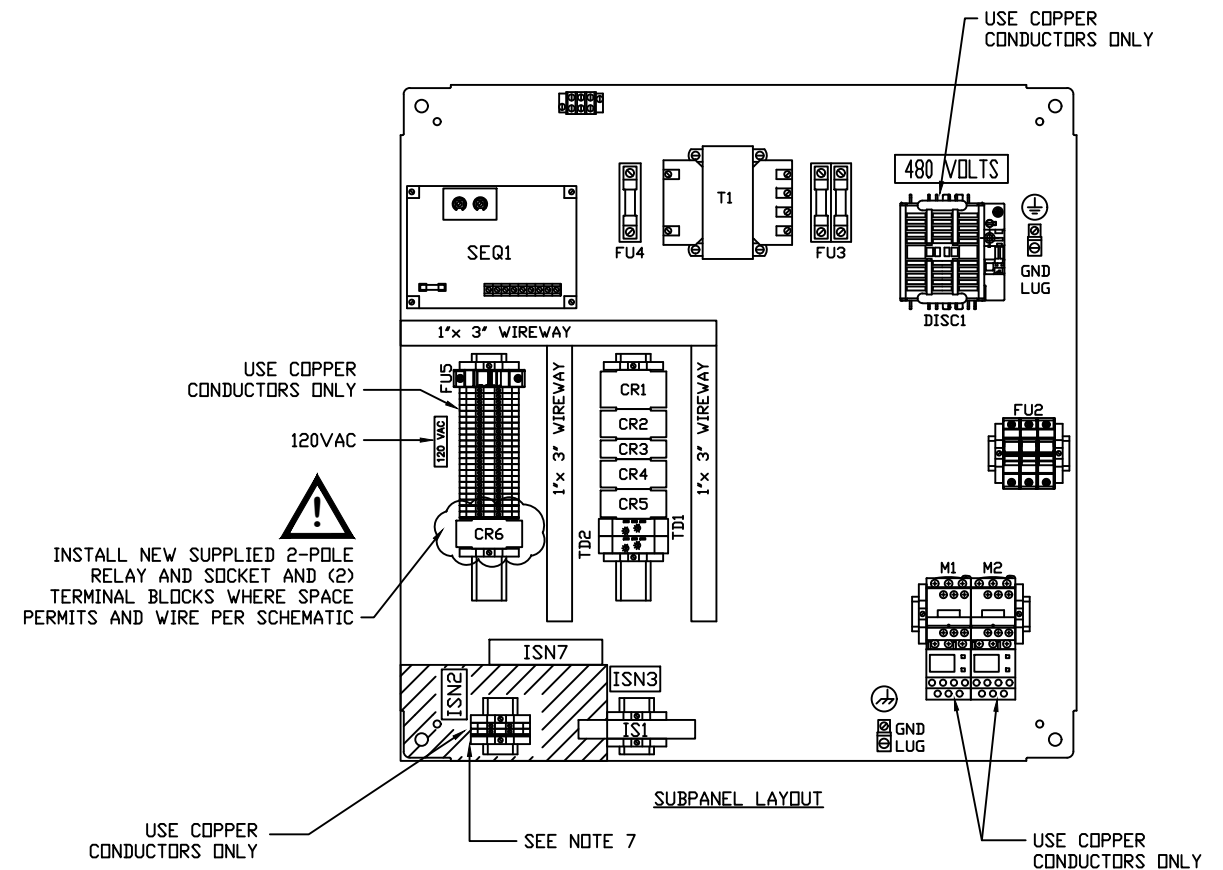
