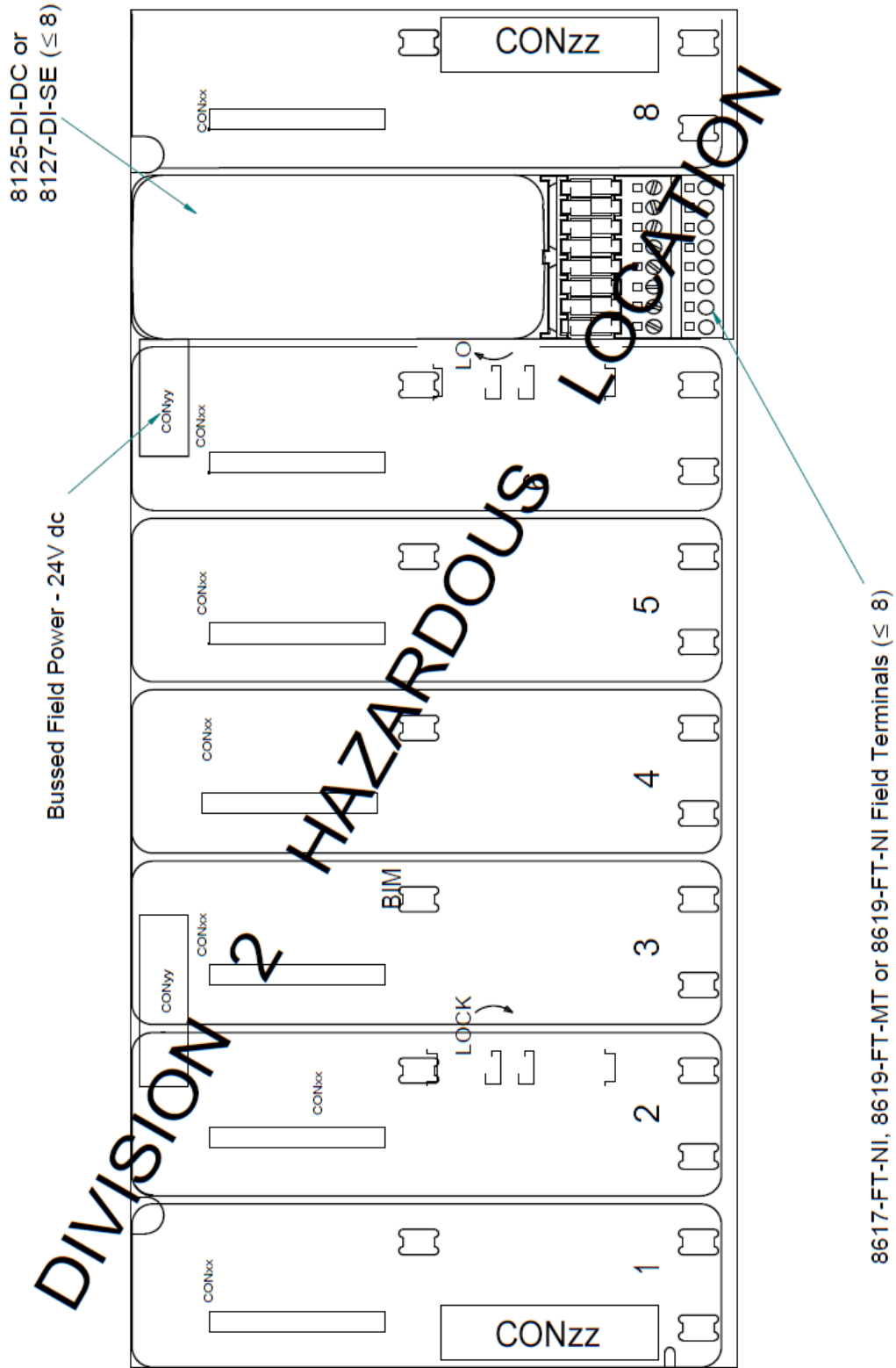


Installation Drawing for the 8125-DI-DC and 8127-DI-SE



NOTES

1. The 8125-DI-DC and 8127-DI-SE may only be mounted on a CSA Certified 8000 Series carrier.
2. The T class of the module at a maximum ambient temperature depends on the orientation of the module when mounted on the carrier. Normal orientation is with the module mounted on the carrier which is mounted on a vertical surface, with the field terminals above or below the module.
3. The 8125-DI-DC and 8127-DI-SE require a supply of 24V dc Bussed Field Power through the carrier. This power must be derived from a CSA-Certified power supply with an output voltage not exceeding 24V dc nominal, 30V dc max.
4. The 8125-DI-DC and 8127-DI-SE may be removed from or inserted into the carrier whilst the Railbus power remains energised (ie hot-plugged) provided the following two conditions are met a) The Railbus power is derived from an 8910-PS-DC or an 8913-PSAC power supply. b) The Bussed Field Power must be de-energised unless the area is known to be non-hazardous.
5. The 8125-DI-DC and 8127-DI-SE must be installed in conjunction with the 8617-FT-NI, 8632-FT-NI, 8619-FT-MT or 8619-FT-NI Field Terminal assemblies (FTAs). The 8619- Field Terminal Assemblies may be connected to the field circuits via an IDC (Insulation Displacement) cable and connector, such as the 8081-FC-xx. The IDC cable and connectors, such as the 8081-FC-xx, may be connected to the field circuits via an 8650 Field Terminal provided that those circuits are non-incendive (see Note 6). The 8650 may not be used with NAMUR sensors (see Note 7). The terminal numbers for each channel are shown in Table 1.
6. The 8125-DI-DC and 8127-DI-SE must be installed in conjunction with the 8617-FT-NI, 8632-FT-NI, 8619-FT-MT or 8619-FT-NI Field Terminal assemblies (FTAs). The 8619- Field Terminal Assemblies may be connected to the field circuits via an IDC (Insulation Displacement) cable and connector, such as the 8081-FC-xx. The IDC cable and connectors, such as the 8081-FC-xx, may be connected to the field circuits via an 8650 Field Terminal provided that those circuits are non-incendive (see Note 6). The 8650 may not be used with NAMUR sensors (see Note 7). The terminal numbers for each channel are shown in Table 1. on the next sheet.
7. The following parameters apply to the field connections :-

