CSA-D-IS Installation Instructions, MVD[™] Transmitters

Preparation



MICRO MOTION[®]

Safety messages

Safety messages are provided throughout this manual to protect personnel and equipment. Read each safety message carefully before proceeding to the next step.

Safety and approval information

This Micro Motion product complies with all applicable European directives when properly installed in accordance with the instructions in this manual. Refer to the EU declaration of conformity for directives that apply to this product. The following are available: the EU declaration of conformity, with all applicable European directives, and the complete ATEX Installation Drawings and Instructions. In addition the IECEx Installation Instructions for installations outside of the European Union and the CSA Installation Instructions for installations in North America are available on the internet at www.emerson.com or through your local Micro Motion support center.

Information affixed to equipment that complies with the Pressure Equipment Directive, can be found on the internet at www.emerson.com. For hazardous installations in Europe, refer to standard EN 60079-14 if national standards do not apply.

Other information

Full product specifications can be found in the product data sheet. Troubleshooting information can be found in the configuration manual. Product data sheets and manuals are available from the Micro Motion web site at www.emerson.com.

Return policy

Follow Micro Motion procedures when returning equipment. These procedures ensure legal compliance with government transportation agencies and help provide a safe working environment for Micro Motion employees. Micro Motion will not accept your returned equipment if you fail to follow Micro Motion procedures.

Return procedures and forms are available on our web support site at www.emerson.com, or by phoning the Micro Motion Customer Service department.

Emerson Flow customer service

Email:

- Worldwide: flow.support@emerson.com
- Asia-Pacific: APflow.support@emerson.com

Telephone:

North and South An	nerica	Europe and Middle	East	Asia Pacific						
United States	800-522-6277	U.K. and Ireland	0870 240 1978	Australia	800 158 727					
Canada	+1 303-527-5200	The Netherlands	+31 (0) 70 413 6666	New Zealand	099 128 804					
Mexico	+52 55 5809 5010	France	+33 (0) 800 917 901	India	800 440 1468					
Argentina	+54 11 4809 2700	Germany	0800 182 5347	Pakistan	888 550 2682					
Brazil	+55 15 3413 8000	Italy	+39 8008 77334	China	+86 21 2892 9000					
Chile	+56 2 2928 4800	Central & Eastern	+41 (0) 41 7686 111	Japan	+81 3 5769 6803					
Peru	+51 15190130	Russia/CIS	+7 495 995 9559	South Korea	+82 2 3438 4600					
		Egypt	0800 000 0015	Singapore	+65 6 777 8211					
		Oman	800 70101	Thailand	001 800 441 6426					
		Qatar	431 0044	Malaysia	800 814 008					
		Kuwait	663 299 01							
		South Africa	800 991 390							
		Saudi Arabia	800 844 9564							
		UAE	800 0444 0684							

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1 Before you begin

1.1 About this document

Use this manual to ensure that any applicable Micro Motion flow meter installation complies with Canadian Standards Association (CSA) safety standards.

The information in this document assumes that users understand basic transmitter and sensor installation concepts and procedures.

This manual provides only information associated with installation of transmitters through CSA-D-IS, MVD instructions. For complete information on flow meter installation, see the documentation provided with your sensor and transmitter.

1.2 Hazard messages

This document uses the following criteria for hazard messages based on ANSI standards Z535.6-2011 (R2017).

A DANGER

Serious injury or death will occur if a hazardous situation is not avoided.

Serious injury or death could occur if a hazardous situation is not avoided.

CAUTION

Minor or moderate injury will or could occur if a hazardous situation is not avoided.

NOTICE

Data loss, property damage, hardware damage, or software damage can occur if a situation is not avoided. There is no credible risk of physical injury.

Physical access

NOTICE

Unauthorized personnel can potentially cause significant damage and/or misconfiguration of end users' equipment. Protect against all intentional or unintentional unauthorized use.

Physical security is an important part of any security program and fundamental to protecting your system. Restrict physical access to protect users' assets. This is true for all systems used within the facility.

1.3 Hazardous area installations

If your cable will be installed in a hazardous area, ensure that it meets the hazardous area requirements.

Failure to maintain intrinsic safety in a hazardous area could cause an explosion resulting in injury or death.

To keep sensor wiring intrinsically safe:

- Keep intrinsically safe (IS) sensor wiring separate from power supply wiring and output wiring.
- Do not install power cable in the same conduit or cable tray as flow meter cable.
- Use this document with the appropriate approvals documentation. These manuals are shipped with the flow meter or available at www.emerson.com.
- For hazardous area installations in Europe, refer to standard EN 60079-14 if national standards do not apply.

