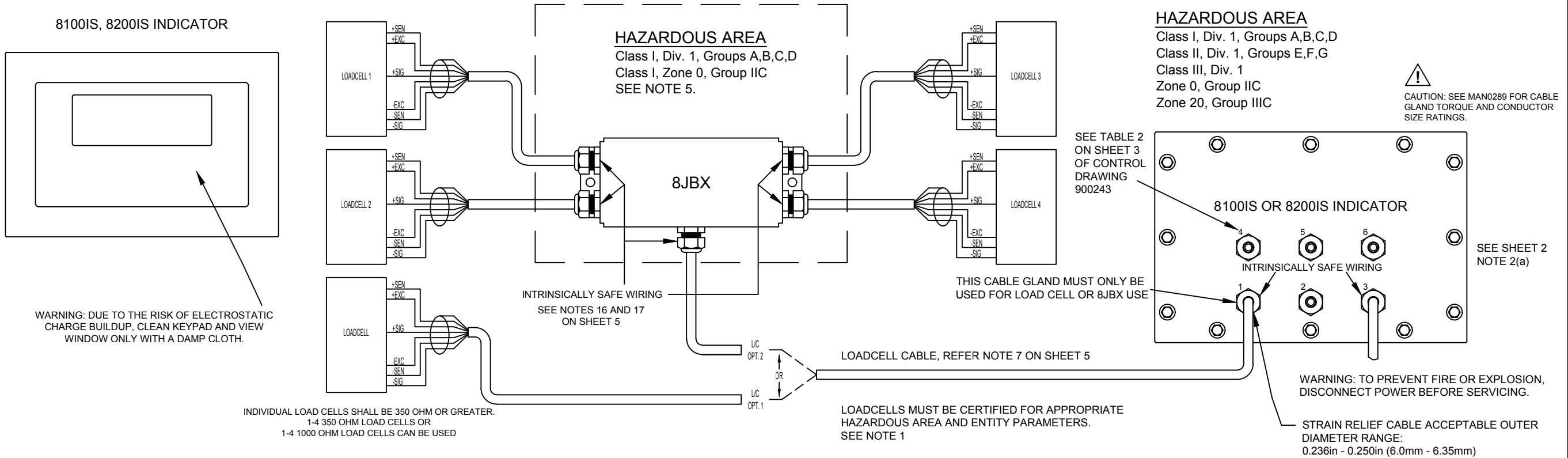
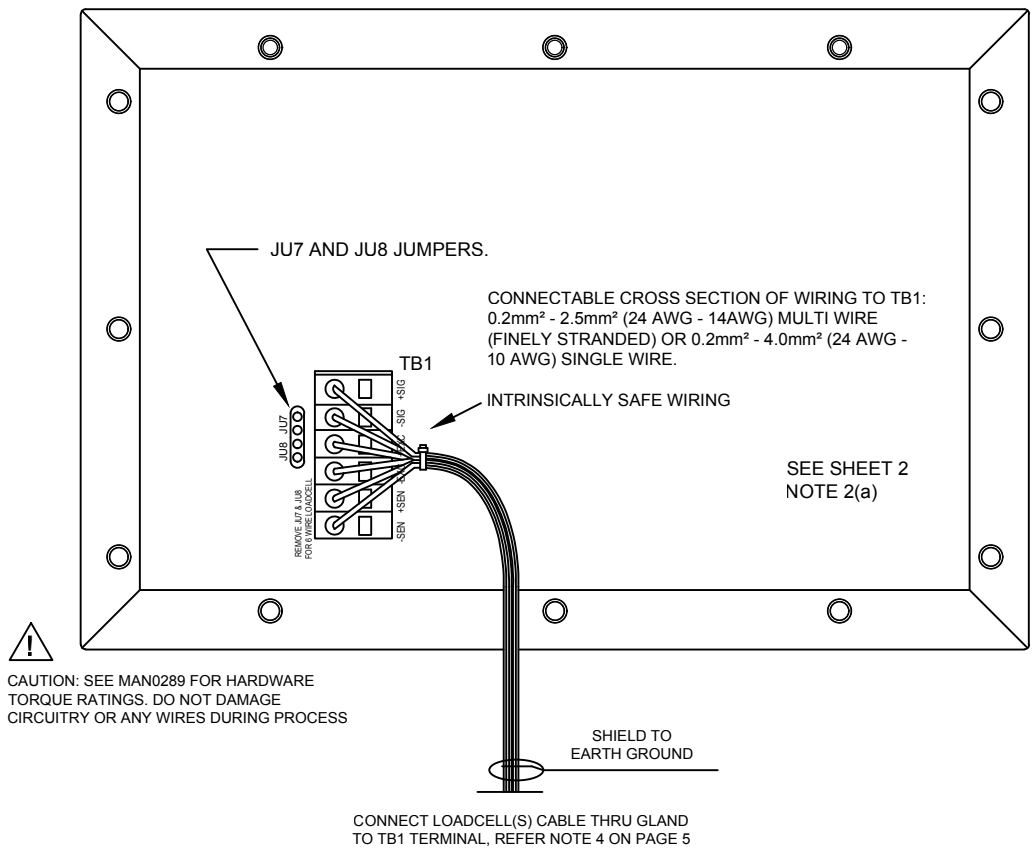


ECD #	REV	REVISIONS	DATE	APP
18-037	01	BLOCK CHANGED/ABBREVIATIONS	5/4/18	JT
18-073	02	UL MARKUPS	11/5/18	JT
19-006	03	MORE UL MARKUPS	01/11/19	JT
19-008	04	STANDARD CONFIGURATION	01/23/19	JT
19-011	05	TABLE 2 INTRODUCTION	02/06/19	JT
19-020	06	FINAL UL MARKUPS	03/01/19	JT

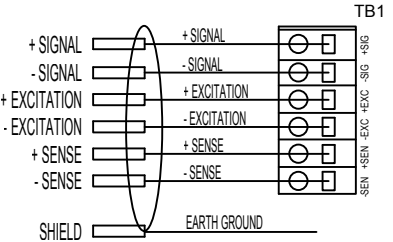
LOAD CELL AND SUMMING BOARD INSTALLATION DIAGRAM



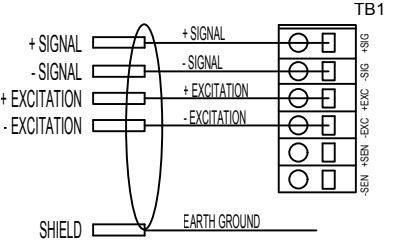
8100IS, 8200IS INDICATOR INTRINSICALLY SAFE OUTPUT WIRING AND LOADCELL CONFIGURATION JUMPERS



