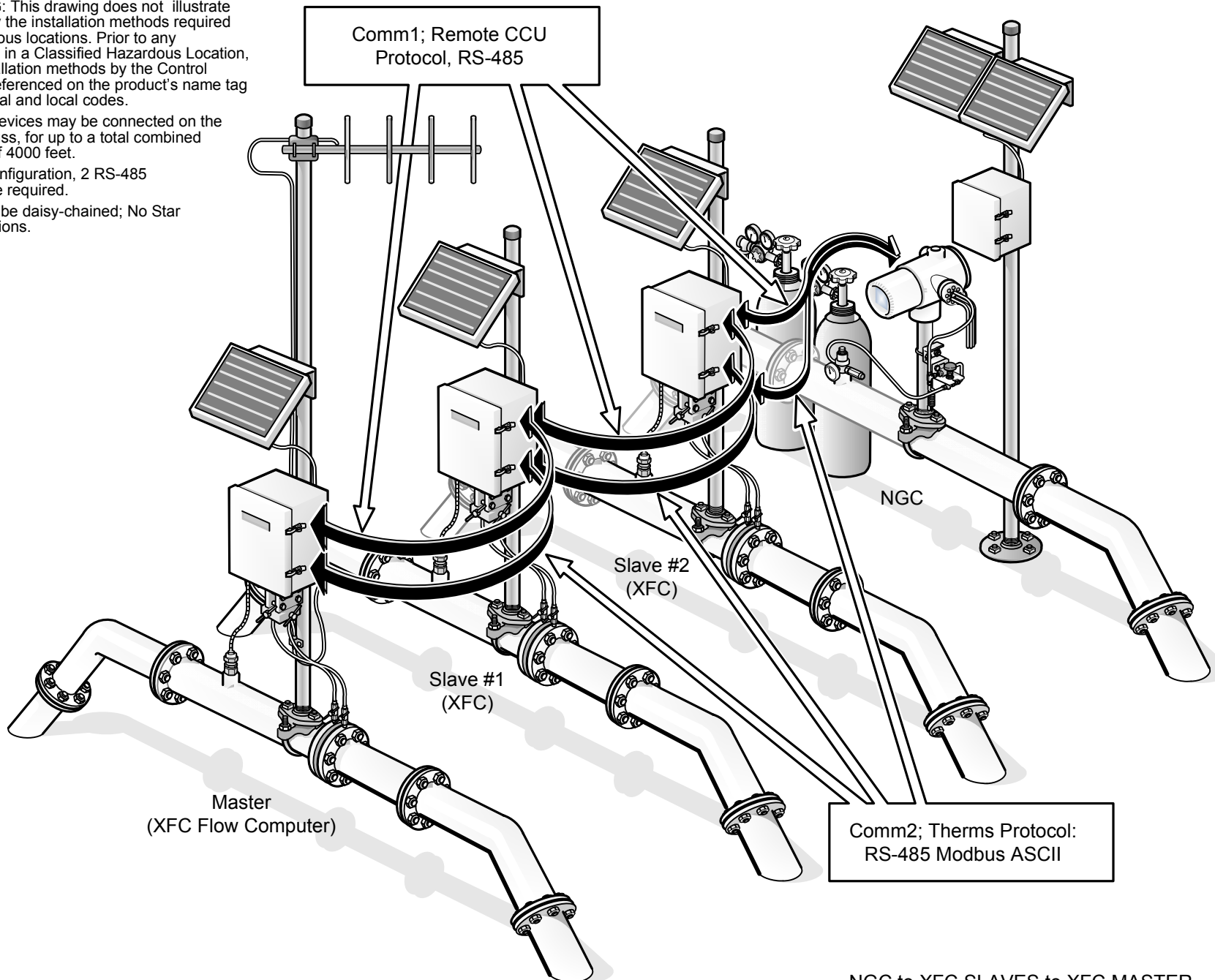


NOTES:

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.

