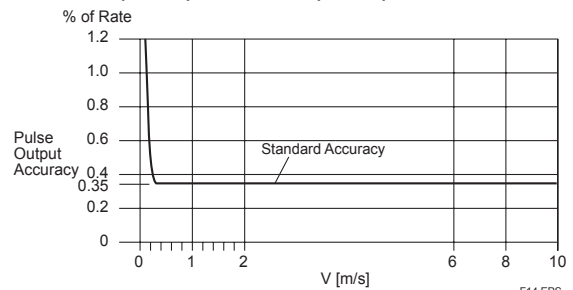
**Pulse Output Accuracy:**

**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)
2.5 (0.1) to 15 (0.5)	$V < 0.3$ (1)	±1.0 mm/s	—	—
	$0.3 \leq V \leq 10$ (1) (33)	±0.35 % of Rate		
25 (1.0) to 200 (8.0)	$V < 0.15$ (0.5)	±0.5 mm/s	$0.15 \leq V < 1$ (0.5) (3.3)	±0.18 % of Rate ±0.2 mm/s
	$0.15 \leq V \leq 10$ (0.5) (33)	±0.35 % of Rate		
				$1 \leq V \leq 10$ (3.3) (33)
250 (10) to 400 (16)	$V < 0.15$ (0.5)	±0.5 mm/s	—	—
	$0.15 \leq V \leq 10$ (0.5) (33)	±0.35 % of Rate		

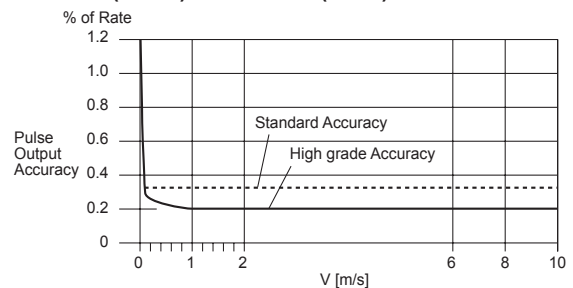
T08.EPS

**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)**

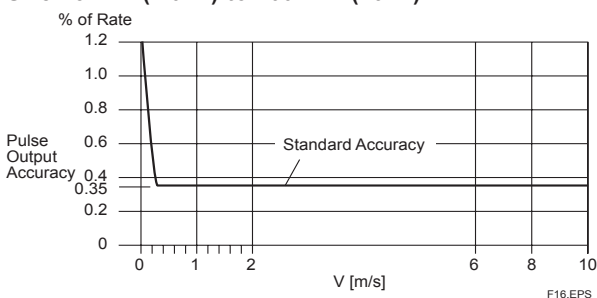


F15.EPS

**Pulse Output Accuracy:****Polyurethane Rubber/Natural Soft Rubber/ EPDM Rubber 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
	$0.3 \leq V \leq 10$ (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 (Option code / HF2):**

Standard accuracy + 1 mm/s

**Current Output Accuracy:** "⊗"

Pulse output accuracy plus 0.05 % of Span

**Repeatability:** $\pm 0.1$  % of Rate ( $V \geq 1$  m/s (3.3 ft/s)) $\pm 0.05$  % of Rate  $\pm 0.5$  mm/s ( $V < 1$  m/s (3.3 ft/s))**Maximum Power Consumption:**

Integral Flowmeter: 12 W

Remote Flowtube: Combined with AXFA11: 20 W

Combined with AXFA14: 12 W

**Insulation Resistance (Performance Requirements) (\*1 see next page):**

Integral Flowmeter :

100 M $\Omega$  between power terminals and ground terminal at 500 V DC100 M $\Omega$  between power terminals and each output/status input terminal at 500 V DC20 M $\Omega$  between ground terminal and each output/status input terminal at 100 V DC20 M $\Omega$  between output/status input terminals at 100 V DC

Remote Flowtube:

100 M $\Omega$  between excitation terminals and each signal terminal at 500 V DC100 M $\Omega$  between signal terminals at 500 V DC**Withstand Voltage (Performance) (\*1 next page):**

Integral Flowmeter

Between power supply terminals and ground terminal:

1390 V AC for 2 s

Between power supply terminals and input/output

terminals: 1390 V AC for 2 s

Remote Flowtube (option code KF2, CF1, and SF2)

Between excitation current terminal and ground terminal:

1500 V AC for 1 minute

Between signal terminals and ground terminal

1500 V AC for 1 minute

Between signal terminals and excitation current terminal:

2000 V AC for 1 minute

Remote Flowtube (option code FF1)

Between signal terminals and ground terminal:

500 V AC for 1 minute or 600 V AC for 1 s

Between signal terminals and excitation current terminal:

2000 V AC for 1 minute or 2400 V AC for 1 s

**CAUTION**

- \*1: • Before performing the Insulation Resistance Test or the Withstand Voltage Test please obey the following caution:
- Disconnect the ground terminal if the power terminal has a lightning protector (optional code A).
  - Following the relevant test, wait for more than 10 s after the power supply has been turned off before removing the cover.
  - After testing, be sure to use a resistor 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:**

EN 61010-1

- Altitude at installation site: Max. 2000 m above sea level
- Installation category based on IEC 1010: Overvoltage category II ("II" applies to electrical equipment which is supplied from the fixed installation like distribution board.)
- Pollution degree based on IEC 1010: 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:**

EN 61326

EN 61000-3-2, EN 61000-3-3

AS/NZS CISPR11

**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 Style/****Explosion proof Style:**

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	II
AXF400G/W/C	400	1	800	III

T10-1.EPS

**Sanitary Style:**

MODEL	DN (mm) (*1)	PS (bar) (*1)	PS DN (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	II

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 °C to 60°C (-40 °F to 140 °F)

- Minimum temperature should also be limited according to minimum fluid temperature of linings.
- Indicator's operating range (integral flowmeter) :  
-20 °C to 60 °C (-5 °F to 140 °F)
- Maximum temperature should be 50 °C (122 °F) in the case of Power supply code 2 (integral flowmeter).

**Ambient Humidity:** 0 to 100 %

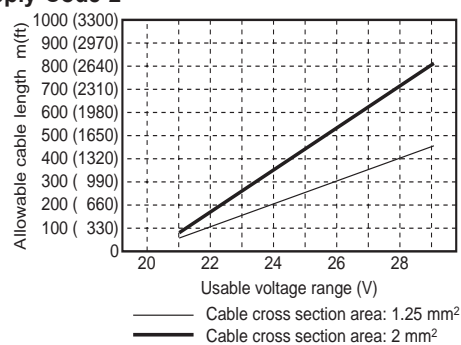
Lengthy continuous operation at 95 % or more is not recommended.

**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

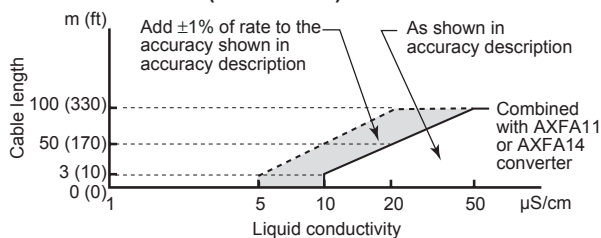
**Fluid Conductivity:**

- 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

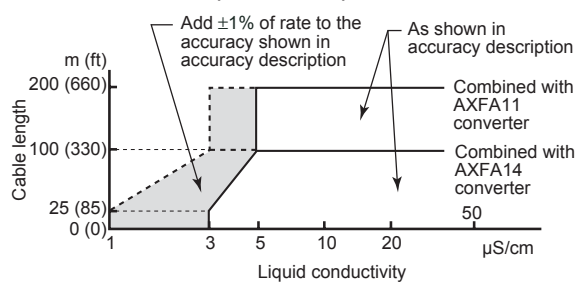
Note: In the case of fluids which have large flow noise (pure water, pure alcohol or others), low conductivity or low viscosity, please contact Yokogawa office for application support.

**Cable Length and Liquid Conductivity (Remote Flowtube):**

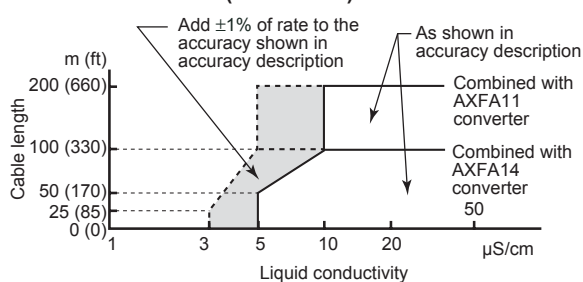
**Size 2.5 to 10 mm (0.1 to 0.4 in)**



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



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



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

F03.EPS

**Measurable Flow rate Range:**

SI Units (Size: mm, Flow rate: m<sup>3</sup>/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 <sup>3</sup> /h	0 to 0.1767 m <sup>3</sup> /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 1130.9
250	0 to 17.672	0 to 1767.1
300	0 to 25.447	0 to 2544.6
350	0 to 34.64	0 to 3463
400	0 to 45.24	0 to 4523

T11.EPS

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

Size (in.)	0 to Min. Span Flow Rate (0.33 ft/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 1285.0
5.0	0 to 20.079	0 to 2007.8
6.0	0 to 28.914	0 to 2891.3
8.0	0 to 51.41	0 to 5140
10	0 to 80.32	0 to 8031
12	0 to 115.66	0 to 11565
14	0 to 157.42	0 to 15741
16	0 to 205.61	0 to 20560

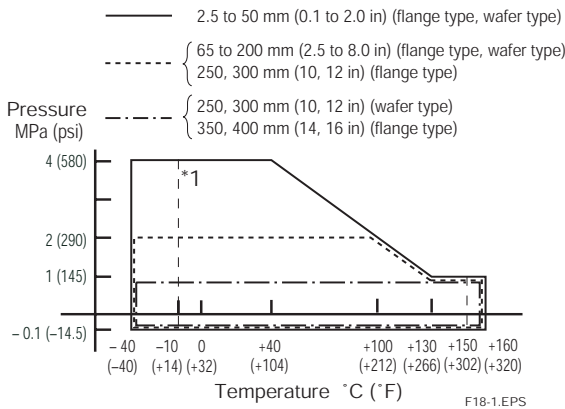
T24.EPS

**Fluid Temperature and Pressure:**

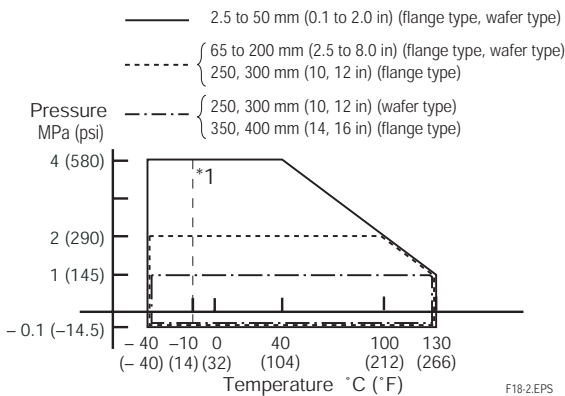
The following figures show maximum allowable fluid pressure for the flowtube itself. Further fluid pressure should also be limited according to the flange rating. For fluid temperature of the explosion proof type, refer to descriptions of "HAZARDOUS AREA CLASSIFICATION".

**PFA Lining (\*1)**

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

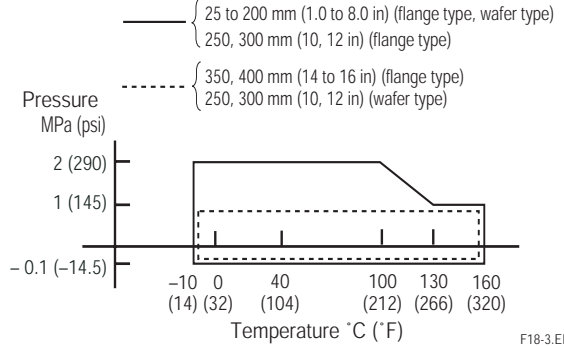


**General-Purpose Use, Integral flowmeter and Explosion proof style (Electrode structure code 1: Non-replaceable electrode)**

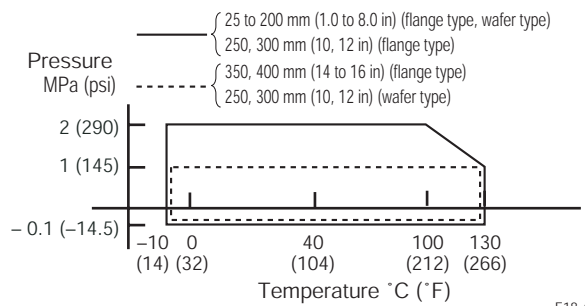


\*1: For lay length code 2 in wafer types of 25 mm (1.0 in), and for wafer types of 32 mm to 300 mm (1.25 to 12 in), and for carbon steel flange types (process connection code: C\*\*) of 50 to 400 mm (2.0 to 16 in) the minimum temperature is -10 °C (+14 °F).

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

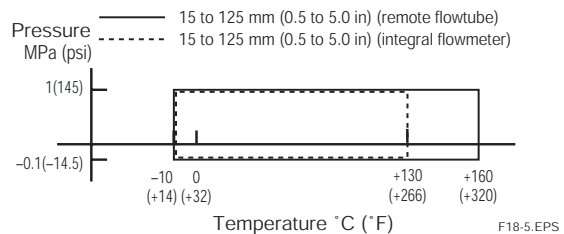


**General-Purpose Use, Integral Flowmeter (Electrode structure code 2: replaceable electrode)**



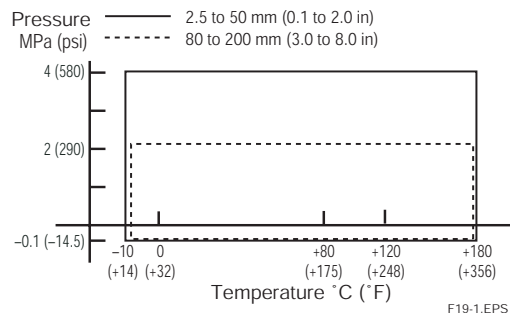
Note: For replaceable electrodes for fluid temperatures of 10 °C or less, please contact your Yokogawa office.