6-WIRE LOADCELL CONNECTION (REMOVE JU7 AND JU8)



4-WIRE LOADCELL CONNECTION (INSERT JU7 AND JU8)



OUTPUT ENTITY PARAMETERS					
DESCRIPTION (LOCATION)	U _o	I _o	P _o	C _o	L _o
LOADCELL (TB1)	7.14 V	0.7076 A	0.895 W	10.8 uF	71 uH

- THESE OUTPUTS MAY ALSO BE CONNECTED TO SIMPLE APPARATUS AS DEFINED IN ARTICLE 504.2 AND INSTALLED AND TEMPERATURE CLASSIFIED IN ACCORDANCE WITH ARTICLE 504.10(D) OF THE NATIONAL ELECTRICAL CODE (ANSI/NFPA 70), OR OTHER LOCAL CODES, AS APPLICABLE.
- SELECTED INTRINSICALLY SAFE EQUIPMENT/LOADCELLS (FOR USE WITH THESE INTRINSICALLY SAFE DORAN OUTPUTS) MUST BE THIRD PARTY LISTED AS INSTRINSICALLY SAFE FOR THE APPLICATION (UNLESS DEEMED SIMPLE APPARATUS PER NOTE 1), AND HAVE INTRINSICALLY SAFE INTITY PARAMETERS CONFORMING WITH TABLE 1 BELOW

TABLE 1		
I.S. Equipment/Loadcells	I.S. Doran Outputs	
V max (or Ui)	≥	Voc or Vt (or Uo)
I max (or li)	≥	Isc or It (or Io)
P max, Pi	≥	Po
Ci + Ccable	≤	Ca (or Co)
Li + Lcable	≤	La (or Lo)

- SEE PAGE 5 (NOTES FOR PAGE 1 OF CONTROL DRAWING No. 900243)

WARNING

READ AND UNDERSTAND COMPLETELY USER MANUAL NO. MAN0289 FOR THESE DEVICES BEFORE INSTALLATION OR OPERATION

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SYSTEM CONTROL DRAWING

DATE: 05/04/18	DRAWN BY: J.TORRES	DRAWING NUMBER 900243	SHEET NUMBER SHEET 1 OF 5	REV 06
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ECD #	REV	REVISIONS	DATE	APP
18-037	01	BLOCK CHANGED/ABBREVIATIONS/NOTES	5/7/18	J.T
18-073	02	UL MARKUPS	11/5/18	J.T
19-006	03	MORE UL MARKUPS	01/11/19	J.T
19-008	04	STANDARD CONFIGURATION	01/23/19	J.T
19-011	05	TABLE 2 INTRODUCTION	02/06/19	J.T
19-020	06	FINAL UL MARKUPS	03/01/19	J.T

POWER SUPPLY INSTALLATION DIAGRAM

UNCLASSIFIED (NON-HAZARDOUS AREA) OR HAZARDOUS AREA

Class I, Div 1, Groups B,C,D
Class II, Div 1, Groups E,F,G
Class III, Div. 1
Class I, Zone 1, Group IIC
Zone 21, Group IIIC

UNCLASSIFIED (NON-HAZARDOUS) AREA

AC MAINS
120VAC
50/60Hz
NOTE 3.

BLK: L
WHT: N
GRN: GND

CONDUIT, SEE NOTE 1.

8AIS
AC TO DC
POWER
SUPPLY

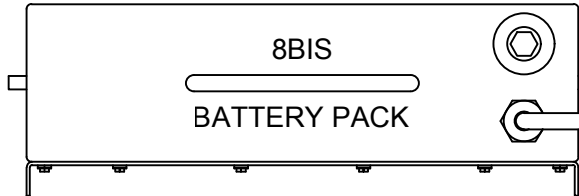
INTRINSICALLY SAFE WIRING

INTRINSICALLY SAFE
WIRING, NOTE 2
SEE NOTE 2(a)

LG. 1m MAX.

OPTIONAL POWER EXTENSION CABLE.
WCB0234; 3m,
WCB0235; 6m.

8CHG
BATTERY CHARGER



CHARGE BATTERY IN AN UNCLASSIFIED (NON-HAZARDOUS) AREA ONLY

HAZARDOUS AREA

Class I, Div 1, Groups A,B,C,D
Class II, Div 1, Groups E,F,G
Class III, Div. 1
Zone 0, Group IIC
Zone 20, Group IIIC

SEE TABLE 2 ON
SHEET 3 OF
CONTROL
DRAWING
900243

8100IS, 8200IS INDICATOR
OR
8100IS, 8200IS REMOTE DISPLAY

ELECTRICAL
CONNECTION
ONLY. DO NOT
USE THIS PORT
FOR ANY FIBER
OPTIC
CONNECTION



CAUTION: SEE MAN0289 FOR CABLE
GLAND TORQUE AND CONDUCTOR
SIZE RATINGS.

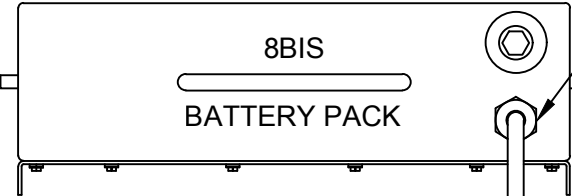
INTRINSICALLY SAFE WIRING

SEE NOTE 2(a)

HAZARDOUS AREA

Class I, Div 1, Groups A,B,C,D
Class II, Div 1, Groups E,F,G
Class III, Div. 1
Zone 0, Group IIC
Zone 20, Group IIIC

INTRINSICALLY SAFE WIRING



CAUTION: SEE MAN0289 FOR CABLE
GLAND TORQUE AND CONDUCTOR
SIZE RATINGS.

LG. 1M MAX.

PWR.

OPT. 2

PWR.