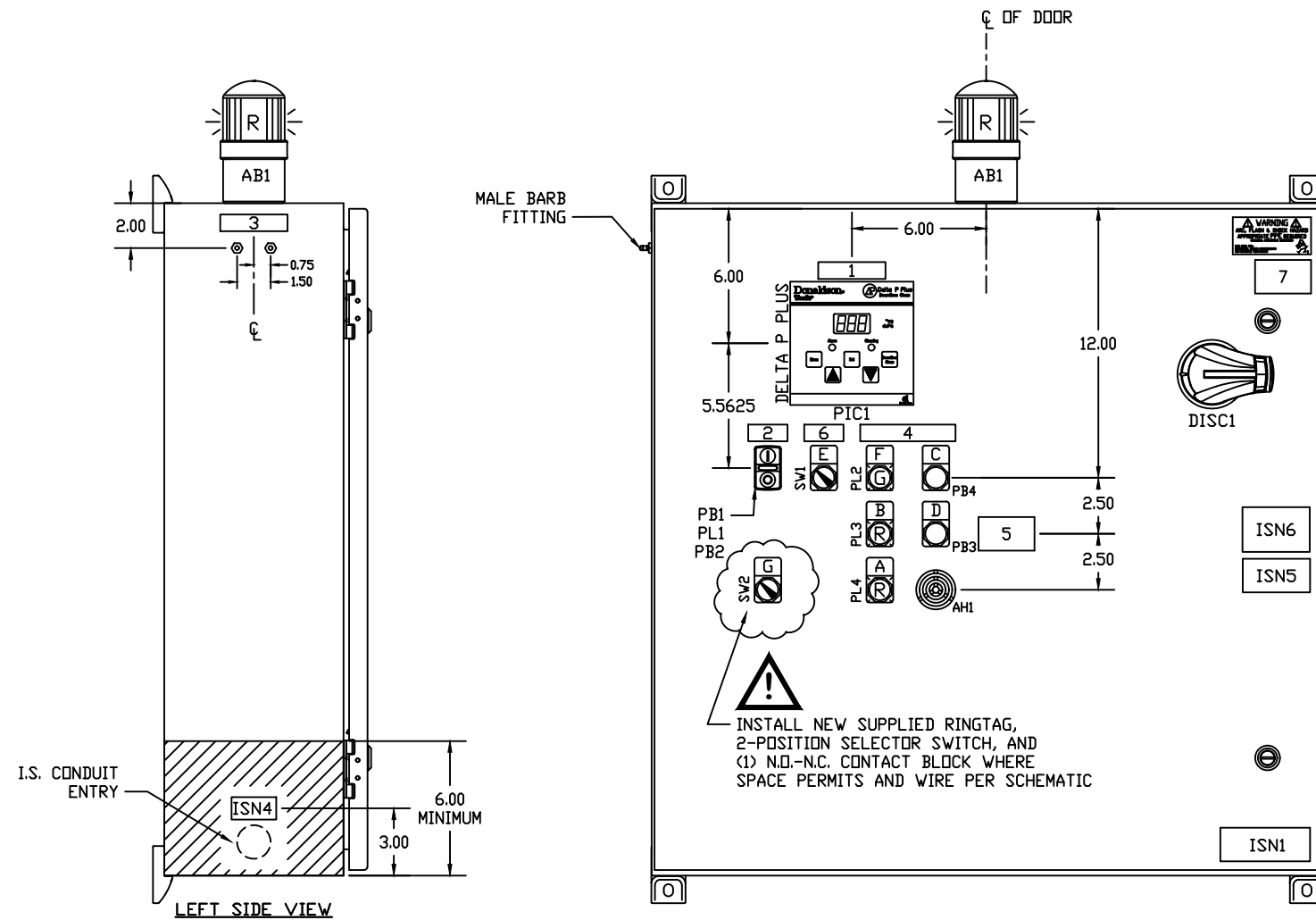