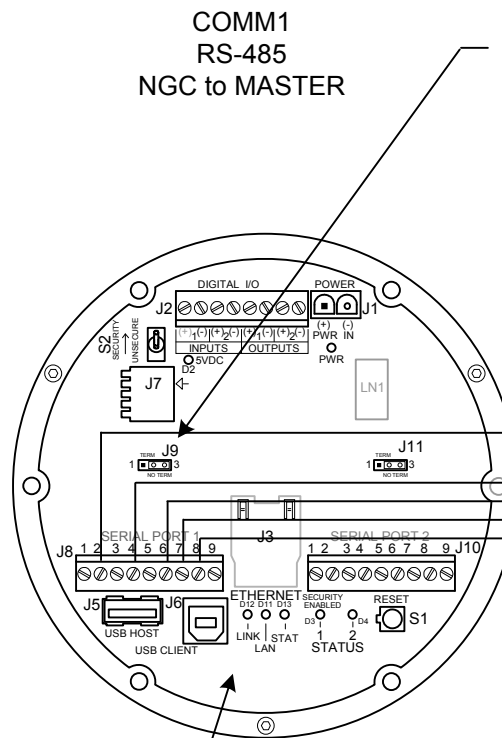


NGC to XFC SLAVES to XFC MASTER

ABB	TOTALFLOW	ACTION	DOC TYPE	TITLE	DWG NO.	REV	SHEET
	Products	L19097	UD	THERMS STATION WIRING LAYOUT NGC TO XFC SLAVE TO XFC MASTER	2102928	AA	1 OF 7

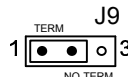
NOTES:

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.



NGC Term Bd.
P/N 2102080

TO TERMINATE NGC:
Jumper 2 to 3 on J9 for first and intermediate units.
or
If the first unit is the only unit, jumper 1 to 2 to terminate.



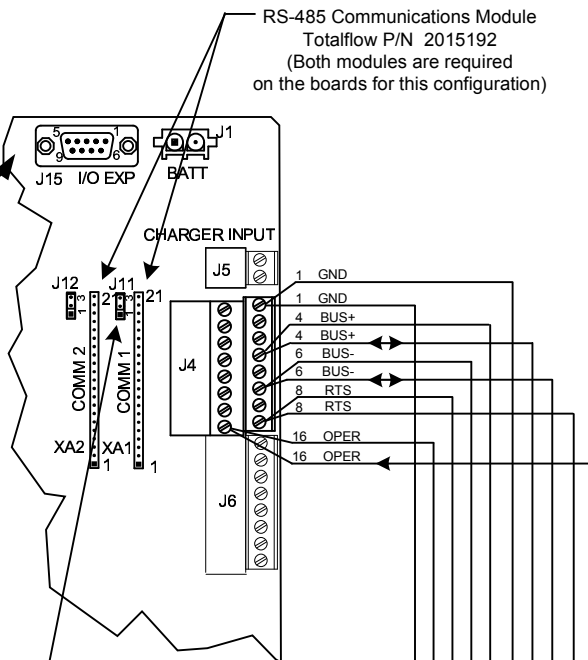
2. Up to 32 devices may be connected on the RS-485 buss, for up to a total combined distance of 4000 feet.

For this configuration, 2 RS-485 busses are required.

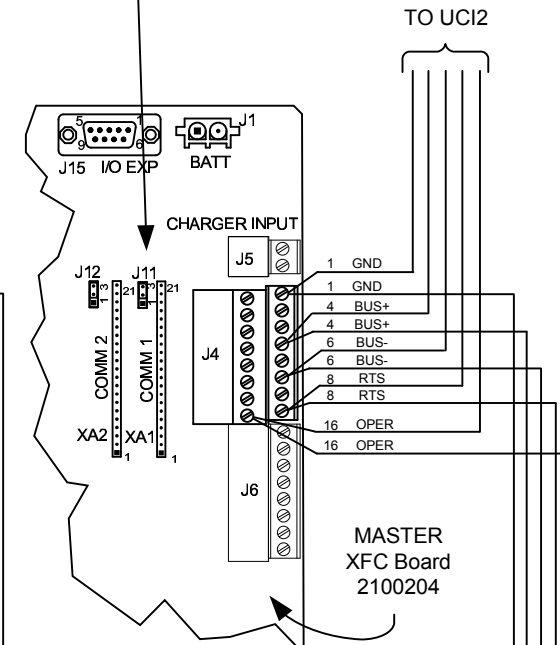
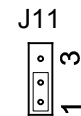
3. Units must be daisy-chained; No Star Configurations.