<b>Voc = 8.64Vdc, Isc = 18.5mA per channel (If two channels are shorted together)</b>			
Group	Ca (µF)	La(mH) or L/R Ratio(µH/ohm)	
A/B	28	23.6 per channel	1728
C	650	94.7 per channel	6912
D, F, G	1000	188 per channel	13824

Note: The maximum total current in the common return line is 296mA, so the inductance of this common return line shall not exceed 0.739mH (Group A/B), 2.96mH (Group C), or 5.9mH (Group D). Alternatively the L/R ratio of the common return line shall not exceed 54µH/ohm (Group A/B), 216µH/ohm (Group C), or 432µH/ohm (Group D)

8. Each of the connection configurations shown may be connected to CSA Approved apparatus suitable for use in Division 2 or Zone 2 hazardous locations or to apparatus which does not store or generate more than :- 1.5V, 0.1A, 25mW, 40J (such as switches, thermocouples, Light Emitting Diodes or resistance temperature devices) in accordance with the following criteria :
  - Voc (Uo) ≤ Vmax (Vi)
  - Isc (Io) ≤ Imax (Ii)
  - Po ≤ Pi
  - Ca (Co) ≥ Ccable + Ci
  - La (Lo) ≥ Lcable + Li or La/Ra (Lo/Ro) ≥ Lcable/Rcable and Li/Ri
9. **WARNING - EXPLOSION HAZARD**  
 Substitution of components may impair suitability for Class I, Division 2.
10. **WARNING - EXPLOSION HAZARD**  
 DO NOT DISCONNECT UNLESS THE AREA IS KNOWN TO BE NON-HAZARDOUS, OR BUSSED FIELD POWER HAS BEEN SWITCHED OFF.



TABLE 1

8125-DI-DC or 8127-DI-SE input channel	Terminal number of 8617-FT-NI	Terminal number of 8632-FT-NI	Ribbon cable Conductor number of 8619-FT-MT or -NI	Terminal Numbers of 8650-FT-PX		
				+ve	-ve	Earth
1	4	2	1 = J1 P1	1	2	3
2	6	4	4 = J1 P4	4	5	6
3	8	6	3 = J1 P3	7	8	9
4	10	8	6 = J1 P6	10	11	12
5	12	10	5 = J1 P5	13	14	15
6	14	12	8 = J1 P8	16	17	18
7	16	14	7 = J1 P7	19	20	21
8	1	16	21 = J2 P1	22	23	24
9	3	1	22 = J2 P2	25	26	27
10	5	3	23 = J2 P3	28	29	30
11	7	5	24 = J2 P4	31	32	33
12	9	7	25 = J2 P5	34	35	36
13	11	9	26 = J2 P6	37	38	39
14	13	11	27 = J2 P7	40	41	42
15	15	13	28 = J2 P8	43	44	45
16	18	15	10 = J1 P10	46	47	48
17	20	18	9 = J1 P9	49	50	51
18	22	20	12 = J1 P12	52	53	54
19	24	22	11 = J1 P11	55	56	57
20	26	24	14 = J1 P14	58	59	60
21	28	26	13 = J1 P13	61	62	63
22	30	28	16 = J1 P16	64	65	66
23	32	30	15 = J1 P15	67	68	69
24	21	32	30 = J2 P10	76	77	78
25	17	17	31 = J2 P11	70	71	72
26	19	19	31 = J2 P12	73	74	75
27	23	21	18 & 33 = J1 P18 & J2 P13	79	80	81
28	25	23	19 & 34 = J1 P19 & J2 P14	82	83	84
29	27	25	35 = J2 P15	85	86	87
30	29	27	36 = J2 P16	88	89	90
31	Not Available	29	37 = J2 P17	91	92	93
32	Not Available	31	20 & 38 = J1 P20 & J2 P18	94	95	96
Common return (FTA0V1)	2	Not Available	2 = J1 P2	See negative above		
Common return (FTA0V2)	31	Not Available	29 = J2 P9	See negative above		
Common return (FTA0V3)	Not Available	Not Available	43 = J2 P23	See negative above		
Common return (FTA0V4)	Not Available	Not Available	42 = J2 P22	See negative above		
Common return (FTA0V5)	Not Available	Not Available	39 = J2 P19	See negative above		
Common return (FTA0V6)	Not Available	Not Available	41 = J2 P21	See negative above		
Common return (FTA0V7)	Not Available	Not Available	17 = J1 P17	See negative above		
Common return (FTA0V8)	Not Available	Not Available	40 = J2 P20	See negative above		
Spare	Not Available	Not Available	44 = J2 P24	See negative above		