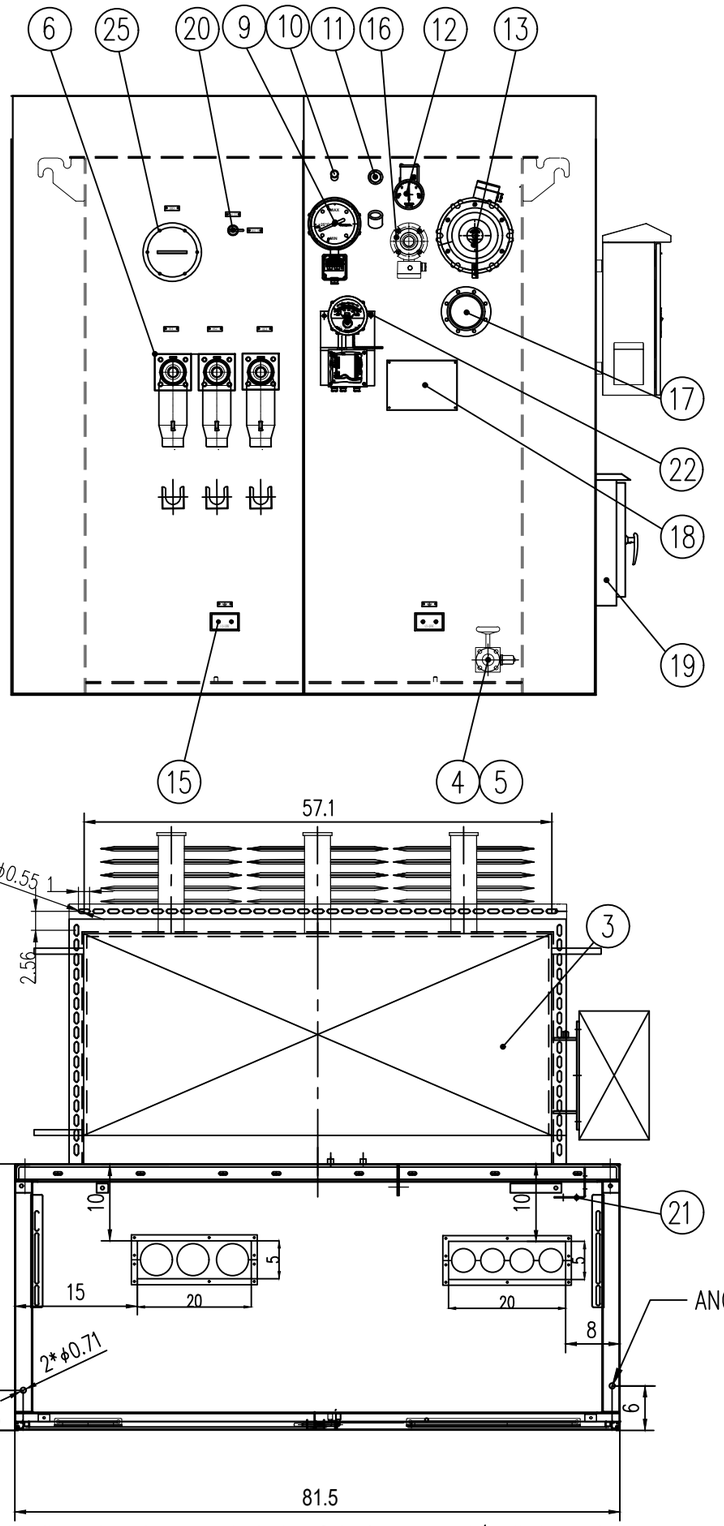
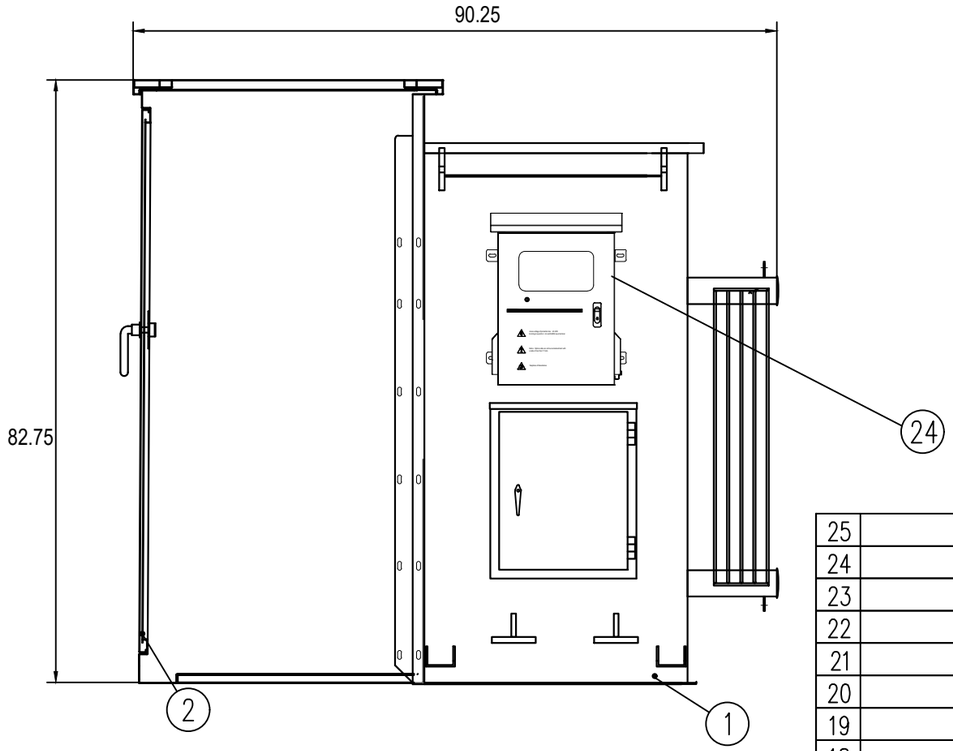
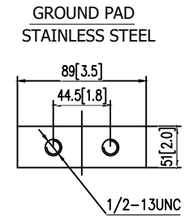
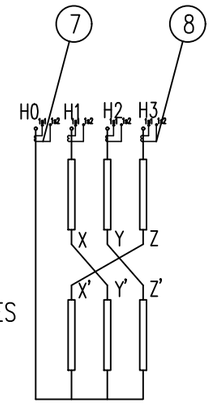
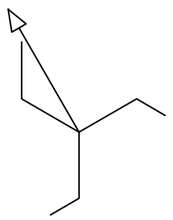