SLAVE #2
XFC Board
2100204
or
2015333

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

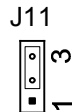


TO TERMINATE XFC BOARD:
If the Master is the last unit, or is the only unit, jumper 1 to 2 to terminate.
or
Jumper 2 to 3 on J11 for first and intermediate units.

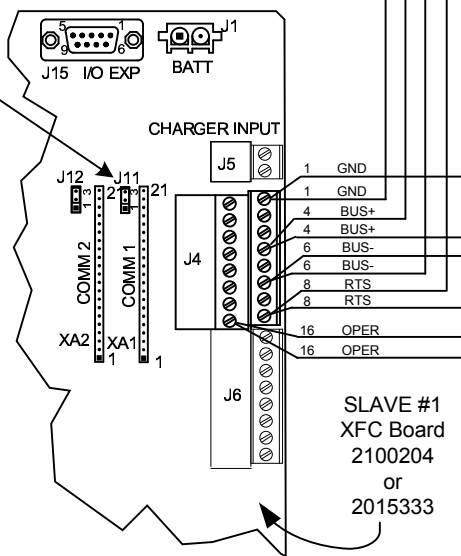


MASTER
XFC Board
2100204

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



SLAVE #1
XFC Board
2100204
or
2015333



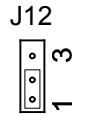
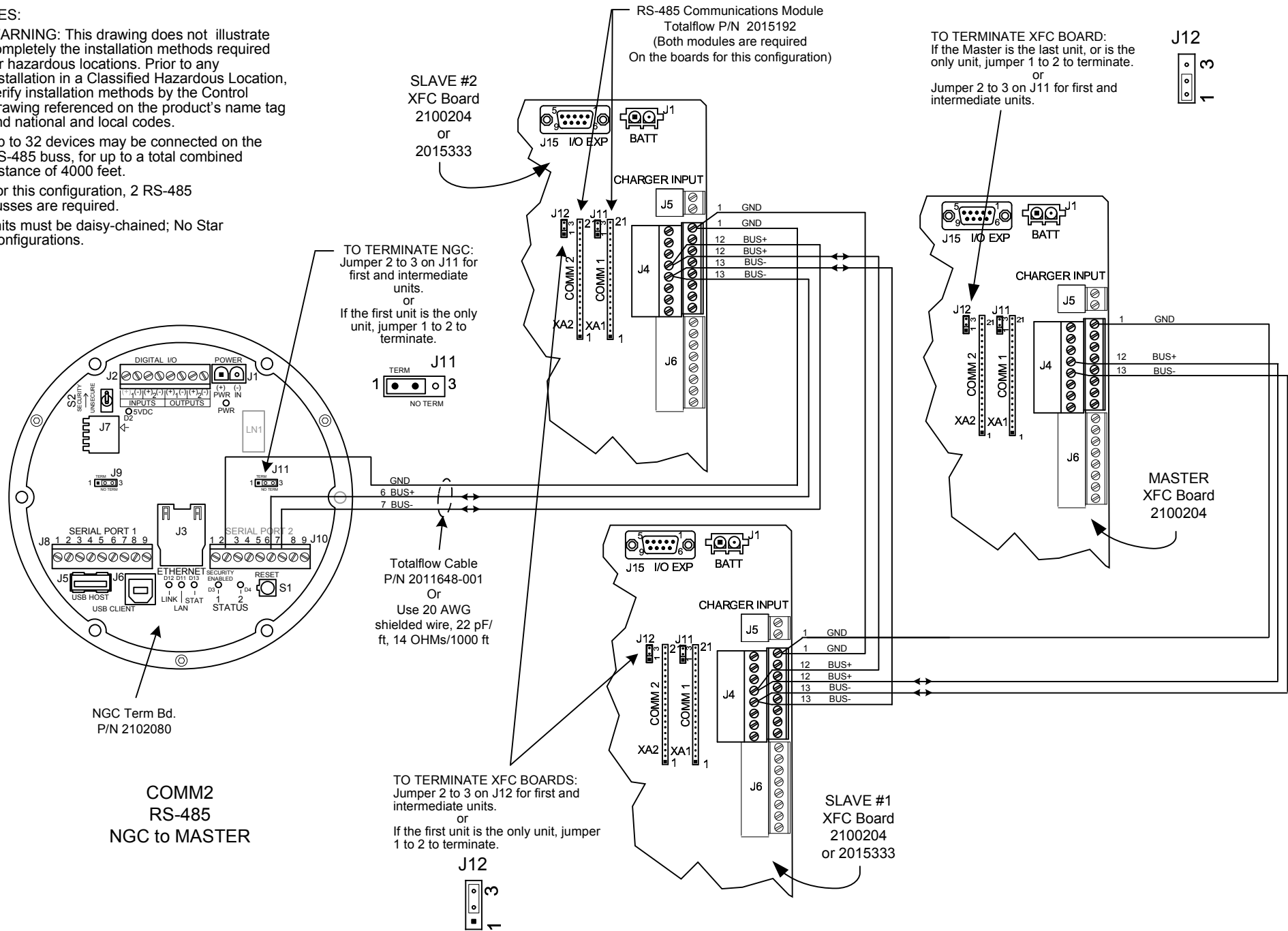
Totalflow RS-485 Cable
P/N 2011648-001
Or
Use 20 AWG shielded wire, 22
pF/ft, 14 OHMs/1000 ft

