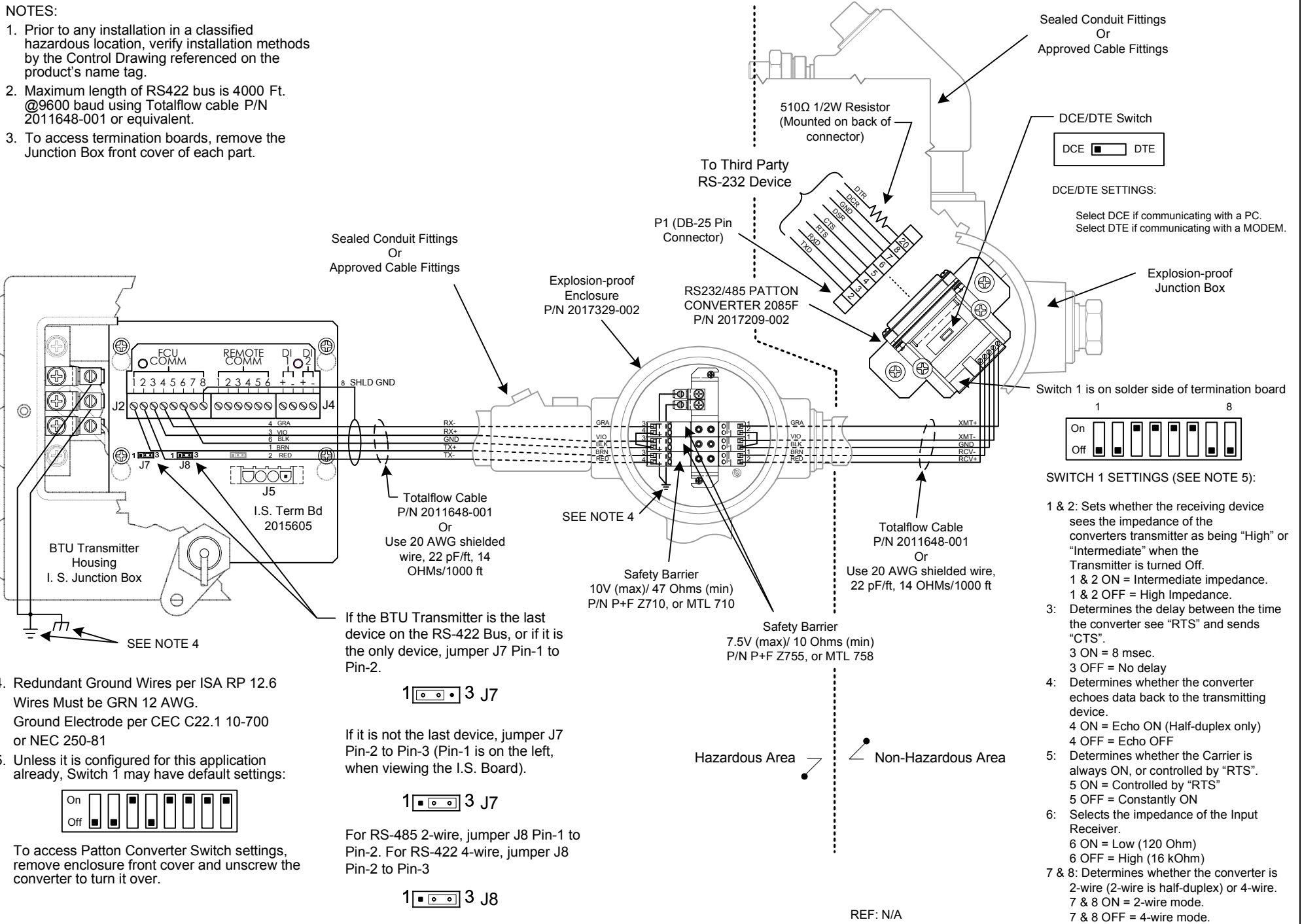


NOTES:

1. Prior to any installation in a classified hazardous location, verify installation methods by the Control Drawing referenced on the product's name tag.
2. Maximum length of RS422 bus is 4000 Ft. @9600 baud using Totalflow cable P/N 2011648-001 or equivalent.
3. To access termination boards, remove the Junction Box front cover of each part.



Sealed Conduit Fittings
Or
Approved Cable Fittings

510Ω 1/2W Resistor
(Mounted on back of
connector)

To Third Party
RS-232 Device

P1 (DB-25 Pin
Connector)

RS232/485 PATTON
CONVERTER 2085F
P/N 2017209-002

DCE/DTE Switch
DCE DTE

DCE/DTE SETTINGS:

Select DCE if communicating with a PC.
Select DTE if communicating with a MODEM.

Explosion-proof
Junction Box

Sealed Conduit Fittings
Or
Approved Cable Fittings

Explosion-proof
Enclosure
P/N 2017329-002

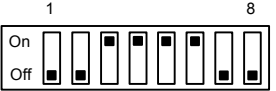
SEE NOTE 4

Safety Barrier
10V (max)/ 47 Ohms (min)
P/N P+F Z710, or MTL 710

Safety Barrier
7.5V (max)/ 10 Ohms (min)
P/N P+F Z755, or MTL 758

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

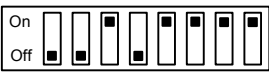
Switch 1 is on solder side of termination board



SWITCH 1 SETTINGS (SEE NOTE 5):

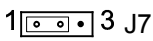
- 1 & 2: Sets whether the receiving device sees the impedance of the converters transmitter as being "High" or "Intermediate" when the Transmitter is turned Off.
1 & 2 ON = Intermediate impedance.
1 & 2 OFF = High Impedance.
- 3: Determines the delay between the time the converter see "RTS" and sends "CTS".
3 ON = 8 msec.
3 OFF = No delay
- 4: Determines whether the converter echoes data back to the transmitting device.
4 ON = Echo ON (Half-duplex only)
4 OFF = Echo OFF
- 5: Determines whether the Carrier is always ON, or controlled by "RTS".
5 ON = Controlled by "RTS"
5 OFF = Constantly ON
- 6: Selects the impedance of the Input Receiver.
6 ON = Low (120 Ohm)
6 OFF = High (16 kOhm)
- 7 & 8: Determines whether the converter is 2-wire (2-wire is half-duplex) or 4-wire.
7 & 8 ON = 2-wire mode.
7 & 8 OFF = 4-wire mode.

4. Redundant Ground Wires per ISA RP 12.6 Wires Must be GRN 12 AWG. Ground Electrode per CEC C22.1 10-700 or NEC 250-81
5. Unless it is configured for this application already, Switch 1 may have default settings:



To access Patton Converter Switch settings, remove enclosure front cover and unscrew the converter to turn it over.

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).



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



REF: N/A

ABB TOTALFLOW Products	ACTION	DOC TYPE	TITLE	DWG NO.	REV	SHEET
	L17628	UD	BTU 8000/8100 FCU COMM RS-422 4-WIRE W/GND W/ABB BARRIER TO PATTON CONV RS-232	2102324	AA	1 OF 1