WIRING CONNECTION



PHASOR DIAGRAM

No.	Code	Name	QTY	Material	Unit Weight	Total Weight	Remark
25		HO bushing	1	Porcelain bushing			Live Front
24		Temperature Monitoring	1	for winding &core			terminal box
23		painting	1	munsell green			
22		temperature indicator	1	for winding &core			w/ 4 sensors
21		heater	1				
20		loadbreak switch	1				2-position
19		terminal box	1				
18		nameplate	1				
17		terminal box	1				For CT
16		Sudden Pressure Relay	1	Qualitrol 900-FLA-Q-060-STD			
15		grounded pad	2	316 Stainless steel			
14		thermometer	1	Qualitrol TR6000			
13		pressure relief valve	1	Qualitrol LPRD			
12		pressure indicator	1				w/contacts
11		oil filler plug	1				
10		gas sample valve	1	Schrader Valve			
9		oil level indicator	1	Qualitrol LLG042			
8	300:5A, 15VA	CT	3				
7	300:5A, 15VA	CT	1				for HO
6	900A Deadbreak bushing	HV bushing	3	dead front			w/arrester
5		insulation oil	1	FR-3			
4		drain valve	1				
3		coverplate	1	316SS			
2		front compartment	1	316SS			
1		tank	1	316SS			