REF: N/A

ABB	TOTALFLOW Products	ACTION	DOC TYPE	TITLE	DWG NO.	REV	SHEET
		L19097	UD	THERMS STATION WIRING LAYOUT NGC TO XFC SLAVE TO XFC MASTER	2102928	AA	2 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.



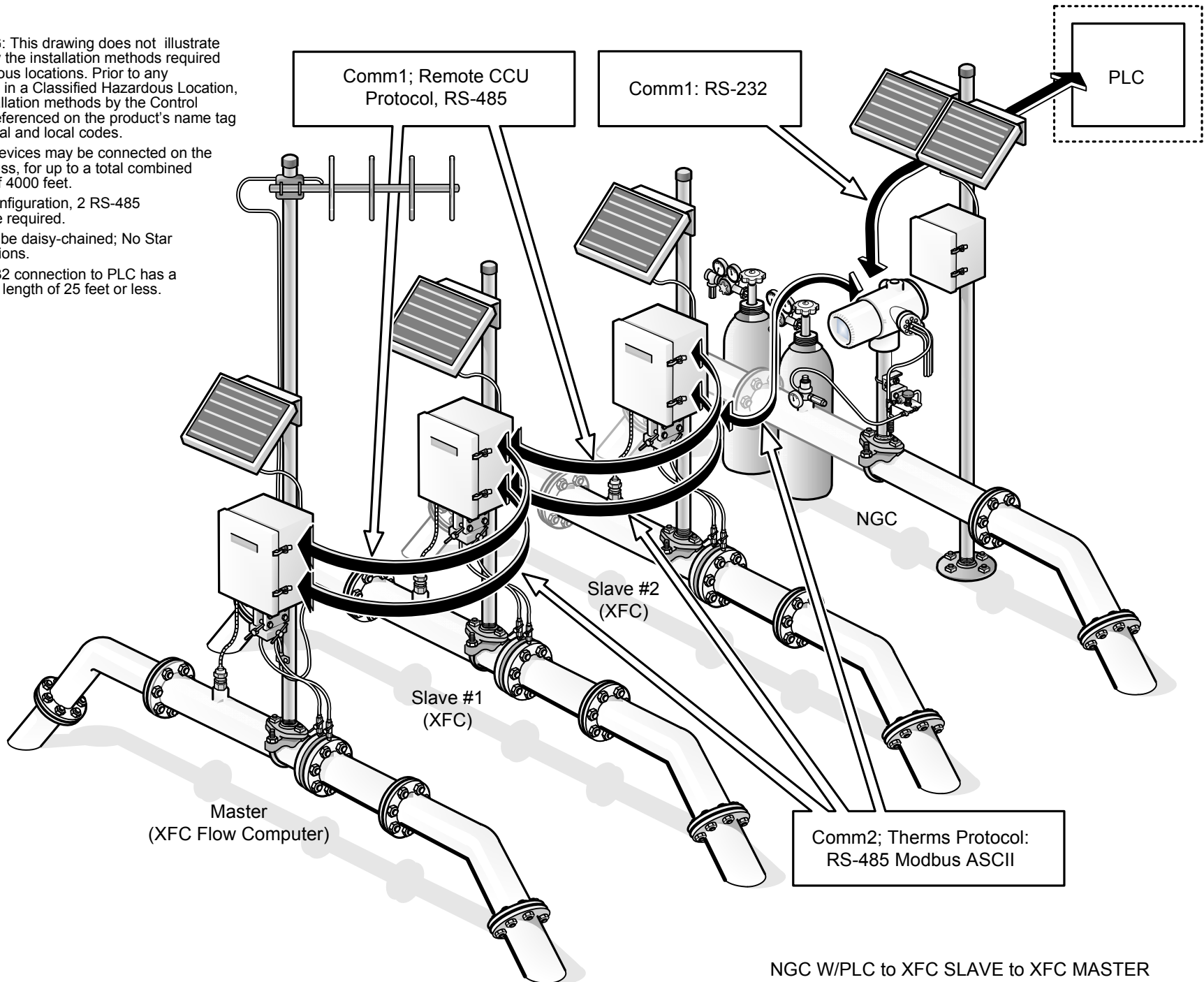
Totalflow Cable
P/N 2011648-001
Or
Use 20 AWG
shielded wire, 22 pF/
ft, 14 OHMs/1000 ft