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



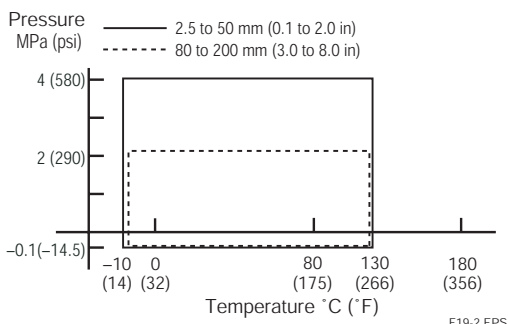
**Ceramics Lining**

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



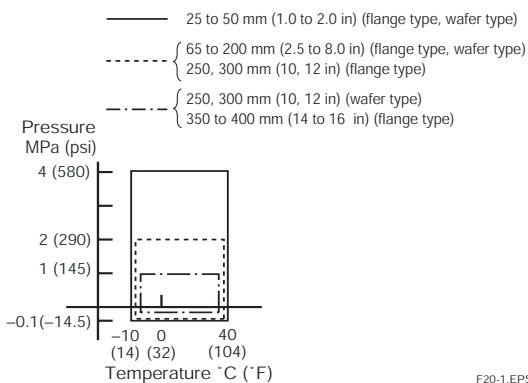


**General-Purpose Use and Explosion proof Style, Integral flowmeter (Electrode structure code 1: Non-replaceable electrode)**

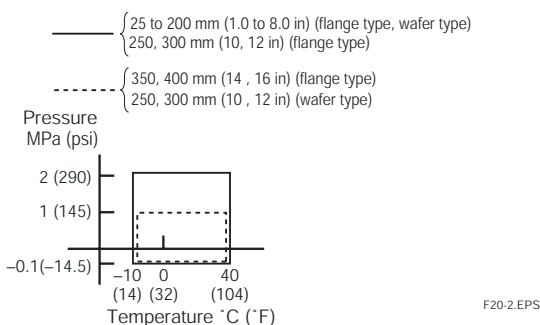


**Polyurethane Lining**

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

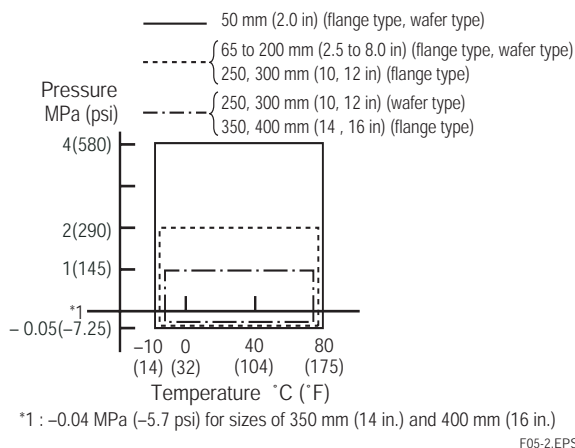


**General-Purpose Use, Integral flowmeter (Electrode structure code 2: replaceable electrode)**



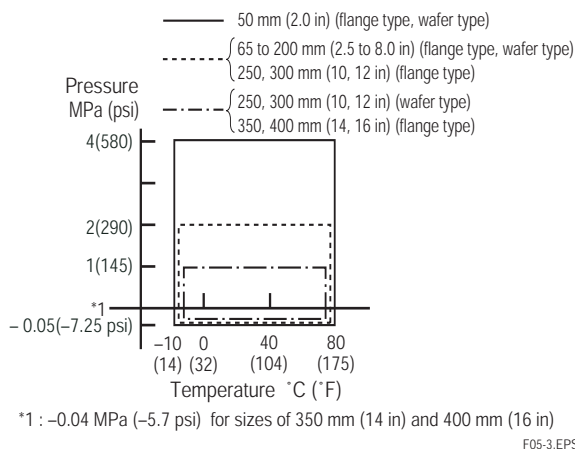
**Natural Soft Rubber Lining**

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

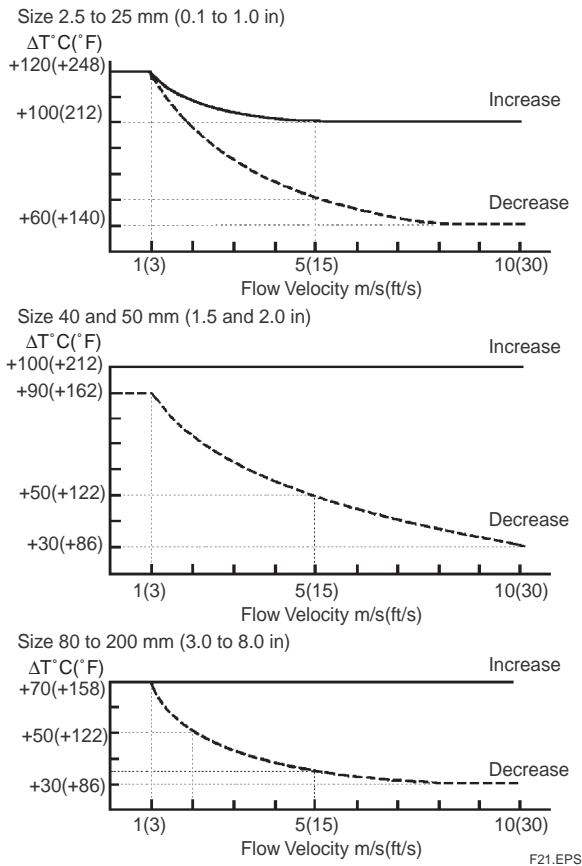


**EPDM Rubber Lining**

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



**Reasonable Figure for Thermal Shock of Ceramics Lining:**



“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.

DT: Change in temperature of measured fluid per second  
 Flow velocity: flow velocity of the measured fluid

**Allowable Conditions for Cleaning of Sanitary Style Linings:**

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

**Vibration Conditions:**

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

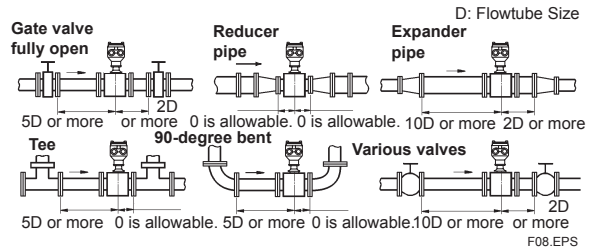
- Integral flowmeter: 1 G or less (frequency 500 Hz or less)
- Remote Flowtube (size 2.5 to 400 mm (0.1 to 16 in)):  
 2 G or less (frequency 500 Hz or less)

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**

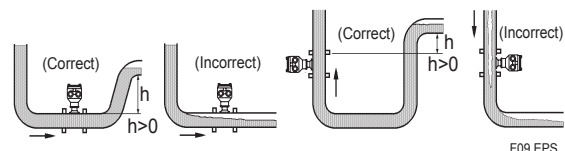
- Do not install anything in the vicinity that may interfere with the magnetic field, induced signal voltages, or flow velocity distributions of the flowmeter.
- A straight run may not be required on the downstream side of the flowmeter. However, if a downstream valve or other fitting causes irregularity deviation in flows, provide a straight run of 2D to 3D on the downstream side.
- 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.

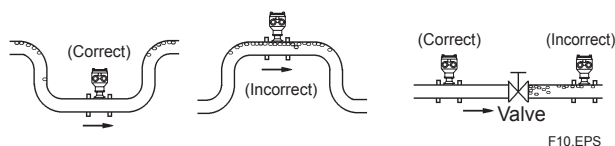
**Piping Configuration**

- 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 maintain the flowtube always filled 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.



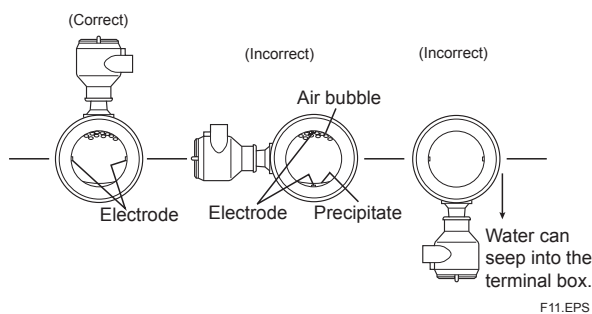
Mounting Positions

- 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 of 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

## ACCESSORIES

### Remote Flowtube (size 2.5 to 400 mm (0.1 to 16 in)):

- 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.

## 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)	Flange: 323.4 (12.73)	—	—
400 (16)	Flange: 373.5 (14.70)	—	—

T25.EPS

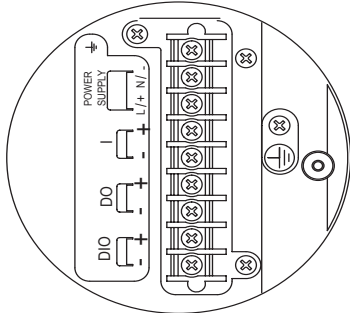
\*1: The inner diameter I.D. of the process connection code: DD4 is 12 mm (0.47 in)

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).  
If the I.D. of the gasket is too large, however, fluid leakage may result.

## TERMINAL CONFIGURATION AND TERMINAL WIRING

### Integral Flowmeter “⊗”

#### Terminal configuration



#### Terminal wiring

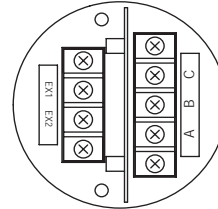
Terminal Symbols	Description
⊥	Functional grounding
N/- L/+	Power supply
I+ I-	Current output 4 to 20mA DC
DO+ DO-	Pulse output/Alarm output/ Status output
DIO+ DIO-	Alarm output/Status output Status input
⊥	Protective grounding (Outside of the terminal)

F41.EPS

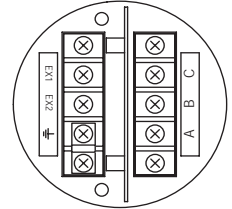
### Remote Flowtube

Note : If submersible style 'W' is selected, waterproof glands and a 30 m long cable are attached.

#### Terminal configuration



size 2.5 to 400 mm (0.1 to 16 in.)



(Only for Explosion proof type)

#### 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)

F42.EPS

#### 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 mm<sup>2</sup>

#### Recommended electrode cable:

AXFC ....

See General Specifications (GS) of AXFA11 or AXFA14 for further details.

## MODEL AND SUFFIX CODE

### AXF STANDARD (Wafer Type)

General-purpose Use/Submersible Style/Explosion proof Style, PFA/Polyurethane Rubber/Natural Soft Rubber/EPDM 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. (*6) Fluorocarbon PFA lining only
	W	Submersible style	
	C	Explosion proof style (*5) (*7) (*8)	
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	
	-F	Integral Flowmeter with Digital communication (FOUNDATION Fieldbus protocol) (*9)	
	-N	Remote Flowtube for Combined use with AXFA11	
	-P	Remote Flowtube for Combined use with AXFA14	
	1	Integral Flowmeter, 100 V to 240 V AC or 100 to 120 V DC	
	2	Integral Flowmeter, 24V AC/DC	
	N	Remote Flowtube	
Power Supply Lining (*6)	A	Fluorocarbon PFA	Size 25 mm (1.0 in) to 300 mm (12 in) Size 50 mm (2.0 in) to 300 mm (12 in) Size 50 mm (2.0 in) to 300 mm (12 in)
	U	Polyurethane Rubber	
	D	Natural Soft Rubber	
	G	EPDM Rubber	
Electrode Material (*6)	L	JIS SUS316L (AISI 316L SS/EN 1.4404 Equivalent)	Fluorocarbon PFA lining only
	P	Platinum-iridium	
	H	Hastelloy C276 Equivalent	Fluorocarbon PFA lining only
	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 (*6)	N	None	Size 2.5 mm (0.1 in) to 200 mm (8.0 in) Fluorocarbon PFA lining only
	L	JIS SUS316L (AISI 316L SS/EN 1.4404 Equivalent)	
	P	Platinum-iridium	Size 2.5 mm (0.1 in) to 200 mm (8.0 in), Fluorocarbon PFA lining only
	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 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 (0.1in) 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) (*8)	-0	JIS G1/2 female	mandatory for W-style not available for G- and C-style
	-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 (accuracy 0.35% of rate)	Size 25 mm (1.0 in) to 200 mm (8.0 in), Fluorocarbon PFA lining only
	C	High Grade (accuracy 0.2% of rate)	
	■	Optional code (See the Table of Optional Specifications)	

\*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)

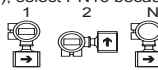
\*2: Even when DIN PN10 or 16 is required for a model of size 2.5 to 50 mm (0.1 to 2.0 in), select PN40 because there is no difference in the dimensions of the mating faces. (Process connection codes:AD1, AD2 and AD4)

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

\*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: For explosion proof types specify type of explosion proof certification using the optional code

\*6: The use of inappropriate materials can result the leakage of corrosive process fluids and cause injury to personal and / or damage to plant facilities.

It is also possible that the instrument itself can be damaged and that fragments from the instrument can contaminate the user's process fluid.

Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hydrochlorite and high temperature steam (150 °C (300 °F) or above). Contact Yokogawa for detailed information of the wetted parts material.

\*7: Provided with 30 m of cable. If different cable length is required please order option code /L\*\*\* in increments of 5m (e.g. L005, L010...)

\*8: ANSI 1/2NPT and ISO M20x1.5 electrical connections are available for ATEX, FM or CSA explosion proof style

\*9: For FOUNDATION Fieldbus protocol, refer to GS 01E20F02-01E.

**AXF STANDARD (Wafer/Union Joint Type)**  
**General-purpose Use/Explosion proof Style, 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 (*5)	
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	
	-F .....	Integral Flowmeter with Digital communication (FOUNDATION Fieldbus protocol) (*7)	
	-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 (*6)	C .....	Ceramics	
Electrode Material (*6)	E .....	Platinum-alumina Cermet	
Electrode Structure	1 .....	Non-replaceable	
Grounding Ring and Grounding Electrode Material (*6)	N .....	None	Size 2.5 mm (0.1 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 20 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 10 mm 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 (accuracy 0.35 % of rate)	
	C .....	High Grade (accuracy 0.2 % of rate)	Size 25 mm (1.0 in.) to 200 mm (8.0 in)
	/ ■	Optional code (See the Table of Optional Specifications)	

\*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



\*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: For explosion proof types specify type of explosion proof certification using the optional code

\*6: The use of inappropriate materials can result the leakage of corrosive process fluids and cause injury to personal and/or damage to plant facilities.

It is also possible that the instrument itself can be damaged and that fragments from the instrument can contaminate the user's process fluid.  
 Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hydrochlorite and high temperature steam (150 °C (300 °F) or above). Contact Yokogawa for detailed information of the wetted parts material.

\*7: For FOUNDATION Fieldbus protocol, refer to GS 01E20F02-01E.

**AXF STANDARD (Flange Type) Size 2.5 to 400 mm (0.1 to 16 in)**  
**General-purpose Use/Submersible Style/Explosion proof Style, PFA/Polyurethane Rubber/Natural Soft Rubber/EPDM 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 (*7)	
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	
	-F .....	Integral Flowmeter with Digital communication (FOUNDATION Fieldbus protocol) (*10)	
	-N .....	Remote Flowtube for Combined use with AXFA11	
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 (*9)	A .....	Fluorocarbon PFA	Size 25 mm (1.0 in) to 400 mm (16 in) Size 50 mm (2.0 in) to 400 mm (16 in) Size 50 mm (2.0 in) to 400 mm (16 in)
	U .....	Polyurethane Rubber	
	D .....	Natural Soft Rubber	
	G .....	EPDM Rubber	
Electrode Material (*9)	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	
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 (*9)	N .....	None	Size 2.5 mm (0.1 in) to 200 mm (8.0 in), Fluorocarbon PFA lining only  Size 2.5mm (0.1 in) to 200 mm (8.0 in), Fluorocarbon PFA lining only
	L .....	JIS SUS316L (AISI 316L SS/EN 1.4404 Equivalent)	
	P .....	Platinum-iridium	
	H .....	Hastelloy C276 Equivalent	
	V .....	Titanium	
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)	
Lay Length	1 .....	Standard	
Electrical Connection (wiring port thread) (*6)	-0 .....	JIS G1/2 female	mandatory for W-style not available for G- and C-style
	-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 (accuracy 0.35 % of rate)	Size 25 mm (1.0 in) to 200 mm (8.0 in), Fluorocarbon PFA lining only
	C .....	High Grade (accuracy 0.2 % of rate)	
/ ■ 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, B1, and B2).  
 \*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:  
 \*6: ANSI 1/2NPT and ISO M20x1.5 electrical connections are available for ATEX, FM or CSA explosion proof style  
 \*7: Provided with 30 m of cable, if different cable length is required please order option code /L\*\*\* in increments of 5 m (e.g. L005, L010...)  
 \*8: For explosion proof types specify type of explosion proof certification using the optional code  
 \*9: The use of inappropriate materials can result the leakage of corrosive process fluids and cause injury to personal and/or damage to plant facilities.  
 It is also possible that the instrument itself can be damaged and that fragments from the instrument can contaminate the user's process fluid.  
 Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hydrochlorite and high temperature steam (150 °C (300 °F) or above). Contact Yokogawa for detailed information of the wetted parts material.  
 \*10: For FOUNDATION Fieldbus protocol, refer to GS 01E20F02-01E.




