NOTES:

1. WARNING: This drawing does not illustrate completely the installation methods required for hazardous locations. Prior to any installation in a classified hazardous location, verify installation methods by the Control Drawing referenced on the product's name tag and national and local codes.

2. Up to 32 devices may be connected on the RS-485 buss, for up to a total combined distance of 4000 feet. For this configuration, 2 RS-485 busses are required.

3. Units must be daisy-chained; No Star Configurations.
NOTES:

1. WARNING: This drawing does not illustrate completely the installation methods required for hazardous locations. Prior to any installation in a Classified Hazardous Location, verify installation methods by the Control Drawing referenced on the product's name tag and national and local codes.

2. Up to 32 devices may be connected on the RS-485 bus, for up to a total combined distance of 4000 feet.
   For this configuration, 2 RS-485 busses are required.

3. Units must be daisy-chained; No Star Configurations.

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Totalflow RS-485 Cable
P/N 2011648-001

Or

Use 20 AWG shielded wire, 22 pF/ft, 14 OinMs/1000 ft

RS-485 Communications Module
Totalflow P/N 2015192
(Both modules are required
On the boards for this configuration)

TO TERMINATE XFC BOARD:
If the Master is the last unit, or is the only unit, jumper 1 to 2 to terminate.
Jumper 2 to 3 on J11 for first and intermediate units.

TO TERMINATE REMOTE PORT, COMM1:
If the BTU Transmitter is the last device on the RS-485 Bus, or if it is the only device, jumper J6 Pin-1 to Pin-2.

If it is not the last device, jumper J6 Pin-2 to Pin-3 (Pin-1 is on the left, when viewing the I.S. Board).

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BTU Transmitter Housing I. S. Junction Box

J1
J15 I/O EXP
J6

COMM1
COMM2

SEE SHT 3

SLAVE #2
XFC Board
2100204
or
2015333

MASTER XFC Board
2100204

BTU to MASTER

REF: N/A

TOTALFLOW Products
ACTION: L19095
DOC TYPE: UD
TITLE: THERMS STATION WIRING LAYOUT
BTU TO XFC SLAVE TO XFC MASTER

DWG NO. 2102926
REV AA SHEET 2

ABB
NOTES:

1. WARNING: This drawing does not illustrate completely the installation methods required for hazardous locations. Prior to any installation in a Classified Hazardous Location, verify installation methods by the Control Drawing referenced on the product's name tag and national and local codes.

2. Up to 32 devices may be connected on the RS-485 bus, for up to a total combined distance of 4000 feet.
   For this configuration, 2 RS-485 busses are required.

3. Units must be daisy-chained; No Star Configurations.

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TO TERMINATE FCU PORT, COMM2:
If the BTU Transmitter is the last device on the RS-422 Bus, or if it is the only device, jumper J7 Pin-1 to Pin-2.

**If it is not the last device, jumper J7 Pin-2 to Pin-3 (Pin-1 is on the left, when viewing the I.S. Board).**

1. **[ ]** 3 J7

For RS-485 2-wire, jumper J8 Pin-1 to Pin-2. For RS-422 4-wire, jumper J8 Pin-2 to Pin-3.

1. **[ ]** 3 J8

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TO TERMINATE XFC BOARDS:
Jumper 2 to 3 on J12 for first and intermediate units.

If the first unit is the only unit, jumper 1 to 2 to terminate.

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RS-485 Communications Module
Totalflow P/N 2015192
(Both modules are required
On the boards for this configuration)

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BTU Transmitter Housing
I. S. Junction Box

BTU
I.S. Term Bd 2015605

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SEE SHEET 2

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Slaves:

**SLAVE #2**
XFC Board
2100204 or 2015333

**SLAVE #1**
XFC Board
2100204 or 2015333

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**COMM1**

**COMM2**

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**TOTALFLOW**

**PRODUCTS**

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**ABB**

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**TOTALFLOW**

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**PRODUCTS**

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**BTU TO XFC SLAVE TO XFC MASTER**

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**2102926 AA**

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**3 OF 7**
NOTES:
1. WARNING: This drawing does not illustrate completely the installation methods required for hazardous locations. Prior to any installation in a Classified Hazardous Location, verify installation methods by the Control Drawing referenced on the product’s name tag and national and local codes.
2. Up to 32 devices may be connected on the RS-485 buss, for up to a total combined distance of 4000 feet.
   For this configuration, 2 RS-485 busses are required.
3. Units must be daisy-chained; No Star Configurations.
4. The RS-232 connection to PLC has a suggested length of 25 feet or less.

Comm1: Remote CCU Protocol

Comm1: RS-232

Comm2: Thermo Protocol
RS-485 Modbus ASCII

BTU W/PLC to XFC SLAVES TO XFC MASTER
NOTES:
1. WARNING: This drawing does not illustrate completely the installation methods required for hazardous locations. Prior to any installation in a Classified Hazardous Location, verify installation methods by the Control Drawing referenced on the product's name tag and national and local codes.
2. The RS-232 connection to PLC has a suggested length of 25 feet or less.
NOTES:
1. WARNING: This drawing does not illustrate completely the installation methods required for hazardous locations. Prior to any installation in a Classified Hazardous Location, verify installation methods by the Control Drawing referenced on the product's name tag and national and local codes.
2. Up to 32 devices may be connected on the RS-485 busses, for a total combined distance of 4000 feet.
   For this configuration, 2 RS-485 busses are required.
3. Units must be daisy-chained; No Star Configurations.

COMM1
RS-485
SLAVE#2 to MASTER

SLAVE #2
XFC Board
2100204
or
2015333

TO TERMINATE XFC BOARDS:
Jumper 2 to 3 on J11 for first and intermediate units.
If the first unit is the only unit, jumper 1 to 2 to terminate.

J11

SLAVE #1
XFC Board
2100204
or
2015333

MASTER
XFC Board
2100204

TO TERMINATE XFC BOARD:
If the Master is the last unit, or is the only unit, jumper 1 to 2 to terminate.
Jumper 2 to 3 on J11 for first and intermediate units.

RS-485 Communications Module
Totalflow P/N 2015192
(Both modules are required
On the boards for this configuration)
NOTES:

1. WARNING: This drawing does not illustrate completely the installation methods required for hazardous locations. Prior to any installation in a Classifed Hazardous Location, verify installation methods by the Control Drawing referenced on the product’s name tag and national and local codes.

2. Up to 32 devices may be connected on the RS-485 buss, for up to a total combined distance of 4000 feet. For this configuration, 2 RS-485 busses are required.

3. Units must be daisy-chained; No Star Configurations.

RS-485 Communications Module
Totalflow P/N 2015192
(Both modules are required
On the boards for this configuration)

TO TERMINATE XFC BOARD:
If the Master is the last unit, or is the only unit, jumper 1 to 2 to terminate. or
Jumper 2 to 3 on J11 for first and intermediate units.

1 [ ] 3 J7
If it is not the last device, jumper J7 Pin-2 to Pin-3 (Pin-1 is on the left, when viewing the I.S. Board).

1 [ ] 3 J7
For RS-485 2-wire, jumper J8 Pin-1 to Pin-2. For RS-422 4-wire, jumper J8 Pin-2 to Pin-3

1 [ ] 3 J8