REF: N/A

ABB	TOTALFLOW	ACTION	DOC TYPE	TITLE	DWG NO.	REV	SHEET
	Products	L19097	UD	THERMS STATION WIRING LAYOUT NGC TO XFC SLAVE TO XFC MASTER	2102928	AA	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.

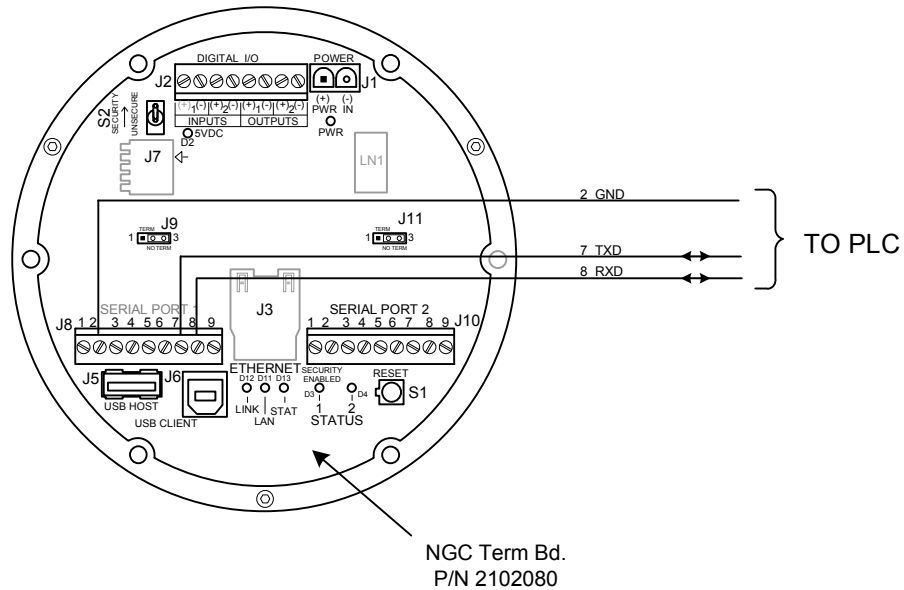


NGC W/PLC to XFC SLAVE to XFC MASTER

ABB TOTALFLOW Products	ACTION	DOC TYPE	TITLE	DWG NO.	REV	SHEET
	L19097	UD	THERMS STATION WIRING LAYOUT NGC TO XFC SLAVE TO XFC MASTER	2102928	AA	4 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. The RS-232 connection to PLC has a suggested length of 25 feet or less.