OPT. 1

WARNING: POWER DOWN INDICATOR/REMOTE DISPLAY
BEFORE REMOVING BATTERY PACK. BATTERY PACK MUST
BE CHARGED IN AN UNCLASSIFIED (NON-HAZARDOUS)
AREA ONLY

NOTES:

- CONDUIT, FIELD WIRING AND SEALS SHALL COMPLY WITH NATIONAL AND LOCAL CODES OF THE AUTHORITY HAVING JURISDICTION (AHJ)
- INTRINSICALLY SAFE WIRING BETWEEN POWER SUPPLY AND INDICATOR/REMOTE DISPLAY SHALL USE ONLY FACTORY SUPPLIED CABLES.
 - BEFORE INSTALLATION, AND BEFORE CONNECTING/DISCONNECTING ANY FACTORY SUPPLIED CABLES, OR ANY FIELD WIRING FOR THE 8100IS/8200IS INDICATOR/REMOTE DISPLAY, ENSURE CONNECTORS ARE FREE OF DUST/DEBRIS AND ENSURE NO POTENTIALLY IGNITABLE DUST ATMOSPHERES ARE PRESENT.
- MAXIMUM NON-HAZARDOUS LOCATION VOLTAGE (Um) MUST NOT EXCEED 120V AND MUST BE AC ONLY.
- ALL GROUNDING CONNECTIONS MUST BE LESS THAN 1 OHM RESISTANCE TO EARTH GROUND.
- OPERATING AMBIENT TEMPERATURE RANGE: -10°C TO +40°C
- BATTERY CHARGER RATED AMBIENT IS -10°C TO +30°C
- INTRINSICALLY SAFE WIRING SHALL BE IDENTIFIED AS SUCH WITH LABELS PLACED NO MORE THAN 7.62M (25FT) APART. THE COLOR LIGHT BLUE IS INTERNATIONALLY RECOGNIZED AS IDENTIFYING INTRINSICALLY SAFE WIRING.
- SEE PAGE 5 (NOTES FOR PAGE 2 OF CONTROL DRAWING No. 900243)

WARNING

READ AND UNDERSTAND COMPLETELY USER MANUAL NO. MAN0289
FOR THESE DEVICES BEFORE INSTALLATION OR OPERATION

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SYSTEM CONTROL DRAWING

DATE:
05/07/18

DRAWN BY:
J.TORRES

DRAWING NUMBER
900243

SHEET NUMBER
SHEET 2 OF 5

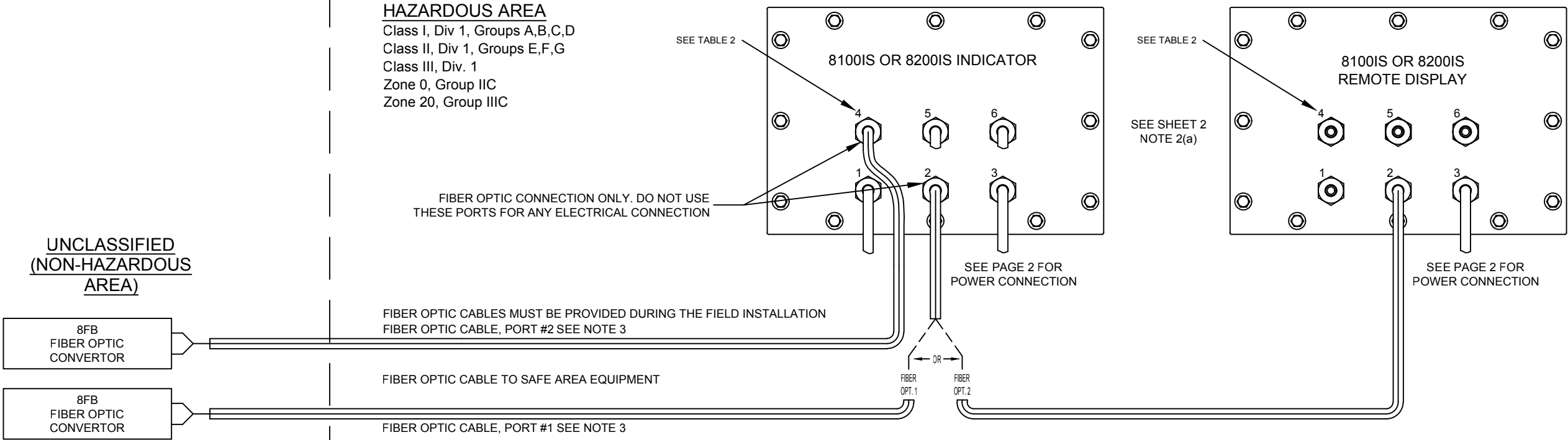
REV
06

ECD #	REV	REVISIONS	DATE	APP
18-037	01	BLOCK CHANGED/ABBREVIATIONS/NOTES	5/7/18	J.T
18-073	02	UL MARKUPS	11/5/18	J.T
19-006	03	MORE UL MARKUPS	01/11/19	J.T
19-008	04	STANDARD CONFIGURATION	01/23/19	J.T
19-011	05	TABLE 2 INTRODUCTION	02/06/19	J.T
19-020	06	FINAL UL MARKUPS	03/01/19	J.T

FIBER OPTIC INTERFACE



CAUTION: SEE MAN0289 FOR CABLE CLAND TORQUE AND CONDUCTOR SIZE RATINGS.



NOTES:

1. OPERATING AMBIENT TEMPERATURE RANGE: -10°C TO +40°C (EXCEPT 8CHG RANGE: -10°C TO +30°C)
2. NOTE: THE 8100IS OR 8200IS REMOTE DISPLAY REQUIRES A SEPARATE POWER SUPPLY OR BATTERY PACK.
3. ANY FIBER OPTIC CABLES SHALL BE INSTALLED IN ACCORDANCE WITH ARTICLES 500.8, 501.10, 501.15, 502.10, 502.15, 503, 505.15, 505.16, 506.9, AND 506.15 OF THE NATIONAL ELECTRICAL CODE (ANSI/NFPA 70) OR OTHER LOCAL CODES, AS APPLICABLE
4. MODEL 8FB WAS EVALUATED AS OPEN EQUIPMENT. OPEN EQUIPMENT IS INTENDED TO BE FIELD INSTALLED WITHIN A SEPARATE OVERALL ENCLOSURE OR END-PRODUCT EQUIPMENT ENCLOSURE.
5. RUN EACH CABLE PAIRS THRU GLAND TO THE DEVICES FIBER OPTIC PORTS. INSERT MARKED CABLE TO RCV(IN) PORT AND THE UNMARKED TO XMT(OUT) PORT.

