

**I/A Series[®] Coriolis Mass Flow and Density Meters
for
Standard and 3A Sanitary Applications
—
Model CFS20 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 – CFS20 Series Mass Flowtubes (Also see next page for CFS20 Sanitary Mass Flowtube)

Description
CFS20 = CFS20 Series Mass Flowtubes (a)

Nominal Flowtube and Flange Size
-15 = 40 mm (1 1/2 in)
-30 = 80 mm (3 in)

Flowtube Wetted Material
S = AISI Type 316L Stainless Steel (316L ss); with Size Code -30 only
H = Hastelloy C; with Size Code -15 only

End Connections
C = ANSI, Class 150 Flange
D = ANSI, Class 300 Flange
E = ANSI, Class 600 Flange
F = EN 1092-1, PN 40 Flange
J = EN 1092-1, PN 100 Flange

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)
-C = Cryogenic Applications for Temperatures below -130°C (-202°F) (f)
-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 (c)
(Conforms to DIN 50049, Paragraph 3.1B)
-S = Tamperproof sealing for Terminal Block Cover (d)
-T = Weights and Measures Custody Transfer/NTEP; (e)
- 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 (c)
(A copy of the Q.A. report is provided.)

EXAMPLE: CFS20-30SCFBB-BX; CFS20-15HCFBB-G

- (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) Specify one of either -E, -F, or -G Calibration Options only.
- (c) Per ASME Section V Boiler/Pressure Vessel Code, Nondestructive.
- (d) Option -S not available with Electrical Safety Codes MMM and LLL.
- (e) Option -T not available with Electrical Safety Codes CNN, MMM, and LLL.
- (f) Electrical Safety Code FBB cannot be applied on Flowtube Size -30 (3 in) when the Cryogenic Option is selected

MODEL CODES

Model Code – CFS20 Series Sanitary Mass Flowtubes

- Description**
CFS20 = CFS20 Series Sanitary Mass Flowtubes (a)
- Nominal Flowtube and End Connection Size**
-30 = 80 mm (3 in), Process Connection Size is 3 in
- Flowtube Wetted Material**
C = AISI Type 316L ss prepared for Sanitary Applications, 3A Authorization No. 224
- End Connections - supplied in AISI Type 316 stainless steel only**
N = For Mating to DIN 11851 Coupling with External Thread
P = For Mating to Tri-Clamp Type Quick Disconnect Coupling
- Electrical Safety**
MMM = ATEX (KEMA), II 2 G, EEx ib, IIB
LLL = ATEX (KEMA), II 3 G, EEx nA, II
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 (c)
(Conforms to DIN 50049, Paragraph 3.1B)
-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

EXAMPLE: CFS20-30SCFBB-BX; CFS20-15SCFBB-G

- (a) IMPORTANT: The flowtube is not supplied with cable for transmitter interconnection. Standard cable can be ordered separately. See Cable Model Code on next page.
(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.