2 800 Enhanced core processor

This drawing describes an 800 enhanced core processor installation.

800 ENHANCED CORE PROCESSOR IN HAZARDOUS LOCATION

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I.S. AND NON-IN ENHANCED CORE P ENTITY PRMTRS /	ICENDIVE 800 PROCESSOR(INPUT) 7 4-WIRE TERMINAL
VMAX	17.22 Vdc
lmax	488 mA
Pmax	2.1W
Ci	2200pF
Li	30µH

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ENHANCED CORE PROCESSOR



3 1500 and 2500 transmitters

3.1 1500/2500 4-wire installations

List of drawings

Installation	Drawing
1500/2500 4-wire core processor to CMF, F, H, R, CNG, or T sensors	EB-20001220, Revision A
1500/2500 4-wire with core processor and CMF400 sensor with booster amplifier	EB-20001219, Revision A
1500/2500 4-wire with core processor and D600 sensor	EB-20001218, Revision A
1500/2500 4-wire with enhanced core processor and sensor	EB-20003009, Revision A

3.1.1 1500/2500 4-wire core processor to CMF, F, H, R, CNG, or T sensors

This drawing does not apply to the CMF300A sensor or to the CMF400 sensor with booster amplifier.



This device must not be connected to any associated apparatus which uses or generates more than 250Vrms with respect to earth ground.

Micro Motion mass flowmeter system connection for Intrinsically safe operation
Electronics: 1500/2500

EB-20001220 Rev. A

3.1.2 1500/2500 4-wire with core processor and CMF400 sensor with booster amplifier



3.1.3 1500/2500 4-wire with core processor and D600 sensor



3.1.4 1500/2500 4-wire with enhanced core processor and sensor



•The total Ci is equal to the sum of all Ci's of all devices on the network. Ccable is the total capacitance of all cable on the network.

The total Li is equal to the sum of all Li's of all devices on the network. Lcable is the total inductance of all cable on the network.

If the electrical parameters of the cable are unknown, then the following values may be used: Cable Capacitance = 60pF/ft Cable Inductance = 0.20µH∕ft

This device must not be connected to any associated apparatus which uses or generates more than 250Vrms with respect to earth ground.

Micro Motion mass flowmeter system connection for Intrinsically safe operation
Electronics: 1500/2500

EB-20003009 Rev. A

3.2 1500/2500 9-wire installations

List of drawings

Installation	Drawing
1500/2500 with remote core processor and CMF, D, DL, F, H, or T sensors	EB-20001221 Revision BA
1500/2500 with remote core processor and CMF400 sensor with booster amplifier	EB-20001223, Revision A
1500/2500 with core processor and D600 sensor	EB-20001222, Revision A
1500/2500 with core processor and DT sensor	EB-20001225, Revision A

3.2.1 1500/2500 with remote core processor and CMF, D, DL, F, H, or T sensors

This drawing does not apply to the D600, DT, or CMF400 with booster amplifier sensors.



3.2.2 1500/2500 with remote core processor and CMF400 sensor with booster amplifier







4 1700 and 2700 transmitters

4.1 1700 and 2700 transmitter outputs

List of drawings

Transmitter	Drawing
1700/2700 mA Outputs	EB-3600479, Revision CA
1700/2700 intrinsically safe outputs	EB-3600629, Revision DA
2700 configurable inputs and outputs	EB-3600667, Revision B
1700/2700 FOUNDATION [™] fieldbus outputs	EB-3600476, Revision DA
1700/2700 fieldbus (FISCO)	EB-20007552, Revision B
1700/2700 Profibus-PA outputs	EB-3600473, Revision DA
2750 configurable inputs and outputs	EB-20011794, Revision A

4.1.1 1700/2700 mA Outputs



Electronics: 1700/2700 ANALOG

EB-3600479 Rev. CA SHT 1 OF 1

4.1.2 1700/2700 intrinsically safe outputs



Electronics: 1700/2700 I.S. OUTPUT

EB-3600629 Rev. DA SHT 1 OF 1

4.1.3 2700 configurable inputs and outputs



Electronics: 1700/2700 CONFIG

EB-3600667 Rev. BA SHT 1 OF 1





Electronics: 1700/2700 FIELDBUS

EB-3600476 Rev. DA SHT 1 OF 1

4.1.5 1700/2700 fieldbus (FISCO)