KEY:

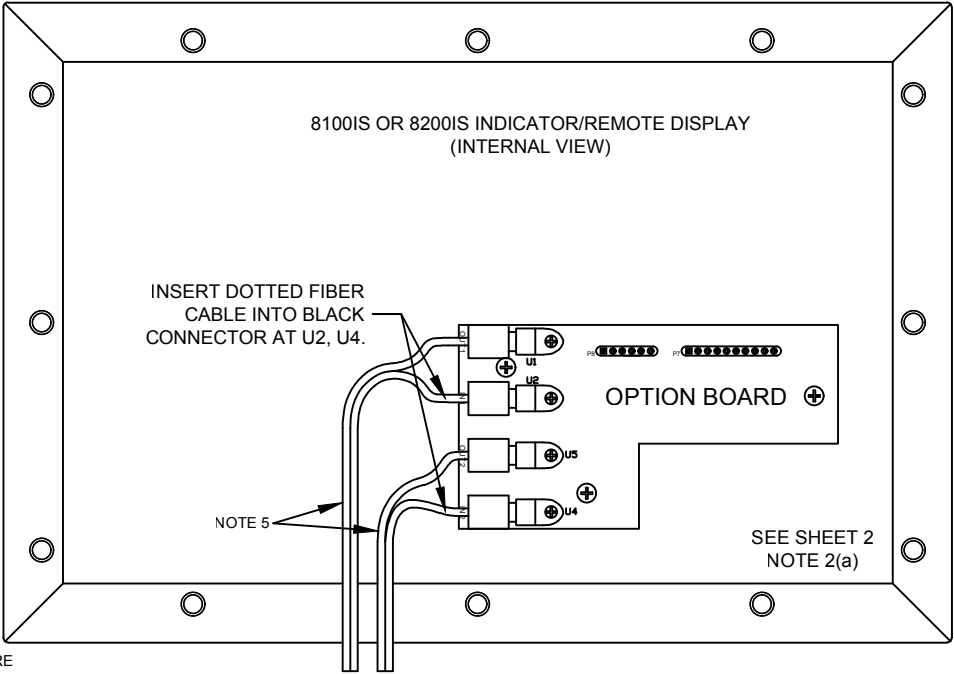
L - LOAD CELL OR 8JBX CONNECTION
F - FIBER OPTIC ONLY
P - I.S. POWER INPUT ONLY
RS - REMOTE SWITCH OUTPUT ONLY (SS) - STAINLESS STEEL PLUG

TABLE 2

I/O Port Number	8100IS Indicator	8200IS Indicator	8100IS Remote Display	8200IS Remote Display
1	L	L	(SS)	(SS)
2	F	F	F	F
3	P	P	P	P
4	F	F	(SS)	(SS)
5	RS	RS	(SS)	(SS)
6	RS	RS	(SS)	(SS)



CAUTION: SEE MAN0289 FOR HARDWARE TORQUE RATINGS. DO NOT DAMAGE CIRCUITRY OR ANY WIRES DURING PROCESS



FIBER OPTIC CABLE 1
OUT 1 & IN 1
(USE ONLY FOR REMOTE DISPLAY)
OR
(USE FOR FIBER OPTIC CONVERTOR)

FIBER OPTIC CABLE 2:
OUT 2 & IN 2
(USE ONLY FOR FIBER OPTIC CONVERTOR)
NO FIBER OPTIC CABLES TO U5, U4 FOR REMOTE DISPLAY

WARNING

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SYSTEM CONTROL DRAWING

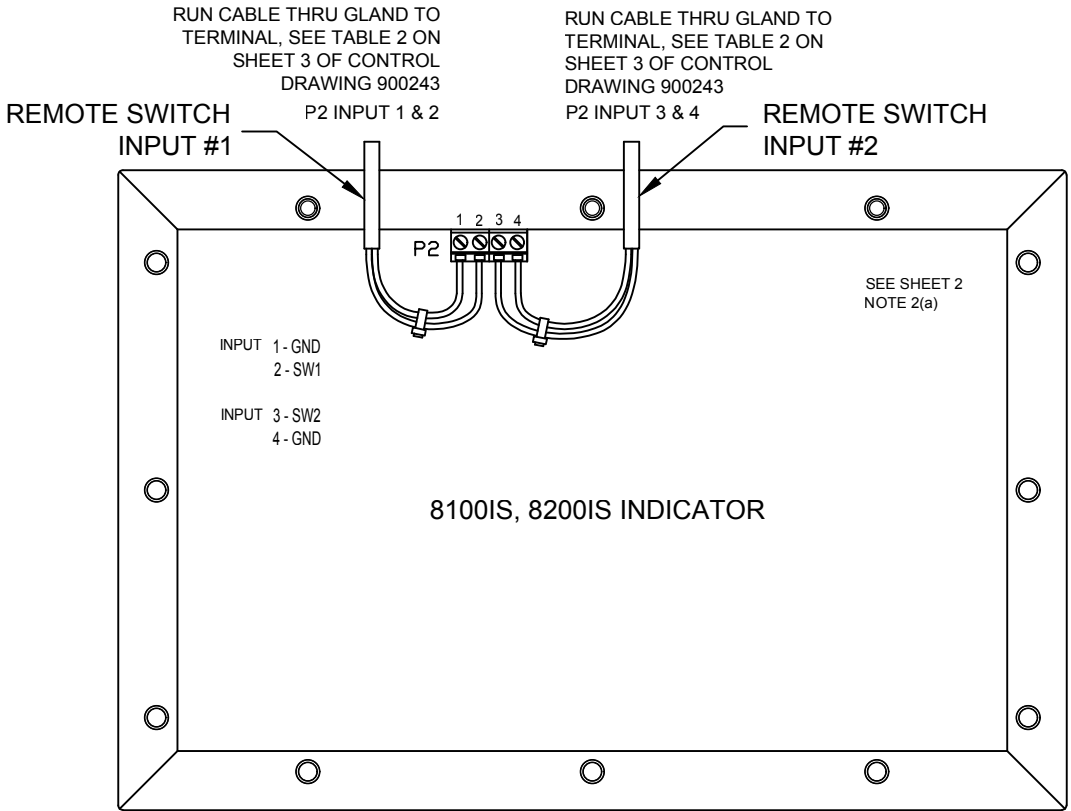
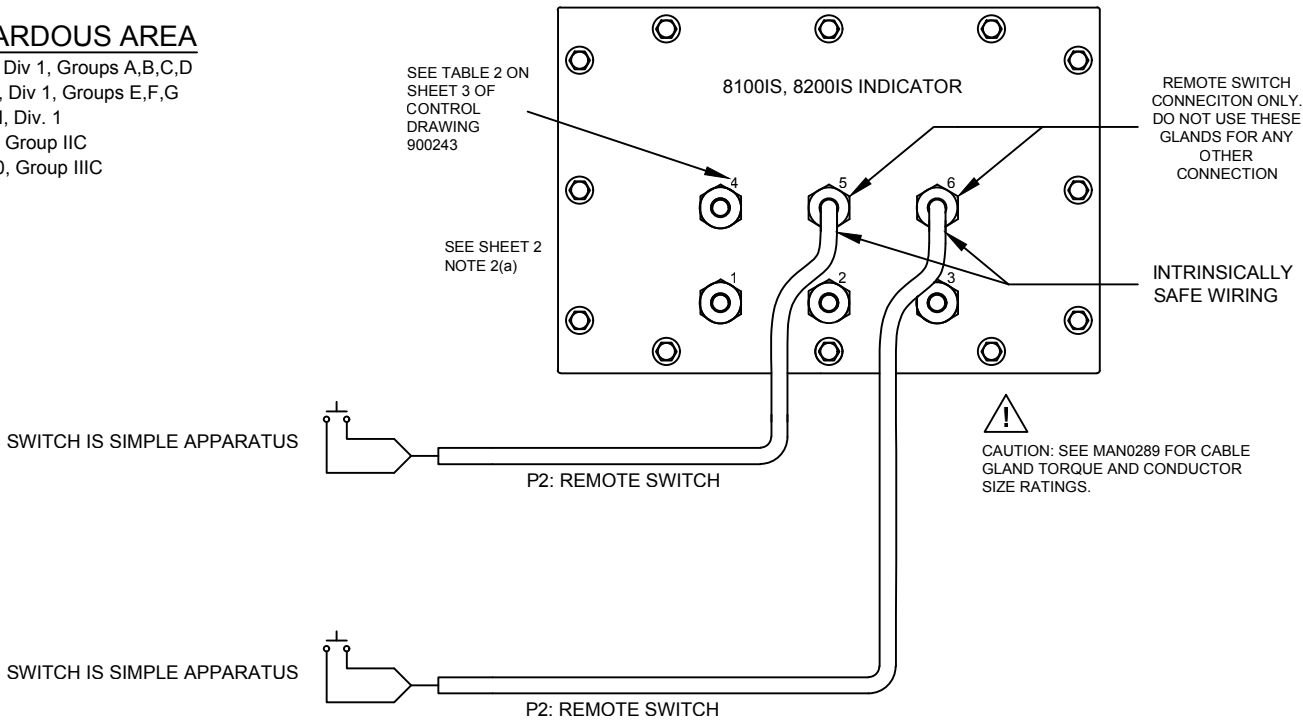
DATE: 05/07/18	DRAWN BY: J.TORRES	DRAWING NUMBER 900243	SHEET NUMBER SHEET 3 OF 5	REV 06
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ECD #	REV	REVISIONS	DATE	APP
18-037	01	BLOCK CHANGED/ABBREVIATIONS/TABLE MADE	5/7/18	J.T
18-073	02	UL MARKUPS	11/5/18	J.T
19-006	03	MDRE UL MARKUPS	01/11/19	J.T
19-008	04	STANDARD CONFIGURATION	01/23/19	J.T
19-011	05	TABLE 2 INTRODUCTION	02/06/19	J.T
19-020	06	FINAL UL MARKUPS	03/01/19	J.T

