

**I/A Series[®] Coriolis Mass Flow and Density Meters
for
Standard and 3A Sanitary Applications
—
Model CFS10 Mass Flowtubes
—
Style A**

Give instrument Model Code when ordering.
*Parts preceded by an asterisk are recommended spare parts.
See Recommended Spare Parts Summary section for quantities.

TO ORDER PARTS, CALL 1-866-746-6477.

MODEL CODES

Model Code – CFS10 Series Mass Flowtubes (See next page for CFS10 Sanitary Flowtubes)

Description	
CFS10	= CFS10 Series Mass Flowtube (a)
Nominal Flowtube and Flange Size	
-02	= 3 mm (1/8 in); Threaded 1/4 NPT, ANSI B2.1 Connection
-03	= 6 mm (1/4 in)
-05	= 15 mm (1/2 in)
-08	= 20 mm (3/4 in)
-10	= 25 mm (1 in)
-15	= 40 mm (1 1/2 in)
-20	= 50 mm (2 in)
Flowtube Wetted Material	
S	= AISI Type 316L Stainless Steel (316L ss)
H	= Hastelloy C-22 (Not available with Flowtube Size Codes -08, -15, and -20)
C	= AISI Type 316L ss prepared with Sanitary Finish (Not with Flowtube Size Code -02)
End Connections (h)	
A	= Threaded, NPT, ANSI B2.1 (Not available with Flowtube Size Codes -10, -15, or -20)
C	= ANSI, Class 150 Flange (Not Available with Flowtube Size Code -02) (b)
D	= ANSI, Class 300 Flange (Not Available with Flowtube Size Code -02) (b)
E	= ANSI, Class 600 Flange (Not Available with Flowtube Size Code -02) (b)
F	= EN 1092-1, PN 10/16, 25/40 Flange (Not Available with Flowtube Size Code -02) (b)(j)
J	= EN 1092-1, PN 100 Flange (b) (Not Available with Flowtube Size Code -02)
Electrical Safety	
MMM	= ATEX (KEMA), II 2 G, EEx ib, IIB; T2–T6
LLL	= ATEX (KEMA), II 3 G, EEx nA, II; T3–T6
CNN	= CSA, Nonincendive for use in Class I, Division 2, Groups A, B, C, and D
FBB	= FM, Intrinsically Safe, Class I, Division 1, Groups C and D
FNN	= FM, Nonincendive for Class I, Division 2, Groups A, B, C, and D
ZZZ	= No Electrical Certifications/Approvals
Optional Selections	
-B	= Bidirectional Flow Calibration (Standard Factory Calibration is one direction)
-C	= Cryogenic Applications for Temperatures below -130°C (-202°F) (g)
-E	= Calibrated for use with a CFT50 Transmitter (Default Calibration) (c)
-F	= Calibrated for use with a CFT10 or CFT15 Transmitter (c)
-G	= Dual Calibrations, for use with a CFT10, CFT15, or CFT50 Transmitter (c)
-M	= Material Certification of Process Wetted Metal Conforms to DIN 50049, Paragraph 3.1B)
-S	= Tamperproof sealing for Terminal Block Cover (e)
-T	= Weights and Measures Custody Transfer/NTEP; (f) - Includes Tamperproof Sealing Option -S - Must be combined with CFT50 Transmitter Option -T - Calibration Option -E must also be specified
-X	= Radiography of Pressure Retaining Welds (d)

Examples: CFS10-05SCFBB-BX; CFS10-10SFCNN-E

- (a) IMPORTANT: The flowtube is not supplied with cable for transmitter interconnection. Standard cable can be ordered separately. See Cable Model Code further in this document.
- (b) Size Code -03, 6 mm (1/4 in) Flowtube, supplied with a 15 mm (1/2 in) flange connection.
- (c) Specify one of either -E, -F, or -G Calibration Options only.
- (d) Per ASME Section V Boiler/Pressure Vessel Code, Nondestructive.
- (e) Option -S not available with Electrical Safety Codes MMM and LLL.
- (f) Option -T not available with Electrical Safety Codes CNN, MMM, and LLL.
- (g) Electrical Safety Code FBB cannot be applied on the following flowtube sizes when the Cryogenic Option is selected; -02, -03, -10, -15, and -20.
- (h) Not available with Size Code -03 and Flowtube Wetted Material Code C.
- (j) The PN 25/40 flange is used for PN 10/16 flange applications.