Electronics: 1700/2700 FISCO FIELDBUS

EB-20007552 Rev. B SHT 1 OF 1

4.1.6 1700/2700 Profibus-PA outputs



Electronics: 1700/2700 PROFIBUS PA

EB-3600473 Rev. DA SHT 1 OF 1

4.1.7 2750 configurable inputs and outputs



EB-20011794 Rev. A SHT 1 OF 1

4.2 1700/2700 4-wire installations

List of drawings

Installation	Drawing
1700/2700 4-wire with core processor and sensor	EB-3600482, Revision B
1700/2700 4-wire with core processor and CMF400 sensor with booster amplifier	EB-3005819, Revision C
1700/2700 4-wire with core processor and D600 sensor	EB-1005983, Revision B
1700/2700 4-wire with enhanced core processor and sensor	EB-20003010, Revision A

4.2.1 1700/2700 4-wire with core processor and sensor

This drawing does not apply to D600 sensors or CMF400 sensors with a booster amplifier.

REMOTE MOUNT MODEL 1700/2700 IN HAZARDOUS LOCATION Hazardous Area Class I Div. 1 Groups C,D Class I Div. 2 Groups A,B,C,D Class I Groups E,F,C Temp. Code T4A (WARNING: SUBSTITUTIONS OF COMPONENTS MAY IMPAIR INTRINSIC SAFETY) For proper installation including 1/0, power, gland and hazardous REMOTE area location, refer to appropriate 1700/2700 output option CSA-D-IS installation instructions <u>Opt</u> - Aller DIV 1 DIV 2 IS NON-INCND PRMTR PRMTR NICRO MOTION ΗH \square Note: Н Note: Hazordous area classification on an integrally mounted 1700/2700 transmitter can be limited by hazordous area classification of the sensor. Refer to sensor tag. 2 .3 4 17,22 484 484 2.05 1.21 8.32 33.75 RS485A -RS485B --DOV 4DC+ $\Delta \parallel$ This unit is provided with an internal and external terminal for supplementary bonding connection. This terminal is for use where local codes or authorities permit or require such connection. 252µH 1000 15 Cable 607 2100 Hazardous Area Class I Div. 1 Groups C.D Class I Div. 2 Groups A.B.C.D Class II Groups E.F.G Ð IS Cable Refer to sensor tag for complete hazardous area classification. RS4858 e í @ I.S. AND NON-INCENDIVE CORE PROCESSOR ENTITY PARAMETERS $(\mathbf{+})$ Vîrč ICOM 1<u>7.3 Vdc</u> VMAX I ma x 484 mA This unit is provided with an internal and external terminal for supplementary bonding connection This terminal is for use where local codes or authorities permit or require such connection. 3 Pma x 2.1W 2200pF 30µH Ci Li RS485A VDČ

INSTALLATION NOTES:

ASSOCIATED APPARATUS PARAMETER	LIN	<i>I</i> ITS
Vac < = Vmax		
lsc < = Imax		
(Voc x lsc) / 4 < = Pmax		
*Ca > = Ccable + Ci1 + Ci2 +	. +	Cin
*La > = Lcable + Li ¹ + Li ² + .	+	Lin

*The total Ci is equal to the sum of all Ci's of all devices on the network. Ccable is the total capacitance of all cable on the network.

The total Li is equal to the sum of all Li's of all devices on the network. Leable is the total inductance of all cable on the network.

If the electrical parameters of the cable are unknown, then the following values may be used: Cable Capacitance - 60p F/ft Cable Inductance - $0.20\mu\text{H/ft}$

This device must not be connected to any associated apparatus which uses or generates more than 250Vrms with respect to earth ground.

Micro Motion mass
flowmeter system
connection for
Intrinsically safe
operation

Electronics: 1700/2700

EB-3600482 Rev. B SHT 1 OF 1

4.2.2 1700/2700 4-wire with core processor and CMF400 sensor with booster amplifier



4.2.3 1700/2700 4-wire with core processor and D600 sensor



4.2.4 1700/2700 4-wire with enhanced core processor and sensor



ASSOCIATED AFFARATOS FARAME		1113
Voc < = Vmax		
lsc < = Imax		
(Voc x Isc) / 4 < = Pmax		
*Ca > = Ccable + Ci1 + Ci2 +	 +	Cin
*La > = Lcable + Li ¹ + Li ² +	 +	Lin

•The total Ci is equal to the sum of all Ci's of all devices on the network. Ccable is the total capacitance of all cable on the network.

The total Li is equal to the sum of all Li's of all devices on the network. Looble is the total inductance of all cable on the network.

If the electrical parameters of the cable are unknown, then the following values may be usea: Cable Capacitance = 60pF/ft Cable Inductance = 0.20µH/ft

This device must not be connected to any associated apparatus which uses or generates more than 250Vrms with respect to earth ground.