**AXF STANDARD (Clamp/Union/Butt Weld Connection)**  
**Sanitary Style, 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	
	-F .....	Integral Flowmeter with Digital communication (FOUNDATION Fieldbus protocol) (*5)	
	.....	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 (*4)	A .....	Fluorocarbon PFA	
Electrode Material(*4)	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 (4.0in), 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 (accuracy 0.35 % of rate)	
	C .....	High Grade (accuracy 0.2 % of rate)	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). T18.EPS

\*2: The detailed dimensions of process connections (clamp/union/butt weld) are shown in the 'EXTERNAL DIMENSIONS' section of the sanitary style. In case of Butt Weld Type ferrules, the sleeves or alternative must be provided by the user. User needs to weld these parts to the butt weld adapter. Gasket between process connection PFA-liner: Standard EPDM (Tmax = 150 °C / CIP capable) Option /GH: Silicene rubber (Tmax = 160 °C / CIP capable)

\*3: N shall be always selected for remote flowtubes. In the case of an integral flowmeter, select from among the following figures.



\*4: The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personal and/or damage to plant facilities. It is also possible that the instrument itself can be damaged and that fragments from the instrument can contaminate the user's process fluid. Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hydrochloride and high temperature steam (150 °C (300 °F) or above). Contact Yokogawa for detailed information of the wetted parts material.

\*5: For FOUNDATION Fieldbus protocol, refer to GS 01E20F02-01E.



## REPLACEMENT MODEL FOR EARLIER ADMAG OR ADMAG AE (WAFER TYPE)

General-purpose Use/Submersible Style/Explosion proof Style, PFA/Polyurethane Rubber Lining  
For the Wafer Types of size 250 mm (10 in), 300 mm (12 in), AXF Standard shall be selected.

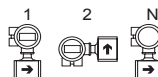
Model	Suffix Code	Description	Applicable Model
AXF002	.....	Size 2.5 mm (0.1 in) Integral Flowmeter/Remote Flowtube	
AXF005	.....	Size 5 mm (0.2 in) Integral Flowmeter/Remote Flowtube	
AXF010	.....	Size 10 mm (0.4 in) Integral Flowmeter/Remote Flowtube	
AXF015	.....	Size 15 mm (0.5 in) Integral Flowmeter/Remote 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. (*7) Fluorocarbon PFA lining only
	W .....	Submersible style (*7)	
	C .....	Explosion proof style (*6) (*8)	
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	
	-F .....	Integral Flowmeter with Digital communication (FOUNDATION Fieldbus protocol) (*10)	
	-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 (*9)	A .....	Fluorocarbon PFA	Size 25 mm (1.0 in) to 200 mm (8.0 in)
	U .....	Polyurethane Rubber	
Electrode Material (*9)	L .....	JIS SUS316L (AISI 316L SS/EN 1.4404 Equivalent)	Fluorocarbon PFA lining only
	P .....	Platinum-iridium	
	H .....	Hastelloy C276 Equivalent	Fluorocarbon PFA lining only
	T .....	Tantalum	
	V .....	Titanium	
	W .....	Tungsten Carbide	
Electrode Structure	1 .....	Non-replaceable	
Grounding Ring and Grounding Electrode Material (*9)	N .....	None	Size 25 mm (1.0 in) to 200 mm (8.0 in) (*5)
	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	
Process Connection (*3)	-AA1 .....	ANSI Class 150 Wafer(*1)	Size 2.5 mm (0.1 in) to 200 mm (8.0 in)
	-AA2 .....	ANSI Class 300 Wafer(*1)	
	-AD1 .....	DIN PN 10 Wafer(*2)	Size 200 mm(8.0 in) only
	-AD2 .....	DIN PN 16 Wafer(*2)	
	-AD4 .....	DIN PN 40 Wafer(*1)(*2)	Size 80 mm (3.0 in) to 200 mm (8.0 in)
Lay Length	2 .....	Matches an Earlier ADMAG Flowmeter (ADMAG or ADMAG AE) for Replacement	
Electrical Connection (wiring port thread)	-0 .....	JIS G1/2 female	must for W-style, not for G- or C-Style
	-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 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: 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

\*7: Provided with 30 m of cable. If different cable length is required please order option code /L\*\*\* in increments of 5 m (e.g. L005, L010...)

\*8: For explosion proof types specify type of explosion proof certification using the optional code

\*9: The use of inappropriate materials can result the leakage of corrosive process fluids and cause injury to personal and/or damage to plant facilities.

It is also possible that the instrument itself can be damaged and that fragments from the instrument can contaminate the user's process fluid.

Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hydrochlorite and high temperature steam (150°C (300°F) or above). Contact Yokogawa for detailed information of the wetted parts material

\*10: For FOUNDATION Fieldbus protocol, refer to GS 01E20F02-01E..

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

**General-purpose Use/Submersible Style/Explosion proof Style, 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	Remote Flowtube only. Fluorocarbon PFA lining only
	W .....	Submersible style (*5)	
	C .....	Explosion proof style (*4) (*6)	
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	
	-F .....	Integral Flowmeter with Digital communication (FOUNDATION Fieldbus protocol) (*8)	
	-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 (*7)	A .....	Fluorocarbon PFA	
	U .....	Polyurethane Rubber	
Electrode Material (*7)	L .....	JIS SUS316L (AISI 316L SS/EN 1.4404 Equivalent)	Fluorocarbon PFA lining only
	P .....	Platinum-iridium	
	H .....	Hastelloy C276 Equivalent	Fluorocarbon PFA lining only
	T .....	Tantalum	
	V .....	Titanium	
	W .....	Tungsten Carbide	
Electrode Structure	1 .....	Non-replaceable	General-Purpose use, Electrode Material : JIS SUS316L only
	2 .....	Replaceable	
Grounding Ring and Grounding Electrode Material (*7)	N .....	None	Size 150 mm (6.0 in), 200 mm (8.0 in), Fluorocarbon PFA lining only
	L .....	JIS SUS316L (AISI 316L SS/EN 1.4404 Equivalent)	
	P .....	Platinum-iridium	
	H .....	Hastelloy C276 Equivalent	Size 150 mm (6.0 in), 200 mm (8.0 in), Fluorocarbon PFA lining only
	T .....	Tantalum	
	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)	Size 150 mm (6.0 in) to 250 mm (10 in)
	-CD1 .....	DIN PN 10 Flange (Carbon Steel)(*1)	Size 200 mm (8.0 in) to 250 mm (10 in)
	-CD2 .....	DIN PN 16 Flange (Carbon Steel)(*1)	Size 150 mm (6.0 in.) to 250 mm (10 in)
	-CJ1 .....	JIS 10K Flange (Carbon Steel)	Size 150 mm (6.0 in.) to 250 mm (10 in)
	-CJ2 .....	JIS 20K Flange (Carbon Steel)	Size 150 mm (6.0 in.) to 250 mm (10 in)
	-CG1 .....	JIS F12 (JIS75M) Flange (Carbon Steel)	Size 150 mm (6.0 in.) to 250 mm (10 in)
		2 .....	Matches an Earlier ADMAG Flowmeter (ADMAG or ADMAG AE) for Replacement
Electrical Connection (wiring port thread) (*4)	-0 .....	JIS G 1/2 female	must for W-style, not for G- and C-style
	-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	
	/ ■	Optional code (See the Table of Optional Specifications)	

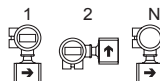
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\*1: Even when DIN PN10 is required for a 150 (6.0 in)-mm model, select PN16 because there is no difference in the dimensions of the mating faces. (Process connection codes: CD1, CD2)

\*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

\*5: Provided with 30 m of cable. if different cable length is required please order option code /L\*\*\* in increments of 5 m (e.g. L005, L010...)

\*6: For explosion proof types specify type of explosion proof certification using the optional code

\*7: The use of inappropriate materials can result the leakage of corrosive process fluids and cause injury to personal and/or damage to plant facilities.

It is also possible that the instrument itself can be damaged and that fragments from the instrument can contaminate the user's process fluid.

Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hydrochlorite and high temperature steam (150 °C (300 °F) or above). Contact Yokogawa for detailed information of the wetted parts material.

\*8: For FOUNDATION Fieldbus protocol, refer to GS 01E20F02-01E.

## OPTIONAL SPECIFICATIONS FOR FLOWTUBES

Table of optional specifications (size 2.5 to 400 mm (0.1 to 16 in.))

●: Available    -: Not available

Item	Specifications	Applicable Model								Code						
		General		Explosion proof		Submersibl	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.	●	-	●	-	-	-	●	-							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.	●	-	●	-	-	-	●	-							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 (110 %) or more during an alarm.	●	-	●	-	-	-	●	-							C1
NAMUR NE43 Compliant	Output signal limits: 3.8 to 20.5 mA	●	-	●	-	-	-	●	-							C2
	Failure alarm down-scale: Output status at a CPU failure is 0 mA or at alarm it is 2.4 mA (-10 %) or less. Failure alarm up-scale: Output status at a CPU failure is 25 mA or at alarm it is 21.6 mA (110 %) or more.	●	-	●	-	-	-	●	-							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	●	-	●	-	-	-	●	-							EM
Mass Unit Setting	The flow rate span, transmission pulse weight, and totalizer display pulse weight can be set in terms of mass unit. Specify the density of the process fluid when ordering in addition to the mass flow rate span, transmission pulse weight (for mass unit),and totalizer display pulse weight (for mass unit)  When ordering a remote flowtube, parameters for 'Mass Unit Setting' will be set in the corresponding converter before shipment. 1. Density a. Available density Numerics: Specify the numeric within the value of 0.0001 to 32000. And it can be up to five digits, to a maximum of 32000 ignoring the decimal point. A fraction is limited to the fourth decimal place. b. Available density units: kg/m <sup>3</sup> , lb/gal, lb/cf Example: A water density is about 1000kg/m <sup>3</sup> . In this case specify "1000kg/m <sup>3</sup> ". However a density is changed by temperature. Specify the actual density. (The 1000kg/m <sup>3</sup> is equivalent to 8.345lb/gal and 62.43lb/cf.) 2. The mass flow rate span, transmission pulse weight, and totalizer display pulse weight a. Available density Numerics: Specify the numeric within the value of 0.0001 to 32000. And it can be up to five digits, to a maximum of 32000 ignoring the decimal point. A fraction is limited to the fourth decimal place. b. Mass Units Available mass units: t, kg, g, klb, lb Available time units: /d, /h, /min, /s Note1: In case of specifying the mass flow span, calculate the volumetric flow span by the setting density, and specify the available value in the mass flow span. Note2: In case of transmission pulse weight and totalizer display pulse weight, specify the mass unit which was specified as the flow unit.	●	●	●	●	●	●	●	●							MU
User-specified Signal and Exitacion Cable Length for SubmersibleType	The cable length is limited up to 200 m when combined with an AXFA11 converter, or 100 m when combined with an AXFA14 converter. Following "L" specify the cable length in 3 digits as a multiple of 5 m (i.e. 005, 010 or the like) If ordered without L*** standard length of 30 m is delivered	-	-	-	-	-	-	●	-							L***

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Table of optional specifications (size 2.5 to 400 mm (0.1 to 16 in) continued)

● : 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 PFA Lining	Mirror finishing on the PFA lining inside of the tube to the smoothness lying. Available for 15 mm (0.5 in) and larger sizes. The Ra is average of measured values on several point: Size 15 to 200 mm (0.5 to 8.0 in): Ra 0.05 to 0.15 μm Size 250 to 400 mm (10 to 16 in): Ra 0.05 to 0.25 μm	●	●	●	●	●	●	●	PM	
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.	●	●	●	●	-	-	-	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.	●	●	●	●	●	●	●	SCT	
Direction change of the electrical connection (*1)	+90° rotated converter (or terminal box) to change the direction of the electrical connection. Available for 400 mm (16 in) or smaller sizes.	●	●	●	●	●	●	●	RA	
	+180° rotated converter (or terminal box) to change the direction of the electrical connection. Available for 400 mm (16 in) or smaller sizes.	●	●	●	●	●	●	●	RB	
	-90° rotated converter (or terminal box) to change the direction of the electrical connection. Available for 400 mm (16 in) or smaller sizes.	●	●	●	●	●	●	●	RC	
Bolts, Nuts, and Gaskets (*2)	Bolts, nuts, and gaskets are provided for wafer connections. Available only for ANSI 150 connections.	●	●	●	●	●	-	-	BSC	
	Bolts: JIS SUS304 (AISI 304 SS stainless steel equivalent) Nuts: JIS SUS403 (AISI 403SS stainless steel equivalent) Gaskets: Chloroprene rubber Bolts: JIS SUS304 (AISI 304 SS stainless steel equivalent) Nuts: JIS SUS403 (AISI 403SS stainless steel equivalent) Gaskets: PTFE-sheathed non-asbestos	●	●	●	●	●	-	-	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 to 200 mm (0.1 to 8.0 in) of PFA lining or 15 to 200 mm (0.5 to 8 in) of ceramics lining.	●	●	●	●	●	-	-	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 to 200 mm (0.1 to 8.0 in) of PFA lining or 15 to 200 mm (0.5 to 8 in) of ceramics lining.	●	●	●	●	●	-	-	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 to 200 mm (0.1 to 8.0 in) of PFA lining or 15 to 200 mm (0.5 to 8 in) of ceramics lining.	●	●	●	●	●	-	-	GD	
	Alkali-resistant carbonized fluororesin gaskets for use with a ceramics lining tube with metal piping. Valqua #7026.	●	●	●	●	-	-	-	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) to 160 °C (320 °F) max.	-	-	-	-	-	●	●	GH	
Oil-prohibited Use	Electrodes, linings, and grounding rings are assembled and packed with polyethylene after being cleaned with water and acetone and dried with air. The label 'OIL FREE' is affixed.	●	●	●	●	-	-	-	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 acetone and dried with air. The label 'OIL & WATER FREE' is affixed.	●	●	●	●	-	-	-	K5	