MODEL CODES

MODEL CODES

Model Code – CFS10 Series Sanitary Mass Flowtubes

Description
CFS10 = CFS10 Series Sanitary Mass Flowtube (a)
Nominal Flowtube and End Connection Size
-03 = 6 mm (1/4 in); Process Connection Size is 1/2 in
-05 = 15 mm (1/2 in); Process Connection Size is 1 in
-08 = 20 mm (3/4 in); Process Connection Size is 1 in
-10 = 25 mm (1 in); Process Connection Size is 1 in
-15 = 40 mm (1 1/2 in); Process Connection Size is 1 1/2 in
-20 = 50 mm (2 in); Process Connection Size is 2 in
Flowtube Wetted Material
C = AISI Type 316L ss prepared for Sanitary Applications, 3A Authorization No. 224
N = End Connections (Supplied in AISI Type 316 Stainless Steel Only) For Mating to DIN 11851 Coupling with External Thread (Not available with Flowtube Size Code -03)
P = For Mating to Tri-Clamp Type Quick Disconnect Coupling
Electrical Safety
MMM = ATEX (KEMA), II 2 G, EEx ib, IIB; T2–T6
LLL = ATEX (KEMA), II 3 G, EEx nA, II; T3–T6
CNN = CSA, Nonincendive for use in Class I, Division 2, Hazardous Locations
FBB = FM, Intrinsically Safe, Class I, Division 1, Groups C and D
FNN = FM, Nonincendive for Class I, Division 2, Groups A, B, C, and D
ZZZ = No Electrical Certifications/Approvals
Optional Selections
-B = Bidirectional Flow Calibration (Standard Factory Calibration is one direction)
-E = Calibrated for use with a CFT50 Transmitter (Default Calibration) (b)
-F = Calibrated for use with a CFT10 or CFT15 Transmitter (b)
-G = Dual Calibrations, for use with a CFT10, CFT15, or CFT50 Transmitter (b)
-M = Material Certification of Process Wetted Metal
-S = Tamperproof sealing for Terminal Block Cover (c)
-T = Weights and Measures Custody Transfer/NTEP; (d)
- Includes Tamperproof Sealing Option -S
- Must be combined with CFT50 Transmitter Option -T
- Calibration Option -E must also be specified

Examples: CFS10–05CPFBB–BM

- (a) IMPORTANT: The flowtube is not supplied with cable for transmitter interconnection. Standard cable can be ordered separately. See next page for Cable Model Code.
- (b) Specify one of either -E, -F, or -G Calibration Options only.
- (c) Option -S not available with Electrical Safety Codes MMM and LLL.
- (d) Option -T not available with Electrical Safety Codes CNN, MMM, and LLL.

MODEL CODES

Model Code - Cable

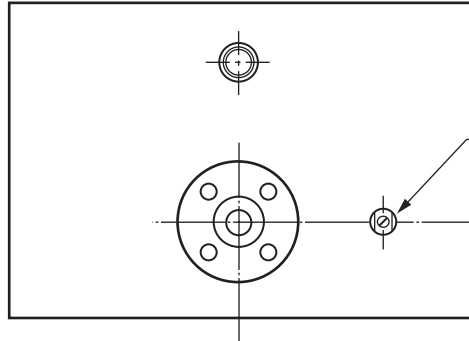
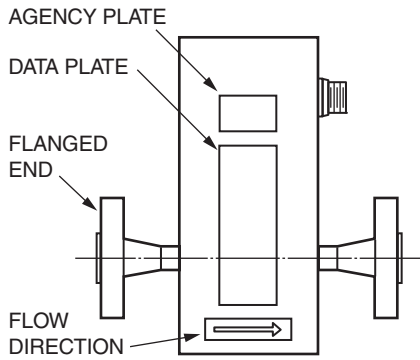
Cable Insulation Material	
KFS1 = IPVC-Insulated Cable, –20 to +80°C (–4 to +176°F) Ambient Temperature	
KFS2 = FEP-Insulated Cable, –40 to +85°C (–40 to +185°F) Ambient Temperature	
Cable Length - Feet or Metres	
-F0020 = 20 feet	-M006 = 6 metres
-F0100 = 100 feet	-M030 = 30 metres
-F0200 = 200 feet	-M060 = 60 metres
-F0500 = 500 feet	-M150 = 150 metres
-F0750 = 750 feet	-M225 = 225 metres
-F1000 = 1000 feet	-M300 = 300 metres