COMM1
RS-232 TO PLC

REF: N/A

ABB	TOTALFLOW	ACTION	DOC TYPE	TITLE	DWG NO.	REV	SHEET
	Products	L19097	UD	THEMRS STATION WIRING LAYOUT NGC TO XFC SLAVE TO XFC MASTER	2102928	AA	5 OF 7

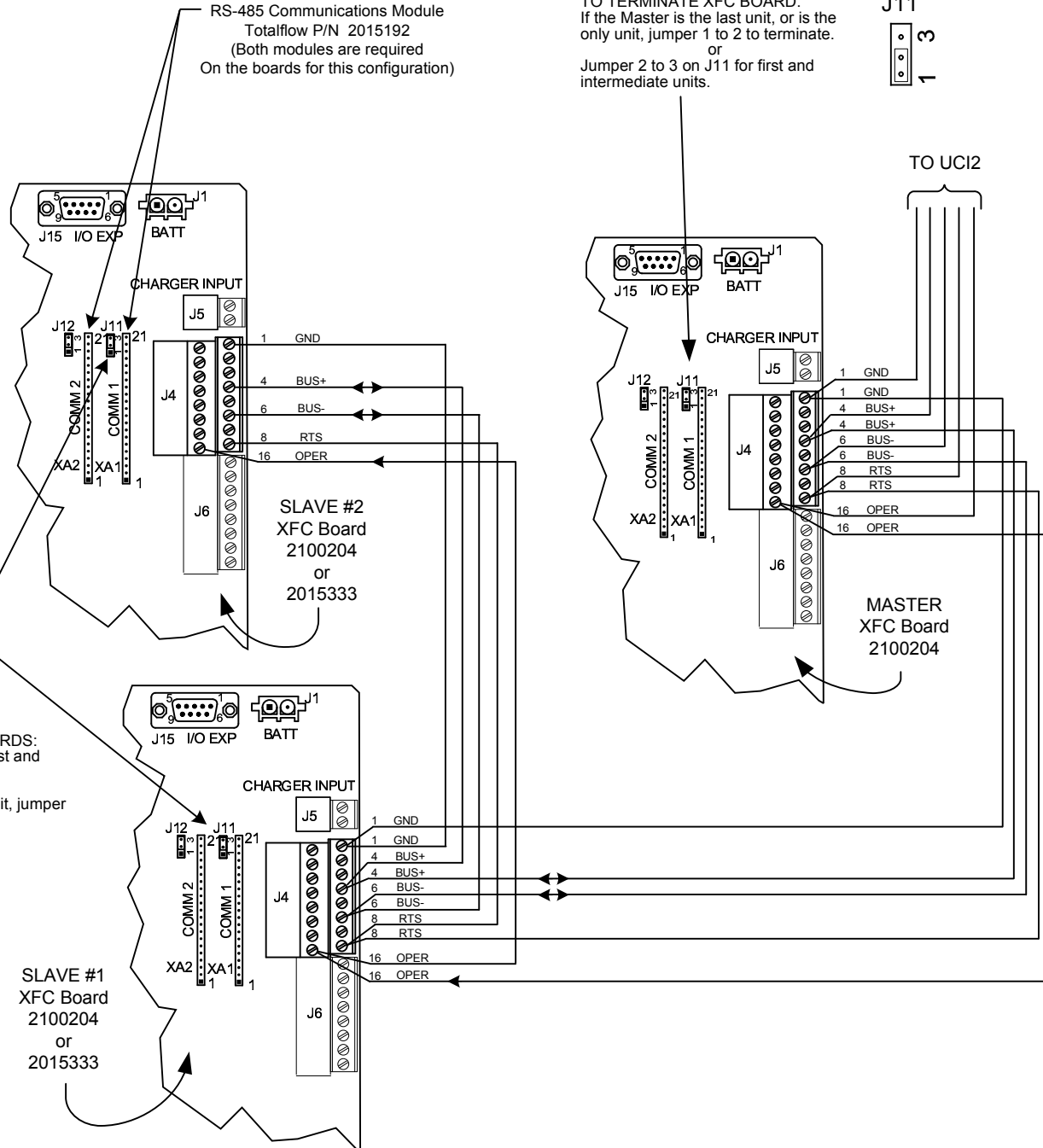
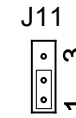
NOTES:

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

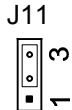
COMM1
RS-485
SLAVE#2 to MASTER

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.