REV	ZONE	REVISION DESCRIPTION	APPROVAL/DATE
2		RETRO-FIT KIT PER QUOTE 511916A SQ# 229244	AT/8-13-19



NAMEPLATE 5

NOTE:
UPON INITIAL POWER-UP OF
CONTROL PANEL THE ALARM HORN
WILL BE ACTIVATED. THIS IS DUE
TO THE FAILSAFE NATURE OF THE
ALARM CIRCUITRY. PRESS THE
RESET PUSH BUTTON TO SILENCE
THE ALARM HORN AND 'READY' THE
SYSTEM FOR OPERATION.

1.5'H x 2.5'W
YEL W/BLK LETTERS

NAMEPLATE 7

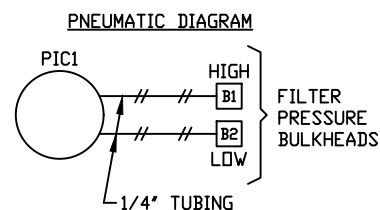
WARNING
ORANGE WIRING MIGHT
NOT BE DE-ENERGIZED
BY MAIN DISCONNECT

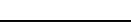
1.5'H x 2.5'W
ORG W/BLK LETTERS

NAMEPLATE SPECIFICATIONS :
MATERIAL :
 GRAVDPLY II, WHT W/BLK LETTERS
LETTER SIZE : .156
 A = .75"H x 3.00"W
 B = .75"H x 1.75"W
 C = .75"H x 4.25"W

NAMEPLATE SCHEDULE		
NP#	SIZE	DESCRIPTION
1	A	FILTER PRESSURE
2	B	SYSTEM
3	A	FILTER PRESSURE B1 HIGH B2 LOW
4	C	EXPLOSION ISOLATION VALVE
5		SEE PRINT DETAIL
6	B	SOLENOID VALVE HEATER
7		SEE PRINT DETAIL
ISN1-7		SEE SHEET 2

RINGTAG SCHEDULE	
RTG	DESCRIPTION
A	DUST DETECTED
B	CLOSED
C	SILENCE
D	RESET
E	OFF - ON
F	SYSTEM OK
G	SYSTEM LOCAL - REMOTE



MATERIAL			RELEASE NO.		TITLE ELECTRIC CONTROL PANEL FOR DONALDSON COLLECTOR				 Donaldson Industrial Group Minneapolis, MN		
			DATE								
			EXP DATE								
REFERENCE			DWN S. JORDY		NUMBER		SD# 13493456-4 228338-1				
			DATE 4-28-19								
			CHK G. DURANT								
			DATE 4-28-19		SCALE 1/4		SHEET 1 OF 5		REVISION		
PREVIOUS DRAWING NO.			APVD		C/C CACD		ACAD		2		
DO NOT SCALE	TOLERANCES UNLESS OTHERWISE SPECIFIED	2 PL ±	DATE		SECTIONAL SIZE		OUTLINE SIZE		IAF		
		3 PL ±									
		ANGLES ±									
		THIRD ANGLE PROJECTION		DESIGN CONTROL A004		DWG LOCATION		A101	VERSION	A	
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REV	ZONE	REVISION DESCRIPTION	APPROVAL/DATE
2		RETRO-FIT KIT PER QUDTE 511916A SD# 229244	AT/8-13-19

I.S. NAMEPLATE 1

PROVIDES INTRINSICALLY SAFE CIRCUIT
EXTENSIONS FOR USE IN CLASS I,
GROUPS A, B, C, & D, CLASS II, GROUPS
E, F, & G, CLASS III, HAZARDOUS
(CLASSIFIED) LOCATIONS WHEN
CONNECTED PER INSTALLATION (MANUAL
INSTRUCTIONS) NO. IS-1.301.

LIGHT BLUE WITH WHITE LETTERS
1.50"H X 4.00"W

I.S. NAMEPLATE 2

INTRINSICALLY SAFE
FIELD WIRING
TERMINALS

LIGHT BLUE WITH WHITE LETTERS
1.00"H X 2.00"W

I.S. NAMEPLATE 3

WARNING
EXPLOSION HAZARD
SUBSTITUTION OF
COMPONENTS MAY
IMPAIR INTRINSIC SAFETY

ORANGE WITH BLACK LETTERS
1.00"H X 2.00"W

I.S. NAMEPLATE 4

INTRINSICALLY SAFE
CIRCUITS

LIGHT BLUE WITH WHITE LETTERS
1.00"H X 2.00"W

I.S. NAMEPLATE 5

WARNING
EXPLOSION HAZARD
TO PREVENT IGNITION OF
FLAMMABLE OR COMBUSTIBLE
ATMOSPHERES, DISCONNECT
POWER BEFORE SERVICING.