REMOTE SWITCH WIRING

HAZARDOUS AREA

Class I, Div 1, Groups A,B,C,D
Class II, Div 1, Groups E,F,G
Class III, Div. 1
Zone 0, Group IIC
Zone 20, Group IIIC



OUTPUT ENTITY PARAMETERS					
DESCRIPTION (LOCATION)	U _o	I _o	P _o	C _o	L _o
REMOTE SWITCH #1 & #2	7.14 V	0.133 A	0.217 W	13.5 uF	2.02 mH

NOTES:

- THE DORAN I.S. OUTPUT CABLE MUST BE CONNECTED TO A SUITABLE GROUND ELECTRODE PER THE NATIONAL ELECTRICAL CODE (ANSI/NFPA 70), THE CANADIAN ELECTRICAL CODE OR OTHER LOCAL INSTALLATION CODES, AS APPLICABLE. THE RESISTANCE OF THE GROUND PATH MUST BE LESS THAN 1 OHM.
- OPERATING AMBIENT TEMPERATURE RANGE: -10°C TO +40°C (EXCEPT 8CHG RANGE: -10°C TO +30°C)
- INTRINSICALLY SAFE WIRING SHALL BE IDENTIFIED AS SUCH WITH LABELS PLACED NO MORE THAN 7.62M (25FT) APART. THE COLOR LIGHT BLUE IS INTERNATIONALLY RECOGNIZED AS IDENTIFYING INTRINSICALLY SAFE WIRING.
- THE OUTPUT CURRENT OF THESE INTRINSICALLY SAFE DORAN OUTPUTS IS LIMITED BY A RESISTOR SUCH THAT THE OUTPUT VOLTAGE-CURRENT PLOT IS A STRAIGHT LINE DRAWN BETWEEN OPEN-CIRCUIT VOLTAGE AND SHORT-CIRCUIT CURRENT.
- SELECTED INTRINSICALLY SAFE EQUIPMENT/SWITCHES (FOR USE WITH THESE INTRINSICALLY SAFE DORAN OUTPUTS) MUST BE THIRD PARTY LISTED AS INTRINSICALLY SAFE FOR THE APPLICATION (UNLESS DEEMED SIMPLE APPARATUS PER NOTE 11 ON SHEET 4, AND HAVE INTRINSICALLY SAFE ENTITY PARAMETERS CONFORMING WITH TABLE 1 BELOW.

TABLE 1		
I.S. Equipment/Switches	I.S. Doran Outputs	
V max (or Ui)	≥	Voc or Vt (or Uo)
I max (or Ii)	≥	Isc or It (or Io)
P max, Pi	≥	Po
Ci + Ccable	≤	Ca (or Co)
Li + Lcable	≤	La (or Lo)