Micro Motion mass
flowmeter system
connection for
Intrinsically safe
operation

Electronics: 1700/2700

EB-20003010 Rev. A SHT 1 OF 1

4.3 1700/2700 integral core processor installations

List of drawings

Installation	Drawing
1700/2700 with integral core processor and CMF, F, H, T, D, or DL sensors	EB-20001058 Revision C
1700/2700 with integral core processor and CMF400 sensor with booster amplifier	EB-30006199, Revision A
1700/2700 with integral core processor and D600 sensor	EB-3600538, Revision B
1700/2700 with integral core processor and DT sensor	EB-36000538, Revision A

4.3.1 1700/2700 with integral core processor and CMF, F, H, T, D, or DL sensors

This drawing does not apply to the D600, DT, or CMF400 with booster amplifier sensors.



4.3.2 1700/2700 with integral core processor and CMF400 sensor with booster amplifier

MODEL 1700/2700 IN HAZARDOUS LOCATION TO SENSOR IN HAZARDOUS LOCATION



4.3.3 1700/2700 with integral core processor and D600 sensor

MODEL 1700/2700 IN HAZARDOUS LOCATION TO SENSOR IN HAZARDOUS LOCATION



4.3.4 1700/2700 with integral core processor and DT sensor

MODEL 1700/2700 IN HAZARDOUS LOCATION TO SENSOR IN HAZARDOUS LOCATION


4.4 1700/2700 remote core processor installations

Installation	Drawing
1700/2700 with remote core processor and CMF, F, T, D, or DL sensors	EB-20001060 Revision BA
1700/2700 with remote core processor and CMF400 sensor with booster amplifier	EB-3007061, Revision B
1700/2700 with remote core processor and D600 sensor	EB-1005119 Revision B
1700/2700 with remote core processor and DT sensor	EB-3600674, Revision C

4.4.1 1700/2700 with remote core processor and CMF, F, T, D, or DL sensors

This drawing does not apply to the D600, DT, or CMF400 with booster amplifier sensors.



4.4.2 1700/2700 with remote core processor and CMF400 sensor with booster amplifier



4.4.3 1700/2700 with remote core processor and D600





5

2750 4-wire with enhanced core processor and sensor



If the electrical parameters of the cable are unknown, then the following values may be Cable Capacitance = 60pF/ft Cable Inductance = 0,20µH/ft

This device must not be connected to any associated apparatus which uses or generates more than 250Vrms with respect to earth ground.

Micro Motion mass flowmeter system connection for Intrinsically safe operation

Electronics: 2750

EB-20011795 Rev. A SHT 1 OF 1

6 3500 transmitters

6.1 3500 4-wire installations

Installation	Drawing
3500 4-wire with core processor and CMF, F, H, R, CNG, or T sensors	EB-20000250, Revision B
3500 4-wire with core processor and CMF400 sensor with booster amplifier	EB-20000244, Revision B
3500 4-wire with core processor and D600 sensor	EB-20000247, Revision B
3500 4-wire with enhanced core processor and sensor	EB-20003011, Revision A

6.1.1 3500 4-wire with core processor and CMF, F, H, R, CNG, or T sensors

This drawing does not apply to the CMF300A sensor or to the CMF400 sensor with booster amplifier.



If the electrical parameters of the cable are unknown, then the following values may be used: Cable Capacitance = 60pF/tt Cable Inductance = 0.20µH/ft This device must not be connected to any associated apporatus which uses or generates more than 250Vrms with respect to eorth ground.

Electronics: 3500

EB-20000250 Rev. B SHT 1 OF 1

6.1.2 3500 4-wire with core processor and CMF400 sensor with booster amplifier



EB-20000244 Rev. B SHT 1 OF 1

6.1.3 3500 4-wire with core processor and D600 sensor



6.1.4 3500 4-wire with enhanced core processor and sensor



INSTALLATION NOTES:

VDC+ VDC-COMA COMB

ASSOCIATED APPARATUS PARAMETER LIMITS		
Voc < = Vmax		
lsc < = Imax		
(Voc x lsc) / 4 < = Pmax		
*Ca > = Ccable + Ci1 + Ci2 + + Cin		
*La > = Lcable + Li ¹ + Li ² + + Li ⁿ		

*The total Ci is equal to the sum of all Ci's of all devices on the network. Ccable is the total capacitance of all cable on the network.

*The total Li is equal to the sum of all Li's of all devices on the network. Lcable is the total inductance of all cable on the network.