ORANGE WITH BLACK LETTERS
1.50"H X 3.00"W

I.S. NAMEPLATE 6

CAUTION
THIS ENCLOSURE CONTAINS
INTRINSICALLY SAFE WIRING

SEE THE PLANT I.S. COORDINATOR
FOR PROPER PROCEDURES BEFORE
MAKING ANY CHANGES

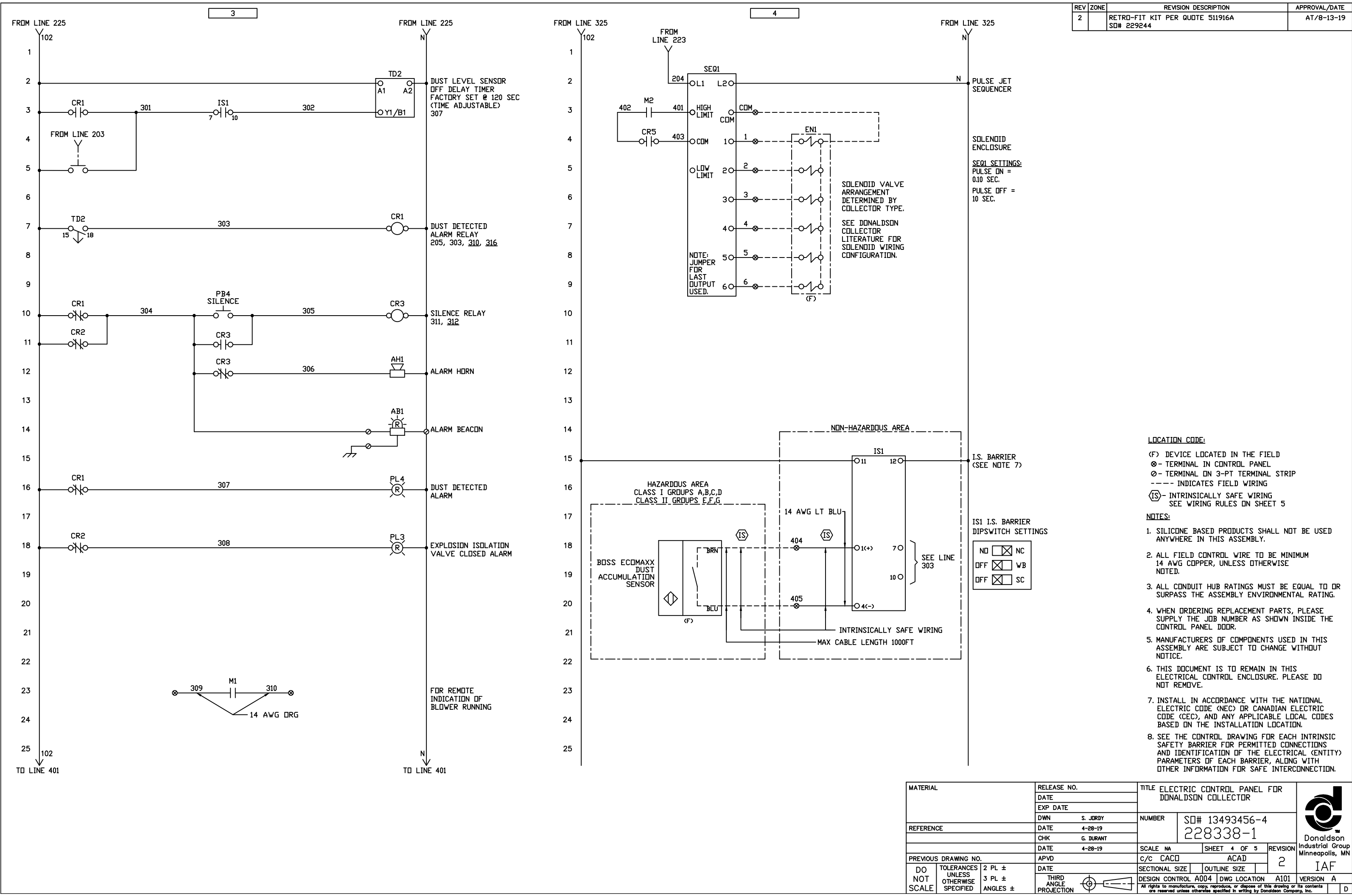
YELLOW WITH BLACK LETTERS
2.00"H X 3.00"W