- CAPACITANCE AND INDUCTANCE OF THE FIELD WIRING FROM THE INTRINSICALLY SAFE EQUIPMENT/SWITCHES TO THESE INTRINSICALLY SAFE DORAN OUTPUTS SHALL BE CALCULATED AND MUST BE INCLUDED IN THE SYSTEM CALCULATIONS AS SHOWN IN TABLE 1. CABLE CAPACITANCE, Ccable, PLUS INTRINSICALLY SAFE EQUIPMENT CAPACITANCE, Ci MUST BE LESS THAN THE MARKED CAPACITANCE, Ca (OR Co), SHOWN ON ANY I.S. DORAN OUTPUTS USED. THE SAME APPLIES FOR INDUCTANCE (Lcable, Li AND La OR Lo, RESPECTIVELY). WHERE THE CABLE CAPACITANCE AND INDUCTANCE PER FOOT ARE NOT KNOWN, THE FOLLOWING VALUES SHALL BE USED: Ccable = 60 pF/ft., Lcable = 0.2 H/ft.
- WHERE MULTIPLE CIRCUITS EXTEND FROM THE SAME PIECE OF ASSOCIATED APPARATUS OR INTRINSICALLY SAFE DEVICE (WHERE ALL PINS ARE NOT STATED AS COMBINED AND/OR DIFFERENT ENTITY PARAMETERS ASSIGNED), THEY MUST BE INSTALLED IN SEPARATE CABLES OR IN ONE CABLE HAVING SUITABLE INSULATION. REFER TO ARTICLE 504.30(B) OF THE NATIONAL ELECTRICAL CODE (ANSI/NFPA 70) AND INSTRUMENT SOCIETY OF AMERICA RECOMMENDED PRACTICE ISA RP12.06 FOR INSTALLING INTRINSICALLY SAFE EQUIPMENT.
- INTRINSICALLY SAFE CIRCUITS MUST BE WIRED AND SEPARATED IN ACCORDANCE WITH ARTICLE 504.20 OF THE NATIONAL ELECTRICAL CODE (ANSI/NFPA 70) OR OTHER LOCAL CODES, AS APPLICABLE.
- THESE INTRINSICALLY SAFE DORAN OUTPUTS HAVE NOT BEEN EVALUATED FOR USE IN COMBINATION WITH ANOTHER DEVICE WITH ANY OUTPUTS.
- FOR INSTALLATIONS IN WHICH BOTH THE Ci AND Li OF THE INTRINSICALLY SAFE APPARATUS/SWITCHES EXCEEDS 1% OF THE Ca (OR Co) AND La (OR Lo) PARAMETERS OF THESE INTRINSICALLY SAFE DORAN OUTPUTS (EXCLUDING THE CABLE), THEN 50% OF Ca (OR Co) AND La (OR Lo) PARAMETERS ARE APPLICABLE AND SHALL NOT BE EXCEEDED. THE REDUCED CAPACITANCE SHALL NOT BE GREATER THAN 1 F FOR GROUPS C AND/OR D, AND 600 nF FOR GROUPS A AND B. THE VALUES OF Ca (OR Co) AND La (OR Lo) DETERMINED BY THIS METHOD SHALL NOT BE EXCEEDED BY THE SUM OF ALL OF Ci PLUS CABLE CAPACITANCES AND THE SUM OF ALL OF THE Li PLUS CABLE INDUCTANCES IN THE CIRCUIT RESPECTIVELY.
- THESE INTRINSICALLY SAFE DORAN OUTPUTS MAY ALSO BE CONNECTED TO SIMPLE APPARATUS AS DEFINED IN ARTICLE 504.2 AND INSTALLED AND TEMPERATURE CLASSIFIED IN ACCORDANCE WITH ARTICLE 504.10(D) OF THE NATIONAL ELECTRICAL CODE (ANSI/NFPA 70), OR OTHER LOCAL CODES, AS APPLICABLE.



CAUTION: SEE MAN0289 FOR HARDWARE TORQUE RATINGS. DO NOT DAMAGE CIRCUITRY OR ANY WIRES DURING PROCESS

WARNING

READ AND UNDERSTAND COMPLETELY USER MANUAL NO. MAN0289 FOR THESE DEVICES BEFORE INSTALLATION OR OPERATION

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SYSTEM CONTROL DRAWING

DATE: 05/07/18	DRAWN BY: J.TORRES	DRAWING NUMBER 900243	SHEET NUMBER SHEET 4 OF 5	REV 06
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ECD #	REV	REVISIONS	DATE	APP
18-073	00	UL MARKUPS - NEW RELEASE	11/5/18	J.T
19-006	01	MORE UL MARKUPS	01/11/19	J.T
19-011	02	SEE SHEET 3	02/06/19	J.T

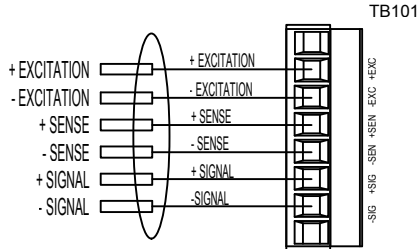
NOTES FOR PAGE 1 OF CONTROL DRAWING No. 900243

NOTES:

- SEE PAGE 1
- SEE PAGE 1
- SEE PAGE 1
- CONNECT THE LOADCELL CABLE SHIELD WIRE TO THE THREADED STUD ADJACENT TO SEALING GLAND. TO ASSURE PROPER GROUNDING, TEST FOR CONTINUNITY BETWEEN PLATFORM(LOAD CELL) AND SHIELD. THE PLATFORM SHOULD BE PROPERLY GROUNDED TO EARTH.
- THE DORAN I.S. OUTPUT CABLE MUST BE CONNECTED TO A SUITABLE GROUND ELECTRODE PER THE NATIONAL ELECTRICAL CODE (ANSI/NFPA 70), THE CANADIAN ELECTRICAL CODE OR OTHER LOCAL INSTALLATION CODES, AS APPLICABLE. THE RESISTANCE OF THE GROUND PATH MUST BE LESS THAN 1 OHM.
- OPERATING AMBIENT TEMPERATURE RANGE: -10°C TO +40°C
- LOADCELL CABLE LENGHT: 75 FEET MAX FOR THE 4-WIRE LOADCELLS, AND 50 FEET MAX FOR THE 6-WIRE LOADCELLS. THESE MUST INCLUDE TOTAL LENGHT OF CABLE STARTING AT INDICATOR AND ENDING AT EACH LOADCELL (ALL COMBINED).
- 8JBX JUNCTION BOX IS TYPE 1, IP20 FOR DRY INDOOR LOCATIONS.
- THE OUTPUT CURRENT OF THESE INTRINSICALLY SAFE DORAN OUTPUTS IS LIMITED BY A RESISTOR SUCH THAT THE OUTPUT VOLTAGE-CURRENT PLOT IS A STRAIGHT LINE DRAWN BETWEEN OPEN-CIRCUIT VOLTAGE AND SHORT-CIRCUIT CURRENT.
- SELECTED INTRINSICALLY SAFE EQUIPMENT/LOADCELLS (FOR USE WITH THESE INTRINSICALLY SAFE DORAN OUTPUTS) MUST BE THIRD PARTY LISTED AS INTRINSICALLY SAFE FOR THE APPLICATION (UNLESS DEEMED SIMPLE APARATUS PER NOTE 1 ON SHEET 1), AND HAVE INTRINSICALLY SAFE ENTITY PARAMETERS CONFORMING WITH TABLE 1 ON SHEET 1.
- CAPACITANCE AND INDUCTANCE OF THE FIELD WIRING FROM THE INTRINSICALLY SAFE EQUIPMENT/LOADCELLS TO THESE INTRINSICALLY SAFE DORAN OUTPUTS SHALL BE CALCULATED AND MUST BE INCLUDED IN THE SYSTEM CALCULATIONS AS SHOWN IN TABLE 1 ON SHEET 1. CABLE CAPACITANCE, Ccable, PLUS INTRINSICALLY SAFE EQUIPMENT CAPACITANCE, Ci MUST BE LESS THAN MARKED CAPACITANCE, Ca (OR Co), SHOWN ON ANY I.S. DORAN OUTPUTS USED. THE SAME APPLIES FOR INDUCTANCE (Lcable, Li AND La OR Lo, RESPECTIVELY). WHERE THE CABLE CAPACITANCE AND INDUCTANCE PER FOOT ARE NOT KNOWN, THE FOLLOWING VALUES SHALL BE USED: Ccable = 60 pF/ft., Lcable = 0.2 H/ft.
- WHERE MULTIPLE CIRCUITS EXTEND FROM THE SAME PIECE OF ASSOCIATED APPARATUS OR INTRINSICALLY SAFE DEVICE (WHERE ALL PINS ARE NOT STATED AS COMBINED AND/OR DIFFERENT ENTITY PARAMETERS ASSIGNED), THEY MUST BE INSTALLED IN SEPERATE CABLES OR IN ONE CABLE HAVING SUITABLE INSULATION. REFER TO ARTICLE 504.30(B) OF THE NATIONAL ELECTRICAL CODE (ANSI/NFPA 70) AND INSTRUMENT SOCIETY OF AMERICA RECOMMENDED PRACTICE ISA RP12.06 FOR INSTALLING INTRINSICALLY SAFE EQUIPMENT.
- INTRINSICALLY SAFE CIRCUITS MUST BE WIRED AND SEPARATED IN ACCORDANCE WITH ARTICLE 504.20 OF THE NATIONAL ELECTRICAL CODE (ANSI/NFPA 70) OR OTHER LOCAL CODES, AS APPLICABLE.
- THESE INTRINSICALLY SAFE DORAN OUTPUTS HAVE NOT BEEN EVALUATED FOR USE IN COMBINATION WITH ANOTHER DEVICE WITH ANY OUTPUTS.
- FOR INSTALLATIONS IN WHICH BOTH THE Ci AND Li OF THE INTRINSICALLY SAFE APPARATUS/LOADCELLS EXCEEDS 1% OF THE Ca (OR Co) AND La (OR Lo) PARAMETERS OF THESE INTRINSICALLY SAFE DORAN OUTPUTS (EXCLUDING THE CABLE), THEN 50% OF Ca (OR Co) AND La (OR Lo) PARAMETERs ARE APPLICABLE AND SHALL NOT BE EXCEEDED. THE REDUCED CAPACITANCE SHALL NOT BE GREATER THAN 1 F FOR GROUPS C AND/OR D, AND 600 nF FOR GROUPS A AND B. THE VALUES OF Ca (OR Co) AND La (OR Lo) DETERMINED BY THIS METHOD SHALL NOT BE EXCEEDED BY THE SUM OF ALL OF Ci PLUS CABLE CAPACITANCES AND THE SUM OF ALL OF THE Li PLUS CABLE INDUCTANCES IN THE CIRCUIT RESPECTIVELY.
- 8JBX LOAD CELL I.S. WIRING BELOW
- 8JBX OUTPUT ENTITY PARAMETERS BELOW

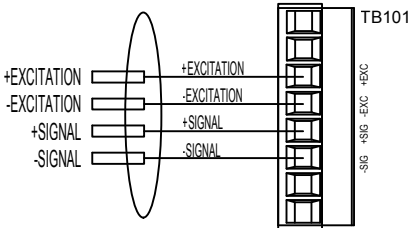
6-WIRE LOADCELL CONNECTION

8JBX BOARD INSIDE BOX



4-WIRE LOADCELL CONNECTION

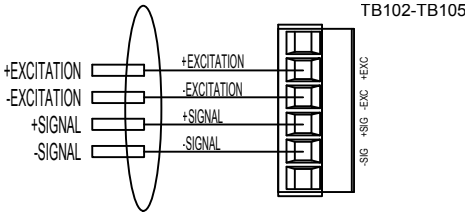
8JBX BOARD INSIDE BOX



OUTPUT ENTITY PARAMETERS					
DESCRIPTION (LOCATION)	Uo	Io	Po	Co	Lo
LOADCELL (TB102-TB105)	7.14 V	0.7076 A	0.895 W	10.8 uF*	71 uH**

*Co (subtract) C_loadcell_cable_from_indicator

**Lo (subtract) L_loadcell_cable_from_indicator



NOTES FOR PAGE 2 OF CONTROL DRAWING No. 900243

NOTES:

- NOTES 1-8 SEE PAGE 2
- THE ELECTRONICS LOCATED IN THE BARRIER CIRCUIT OF MODEL 8AIS FORMS AN INTRINSICALLY SAFE SYSTEM WHEN ONE INDICATOR/REMOTE DISPLAY MODEL 8100IS/8200IS IS CONNECTED TO ITS INTRINSICALLY SAFE OUTPUT CABLE AS SHOWN ON SHEET 2, AND THE INDICATOR/REMOTE DISPLAY MODELS 8100IS/8200IS ARE SUITABLE FOR USE IN HAZARDOUS AREAS AS SHOWN ON THIS CONTROL DRAWING NO. 900243. NO OTHER DEVICES ARE SUITABLE FOR DIRECT CONNECTION TO THE INTRINSICALLY SAFE OUTPUT CABLE OF MODEL 8AIS, AND THE ONLY ADDITIONAL DEVICES/CONFIGURATIONS THAT MAY BE CONNECTED TO THE INDICATOR/REMOTE DISPLAY MODELS 8100IS/8200IS ARE SHOWN ON THIS CONTROL DRAWING NO. 900243
- THE OUTPUT CURRENT OF THE MODEL 8AIS ASSOCIATED APPARATUS IS LIMITED BY A RESISTOR SUCH THAT THE OUTPUT-VOLTAGE PLOT IS A STRAIGHT LINE DRAWN BETWEEN OPEN-CIRCUIT VOLTAGE AND SHORT-CIRCUIT CURRENT.
- ASSOCIATED APPARATUS MODEL 8AIS MUST BE INSTALLED IN AN ENCLOSURE SUITABLE FOR THE APPLICATION IN ACCORDANCE WITH THE NATIONAL ELICTRICAL CODE (ANSI/NFPA 70) FOR INSTALLATION IN THE UNITED STATES, THE CANADIAN ELECTRICAL CODE FOR INSTALLATIONS IN CANADA, OR OTHER LOCAL CODES, AS APPLICABLE.
- THE ASSOCIATED APPARATUS MODEL 8AIS MUST BE CONNECTED TO A SUITABLE GROUND ELECTRODE PER THE NATIONAL ELECTRICAL CODE (ANSI/NFPA 70), THE CANADIAN ELECTRICAL CODE OR OTHER LOCAL INSTALLATION CODES, AS APPLICABLE. THE RESISTANCE OF THE GROUND PATH MUST BE LESS THAN 1 OHM.
- INTRINSICALLY SAFE CIRCUITS MUST BE WIRED AND SEPARATED IN ACCORDANCE WITH ARTICLE 504.20 OF THE NATIONAL ELECTRICAL CODE (ANSI/NFPA 70) OR OTHER LOCAL CODES, AS APPLICABLE.
- THIS ASSOCIATED APPARATUS MODEL 8AIS HAS NOT BEEN EVALUATED FOR USE IN COMBINATION WITH ANOTHER ASSOCIATED APPARATUS.
- THE ELECTRONICS LOCATED IN THE MODEL 8BIS BATTERY PACK FORMS AN INTRINSICALLY SAFE SYSTEM WHEN ONE INDICATOR/REMOTE DISPLAY MODELS 8100IS/8200IS IS CONNECTED TO ITS INTRINSICALLY SAFE OUTPUT CABLE AS SHOWN ABOVE, AND THE INDICATOR/REMOTE DISPLAY MODELS 8100IS/8200IS ARE SUITABLE FOR USE IN HAZARDOUS AREAS AS SHOWN ON THIS CONTROL DRAWING NO. 900243. NO OTHER DEVICES ARE SUITABLE FOR DIRECT CONNECTION TO THE INTRINSICALLY SAFE OUTPUT CABLE OF MODEL 8BIS, AND THE ONLY ADDITIONAL DEVICES/CONFIGURATIONS THAT MAY BE CONNECTED TO THE INDICATOR/REMOTE DISPLAY MODELS 8100IS/8200IS ARE SHOWN ON THIS CONTROL DRAWING NO. 900243.
- THE OUTPUT CURRENT OF THE MODEL 8BIS IS LIMITED BY A RESISTOR SUCH THAT THE OUTPUT VOLTAGE-CURRENT PLOT IS A STRAIGHT LINE DRAWN BETWEEN OPEN-CIRCUIT VOLTAGE AND SHORT-CIRCUIT CURRENT.
- MODEL 8JBX MUST BE INSTALLED IN AN ENCLOSURE SUITABLE FOR THE APPLICATION IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (ANSI/NFPA 70) FOR INSTALLATION IN THE UNITED STATES, THE CANADIAN ELECTRICAL CODE FOR INSTALLATIONS IN CANADA, OR OTHER LOCAL CODES, AS APPLICABLE.
- INTRINSICALLY SAFE CIRCUITS MUST BE WIRED AND SEPARATED IN ACCORDANCE WITH ARTICLE 504.20 OF THE NATIONAL ELECTRICAL CODE (ANSI/NFPA 70) OR OTHER LOCAL CODES, AS APPLICABLE.
- THIS BATTERY PACK MODEL 8BIS HAS NOT BEEN EVALUATED FOR USE IN COMBINATION WITH ANOTHER POWER SOURCE OR ASSOCIATED APPARATUS.
- THE INDICATOR/REMOTE DISPLAY MODEL 8100IS/8200IS IS PROVIDED WITH A PERMANENTLY CONNECTED CABLE HAVING THE FOLLOWING CHARACTERISTICS:
TURCK PART NO. RSM 30-2M UL/C-UL LISTED (E141522)
RATED 300 V, 9 A, 105C
3 WIRES, 18 AWG
IP67 INGRESS PROTECTION
MAXIMUM CAPACITANCE PER FOOT: 23.6 pF/ft
MAXIMUM INDUCTANCE PER FOOT: 41.985 uH/ft
MINIMUM CABLE JACKET INSULATION: 1.806 mm
- THE MODEL 8BIS IS PROVIDED WITH A PERMANENTLY CONNECTED CABLE HAVING THE FOLLOWING CHARACTERISTICS:
TURCK PART NO. RKM 30-2M UL/C-UL LISTED (E141522)
RATED 300 V, 9 A, 105C
3 WIRES, 18 AWG
IP67 INGRESS PROTECTION
MAXIMUM CAPACITANCE PER FOOT: 23.6 pF/ft
MAXIMUM INDUCTANCE PER FOOT: 41.985 uH/ft
MINIMUM CABLE JACKET INSULATION: 1.806 mm
- THE MODEL 8AIS IS PROVIDED WITH A PERMANENTLY CONNECTED CABLE HAVING THE FOLLOWING CHARACTERISTICS:
TURCK PART NO. RKM 30-2M UL/C-UL LISTED (E141522)
RATED 300 V, 9 A, 105C
3 WIRES, 18 AWG
IP67 INGRESS PROTECTION
MAXIMUM CAPACITANCE PER FOOT: 23.6 pF/ft
MAXIMUM INDUCTANCE PER FOOT: 41.985 uH/ft
MINIMUM CABLE JACKET INSULATION: 1.806 mm
- SUITABILITY FOR INSTALLATION IN PARTICULAR APPLICATIONS IS AT THE DISCRETION OF THE AUTHORITY HAVING JURISDICTION (AHJ).
- THE OPTIONAL POWER EXTENSION CABLES WCB0234 AND WCB0235 MAY ONLY BE THE FOLLOWING TYPES IF USED:
TURCK PART NO. P-RSM RKM 30-026-3M OR P-RSM RKM 30-026-6M
UL/C-UL LISTED (E141522)
RATED 300 V, 9 A, 105C
3 WIRES, 18 AWG; AND 1 FOIL SHIELD, 20 AWG
IP67 INGRESS PROTECTION
MAXIMUM CAPACITANCE PER FOOT: 76.8 pF/ft
MAXIMUM INDUCTANCE PER FOOT: 41.985 uH/ft
MINIMUM CABLE JACKET INSULATION: 1.806 mm
- SUITABILITY FOR INSTALLATION IN PARTICULAR APPLICATIONS IS AT THE DISCRETION OF THE AUTHORITY HAVING JURISDICTION (AHJ).

WARNING	DORAN SCALES, INC. www.doranscales.com				
	SYSTEM CONTROL DRAWING				
READ AND UNDERSTAND COMPLETELY USER MANUAL NO. MAN0289 FOR THESE DEVICES BEFORE INSTALLATION OR OPERATION	DATE: 05/07/18	DRAWN BY: J.TORRES	DRAWING NUMBER 900243	SHEET NUMBER SHEET 5 OF 5	REV 02