If the electrical parameters of the cable are unknown, then the following values may be used: Cable Capacitance = 60pF/tt Cable Inductance = 0.20µH/ft

This device must not be connected to any associated apparatus which uses or generates more than 250Vrms with respect to earth ground.

Micro Motion mass flowmeter system connection for Intrinsically safe operation.

Electronics: 3500

EB-20003011 Rev. A SHT 1 OF 1

6.2 3500 remote core processor installations

Installation	Drawing
3500 with remote core processor and CMF, D, DL, H, or T sensors	EB-20001051, Revision CA
3500 with remote core processor and CMF400 sensor with booster amplifier	EB-20000229, Revision BA
3500 with remote core processor and D600 sensor	EB-20000232, Revision B
3500 with remote core processor and DT sensor	EB-20000241, Revision B

6.2.1 3500 with remote core processor and CMF, D, DL, H, or T sensors

This drawing does not apply to the D600, DT, or CMF400 with booster amplifier sensors.



6.2.2 3500 with remote core processor and CMF400 sensor with booster amplifier



6.2.3 3500 with remote core processor and D600 sensor



6.2.4 3500 with remote core processor and DT sensor

3500 IN HAZARDOUS LOCATION TO SENSOR IN HAZARDOUS LOCATION

(WARNING: SUBSTITUTIONS OF COMPONENTS MAY IMPAIR INTRINSIC SAFETY) Closs I. Div. 2, Groups A.B.C.D 3500 Intrinsically Safe Connector e Connector c 2 4 4 - VDC-6 6 - RS485B 8 8 10 10 12 12 14 14 16 16 10 12 12 2 20 20 22 23 22 23 22 24 24 24 24 24 24 25 AMMAN All
 Div
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 PRMTR

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 (Vdc)
 17.22
 17.22

 1sc
 mA)
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 484

 Po
 (W)
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 2 0 4 0 6 0 VDC+ RS485A 8 0 10 0 12 0 14 0 16 0 20 0 22 0 24 0 28 0 30 0 32 0 ⊕ Co (µF)
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 A.B
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 2100
 000 POWER La (µH) ⁸⁵⁻²⁶⁵ or ¹⁸⁻³⁰ VAC or ¹⁸⁻³⁰ NOTE: Prepare cable per the instructions provided with the cable. 1000 ft maximum cable length 4-WIRE MODEL 3500 Cable The total Ci is equal to the sum of all Ci's of all devices on the network. Ccable is the total capacitance of all cable on the network. INSTALLATION NOTES: The total Li is equal to the sum of all Li's of all devices on the network, Loable is the total inductance of all cable on the network. ASSOCIATED APPARATUS PARAMETER LIMITS lf the electrical parameters of the cable are unknown, then the following volues may be used: Coble Capacitance = 60pF/ft Cable Inductance = 0.20µH/ft This device must not be connected to any associated apparatus which uses or generates more than 250Vrms with respect to earth ground. _ Hazardous Area Class I, Div. 1, Groups C and D Class I, Div. 2, Groups A,B,C,D Class II, Groups E,F,G This unit is provided with an internal and external terminal for supplementary, bonding connection. This terminal is for use where local codes or authorities permit or require such connection. 1000 ft maximum cable length £ 4-WIRE IS Cable GROUN RS485B BLACH Ф RED GREEN \Diamond RŠ4854 - BLUE - GRAY - ORANGE 4-WIRE I.S. AND NON-INCENDIVE CORE PROCESSOR ENTITY PARAMETERS 17.3 Vdc 484 mA 2.1W 2200pF 30μH VMAX 60 ft maximum cable length Imax Pmax 9-WIRE Ci REMOTE CORE PROCESSOR Cable CAUTION: To maintain intrinsic safety, the intrinsically safe wiring must be separated from all other wiring, and the Transmitter and Sensor must be properly grounded. Hazardous Area Class I, Div. 1, Groups C,D Class I, Div. 2, Groups A,B,C,D Class II, Groups E,F,G 60 ft maximum cable length 9-WIRE IS Cable ſ Earth Ground DT Sensor wires must be connected to IS Cable using customer supplied terminal block and Junction Box. õ Sensor Wire Terminations to 9-Wire IS Cable DT Sensor IS Cable Micro Motion mass flowmeter system connection for Intrinsically safe operation. IS Cable Color Brown Red Orange Yellow Green Blue Wire # Electronics: 3500 Sensor: DT DT Senso Wires Violet Gray White

Models: DT65, DT100, DT150 Supplied as intrinsically safe

EB-20000241 Rev. B SHT 1 OF

7 3700 transmitters

7.1 3700 4-wire installations

Installation	Drawing
3700 4-wire with core processor and CMF400 sensor with booster amplifier	EB-20000218, Revision B
3700 4-wire with core processor and CMF, F, H, R, CNF, or T sensors	EB-20000224, Revision B
3700 4-wire with core processor and D600 sensor	EB-20000221, Revision B
3700 4-wire with enhanced core processor and sensor	EB-20003012, Revision A

7.1.1 3700 4-wire with core processor and CMF400 sensor with booster amplifier



7.1.2 3700 4-wire with core processor and CMF, F, H, R, CNF, or T sensors

This drawing does not apply to the CMF300A sensor or to the CMF400 sensor with booster amplifier.