I.S. NAMEPLATE 7

 INTRINSIC SAFETY WIRING

LIGHT BLUE WITH WHITE LETTERS
1.00"H X 4.50"W

MATERIAL			RELEASE NO.		TITLE ELECTRIC CONTROL PANEL FOR DONALDSON COLLECTOR			 Donaldson Industrial Group Minneapolis, MN	
			DATE						
			EXP DATE						
REFERENCE			DWN	S. JORDY	NUMBER	SD# 13493456-4 228338-1		2	
			DATE 4-28-19						
			CHK	G. DURANT					
			DATE 4-28-19						
PREVIOUS DRAWING NO.			APVD		SCALE NA		SHEET 2 OF 5	REVISION	
DO NOT SCALE			TOLERANCES UNLESS OTHERWISE SPECIFIED		2 PL ± 3 PL ± ANGLES ±		C/C CACD		ACAD
							DATE		2
							THIRD ANGLE PROJECTION		
					SECTIONAL SIZE		OUTLINE SIZE		
					DESIGN CONTROL A004		DWG LOCATION A101	VERSION A	
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REV

ZONE

2

RETRD-FIT KIT PER QUOTE 511916A

SD# 229244

AT/8-13-19

LOCATION CODE:

(F) DEVICE LOCATED IN THE FIELD

⊗- TERMINAL IN CONTROL PANEL

⊙- TERMINAL ON 3-PT TERMINAL STRIP

---- INDICATES FIELD WIRING

(IS)- INTRINSICALLY SAFE WIRING

SEE WIRING RULES ON SHEET 5

NOTES:

1. SILICONE BASED PRODUCTS SHALL NOT BE USED ANYWHERE IN THIS ASSEMBLY.

2. ALL FIELD CONTROL WIRE TO BE MINIMUM 14 AWG COPPER, UNLESS OTHERWISE NOTED.

3. ALL CONDUIT HUB RATINGS MUST BE EQUAL TO OR SURPASS THE ASSEMBLY ENVIRONMENTAL RATING.

4. WHEN ORDERING REPLACEMENT PARTS, PLEASE SUPPLY THE JOB NUMBER AS SHOWN INSIDE THE CONTROL PANEL DOOR.

5. MANUFACTURERS OF COMPONENTS USED IN THIS ASSEMBLY ARE SUBJECT TO CHANGE WITHOUT NOTICE.

6. THIS DOCUMENT IS TO REMAIN IN THIS ELECTRICAL CONTROL ENCLOSURE. PLEASE DO NOT REMOVE.

7. INSTALL IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NEC) OR CANADIAN ELECTRIC CODE (CEC), AND ANY APPLICABLE LOCAL CODES BASED ON THE INSTALLATION LOCATION.

8. SEE THE CONTROL DRAWING FOR EACH INTRINSIC SAFETY BARRIER FOR PERMITTED CONNECTIONS AND IDENTIFICATION OF THE ELECTRICAL (ENTITY) PARAMETERS OF EACH BARRIER, ALONG WITH OTHER INFORMATION FOR SAFE INTERCONNECTION.

MATERIAL

RELEASE NO.

DATE

EXP DATE

DWN S. JORDY

DATE 4-28-19

CHK G. DURANT

DATE 4-28-19

APVD

PREVIOUS DRAWING NO.