T26-2.EPS

Table of optional specifications (size 2.5 to 400 mm (0.1 to 16 in) continued

● : 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	
Epoxy Resin Coating	Epoxy resin coating with alkali-resistance instead of standard polyurethane resin coating. The color is the same as standard type.	●	●	●	●	–	–	–	X1
High Anti-corrosion Coating	Three-layer coating (polyurethane coating on two-layer epoxy resin coating) in the same range as that for the standard coating. The color is the same as standard type. Used for salt/alkali/acid/weather-resistance.	●	●	●	●	–	–	–	X2
Material Certificate	Reproduced material certificates for : PFA/polyurethane: Pipe, electrodes, grounding rings/grounding electrodes, mini flanges (for wafer style), flanges (for flange style), adapters (for sanitary type) Ceramics: only grounding rings or grounding electrodes	●	●	●	●	●	●	●	M01
Hydrostatic Test	The test verifies the absence of leaks by applying the following water pressures (which are determined under process connection conditions) to linings for ten minutes. Test results are described in the Note column of a test certificate (QIC). <b>Process Connection:</b> ANSI Class 150, DIN PN10 ANSI Class 300, DIN PN16, DIN PN40, Union joint, ceramics lining <b>Water Pressure:</b> 1.5 MPa 3.0 MPa 6.0 MPa	●	●	●	●	●	–	–	T01
Calibration Certificate	Level 2: The Declaration and the Calibration Equipment List are issued.	●	●	●	●	●	●	●	L2
	Level 3: The Declaration and the Primary Standard List are issued.	●	●	●	●	●	●	●	L3
	Level 4: The Declaration and the Yokogawa Measuring Instruments Control System are issued.	●	●	●	●	●	●	●	L4
Vent Hole	With a vent hole provided for permeable fluids (such as nitric acid, hydrofluoric acid, or aqueous sodium hydroxide at high temperature). Available only for a PFA lining flange style tube.	●	●	●	●	–	–	–	H
Enhanced Dual Frequency Excitation (*4)	Available for 25 to 200 mm (1.0 to 8.0 in) sizes. Products are delivered with the Standard dual frequency excitation mode and the Enhanced dual frequency excitation mode enabled. The meter factor for the Enhanced dual frequency excitation obtained by flow calibration is inscribed on the nameplate and set into the combined converter in addition to the meter factor for the Standard dual frequency excitation.	●	●	●	●	●	●	●	HF2

T26-3.EPS

Table of optional specifications (size 2.5 to 400 mm (0.1 to 16 in) continued

● : 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
Five-point Calibration in User-specified Span	<p>A flow test at 0, 25, 50, 75, and 100 % of the user-specified span is performed instead of the flow test of the standard 2 m/s span and a test certificate (QIC) is submitted. Specify the span (100 % flow span) whose corresponding flow velocity lies between 0.5 to 10 m/s and that is less than the maximum line capacity. Selectable range of flow rate span is shown below.</p> <p><b>Size: mm (in)                      Selectable range of flow rate span: m<sup>3</sup>/h (Flow rate span velocity: m/s)</b></p> <p>2.5 (0.1)                      0.009 (0.5) to 0.05 (2.83)</p> <p>5 (0.2)                      0.036 (0.5) to 0.2 (2.83)</p> <p>10 (0.4)                      0.15 (0.5) to 0.96 (3.40)</p> <p>15 (0.5)                      0.32 (0.5) to 2.8 (4.40)</p> <p>25 (1)                      0.89 (0.5) to 11 (6.22)</p> <p>32 (1.25)                      1.45 (0.5) to 8.9 (10.00)</p> <p>40 (1.5)                      2.27 (0.5) to 32 (7.07)</p> <p>50 (2)                      3.54 (0.5) to 56 (7.92)</p> <p>65 (2.5)                      5.98 (0.5) to 80 (6.70)</p> <p>80 (3)                      9.05 (0.5) to 126 (6.96)</p> <p>100 (4)                      14.2 (0.5) to 220 (7.78)</p> <p>125 (5)                      22.1 (0.5) to 300 (6.79)</p> <p>150 (6)                      31.9 (0.5) to 380 (5.97)</p> <p>200 (8)                      56.6 (0.5) to 670 (5.92)</p> <p>250 (10)                      88.4 (0.5) to 1000 (5.66)</p> <p>300 (12)                      128 (0.5) to 1200 (4.72)</p> <p>350 (14)                      174 (0.5) to 1200 (3.47)</p> <p>400 (16)                      227 (0.5) to 1350 (2.98)</p>	●	●	●	●	●	●	●	●	SC			
FM Approval	Explosion proof See "HAZARDOUS AREA CLASSIFICATION"	-	-	●	●	-	-	-	FF1				
CENELEC ATEX Certification (KEMA Approval)	Explosion proof See "HAZARDOUS AREA CLASSIFICATION"	-	-	●	●	-	-	-	KF2				
CSA Certification	Explosion proof See "HAZARDOUS AREA CLASSIFICATION"	-	-	●	●	-	-	-	CF1				
IECEX Certification (*5)	IECEX Explosion proof See "HAZARDOUS AREA CLASSIFICATION"	-	-	●	●	-	-	-	SF2				

	Standard	+90° rotation	+180° rotation	-90° rotation
		Optional Code RA	Optional Code RB	Optional Code RC
Integral Flowmeter	 Electrical Connection	 Indicator	 Electrical Connection	 Indicator
Remote Flowtube	 Electrical Connection	 Electrical Connection	 Electrical Connection	 Electrical Connection

\*2: When specifying the optional code 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.

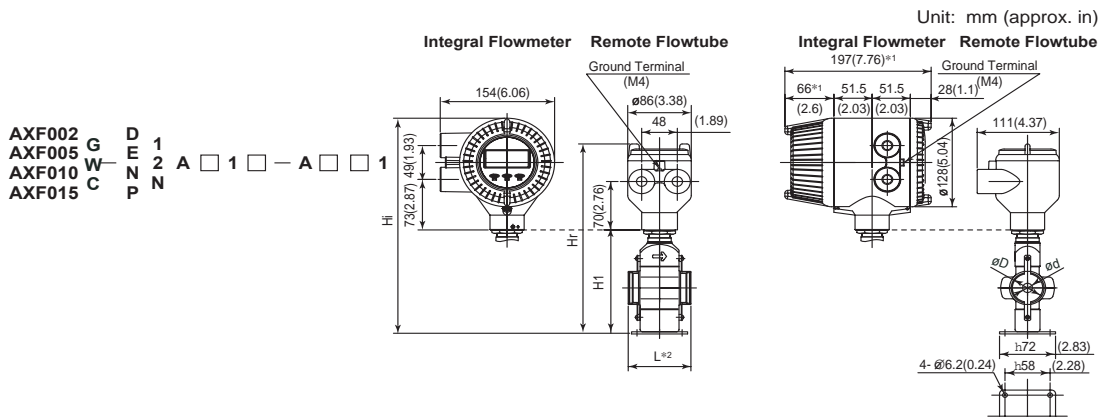
\*4: Enhanced dual frequency excitation is not available for models with calibration code C (High Grade Accuracy).

\*5: Applicable only for Australia and New Zealand area.

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 <sub>3</sub> <sup>0+2</sup> 85 (3.35)			
	Outside dia.	∅D 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) <sup>3</sup>	2.4 (5.3)			
	Max. Height	Hi 306 (12.03)			
Integral flowmeter	Weight kg (lb)	4.1 (9.0)			

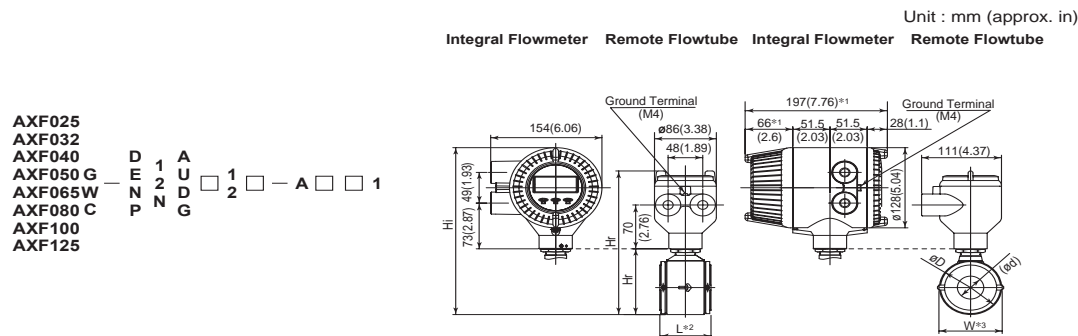
- \*1: When indicator code N is selected, subtract 12 mm (0.47 in) from the value in the figure. For explosion proof style with indicator add 5 mm (0.2 in) to it.
- \*2: Depending on the selection of grounding ring code and optional code, add the following value to L (face-to-face length).

Option Code	Grounding Ring Code	S, L, H, V	P, T	N
	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 the table.

### AXF Standard, AXF025-AXF125, Wafer Type, PFA /Polyurethane Rubber/Natural Soft Rubber/ EPDM 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,D,G	A,U,D,G	A,U,D,G	A,U,D,G	A,U,D,G	
Remote flowtube	Face-to-face length	L <sub>3</sub> <sup>0+2</sup> 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.	∅D 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 <sup>3</sup> 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) 98(3.86) 111(4.37) 129(5.08) 147(5.79) 157(6.18) 183(7.20) 212(8.35)								
Remote flowtube	Max. Height	Hr 216(8.50) 222(8.74) 235(9.25) 253(9.96) 271(10.67) 281(11.06) 307(12.09) 336(13.23)								
	Weight kg (lb) <sup>3</sup>	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)								
Integral flowmeter	Max. Height	Hi 254(9.98) 259(10.18) 273(10.73) 291(11.44) 309(12.17) 319(12.54) 345(13.56) 374(14.70)								
	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).

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

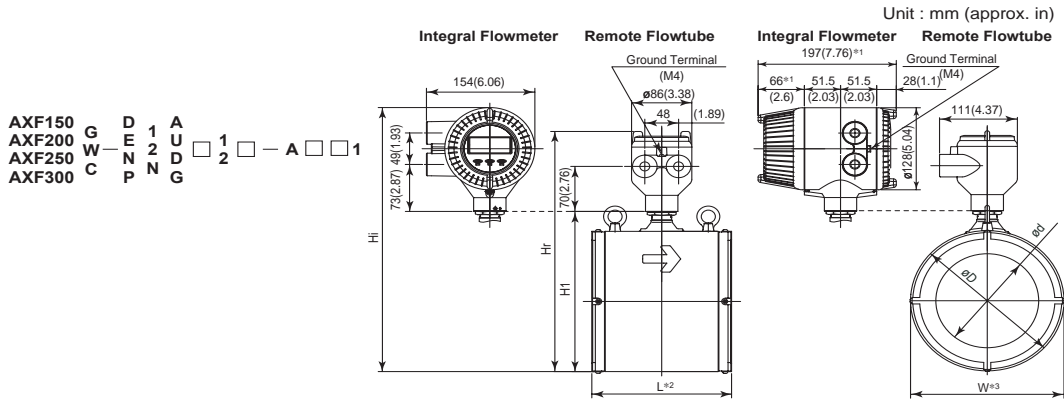
- \*3: When electrode structure 2 is selected, add the following value to W (width).

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/Natural Soft Rubber/ EPDM Rubber Lining**



AXF150 G W — D E N P — A U D G  
 AXF200 C — 1 2 — A □ □ □ 1  
 AXF250  
 AXF300

Model	Size code	150	200	250	300
	Size	150(6)	200(8)	250(10)	300(12)
	Lining code	A,U,D,G	A,U,D,G	A,U,D,G	A,U,D,G
Remote flowtube	Face-to-face length	$L_{-3}^{+2}$ 200 $_{-3}^{+2}$ (7.87)	250 $_{-3}^{+2}$ (9.84)	300 $_{-3}^{+2}$ (11.81)	350 $_{-3}^{+2}$ (13.78)
	Outside dia.	ØD 202(7.95)	252(9.92)	310(12.20)	358(14.09)
Integral flowmeter	Inner diameter of Grounding ring	Ød 146.1(5.75)	193.6(7.62)	243.7(9.59)	294.7(11.60)
	Width	W <sup>+3</sup> 202(7.95)	252(9.92)	310(12.20)	358(14.09)
	Height	H1 243(9.57)	293(11.54)	354(13.94)	402(15.83)
Remote flowtube	Max. Height	Hr 367(14.45)	417(16.42)	478(18.82)	526(20.71)
	Weight kg (lb) <sup>+4</sup>	14.5(32.0)	22.1(48.7)	39.0(86.0)	48.3(106.5)
Integral flowmeter	Max. Height	Hi 405(15.93)	455(17.89)	516(20.31)	564(22.20)
	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 in) from the value in the figure.  
 For explosion proof style with indicator add 5 mm (0.2 in) 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	+32 (1.26)	-2 (0.08)
	GA, GC, GD (Special Gaskets)	+10 (0.39)	+38 (1.5)	-

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

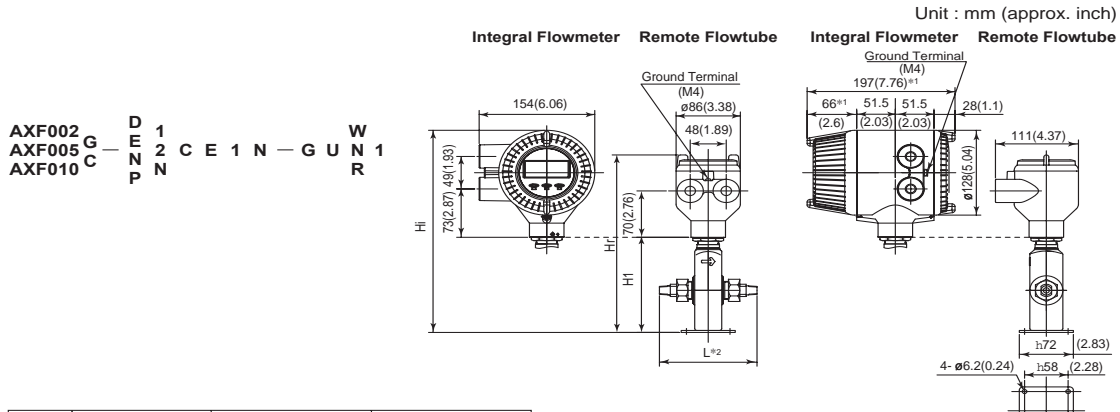
\*3: When electrode structure 2 is selected, add the following value to W (width).

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

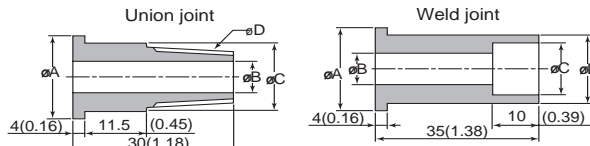
F24.EPS

**AXF Standard, AXF002-AXF010, Weld and Union Joint, Ceramics Lining**



AXF002 G W — D E N P — C E 1 N — G U N R  
 AXF005 C — 1 2 — A □ □ □ 1  
 AXF010

Model	Process connection	GUW (Welding type)			GUN/GUR (Union joint type)		
	Size code	002	005	010	002	005	010
	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
Remote flowtube	Face-to-face length	$L_{-3}^{+2}$	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)	



Size	A	B	C	D
2.5 (0.1)	22 (0.87)	8 (0.31)	18.5 (0.73)	R1/4
5 (0.2)	22 (0.87)	8 (0.31)	18.5 (0.73)	NPT1/4
10 (0.4)	22 (0.87)	8 (0.31)	18.5 (0.73)	R1/4
10 (0.4)	25 (0.98)	10 (0.39)	22.5 (0.89)	R3/8
10 (0.4)	25 (0.98)	10 (0.39)	22.5 (0.89)	NPT3/8

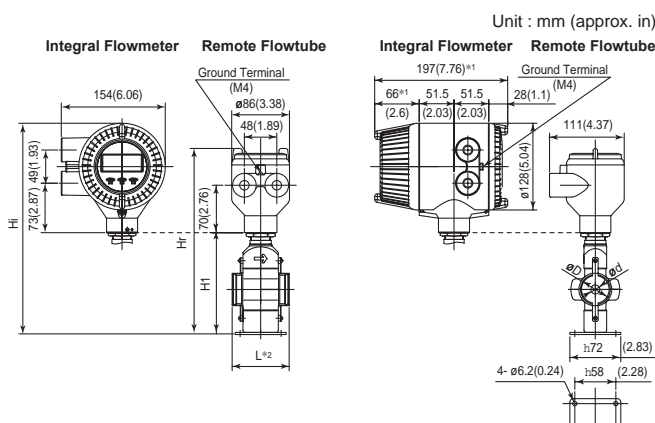
\*1: When indicator code N is selected, subtract 12 mm (0.47 in) from the value in the figure  
 For explosion proof style with indicator add 5 mm (0.2 in) to it.