The total Ci is equal to the sum of all Ci's of all devices on the network. Ccable is the total capacitance of all cable on the network.
The total Li is equal to the sum of all Li's of all devices on the network. Lcable is the total inductance of all cable on the network.

If the electrical parameters of the cable are unknown, then the following values may be used: Cable Capacitance = 60pF/fl Cable Inductance = 0.20µH/ft

This device must not be connected to any associated apparatus which uses or generates more than 250Vrms with respect to earth ground.

Micro Motion mass flowmeter system connection for Intrinsically safe operation.

Electronics: 3700

EB-20000224 Rev. B SHT 1 OF 1

7.1.3 3700 4-wire with core processor and D600 sensor



7.1.4 3700 4-wire with enhanced core processor and sensor



7.2 3700 core processor installations

Installation	Drawing
3700 with core processor and CMF, F, H, or T sensors	EB-20001054, Revision B

7.2.1 3700 with core processor and CMF, F, H, or T sensors

This drawing does not apply to the CMF300A sensor or to the CMF400 sensor with booster amplifier.



Supplied as intrinsically safe

7.3 3700 remote core processor installations

Installation	Drawing
3700 with remote core processor and CMF, D, DL, F, H, or T sensors	EB-20001053, Revision CA
3700 with remote core processor and CMF300A sensor	EB-20000212, Revision C
3700 with remote core processor and CMF400 sensor with booster amplifier	EB-20000203, Revision B
3700 with remote core processor and D600 sensor	EB-20000206, Revision B
3700 with remote core processor and DT sensor	EB-20000215, Revision B

7.3.1 3700 with remote core processor and CMF, D, DL, F, H, or T sensors

This drawing does not apply to the D600, DT, or CMF400 with booster amplifier sensors.



7.3.2 3700 with remote core processor and CMF300A sensor



7.3.3 3700 with remote core processor and CMF400 sensor with booster amplifier





Micro Motion CSA-D-MVD Transmitter



8 4200 transmitters

This drawing describes an outputs installation for a 4200 2-wire transmitter.



CAUTION:

To maintain intrinsic safety, the intrinsically safe wiring must be separated from all other wiring, and the Transmitter and Sensor must be properly arranded arounded.



SENSOR MOUNTED JUNCTION BOX Supplied as intrinsically safe

Hazardous Area Class I Div. 1 Groups A,B,C,D Class I Div. 2 Groups A,B,C,D Class II Div. 1 Groups E,F,G Micro Motion mass

flowmeter system connection for intrinsically safe operation.

Electronics: 4200 2 WIRE

EB-20057521 Rev. AA

9 5700 transmitters

9.1 5700 transmitter outputs

Table 9-1: List of drawings

Transmitter	Drawing
5700 CIO	EB-20028175, Revision AA
5700 Ethernet	EB-20030708, Revision AA
5700 fieldbus	EB-20030711, Revision AA
5700 fieldbus (FISCO)	EB-20030804, Revision AA
5700 IS	EB-20045787, Revision AA

9.1.1 5700 CIO

This drawing describes an outputs installation for a 5700 transmitter with configurable inputs and outputs.


9.1.2 5700 Ethernet

This drawing describes an outputs installation for a 5700 transmitter with Ethernet outputs.



Electronics: 5700 ETHERNET

EB-20030708 Rev. AA SHT 1 OF 1

9.1.3 5700 fieldbus

This drawing describes an outputs installation for a 5700 transmitter with fieldbus outputs.



EB-20030711 Rev. AA SHT 1 OF 1

9.1.4 5700 fieldbus (FISCO)

This drawing describes an outputs installation for a 5700 transmitter with fieldbus (FISCO) outputs.



EB-20030804 Rev. AA SHT 1 OF 1

9.1.5 5700 IS

This drawing describes an outputs installation for a 5700 transmitter with intrinsically safe outputs.