mark	revise	revision	signature	date
		2	RB	8/24
		1	RB	7/6
		0	RB	5/5

designed	WL	standard	
checked	RD	examined	
audited	RB	approved	
crafted			

Pad Mounted Grounding Transformer

1000A/10S, 60Hz,ONAN, 34500Y/19920V

MT-PML-GZ-3P DWG01 Rev 2

pattern mark	mass	scale

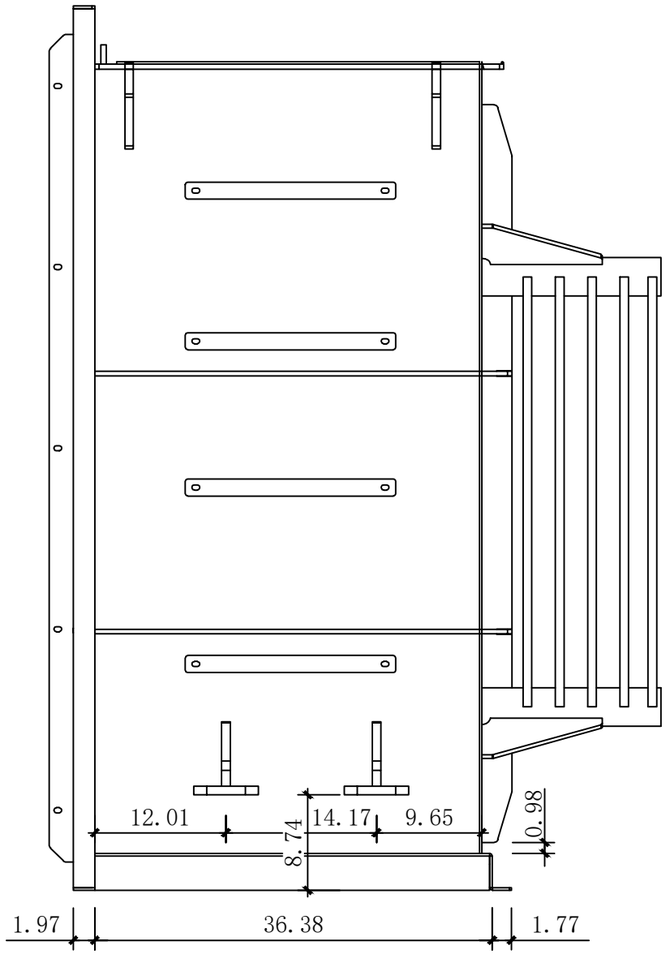
PAGE 1 | PAGE 1 OF 1

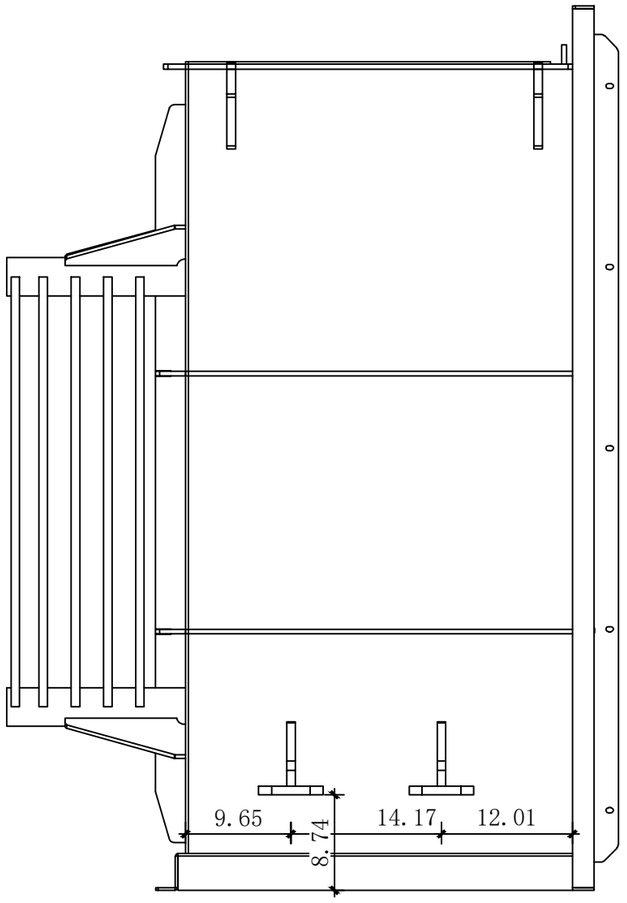
LARSON MAGNETICS

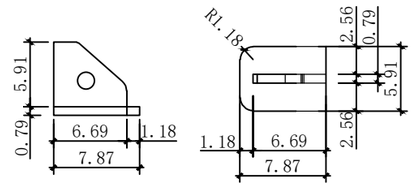
Remark: dimensions here are in inches.Only for approval/preliminary design..