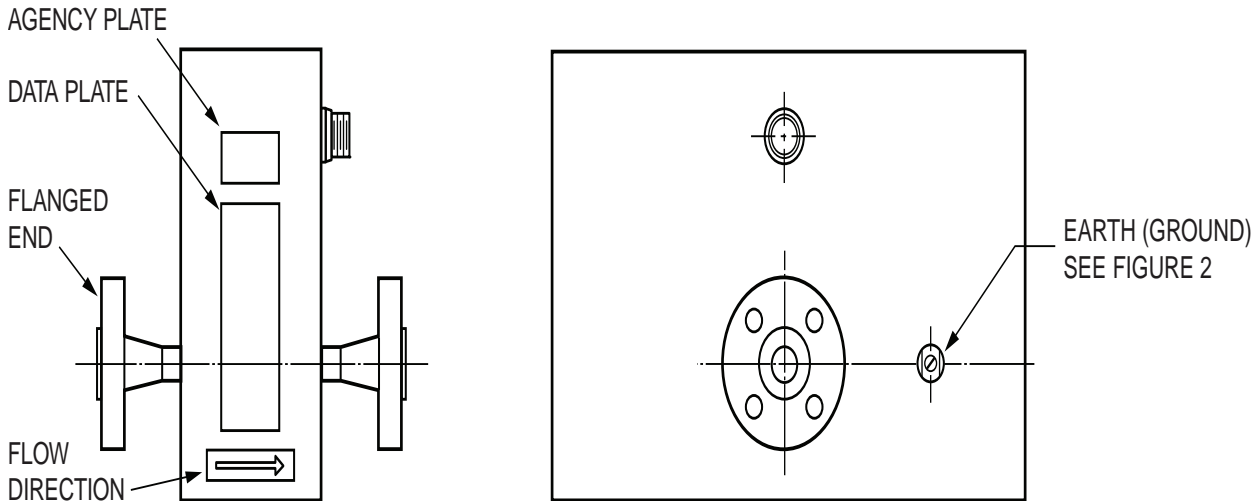
Model Code - Cable

- Description**
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 |

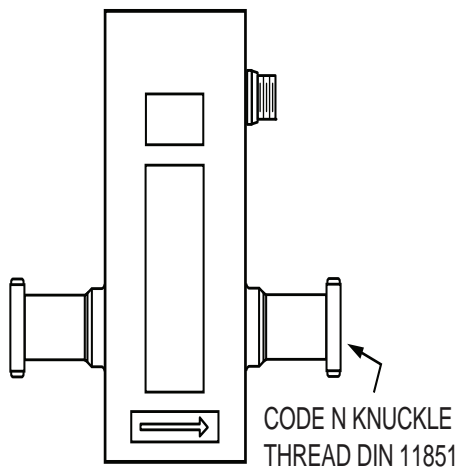
Examples:KFS1-F0200 = 200 feet of PVC Cable; KFS2-M006 = 6 metres of FEP Cable

PARTS

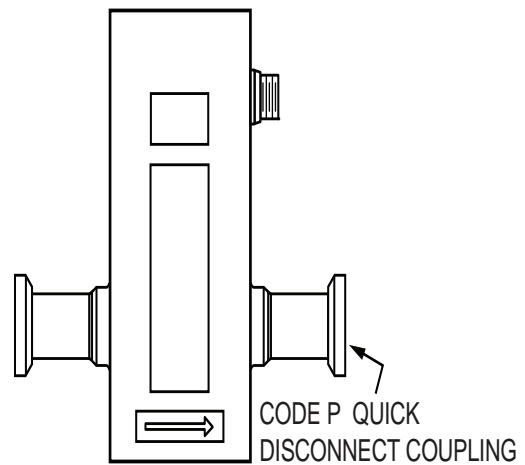
Figure 1. FLOWTUBE ASSEMBLIES
FLANGED END FLOWTUBES, 40 AND 80 mm (1 1/2 AND 3 in) SIZES



END CONNECTION
CODE N FLOWTUBE
80 mm (3 in) SIZE ONLY



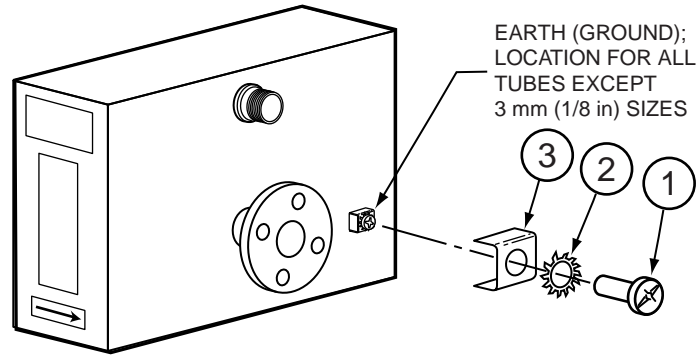
END CONNECTION
CODE P FLOWTUBE
80 mm (3 in) SIZE ONLY



— NOTE —

Flowtube assemblies (other than the junction box and 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.