9.2 5700 4-wire installations

Table 9-2: List of drawings

Installation	Drawing
Remote 5700 4-wire with remote core processor	EB-20028178, Revision AA
Remote 5700 4-wire with core processor	EB-20028177, Revision AA

9.2.1 Remote 5700 4-wire with remote core processor

This drawing describes a remote 5700 4-wire installation with a remote core processor mounted on a sensor with a junction box.



9.2.2 Remote 5700 4-wire with core processor

This drawing describes a remote 5700 4-wire installation with a core processor mounted on a sensor.



EB-20028177 Rev. AA

9.3 5700 9-wire installation

This drawing describes a 5700 transmitter connected to a remote core processor that has a 9-wire junction box mounted on a sensor.



Cable is the total capacitance of all cable on the network. *The total L is equal to the sum of all L is of all devices on the network. Labele is the total inductance of all cable on the network. If the electrical parameters of the cable are unknown, then the following values may be used: Cable Capacitance = 60pF/ft Cable Inductance = 0.20µH/ft This device must not be connected to any associated apparatus which uses or generates more than 250/ms with respect to earth ground.



10 Booster amplifiers

10.1 Booster amplifiers with D600 sensors

List of drawings

Installation	Drawing
Booster amplifier with core processor and D600 sensor	EB-1005084, Revision B
Booster amplifier with junction box and D600 sensor	EB-1005085, Revision B

10.1.1 Booster amplifier with core processor and D600 sensor



10.1.2 Booster amplifier with junction box and D600 sensor



11 Direct host 4-wire

Table 11-1: List of drawings

Installation	Drawing
Core processor to direct host through a safety barrier	EB-3600799, Revision CA
Enhanced core processor to direct host through a safety barrier	EB-20003013, Revision A

11.1 Core processor to direct host through a safety barrier



Maximum Cable Capacitance = 60pF/ft Maximum Cable Inductance = 0.20µH/ft

Maximum cable length from core processor to safety barrier is 500 feet. For cable runs greater than 500 feet, please contact Micro Mation. This device must not be connected to any associated apparatus which uses or generates more than 250Vrms with respect to earth ground.

Micro Motion mass flowmeter system connection for Intrinsically safe operation

Electronics: SAFETY BARRIER

EB-3600799 Rev. C SHT 1 OF 1

11.2 Enhanced core processor to direct host through a safety barrier



Maximum Cable Capacitance = 60pF/ft Maximum Cable Inductance = 0.20µH/ft Maximum cable length from core processor to safety barrier is 500 feet. For cable runs greater than 500 feet, please contact Micro Motion. This device must not be connected to any associated apporatus which uses or generates more than 2500rms with respect to earth ground.

Micro Motion mass flowmeter system connection for Intrinsically safe operation
Electronics: SAFETY BARRIER

12 LFT 4-wire to LF sensor installation

Table 12-1: List of drawings

Installation	Drawing
Remote LFT CIO with LF sensor	EB-20002229, Revision A
Remote LFT on DIN rail with LF sensor	EB-20002223, Revision A
Remote LFT FOUNDATION fieldbus with LF sensor	EB-20002226, Revision A
Remote LFT mA Output/Frequency Output with LF sensor	EB-20002227, Revision A
Remote LFT Profibus-PA with LF sensor	EB-20002225, Revision A

12.1 Remote LFT CIO with LF sensor

This drawing describes a remote LFT 4-wire configurable inputs and outputs transmitter mounted to an LF sensor.



12.2 Remote LFT on DIN rail with LF sensor



12.3 Remote LFT FOUNDATION fieldbus with LF sensor

This drawing describes a remote LFT 4-wire FOUNDATION fieldbus transmitter mounted to an LF sensor.



12.4 Remote LFT mA Output/Frequency Output with LF sensor



12.5 Remote LFT Profibus-PA with LF sensor

This drawing describes a remote LFT 4-wire Profibus-PA transmitter mounted to an LF sensor.