DO NOT SCALE

TOLERANCES UNLESS OTHERWISE SPECIFIED

2 PL ±

3 PL ±

ANGLES ±

DATE

THIRD ANGLE PROJECTION

THIRD ANGLE PROJECTION

TITLE

ELECTRIC CONTROL PANEL FOR DONALDSON COLLECTOR

NUMBER

SD# 13493456-4

228338-1

SCALE

NA

SHEET 4 OF 5

REVISION

2

DESIGN CONTROL A004

DWG LOCATION

A101

VERSION

A

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D

Donaldson Industrial Group

Minneapolis, MN

IAF

⚠️ WIRING RULES

I.S. WIRING RULES

1. INSTALL IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NEC) OR CANADIAN ELECTRIC CODE (CEC), AND ANY APPLICABLE LOCAL CODES BASED ON THE INSTALLATION LOCATION.
2. LIGHT BLUE COLORED CABLES SHALL BE USED TO IDENTIFY INTRINSICALLY SAFE CIRCUITS. NO OTHER CABLES ARE TO BE COLORED LIGHT BLUE.
3. ALL INTRINSICALLY SAFE CIRCUIT TERMINALS SHALL BE COLORED LIGHT BLUE.
4. SEPARATION OF INTRINSICALLY SAFE CONDUCTORS

A. FROM NONINTRINSICALLY SAFE CIRCUIT CONDUCTORS

1. OPEN WIRING - CONDUCTORS AND CABLES OF INTRINSICALLY SAFE CIRCUITS NOT IN RACEWAYS OR CABLE TRAYS SHALL BE SEPARATED AT LEAST 2 INCHES AND SECURED FROM CONDUCTORS AND CABLES OF ANY NONINTRINSICALLY SAFE CIRCUITS.

2. IN RACEWAYS, CABLE TRAYS, AND CABLES - CONDUCTORS OF INTRINSICALLY SAFE CIRCUITS SHALL NOT BE PLACED IN ANY RACEWAY, CABLE TRAY, OR CABLE WITH CONDUCTORS OF ANY NONINTRINSICALLY SAFE CIRCUIT.

EXCEPTION: WHERE CONDUCTORS OF INTRINSICALLY SAFE CIRCUITS ARE SEPARATED FROM CONDUCTORS OF NON-INTRINSICALLY SAFE CIRCUITS BY A DISTANCE OF AT LEAST 2 INCHES AND SECURED, OR BY A GROUNDED METAL PARTITION OR AN APPROVED INSULATING PARTITION.

B. WITHIN ENCLOSURES

A. CONDUCTORS OF INTRINSICALLY SAFE CIRCUITS SHALL BE SEPARATED AT LEAST 2 INCHES FROM CONDUCTORS OF ANY NONINTRINSICALLY SAFE CIRCUITS.

B. ALL CONDUCTORS SHALL BE SECURED SO THAT ANY CONDUCTOR THAT MIGHT COME LOOSE FROM A TERMINAL CANNOT COME IN CONTACT WITH ANOTHER TERMINAL.

(FPN NO. 1): THE USE OF SEPARATE WIRING COMPARTMENTS FOR THE INTRINSICALLY SAFE AND NONINTRINSICALLY SAFE TERMINALS IS THE PREFERRED METHOD OF COMPLYING WITH THIS REQUIREMENT.

(FPN NO. 2): PHYSICAL BARRIERS SUCH AS GROUNDED METAL PARTITIONS OR APPROVED INSULATING PARTITIONS CAN BE USED TO HELP ASSURE THE REQUIRED SEPARATION OF THE WIRING.
5. CABLE SEALING - CABLES WITH A GAS/VAPOR-TIGHT CONTINUOUS SHEATH CAPABLE OF TRANSMITTING GASES OR VAPORS THROUGH THE CABLE CORE SHALL BE SEALED FROM BOTH ENDS AFTER REMOVING THE JACKET AND ANY OTHER COVERINGS SO THAT THE SEALING COMPOUND WILL SURROUND EACH INDIVIDUAL INSULATED CONDUCTOR AND THE OUTER JACKET FOR A GAS TIGHT SEAL.
6. INTRINSICALLY SAFE EQUIPMENT FOR FIELD CONNECTION TO THE INTRINSIC SAFETY BARRIERS WITHIN THE PANEL MUST HAVE INTRINSICALLY SAFE ENTITY PARAMETERS CONFORMING WITH THE TABLE BELOW:

REQUIRED RELATIONSHIP BETWEEN
I.S. EQUIPMENT AND I.S. BARRIER ENTITY PARAMETERS

3RD-PARTY LISTED I.S. EQUIPMENT ENTITY PARAMETERS	REQUIRED RELATIONSHIP BETWEEN ENTITY PARAMETERS	UL LISTED I.S. BARRIER ENTITY PARAMETERS
V max (or Ui)	≥	Voc or Vt (or Uo)
I max (or Ii)	≥	Isc or It (or Io)
P max, Pi	≥	Po
Cl + Ccable	≤	Ca (or Co)
Li + Lcable	≤	La (or Lo)

REFERENCE: P&F WEBSITE
CONTROL DRAWING: 116-0145E

⚠️ CABLES

I.S. LABELS

1. RACEWAYS, CABLE TRAYS, AND OPEN WIRING LABEL - RACEWAYS, CABLE TRAYS, AND OPEN WIRING FOR INTRINSICALLY SAFE SYSTEM WIRING SHALL BE IDENTIFIED WITH PERMANENTLY AFFIXED LABELS. THE LABELS SHALL BE SO LOCATED AS TO BE VISIBLE AFTER INSTALLATION AND PLACED SO THAT THEY MAY BE READILY TRACED THROUGH THE ENTIRE LENGTH OF THE INSTALLATION. SPACING BETWEEN LABELS SHALL NOT BE MORE THAN 25 FEET.

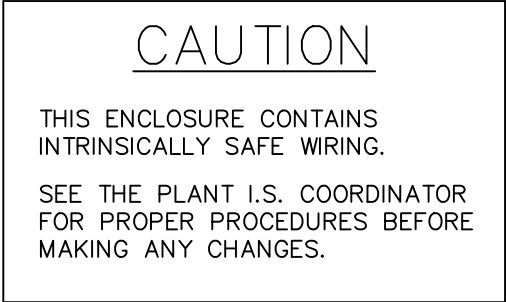
LABEL MATERIAL: VINYL CLOTH ADHESIVE BACKED, LIGHT BLUE WITH WHITE LETTERS.
(BY CUSTOMER)



2. ENCLOSURE LABEL:

EACH ENCLOSURE CONTAINING I.S. CIRCUITS SHALL BE LABELLED.

MATERIAL: YELLOW PLASTIC WITH BLACK LETTERS.



NOTES:

- VOC - BARRIER OPEN CIRC. VOLTAGE
- ISC - SHORT CIRCUIT CURRENT
- CA - ALLOWABLE CAPACITANCE
- LA - ALLOWABLE INDUCTANCE

HAZARDOUS AREA WIRE
LIGHT BLUE THERMO-PLASTIC INSULATED
FOR 600 VAC SERVICE, 14 AWG MIN. WIRE
MUST BE USED TO IDENTIFY I.S. CIRCUITS.

MATERIAL			RELEASE NO.		TITLE ELECTRIC CONTROL PANEL FOR DONALDSON COLLECTOR			 Donaldson Industrial Group Minneapolis, MN IAF		
			DATE							
			EXP DATE							
REFERENCE			DWN	S. JORDY	NUMBER	SD# 13493456-4 228338-1				
			DATE 4-28-19							
			CHK G. DURANT							
			DATE 4-28-19		SCALE	NA	SHEET 5 OF 5		REVISION	
PREVIOUS DRAWING NO.			APVD		c/c CACD ACAD				2	
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			THIRD ANGLE PROJECTION 	DESIGN CONTROL A004			DWG LOCATION		A101	
				VERSION A			All rights to manufacture, copy, reproduce, or dispose of this drawing or its contents are reserved unless otherwise specified in writing by Donaldson Company, Inc.		D	