Approx Weight: 13450lbs.

Dimensions are in INCHES.





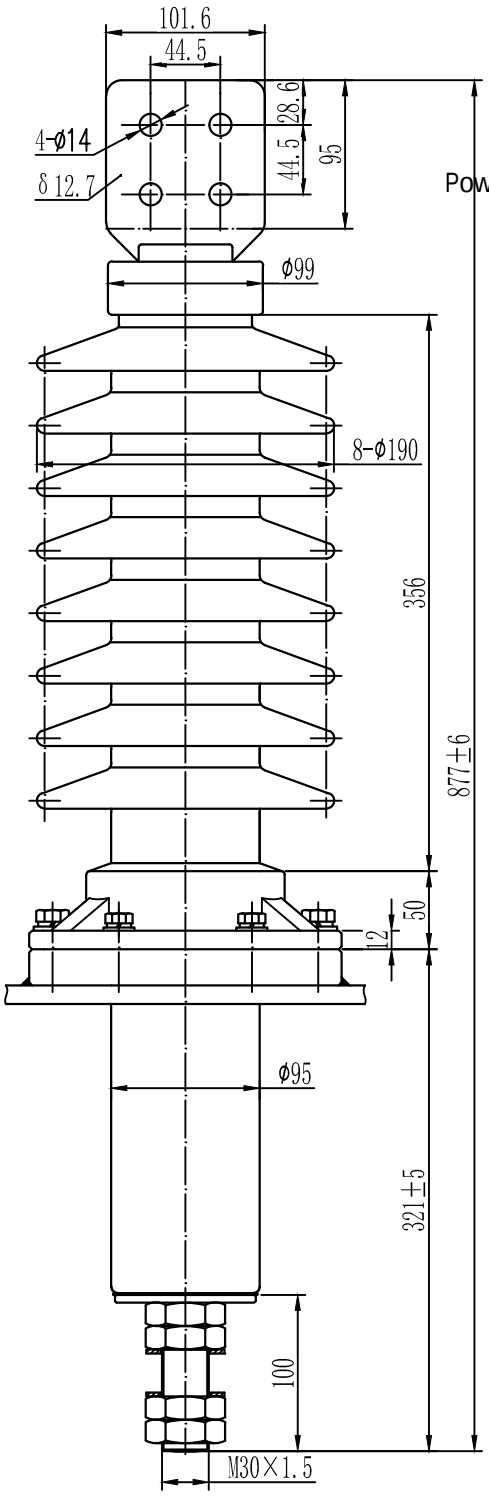


JACKING PAD DETAIL

tank

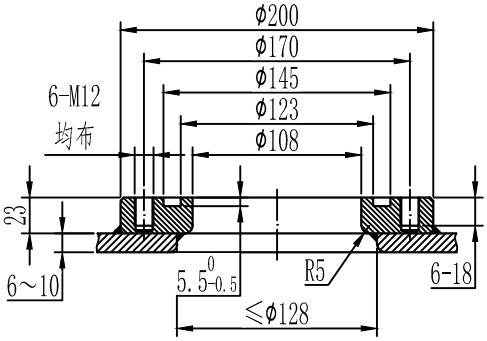
grouning transformer jackiing pad drawing