A List of drawings

Table A-1: List of Drawings

Drawing name	Location
EB-10005117, Revision B	1700/2700 with integral core processor and D600 sensor
EB-1005084, Revision B	Booster amplifier with core processor and D600 sensor
EB-1005085, Revision B	Booster amplifier with junction box and D600 sensor
EB-1005119, Revision B	1700/2700 with remote core processor and D600 sensor
EB-20000206, Revision B	3700 with remote core processor and D600 sensor
EB-20000215, Revision B	3700 with remote core processor and DT sensor
EB-20000224, Revision B	3700 4-wire with core processor and CMF, F, H, R, CNF, or T sensors
EB-20000229, Revision BA	3500 with remote core processor and CMF400 sensor with booster amplifier
EB-20000232, Revision B	3500 with remote core processor and D600 sensor
EB-20000241, Revision B	3500 with remote core processor and DT sensor
EB-20000244, Revision B	3500 4-wire with core processor and CMF400 sensor with booster amplifier
EB-20000247, Revision B	3500 4-wire with core processor and D600 sensor
EB-20000250, Revision B	3500 4-wire with core processor and CMF, F, H, R, CNG, or T sensors
EB-20001051, Revision C	3500 with remote core processor and CMF, D, DL, H, or T sensors
EB-20001053, Revision C	3700 with remote core processor and CMF, D, DL, F, H, or T sensors
EB-20001058, Revision, C	1700/2700 with integral core processor and CMF, F, H, T, D, or DL sensors
EB-20001060, Revision, BA	1700/2700 with remote core processor and CMF, F, T, D, or DL sensors
EB-20001218, Revision A	1500/2500 4-wire with core processor and D600 sensor
EB-20001219, Revision A	1500/2500 4-wire with core processor and CMF400 sensor with booster amplifier
EB-20001220, Revision A	1500/2500 4-wire core processor to CMF, F, H, R, CNG, or T sensors
EB-20001221 Revision B	1500/2500 with remote core processor and CMF, D, DL, F, H, or T sensors
EB-20001222, Revision A	1500/2500 with core processor and D600 sensor
EB-20001223, Revision A	1500/2500 with remote core processor and CMF400 sensor with booster amplifier
EB-20001225, Revision A	1500/2500 with core processor and DT sensor
EB-2000203, Revision B	3700 with remote core processor and CMF400 sensor with booster amplifier

Table A-1: List of Drawings (continued)

Drawing name	Location
EB-2000218, Revision B	3700 4-wire with core processor and CMF400 sensor with booster amplifier
EB-2000221, Revision B	3700 4-wire with core processor and D600 sensor
EB-20002223, Revision A	Remote LFT on DIN rail with LF sensor
EB-20002225, Revision A	Remote LFT Profibus-PA with LF sensor
EB-20002226, Revision A	Remote LFT FOUNDATION fieldbus with LF sensor
EB-20002227, Revision A	Remote LFT mA Output/Frequency Output with LF sensor
EB-20002229, Revision A	Remote LFT CIO with LF sensor
EB-20003009, Revision A	1500/2500 4-wire with enhanced core processor and sensor
EB-20003010, Revision A	1700/2700 4-wire with enhanced core processor and sensor
EB-20003011, Revision A	3500 4-wire with enhanced core processor and sensor
EB-20003012, Revision A	3700 4-wire with enhanced core processor and sensor
EB-20003013, Revision A	Enhanced core processor to direct host through a safety barrier
EB-20003427, Revision A	800 Enhanced core processor
EB-20007552, Revision B	1700/2700 fieldbus (FISCO)
EB-20011794, Revision A	2750 configurable inputs and outputs
EB-20011795, Revision A	2750 4-wire with enhanced core processor and sensor
EB-20028175, Revision AA	5700 CIO
EB-20028176, Revision AA	5700 9-wire installation
EB-20028177, Revision AA	Remote 5700 4-wire with core processor
EB-20028178, Revision AA	Remote 5700 4-wire with remote core processor
EB-20030708, Revision AA	5700 Ethernet
EB-20030711, Revision AA	5700 fieldbus
EB-20030804, Revision AA	5700 fieldbus (FISCO)
EB-20057521_AA	4200 transmitters
EB-3005819, Revision C	1700/2700 4-wire with core processor and CMF400 sensor with booster amplifier
EB-3006199, Revision C	1700/2700 with integral core processor and CMF400 sensor with booster amplifier
EB-3007061, Revision B	1700/2700 with remote core processor and CMF400 sensor with booster amplifier
EB-3600473, Revision DA	1700/2700 Profibus-PA outputs
EB-3600476, Revision DA	1700/2700 Foundation [™] fieldbus outputs
EB-3600479, Revision CA	1700/2700 mA Outputs
EB-3600482, Revision BA	1700/2700 4-wire with core processor and sensor

Table A-1: List of Drawings (continued)

Drawing name	Location
EB-3600538, Revision B	1700/2700 with integral core processor and DT sensor
EB-3600629, Revision D	1700/2700 intrinsically safe outputs
EB-3600667, Revision B	2700 configurable inputs and outputs
EB-3600674, Revision C	1700/2700 with remote core processor and DT sensor
EB-3600799, Revision CA	Core processor to direct host through a safety barrier

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