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



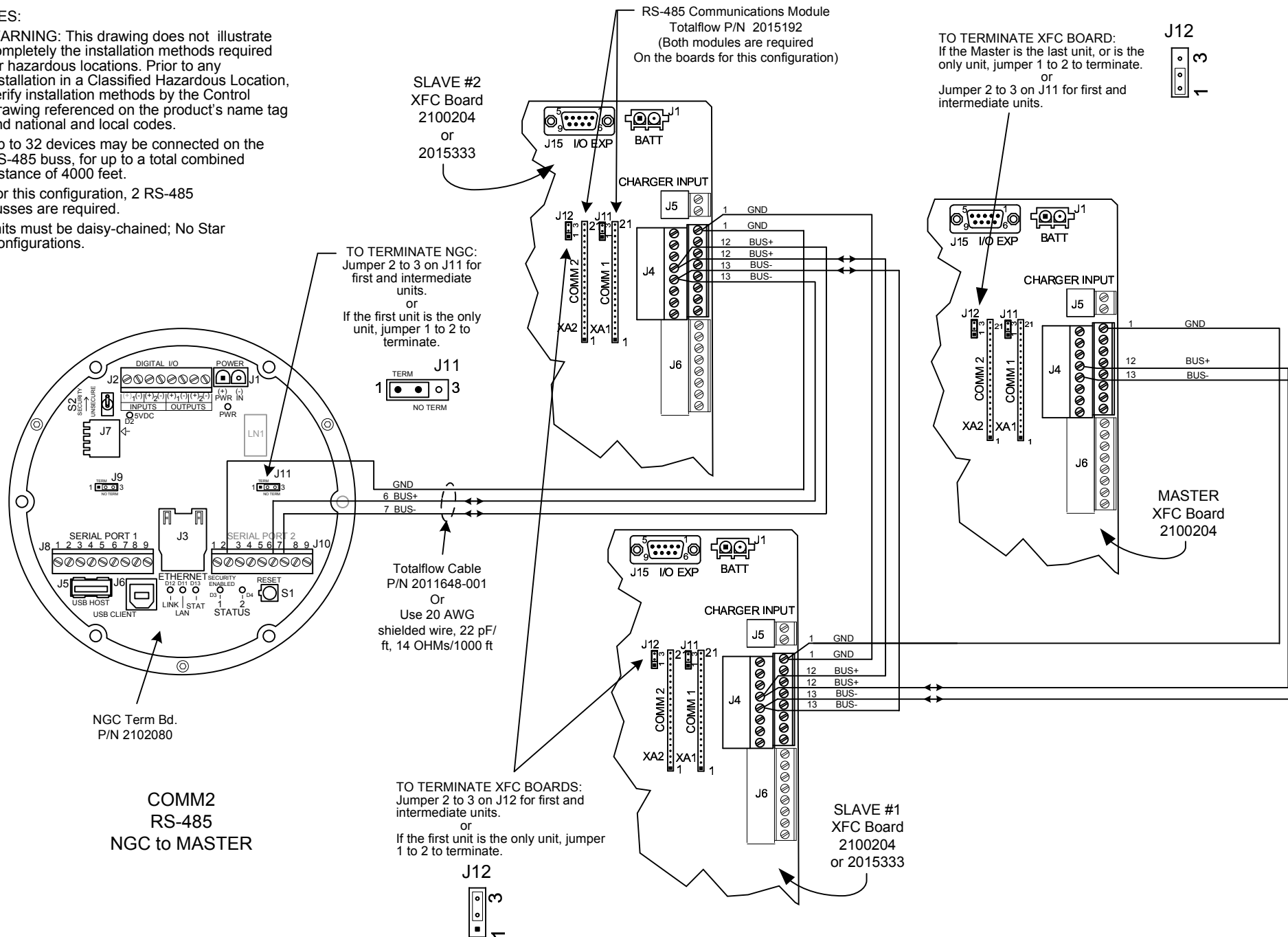
SLAVE #1
XFC Board
2100204
or
2015333

REF: N/A

ABB TOTALFLOW Products	ACTION	DOC TYPE	TITLE	DWG NO.	REV	SHEET
	L19097	UD	THERMS STATION WIRING LAYOUT NGC TO XFC SLAVE TO XFC MASTER	2102928	AA	6 OF 7

NOTES:

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



REF: N/A

ABB TOTALFLOW Products	ACTION	DOC TYPE	TITLE	DWG NO.	REV	SHEET
	L19097	UD	THERMS STATION WIRING LAYOUT NGC TO XFC SLAVE TO XFC MASTER	2102928	AA	7 OF 7