F25.EPS



AXF Standard, AXF015, Wafer Type, Ceramics Lining

AXF015<sup>G</sup><sub>C</sub> — <sup>D</sup> 1  
<sup>E</sup> 2  
<sup>N</sup> C E 1 □ — A □ □ 1



Model	Size code	015	
	Size	15(0.5)	
	Lining code	C	
Remote flowtube	Face-to-face length	L <sub>3</sub> <sup>0*2</sup>	85 (3.35)
	Outside dia.	∅D	44 (1.73)
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)

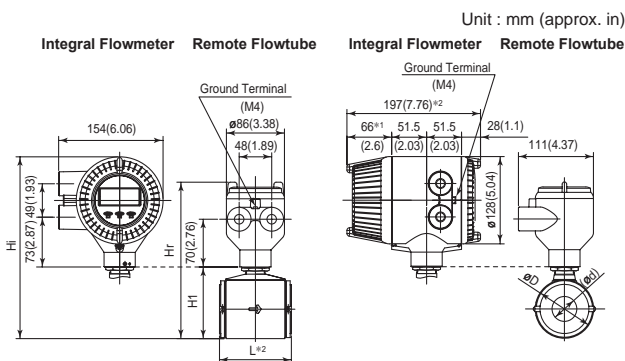
\*1: When indicator code N is selected, subtract 12 mm (0.47 in) from the value in the figure.  
 For explosion proof style with indicator add 5 mm (0.2in) to it.  
 \*2: Depending on the selection of grounding ring code and optional code, add the following value to L (face-to-face length).

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<sup>G</sup><sub>C</sub> — <sup>D</sup> 1  
<sup>E</sup> 2  
<sup>N</sup> C 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 <sub>3</sub> <sup>0*2</sup>	93(3.66)	106(4.17)	120(4.72)	160(6.30)	180(7.09)
	Outside dia.	∅D	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)	159(6.26)	184(7.24)
Remote flowtube	Max. Height	Hr	216(8.50)	235(9.25)	253(9.96)	283(11.14)	308(12.13)
	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)	321(12.64)	346(13.62)
	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 in) from the value in the figure.  
 For explosion proof style with indicator add 5 mm (0.2 in) to it.  
 \*2: Depending on the selection of grounding ring code and optional code, add the following value to L (face-to-face length).

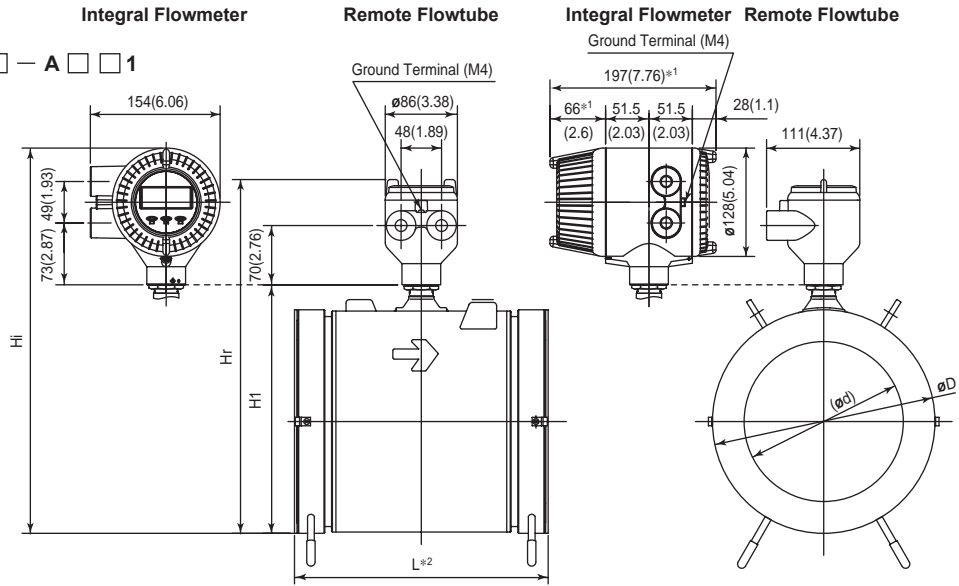
Grounding Ring Code	S, L, H, V	P, T	N
L(Face-to-face length)	+0	+22 (0.87)	-6 (0.24)

F27.EPS

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

Unit: mm (approx. in)

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



Model	Size code	150	200
	Size	150(6)	200(8)
	Lining code	C	C
Remote flowtube	Face-to-face length	$L_{-0.3}^{+0.2}$	232 (9.13) / 302 (11.89)
	Outside dia.	∅D	214 (8.43) / 264 (10.39)
Integral flowmeter	Inner diameter of Grounding ring	∅d	144 (5.67) / 192 (7.56)
	Height	H1	254 (10.00) / 304 (11.97)
Remote flowtube	Max. Height	Hr	378 (14.88) / 428 (16.85)
	Weight kg (lb)		20.2 (44.5) / 33.5 (73.9)
Integral flowmeter	Max. Height	Hi	416 (16.36) / 466 (18.33)
	Weight kg (lb)		21.9 (48.3) / 35.2 (77.6)

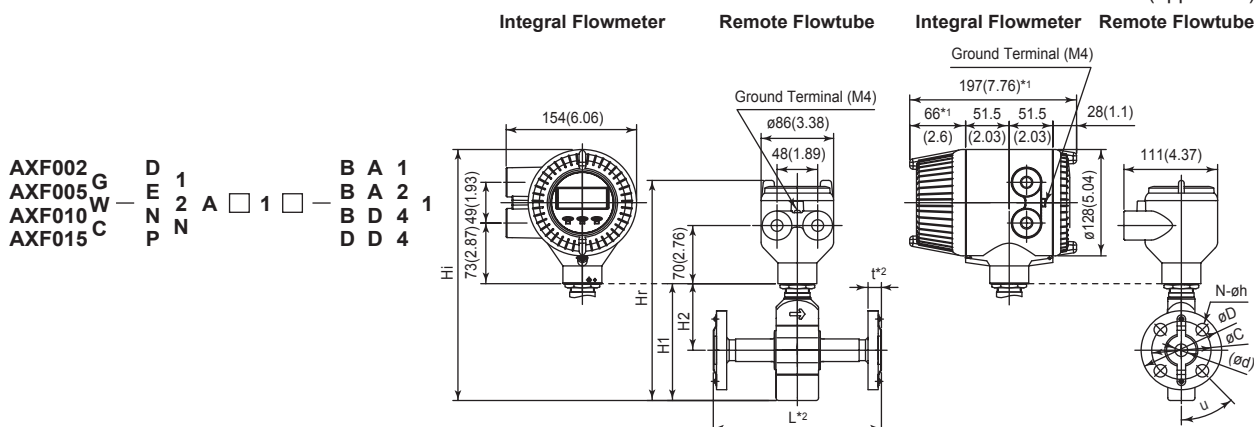
\*1: When indicator code N is selected, subtract 12 mm (0.47 in) from the value in the figure  
 For explosion proof style with indicator add 5 mm (0.2 in) to it.  
 \*2: Depending on the selection of grounding ring code and optional code, add the following value to L (face-to-face length).

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 Lininig

Unit: mm (approx. in)



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	015
	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)	15 (0.5)
	Lining code	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Remote flowtube	Face-to-face length L <sup>*2</sup>	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 <sup>*2</sup>	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 <sup>o</sup>	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	Height H1	141(5.54)				141(5.54)				141(5.54)				141(5.54)			
	Height H2	80(3.15)				80(3.15)				80(3.15)				80(3.15)			
	Max. Height Hr	265(10.43)				265(10.43)				265(10.43)				265(10.43)			
Integral flowmet.	Weight kg (lb) <sup>*3</sup>	3.3(7.2)				3.7(8.2)				3.9(8.6)				4.0(8.8)			
	Max. Height Hi	302(11.89)				302(11.89)				302(11.89)				302(11.89)			
Integral flowmet.	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 in) from the value in the figure. For explosion proof style with indicator add 5 mm (0.2 in) 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		N		N		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)	-	-				

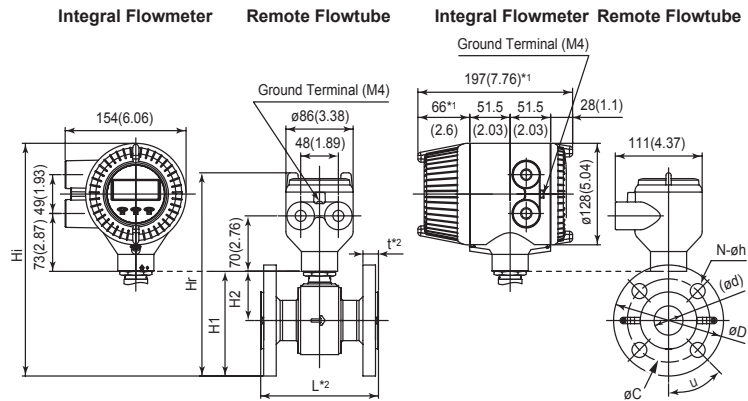
\*3: Waterproof glands and a 30 m long cable are attached to each submersible type flowtube. Add 9.5 kg (20.9 lb) to the weight in the table.

F29.EPS

**AXF Standard, AXF025-AXF050, ANSI/DIN Flange Type, PFA/Polyurethane Rubber/Natural Soft Rubber/EPDM Rubber Lining**

Unit: mm (approx. in)

AXF025 G D E N 1 A U D 1 B A 1 1  
 AXF032 W — 2 2 — B A 2  
 AXF040 C P N 2 □ □ — B D 4  
 AXF050



Model	Process Connection	BA1 (ANSI Class 150)				BA2 (ANSI Class 300)				BD4 (DIN PN40)				
		025	032	040	050	025	032	040	050	025	032	040	050	
	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) <sub>A</sub>	40 (1.5)	50 (2)	
	Lining code	A.U.D.G	A.U.D.G	A.U.D.G	A.U.D.G	A.U.D.G	A.U.D.G	A.U.D.G	A.U.D.G	A.U.D.G	A.U.D.G	A.U.D.G	A.U.D.G	
Remote flowtube	Face-to-face length	L <sup>o</sup> *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 <sup>*2</sup> 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)	22 (0.87)	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 <sup>o</sup> 45	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)	19.1 (0.75)	22.4 (0.88)	19.1 (0.75)	14 (0.75)	19 (0.75)	19 (0.75)	18 (0.71)	
	Number of holes	N	4	4	4	4	4	4	8	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)
	H2	58 (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) <sup>*3</sup>		3.9 (8.5)	4.5 (9.9)	5.4 (11.9)	7.4 (16.4)	5.0 (11.0)	5.8 (12.9)	7.8 (17.1)	9.0 (19.8)	4.7 (10.4)	6.1 (13.4)	6.9 (15.2)	8.7 (19.2)
Integral flowmeter	Max. Height	Hi	273 (10.76)	281 (11.06)	293 (11.53)	31.7 (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 (19.0)	10.4 (22.9)

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

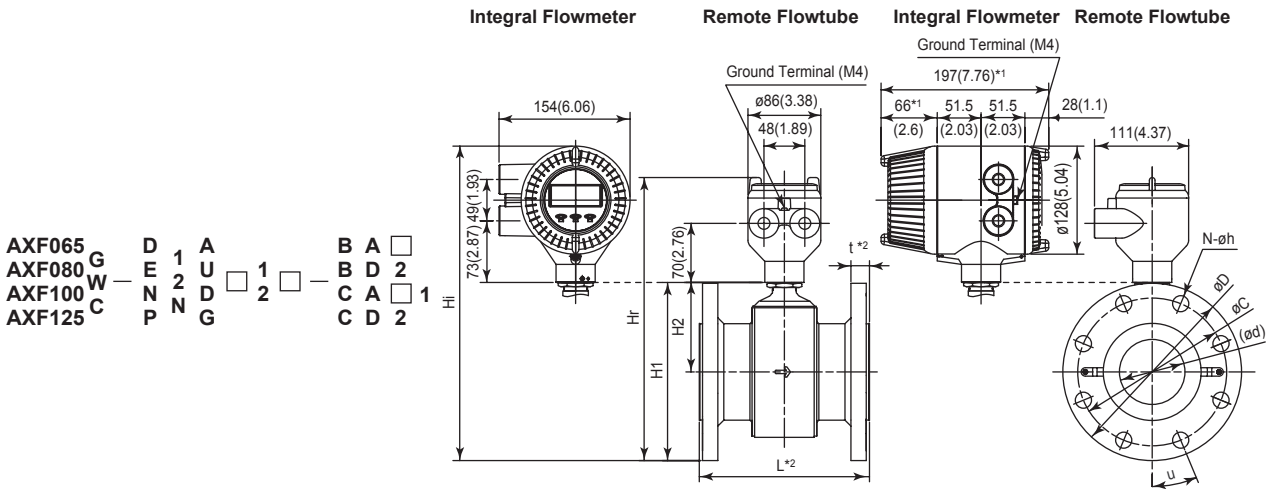
Grounding Ring Code	L		t				
	S, L, H, V	P, T	N				
Option Code	None	+0	+0	+26(1.02)	+13(0.51)	-2(0.08)	-1(0.04)
	GA, GC, GD (Special Gaskets)	+8(0.31)	+4(0.16)	+30(1.18)	+15(0.59)	-	-

\*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.