LARSON MAGNETICS



technical data

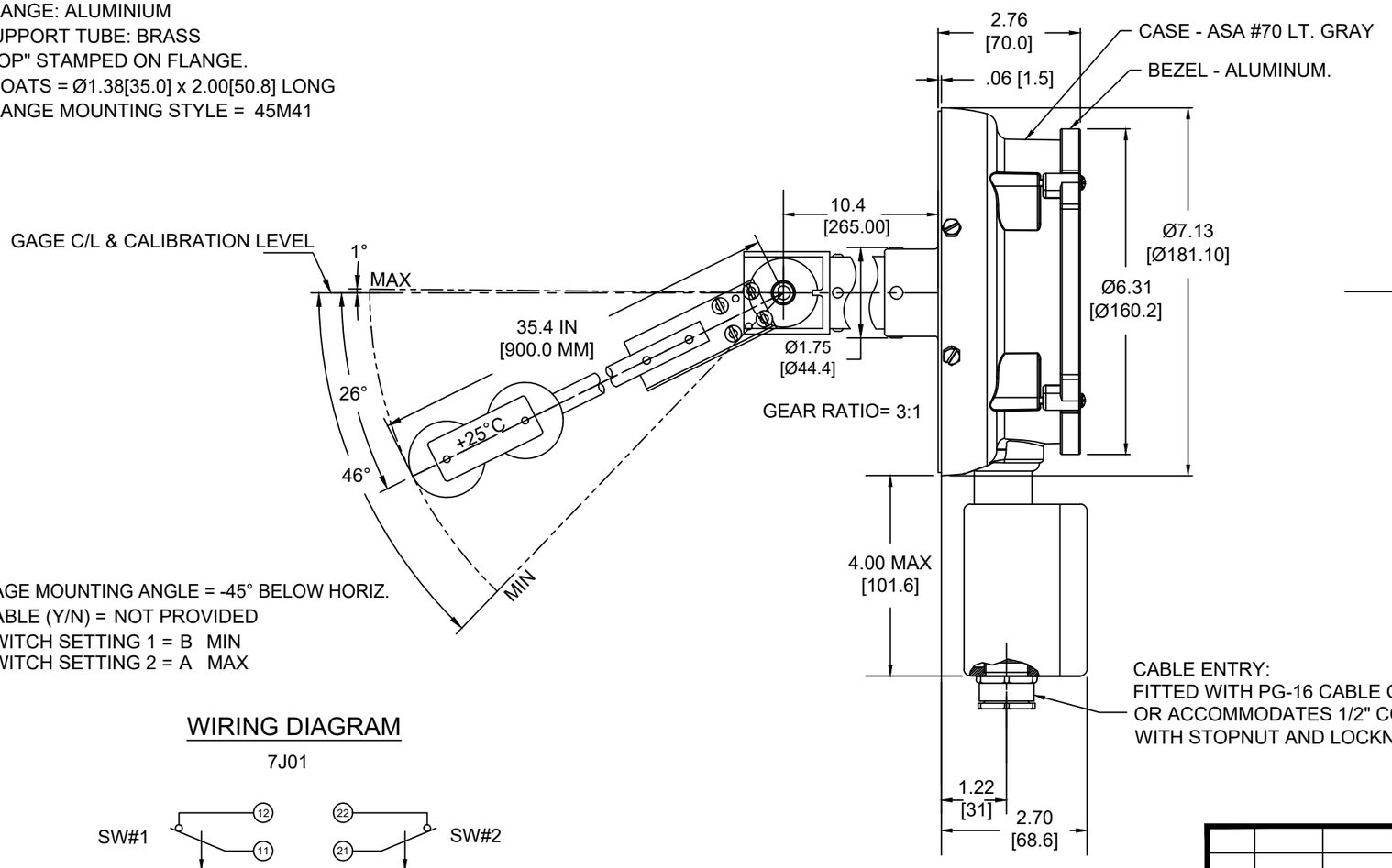
rated Voltage	34.5kV;
rated Current	1000A;
Power Frequency withstand Voltage:	80kV/1min;
BIL	200kV;
Cantilever withstand load:	1000N;
creepage distance:	⩾960mm;



DO NOT SCALE PRINT	DIMENSIONS AND TOLERANCES IN ACCORDANCE WITH ASME Y14.5M-1994	WAS NO.	DRAWING NO.