Examples:KFS1–F0200 = 200 feet of PVC Cable; KFS2–M006 = 6 metres of FEP Cable

PARTS

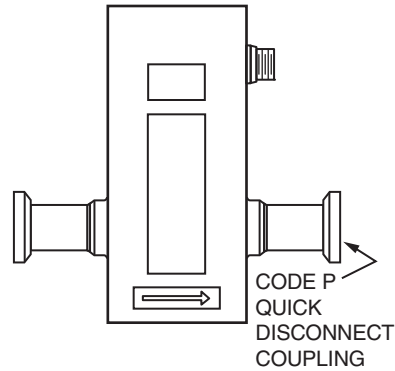
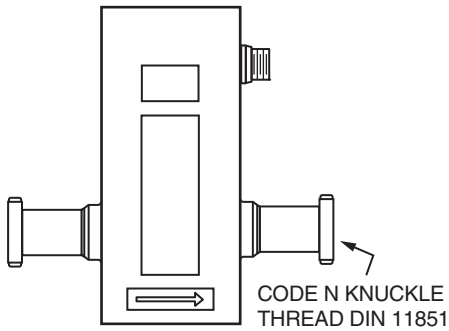
Figure 1. FLOWTUBE ASSEMBLIES

FLANGED END FLOWTUBE, 6 TO 50 mm (1/4 TO 2 in) SIZES



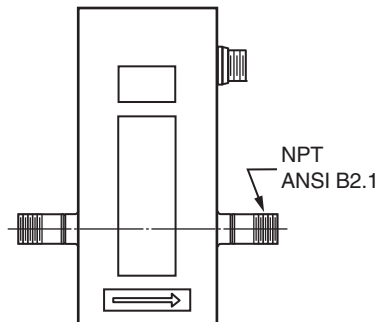
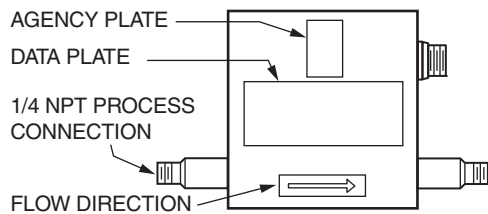
END CONNECTION CODE N
FLOWTUBES, 15 TO 50 mm
(1/2 TO 2 in) SIZES

END CONNECTION CODE P
FLOWTUBES, 6 TO 50 mm
(1/4 TO 2 in) SIZES



THREADED END FLOWTUBE
3 mm (1/8 in) SIZE

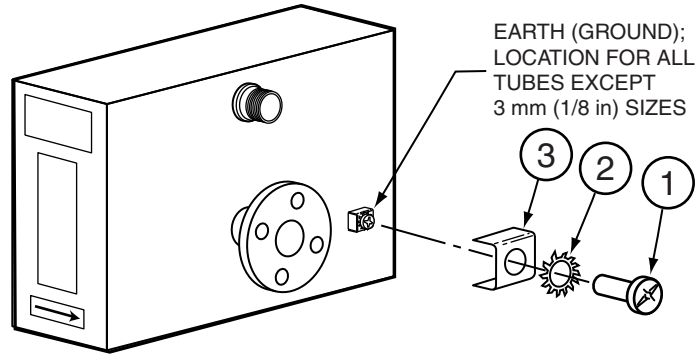
THREADED END FLOWTUBES
6 TO 20 mm (1/4 TO 3/4 in) SIZES



— NOTE —

Flowtube assemblies (other than the external earth/ground parts) cannot be disassembled, and must be replaced in their entirety. To replace a flowtube, refer to the Model Number on the flowtube data plate and contact Global Customer Support. The model number, in addition to process flow data, is required for a proper direct replacement of the flowtube.

Figure 2. EARTH (GROUND) ASSEMBLY



Item	Part No.	Qty.	Part Name
1	X0124FY	1	Screw, Pan Head, Slotted, 0.164-32 x 0.312
2	X0143SB	1	Washer, Ext. Tooth, 0.164
3	C0141ZX	1	Clamp, Earth (Ground)

RECOMMENDED SPARE PARTS SUMMARY

— NOTE —

There are no spare parts recommended for this product. However, parts are depicted, described, and part numbered for replacement part purposes.