F30.EPS

**AXF Standard, AXF065-AXF125, ANSI/DIN Flange Type, PFA/Polyurethane Rubber/Natural Soft Rubber/EPDM Rubber Lining**

Unit: mm (approx. in)



Model	Process Connection	BA1, CA1 (ANSI Class 150)				BA2, CA2 (ANSI Class 300)				BD2, CD2 (DIN PN16)			
		065	080	100	125	065	080	100	125	065	080	100	125
	Size code	065	080	100	125	065	080	100	125	065	080	100	125
	Size	65 (2.5)	80 (3)	100 (4)	125 (5)	65 (2.5)	80 (3)	100 (4)	125 (5)	65 (2.5)	80 (3)	100 (4)	125 (5)
	Lining code	A.U.D.G.	A.U.D.G.	A.U.D.G.	A.U.D.G.	A.U.D.G.	A.U.D.G.	A.U.D.G.	A.U.D.G.	A.U.D.G.	A.U.D.G.	A.U.D.G.	A.U.D.G.
Remote flowtube	Face-to-face length L <sup>0*2</sup>	200 (7.87)	200 (7.87)	250 (9.84)	250 (9.84)	200 (7.87)	200 (7.87)	250 (9.84)	250 (9.84)	200 (7.87)	200 (7.87)	250 (9.84)	250 (9.84)
	Outside dia. øD	177.8 (7.00)	190.5 (7.50)	228.6 (9.00)	254.0 (10.00)	190.5 (7.50)	209.8 (8.25)	254.0 (10.00)	279.4 (11.00)	185 (7.28)	200 (7.87)	220 (8.66)	250 (9.84)
	Thickness t <sup>*2</sup>	26.4 (1.04)	27.9 (1.10)	27.9 (1.10)	27.9 (1.10)	29.4 (1.16)	32.4 (1.28)	35.8 (1.41)	39.1 (1.54)	24 (0.94)	24 (0.94)	24 (0.94)	26 (1.02)
	Ingr diameter of Grounding ring ød	66 (2.60)	77 (3.03)	102 (4.02)	128 (5.04)	66 (2.60)	77 (3.03)	102 (4.02)	128 (5.04)	66 (2.60)	77 (3.03)	102 (4.02)	128 (5.04)
Integral flowmeter	Pitch circle dia. øC	139.7 (5.50)	152.4 (6.00)	190.5 (7.50)	215.9 (8.50)	149.4 (5.88)	168.1 (6.62)	200.2 (7.88)	235.0 (9.25)	145 (5.71)	160 (6.30)	180 (7.09)	210 (8.27)
	Bolt hole interval U <sup>0</sup>	45	45	22.5	22.5	22.5	22.5	22.5	22.5	45	22.5	22.5	22.5
	Hole dia. øh	19.1 (0.75)	19.1 (0.75)	19.1 (0.75)	22.4 (0.88)	22.4 (0.88)	22.4 (0.88)	22.4 (0.88)	22.4 (0.88)	19 (0.75)	19 (0.75)	19 (0.75)	19 (0.75)
	Number of holes N	4	4	8	8	8	8	8	8	4	8	8	8
Remote flowtube	Height H1	177 (6.97)	190 (7.48)	220 (8.66)	247 (9.72)	184 (7.24)	200 (7.87)	233 (9.16)	260 (10.22)	180 (7.07)	193 (7.59)	216 (8.49)	245 (9.65)
	Height H2	89 (3.50)	95 (3.74)	106 (4.16)	120 (4.72)	89 (3.50)	95 (3.74)	106 (4.16)	120 (4.72)	87 (3.43)	93 (3.65)	106 (4.16)	120 (4.72)
	Max. Height Hr	301 (11.85)	314 (12.36)	344 (13.54)	371 (14.61)	308 (12.13)	324 (12.76)	357 (14.04)	384 (15.11)	304 (11.95)	317 (12.47)	340 (13.37)	369 (14.53)
	Weight kg (lb) <sup>*3</sup>	10.9 (23.7)	12.9 (28.5)	17.7 (39.1)	20.8 (45.9)	12.6 (27.7)	16.6 (36.6)	26.8 (59.1)	34.9 (76.9)	10.6 (23.3)	11.9 (26.2)	14.5 (32.0)	19.3 (42.5)
Integral flowmeter	Max. Height Hi	339 (13.35)	352 (13.86)	409 (15.02)	409 (16.08)	346 (13.62)	362 (14.25)	394 (15.52)	421 (16.58)	341 (13.43)	354 (13.94)	377 (14.85)	407 (16.00)
	Weight kg (lb)	12.5 (27.5)	14.5 (32.2)	19.4 (42.8)	22.5 (49.6)	14.3 (31.4)	18.3 (40.4)	28.5 (62.8)	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 in) from the value in the figure.

For explosion proof style with indicator add 5 mm (0.2 in) 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).

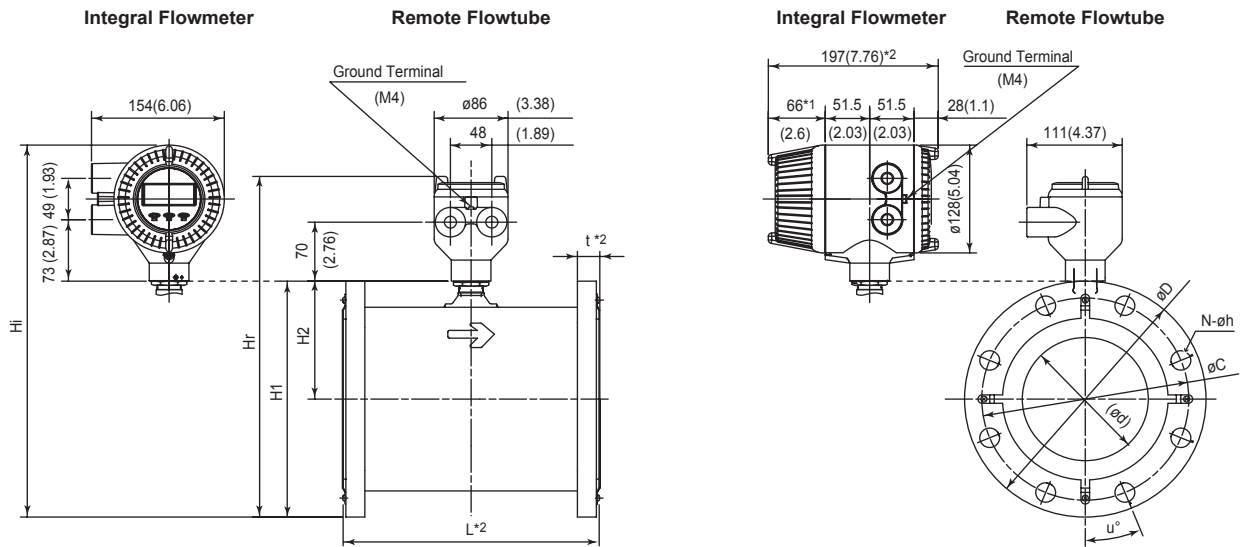
Grounding Ring Code	L		t			
	S, L, H, V	P, T	N			
Option Code	None	+0	+0	+26(1.02)+13(0.51)	-2(0.08)	-1(0.04)
	GA, GC, GD (Special Gaskets)	+8(0.31)	+4(0.16)	+30(1.18)	+15(0.59)	-

\*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. F31.EPS

**AXF Standard, AXF150, AXF200, ANSI/DIN Flange Type, PFA/Polyurethane Rubber/Natural Soft Rubber/EPDM Rubber Lining**

Unit: mm (approx. in)

AXF150 G — D E N P — 1 2 — A U D G □ 1 □ — B A □ B D □ C A □ 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,D,G	A,U,D,G	A,U,D,G	A,U,D,G	A,U,D,G	A,U,D,G	A,U,D,G	
Remote flowtube	Face-to-face length	L <sup>+2</sup> <sub>-3</sub>	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 <sup>+2</sup>	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	140.7 (5.54)	188.9 (7.44)	140.7 (5.54)	188.9 (7.44)	188.9 (7.44)	140.7 (5.54)	188.9 (7.44)
Integral flowmeter	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)
	Bolt hole interval	U <sup>o</sup>	22.5	22.5	15	15	22.5	22.5	15
Remote flowtube	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)
	Height	H2	141 (5.55)	166 (6.54)	141 (5.55)	166 (6.54)	166 (6.54)	141 (5.55)	166 (6.54)
Integral flowmeter	Max. Height	Hi	405 (15.93)	461 (18.17)	424 (16.68)	481 (18.92)	460 (18.11)	408 (16.04)	460 (18.11)
	Weight kg (lb) <sup>*3</sup>		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)

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

Option Code	Grounding Ring Code	S, L, H, V		P, T		N	
		+0	+0	+34(1.34)	+17(0.67)	-2(0.08)	-1(0.04)
None							
	GA, GC, GD (Special Gaskets)	+10(0.39)	+5(0.20)	+38(1.5)	+19(0.75)	-	-

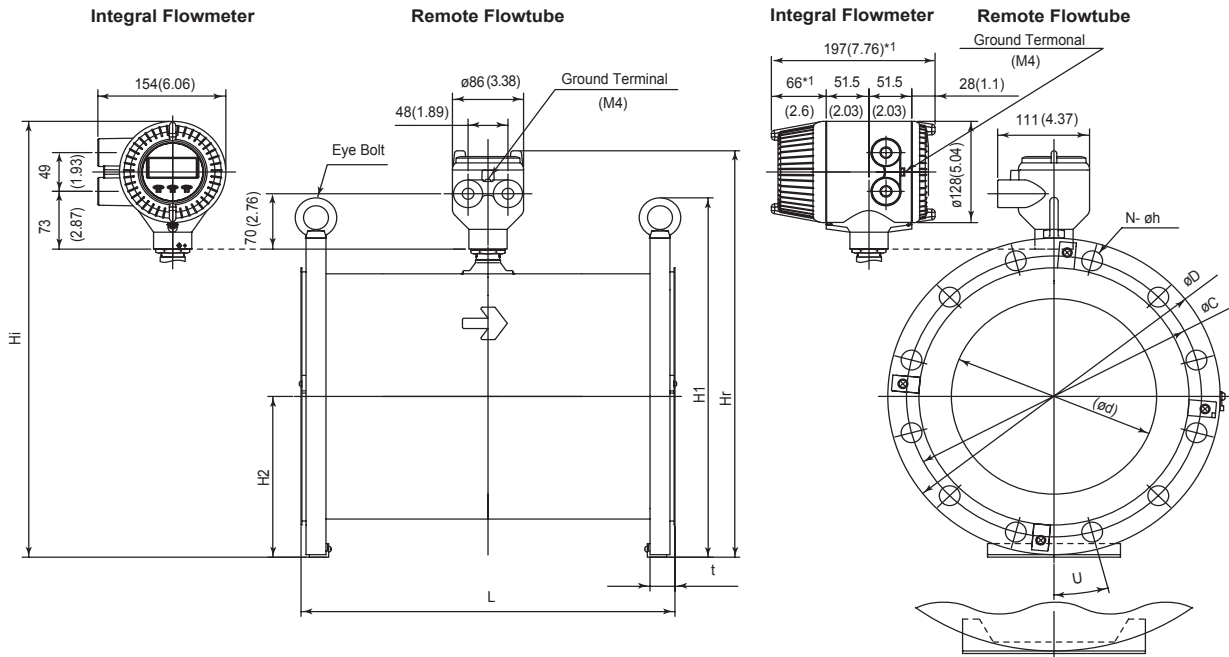
\*3: Waterproof glands and a 30 m long cable are attached to each submersible style flowtube. Add 9.5 kg (20.9 lb) to the weight in the table.

F32.EPS

**AXF Standard, AXF250-AXF400, ANSI/DIN Flange Type, PFA/Polyurethane Rubber/Natural Soft Rubber/EPDM Rubber Lining**

Unit: mm (approx. in)

AXF250 G D 1 A B A □  
 AXF300 W E N 2 B D □  
 AXF350 C N D □ 2 C A □ 1  
 AXF400 P P N G 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)	
		Size code	250	300	350	400	250	300	250	300	350	400	250
	Size	250 (10)	300 (12)	350 (14)	400 (16)	250 (10)	300 (12)	250 (10)	300 (12)	350 (14)	400 (16)	250 (10)	300 (12)
	Lining code	A.U.D.G	A.U.D.G	A.U.D.G	A.U.D.G	A.U.D.G	A.U.D.G	A.U.D.G	A.U.D.G	A.U.D.G	A.U.D.G	A.U.D.G	A.U.D.G
Remote flowtube	Face-to-face length L <sup>0*2</sup>	450 (17.72)	500 (19.69)	550 (21.65)	600 (23.62)	450 (17.72)	500 (19.69)	450 (17.72)	500 (19.69)	550 (21.65)	600 (23.62)	450 (17.72)	500 (19.69)
	Outside dia. øD	406.4 (16.00)	482.6 (19.00)	533.4 (21.00)	596.9 (23.50)	444.5 (17.50)	520.7 (20.50)	395 (15.55)	445 (17.52)	505 (19.88)	565 (22.24)	405 (15.94)	460 (18.11)
	Thickness t <sup>*2</sup>	38.2 (1.50)	39.7 (1.56)	45.0 (1.77)	46.5 (1.83)	55.7 (2.19)	58.8 (2.31)	34 (1.34)	34 (1.34)	36 (1.42)	36 (1.42)	34 (1.34)	36 (1.42)
	Inner diameter of Grounding ring ød	243 (9.57)	291.3 (11.47)	323.4 (12.73)	373.5 (14.70)	243 (9.56)	291.3 (11.47)	243 (9.57)	291.3 (11.47)	323.4 (12.73)	373.5 (14.70)	243 (9.57)	291.3 (11.47)
	Pitch circle dia. øC	362.0 (14.25)	431.8 (17.00)	476.3 (18.75)	539.8 (21.25)	387.4 (15.25)	450.9 (17.75)	350 (13.78)	400 (15.75)	460 (18.11)	515 (20.28)	555 (21.85)	410 (16.14)
Integral flowmeter	Bolt hole interval U <sup>0</sup>	15	15	15	11.25	11.25	11.25	15	15	11.25	11.25	15	15
	Hole dia. øh	25.4 (1.00)	25.4 (1.00)	28.4 (1.12)	28.4 (1.12)	28.4 (1.12)	31.8 (1.25)	23 (0.91)	23 (0.91)	23 (0.91)	28 (1.10)	28 (1.10)	28 (1.10)
	Number of holes N	12	12	12	16	16	16	12	12	16	16	12	12
Remote flowtube	Height H1	399 (15.72)	461 (18.16)	503 (19.79)	560 (22.05)	418 (16.47)	480 (18.91)	394 (15.49)	443 (17.42)	489 (19.23)	544 (21.42)	399 (15.69)	450 (17.72)
	Height H2	196 (7.72)	220 (8.66)	236 (9.29)	262 (10.30)	196 (7.72)	220 (8.66)	196 (7.72)	220 (8.66)	236 (9.29)	262 (10.30)	196 (7.72)	220 (8.66)
Integral flowmeter	Max. Height Hr	523 (20.60)	585 (23.04)	627 (24.68)	684 (26.93)	542 (21.35)	604 (23.79)	518 (20.37)	567 (22.30)	613 (24.12)	668 (26.30)	523 (20.57)	574 (22.60)
	Weight kg (lb) <sup>*3</sup>	83.4 (183.8)	104.5 (230.4)	151.5 (334.0)	184.9 (407.7)	133.0 (293.1)	176.7 (389.5)	73.0 (161.0)	79.4 (174.9)	112.5 (248.0)	129.7 (285.9)	74.8 (164.9)	87.9 (193.8)
Remote flowtube	Max. Height Hi	623 (24.52)	664 (26.15)	722 (28.41)	722 (28.41)	580 (22.82)	642 (25.27)	555 (21.85)	604 (23.78)	650 (25.59)	706 (27.78)	560 (22.05)	612 (24.07)
	Weight kg (lb)	95.1 (209.6)	106.2 (234.2)	153.2 (337.8)	186.6 (411.4)	134.7 (296.9)	178.4 (393.3)	74.7 (164.7)	81.1 (178.7)	114.2 (251.7)	131.4 (289.6)	76.5 (168.7)	89.6 (197.6)

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

For explosion proof style with indicator add 5 mm (0.2 in) 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				
	L	t	L	t
Grounding Ring Code	S, L, H, V	N		
Option Code is "None"	+0	+0	-6(0.24)	-3(0.12)

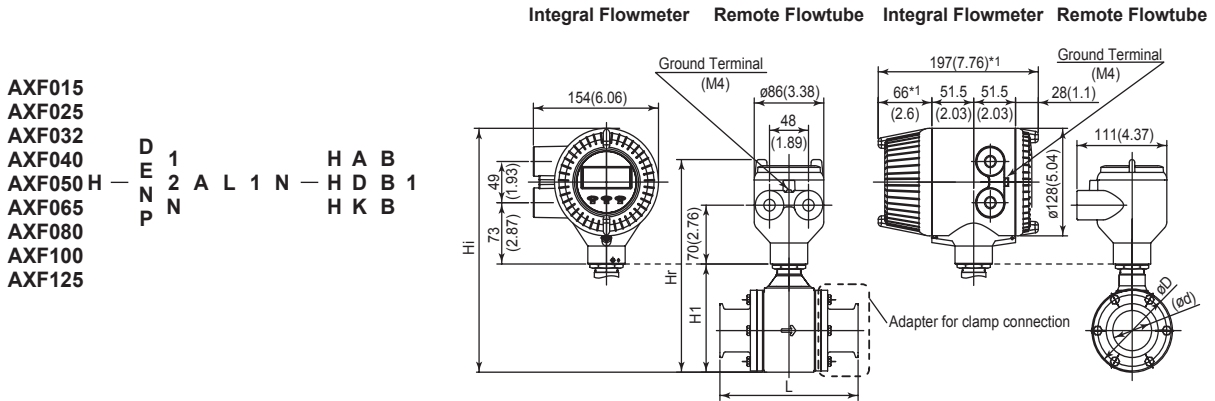
Nominal Size: 350 mm to 400 mm				
	L	t	L	t
Grounding Ring Code	S, L, H, V	N		
Option Code is "None"	+0	+0	-10(0.39)	-5(0.20)

\*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 weight in the table.

F33.EPS

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

Unit: mm (approx. in)

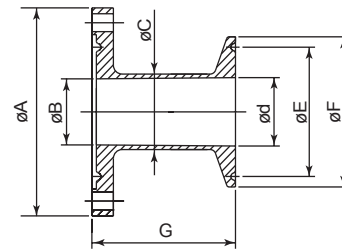


- AXF015
- AXF025
- AXF032
- AXF040
- AXF050 H
- AXF065
- AXF080
- AXF100
- AXF125

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

Model	Process Connection		HAB (Tri-Clamp) / HDB (DIN 32676 Clamp) / HKB (ISO 2852 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 <sub>0-3</sub>	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.	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	HAB 15.7 (0.62)	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)	125 (4.92)	—	
		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	98 (3.86)	98 (3.86)	98 (3.86)	111 (4.37)	129 (5.08)	147 (5.79)	157 (6.18)	183 (7.20)	212 (8.35)		
Remote flowtube	Max. Height	Hr	222 (8.74)	222 (8.74)	222 (8.74)	235 (9.25)	253 (9.96)	271 (10.67)	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	260 (10.22)	260 (10.22)	260 (10.22)	273 (10.73)	291 (11.44)	309 (12.15)	319 (12.54)	345 (13.56)	374 (14.70)	
	Weight kg (lb)	4.4 (9.7)	4.2 (9.3)	4.3	4.6 (10.1)	5.3 (11.7)	6.5 (14.3)	7.4 (16.3)	9.8 (21.6)	13.8 (30.4)		

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



Adapter for clamp connection

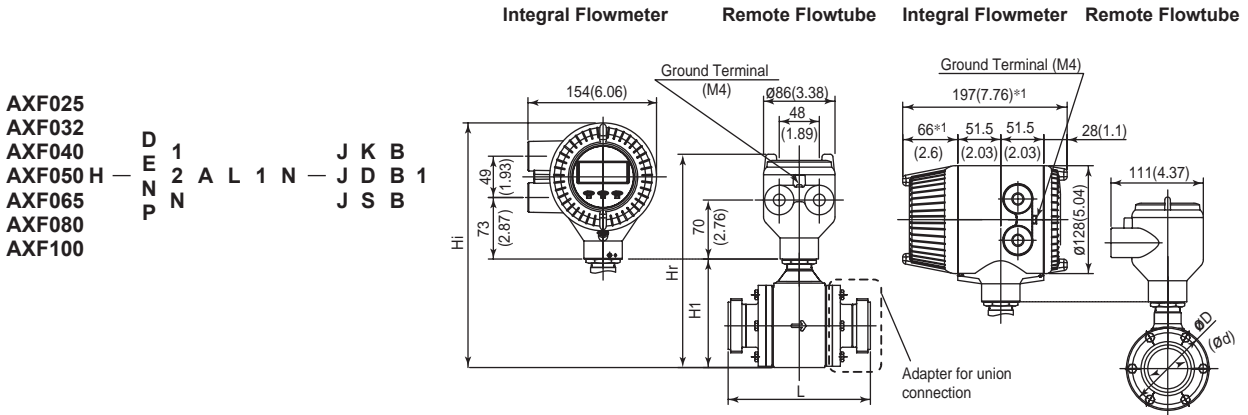
Process Connection	HAB (Tri-Clamp)												HDB (DIN 32676 Clamp)												HKB (ISO 2852 Clamp)											
	15	25	40	50	65	80	100	15	25	32	40	50	65	80	100	125	15	25	32	40	50	65	80	100	125											
Nominal Size	70	70	83	96	114	126	152	70	70	70	83	96	114	126	152	180	70	70	70	83	96	114	126	152	180											
øA	16	22.2	34.6	47.6	59.5	72.3	97	16	22.2	29.4	34.6	47.6	59.5	72.3	97	123	16	22.2	29.4	34.6	47.6	59.5	72.3	97	123											
øB	19.2	25.4	38.1	50.8	63.5	76.2	101.6	20	30	36	42	54	70	85	104	129	18	25.6	34.3	38.6	51.6	64.1	76.7	102.5	141.2											
øC	15.7	22.1	34.8	47.5	60.2	72.9	97.4	16	26	32	38	50	66	81	100	125	15.2	22.6	31.3	35.6	48.6	60.3	72.9	97.6	135.7											
ød	---	43.6	43.6	56.3	70.6	83.3	110.3	27.5	43.5	43.5	43.5	56.5	83.5	97	110	146	27.5	43.5	43.5	43.5	56.5	70.5	83.5	110	146											
øE	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---											
øF	25	50.4	50.4	64	77.4	91	118.9	34	50.5	50.5	50.5	64	91	106	119	155	34	50.5	50.5	50.5	64	77.5	91	119	155											
G	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	60	50	50	50	50	50	50	50	50	60											
Parts No.	F9811 HU	F9811 HV	F9811 HX	F9811 HY	F9811 HZ	F9811 JA	F9811 JB	F9811 JD	F9811 JE	F9811 JF	F9811 JG	F9811 JH	F9811 JJ	F9811 JK	F9811 JL	F9811 JM	F9811 JN	F9811 JP	F9811 JQ	F9811 JR	F9811 JS	F9811 JT	F9811 JU	F9811 JW	F9811 JW											

F34.EPS



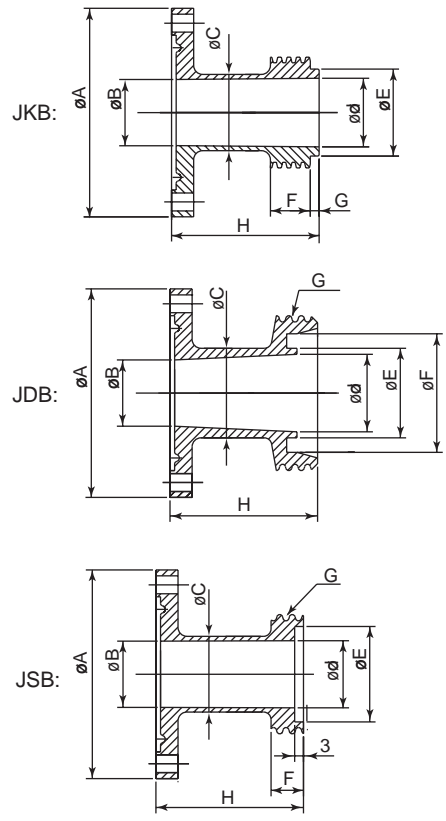
AXF Standard, AXF015-AXF125, Sanitary for Union Connection, PFA Lining

Unit: mm (approx. in)



AXF025  
 AXF032  
 AXF040  
 AXF050 H — D E N P  
 AXF065  
 AXF080  
 AXF100

1  
 2  
 A  
 L  
 1  
 N — J  
 K  
 B  
 J  
 D  
 B  
 1  
 J  
 S  
 B



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 <sub>0.3</sub>	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	—	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)
Remote flowtube	Height	H1	JKB	98 (3.86)	98 (3.86)	98 (3.86)	111 (4.37)	129 (5.08)	147 (5.79)	157 (6.18)	183 (7.20)	212 (8.35)	
			JDB	222 (8.74)	222 (8.74)	222 (8.74)	235 (9.25)	253 (9.96)	271 (10.67)	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	260 (10.24)	260 (10.24)	260 (10.24)	273 (10.73)	291 (11.44)	309 (12.17)	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	—	—	—	—	—	—	—	—	—	—

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

Adapters for union connection

Process Connection	JKB (ISO 2853 Union)									JDB (DIN 11851 Union)									JSB (SMS1145 Union)								
	15	25	32	40	50	65	80	100	125	15	25	32	40	50	65	80	100	125	25	32	40	50	65	80	100		
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)	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)			
A	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)			
B	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)			
C	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)			
d	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)			
E	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)	19 (0.75)	25 (0.98)	30 (1.18)	37 (1.46)	45 (1.77)			
F	3 (0.12)	3 (0.12)	3 (0.12)	3 (0.12)	3 (0.12)	3 (0.12)	3 (0.12)	RD34 1/8"	RD52 1/6"	RD58 1/6"	RD65 1/6"	RD78 1/6"	RD95 1/6"	RD110 1/4"	RD130 1/4"	RD160 1/4"	RD40 1/6"	RD48 1/6"	RD60 1/6"	RD70 1/6"	RD85 1/6"	RD98 1/6"	RD132 1/6"	—			
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)		
H	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 LO	F9811 LP	F9811 LQ	F9811 LR		
Parts No.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		

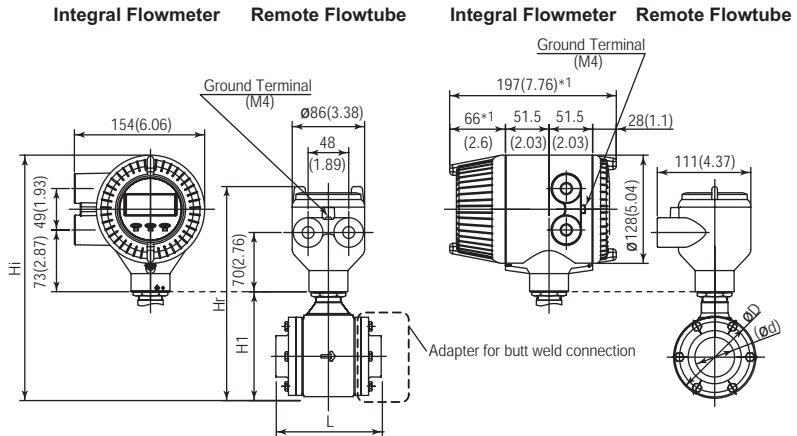
F35.EPS

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

Unit: mm (approx. in)

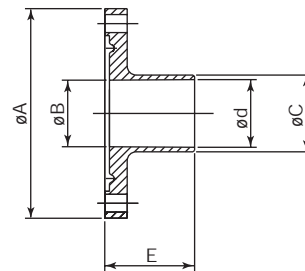
AXF015  
AXF032  
AXF040  
AXF050  
AXF065  
AXF080  
AXF100  
AXF125

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



Model	Process Connection		KKB (ISO 2037 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 <sub>0.3</sub>	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.	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.	d	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)
Remote flowtube	Height	H1	98 (3.86)	98 (3.86)	98 (3.86)	111 (4.37)	129 (5.08)	147 (5.79)	157 (6.18)	183 (7.20)	212 (8.35)
	Max. Height	Hr	222 (8.74)	222 (8.74)	222 (8.74)	235 (9.25)	253 (9.96)	271 (10.67)	281 (11.06)	307 (12.09)	336 (13.23)
Integral flowmeter	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)
	Max. Height	Hi	260 (10.24)	260 (10.24)	260 (10.24)	273 (10.73)	291 (11.44)	309 (12.17)	319 (12.54)	345 (13.56)	374 (14.70)
Integral flowmeter	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 in) from the value in the figure.



Adapter for butt weld connection

Process Connection	KKB (ISO 2037 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)
A	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)
B	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)
C	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)
d	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)
E	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)
Parts No.	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

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## 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 Flowtube	Integral Flowmeter	High Grade Accuracy 0.2% of Rate	Enhanced Dual Frequency Excitation (Optional code HF1, HF2)	Replaceable Electrode (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 Type	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 Type	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)	—

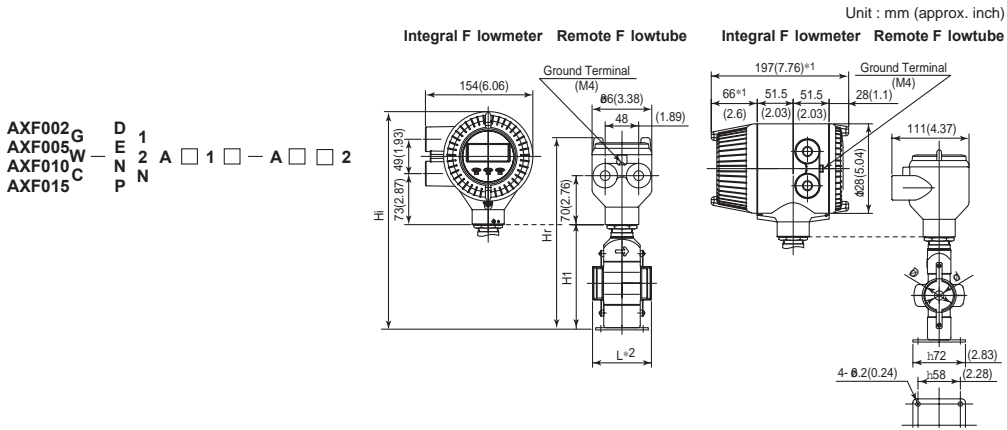
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\*6: ADMAG lay length dimensions for wafer type of 250 mm (10 in.), and 300 mm (12 in.) are the same as those for AXF Standard.

And, in case of "platinum-iridium (grounding ring code P) or tantalum (grounding ring code T) or None (grounding ring code N)" in wafer type of 2.5 mm (0.1 in.) to 15 mm (0.5 in.), the lay lengths of Replacement model are the same as those for AXF Standard.

\*7: ADMAG lay length dimensions for flange type of 15 mm (0.5 in.) to 100 mm (4.0 in.), or 300 mm (12 in.) to 2600 mm (104 in.) are the same as those for AXF Standard. However, in case of platinum-iridium (grounding ring code P) or tantalum (grounding ring code T) or None (grounding ring code N) in flange type of 15 mm (0.5 in.) to 100 mm (4.0 in.), the lay length of AXF Standard are longer by approx. 4mm (0.16 in) than those of earlier ADMAG or ADMAG AE.

Replacement model for Earlier ADMAG or ADMAG AE, AXF002-AXF015, Wafer Style/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 <sub>3</sub> <sup>g*2</sup>	85(3.35)			
	Outside dia.	ØD	44(1.74)			
Integral flowmeter	Inner diameter of Grounding ring	ØØ	15(0.59)			
	Height	H1	141(5.55)			
Remote flowtube	Max. Height	Hr	265(10.43)			
	Weight kg (lb) <sup>*3</sup>		2.4(5.3)			
Integral flowmeter	Max. Height	Hi	306(12.03)			
	Weight kg (lb) <sup>*3</sup>		4.1(9.0)			

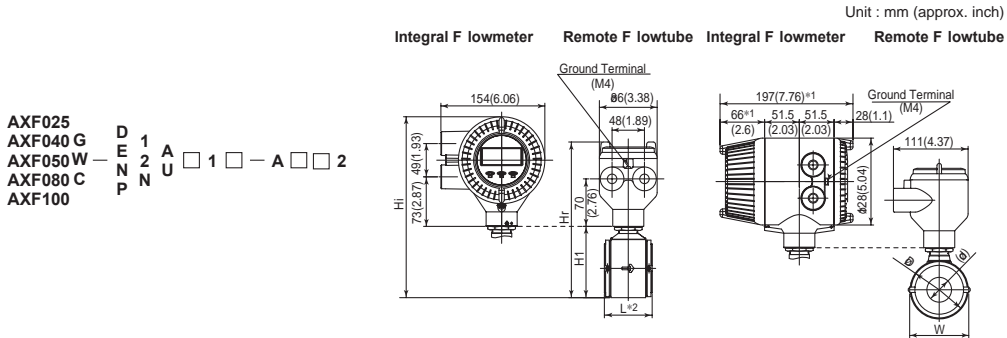
\*1: When indicator code N is selected, subtract 12 mm (0.47 inch) from the value in the figure.  
For explosion proof style with indicator add 5mm (0.2inch) to it.  
\*2: Depending on the selection of grounding ring code and optional

Option Code	Grounding Ring Code	S, L, H, V	P, T	N
		None	+0	+22(0.87)
	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.

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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 <sub>3</sub> <sup>g*2</sup>	93(3.66)	106(4.17)	120(4.72)	160(6.30)	180(7.09)
	Outside dia.	ØD	67.5(2.66)	86(3.39)	99(3.90)	129(5.08)	155(6.10)
Integral flowmeter	Inner diameter of Grounding ring	Ød	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	Height	H1	92(3.62)	111(4.37)	129(5.08)	157(6.18)	183(7.20)
	Max. Height	Hr	216(8.50)	235(9.25)	253(9.96)	281(11.06)	307(12.09)
Integral flowmeter	Weight kg (lb) <sup>*3</sup>		3.1(6.7)	3.5(7.7)	4.2(9.3)	6.4(14.1)	8.0(17.6)
	Max. Height	Hi	254(9.98)	273(10.73)	291(11.44)	319(12.54)	345(13.56)
Integral flowmeter	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

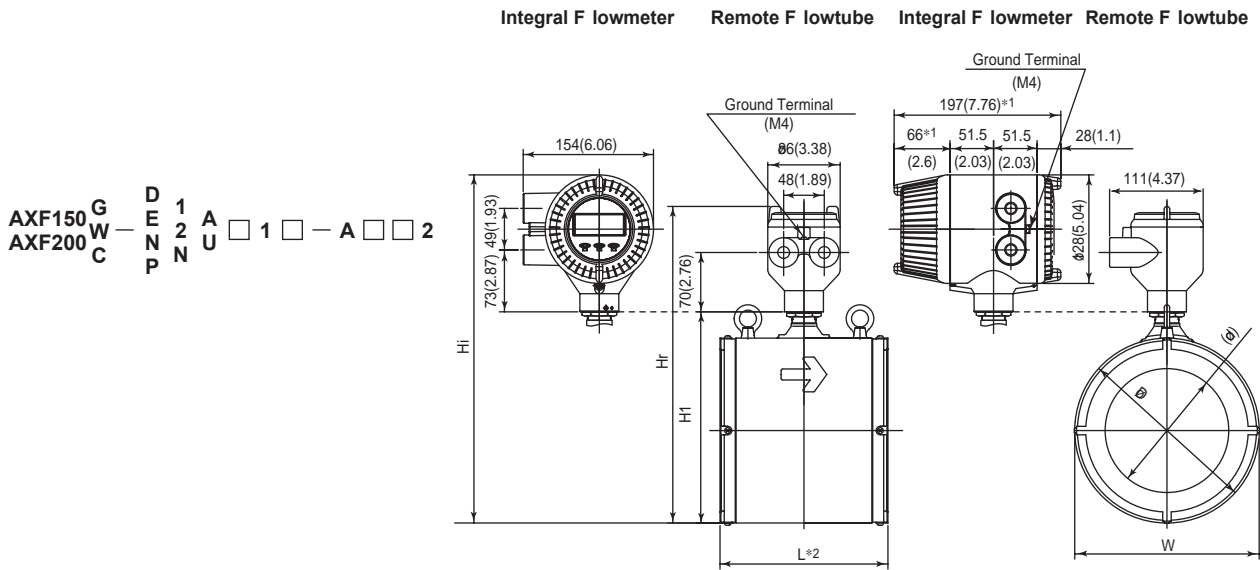
Option Code	Grounding Ring Code	S, L, H, V	P, T	N
		None	+0	+22(0.87)
	GA, GC, GD (Special Gaskets)	+2(0.08)	+24(0.94)	-

\*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.

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

Unit : mm (approx. inch)



Model	Size code	150	200	
	Size	150(6)	200(8)	
	Lining code	A,U	A,U	
Remote flowtube	Face-to-face length	L <sub>-3</sub> <sup>0*2</sup>	230(9.06)	300(11.81)
	Outside dia.	∅D∅	202(7.95)	252(9.92)
Integral flowmeter	Inner diameter of Grounding ring	∅d	140.7(5.54)	188.9(7.44)
	Width	W	202(7.95)	252(9.92)
Remote flowtube	Height	H1	243(9.57)	293(11.54)
	Max. Height	Hr	367(14.45)	417(16.42)
Integral flowmeter	Weight kg (lb) <sup>*3</sup>		17.9(39.5)	26.8(59.1)
	Max. Height	Hi	405(15.93)	455(17.89)
Remote flowtube	Weight kg (lb) <sup>*3</sup>		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	+28(1.1)	-6(0.24)
	GA, GC, GD (Special Gaskets)	+2(0.08)	+30(1.18)	-

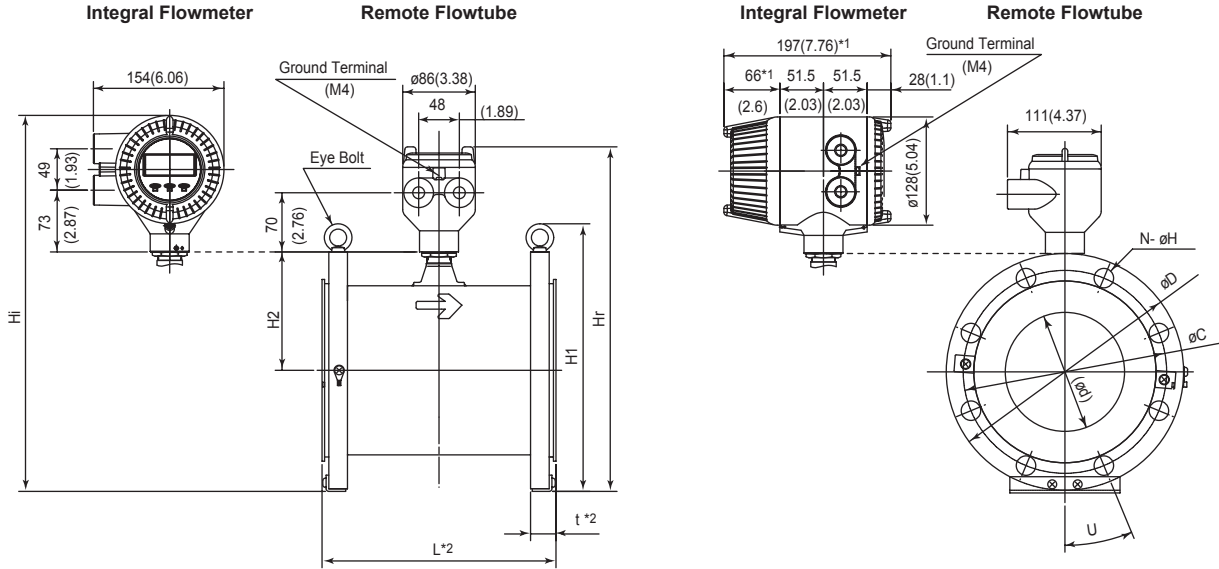
\*3: Waterproof glands and a 30 m long cable are attached to each submersible style flowtube. Add 9.5 kg (20.9 lb) to the weight in the table.

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

AXF150 G — D 1 A □ 1 □ — C A □ 2  
 AXF200 W — E 2 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)			
	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 <sub>g</sub> (10.63)	340 <sub>g</sub> (13.39)	430 <sub>g</sub> (16.93)	270 <sub>g</sub> (10.63)	340 <sub>g</sub> (13.39)	430 <sub>g</sub> (16.93)	340 <sub>g</sub> (13.39)	430 <sub>g</sub> (16.93)	270 <sub>g</sub> (10.63)	340 <sub>g</sub> (13.39)	430 <sub>g</sub> (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)	243 (9.57)	140.7 (5.54)	188.9 (7.44)	243 (9.57)	188.9 (7.44)	243 (9.57)	140.7 (5.54)	188.9 (7.44)	243 (9.57)
	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°	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	+28(1.10)+14(0.55)	-6(0.24)	-3(0.12)
	GA, GC, GD (Special Gaskets)	+2(0.08)	+1(0.04)	+30(1.18)	+15(0.59)	-

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.

Unless otherwise specified, differences in the dimensions are referring to the following table.

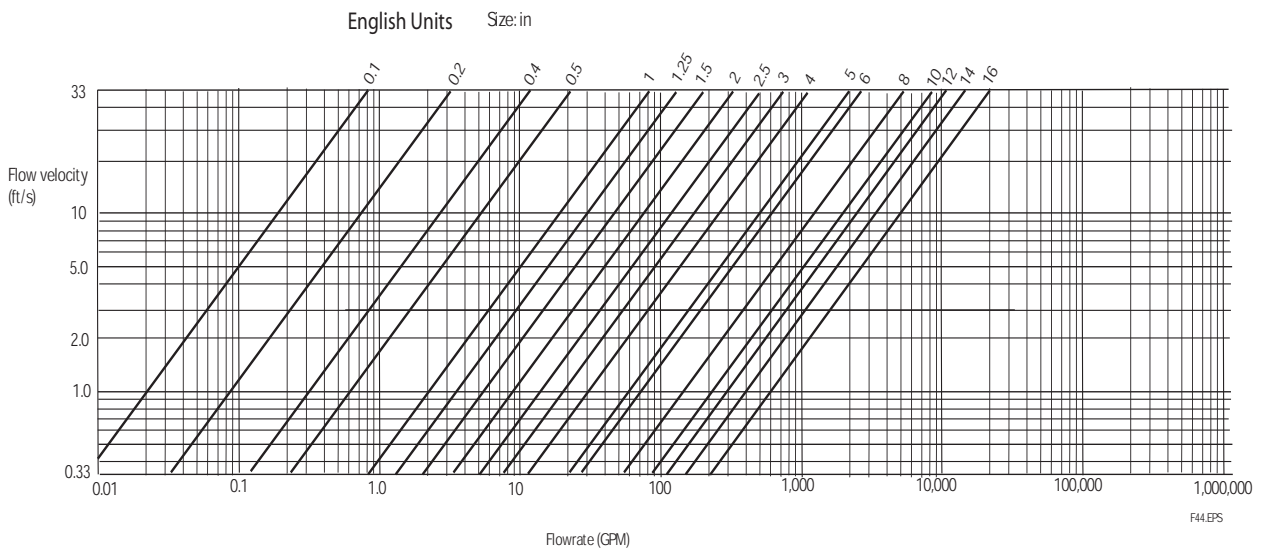
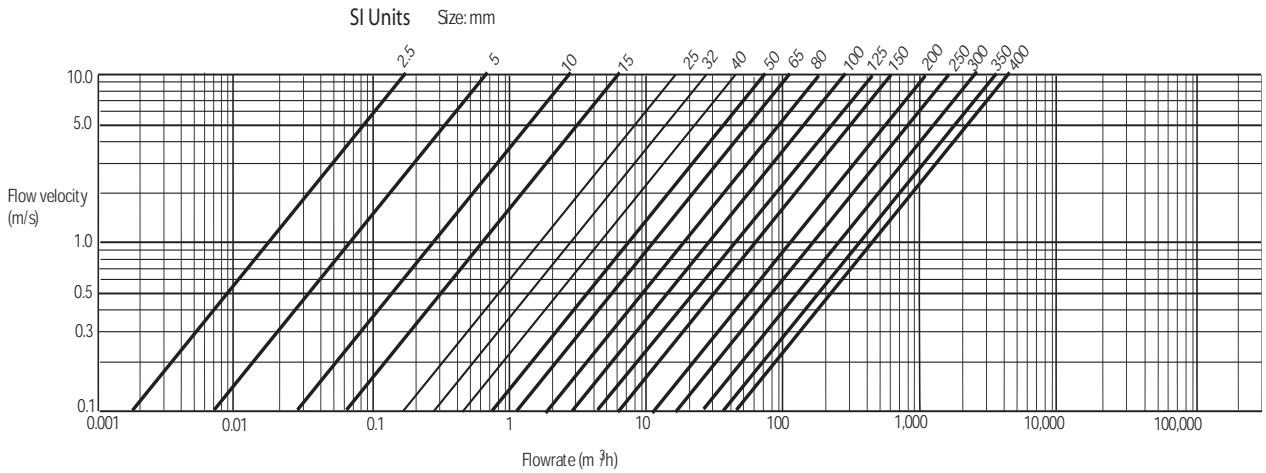
General tolerance in the dimensional outline drawing.

Unit : mm (approx.in)

Category of basic dimension		Tolerance
Above	Equal or below	
	3 (0.12)	±0.7 (60.03)
3 (0.12)	6 (0.24)	±0.9 (60.04)
6 (0.24)	10 (0.39)	±1.1 (60.04)
10 (0.39)	18 (0.71)	±1.35 (60.05)
18 (0.71)	30 (1.18)	±1.65 (60.06)
30 (1.18)	50 (1.97)	±1.95 (60.08)
50 (1.97)	80 (3.15)	±2.3 (60.09)
80 (3.15)	120 (4.72)	±2.7 (60.11)
120 (4.72)	180 (7.09)	±3.15 (60.12)
180 (7.09)	250 (9.84)	±3.6 (60.14)
250 (9.84)	315 (12.40)	±4.05 (60.16)
315 (12.40)	400 (15.75)	±4.45 (60.18)
400 (15.75)	500 (19.69)	±4.85 (60.19)

Remarks: The numeric is based on criteria of tolerance class IT18 in JIS B 0401.

**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 be set in the combined converter before shipment.

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

1. Model, specification and option codes.
2. 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.

3. 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 tag number is set as a blank.

4. Flow rate spans and units

Flow span can be specified with the numeric within the value of 0.0001 to 32000.

And it can be up to five digits, to a maximum of 32000 ignoring the decimal point.

And a fraction is limited to the fourth decimal place. Integral flowmeters are set to the first range in the forward direction. Remote flowtubes 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/s.

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/s.

7. Fluidname

## RELATED INSTRUMENTS

Calibrator for Magnetic Flowmeter (AM012):

GS 01E06K02-00E

BT200 Brain Terminal:

GS 1C0A11-E

AXFA11 Magnetic Flowmeter Remote Converter:

GS 01R20C01-00E-E

AXFA14 Magnetic Flowmeter Remote Converter:

GS 01R20C02-00E-E

GS 01R20D01-00E-E 3rd edition is based on GS 01E20D01-01E up to 7th edition.

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