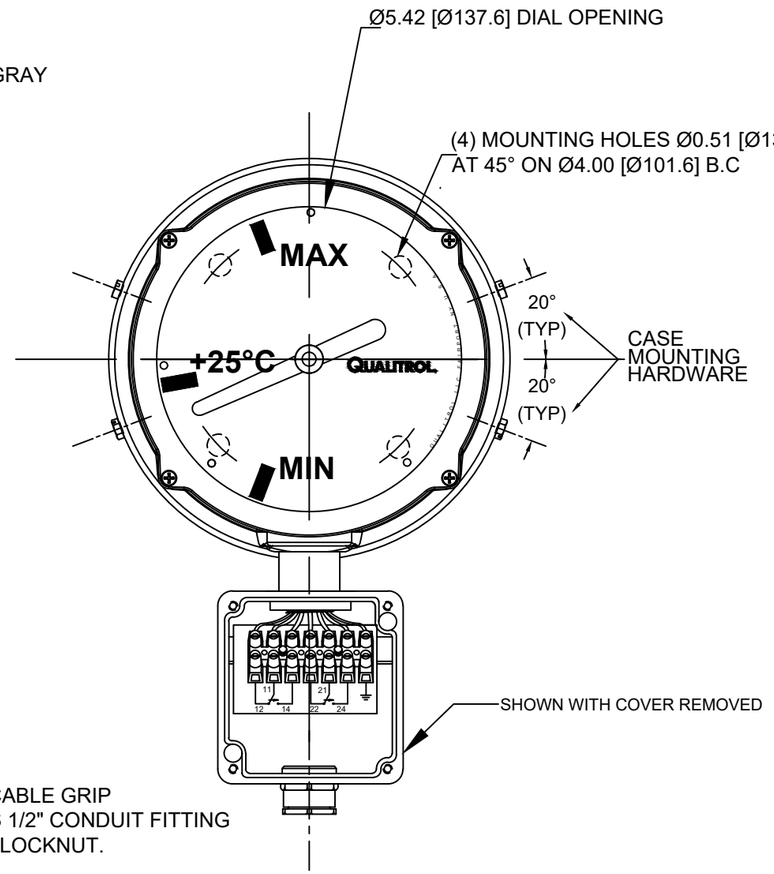
NOTES
ALL DIMENSIONS FOR REFERENCE ONLY AND ARE IN INCHES [MILLIMETERS].
CASE ASSEMBLY: CONFORMS TO THE REQUIREMENTS OF IP54.
DIAL: WHITE CHARACTERS,BLACK BACKGROUND
POINTER: WHITE
LENS: TEMPERED GLASS
CASE: ALUMINIUM, PAINTED
COLOR: ASA #70 GRAY C5M.
FLANGE: ALUMINIUM
SUPPORT TUBE: BRASS
"TOP" STAMPED ON FLANGE.
FLOATS = Ø1.38[35.0] x 2.00[50.8] LONG
FLANGE MOUNTING STYLE = 45M41

SWITCH RATING:
10A @ 125, 250, 480 VAC
1/2A @ 125 VDC - NON INDUCTIVE
1/4A @ 250 VDC - NON INDUCTIVE



GAGE MOUNTING ANGLE = -45° BELOW HORIZ.
CABLE (Y/N) = NOT PROVIDED
SWITCH SETTING 1 = B MIN
SWITCH SETTING 2 = A MAX

CABLE ENTRY:
FITTED WITH PG-16 CABLE GRIP
OR ACCOMMODATES 1/2" CONDUIT FITTING
WITH STOPNUT AND LOCKNUT.



WIRING DIAGRAM

7J01

SWITCHES OPERATE ON RISING LEVELS
ABOVE THE HORIZONTAL CENTERLINE
AND SWITCHES OPERATE ON FALLING LEVEL
BELOW THE HORIZONTAL CENTERLINE

LET	DATE	ALTERATION	C.N.
-	23DEC25	DRAWING CREATED	-

TOLERANCE UNLESS NOTED,
[MM] IS FOR REF.:
2 PLC. DECIMAL ± .02 [.5]
3 PLC. DECIMAL ± .005 [.13]
ANGULAR ± 2 DEG.

LARSON MAGNETICS

DRAWN		DATE 23DEC25
CHECK	-	-
APP'D	-	-

TITLE: 6" LIQUID LEVEL GAUGE GEAR DRIVE
MATERIAL:
FINISH: REFER NOTES
SCALE NTS
SHEET 1 OF 1
DRAWING NO.

DO NOT SCALE PRINT | DIMENSIONS AND TOLERANCES IN ACCORDANCE WITH ASME Y14.5M-1994 | WAS NO. | DRAWING NO.

REMOTE THERMOMETER DATA:

CASE: CAST ALUMINUM
ASA #70 LIGHT GRAY FINISH
BEZEL: CAST ALUMINUM - REMOVABLE.
DIAL COLORS: BACKGROUND - BLACK
CHARACTERS - WHITE
POINTER COLOR: WHITE
MAX. INDICATING POINTER COLOR: RED
SWITCH SETTING INDICATOR COLOR: SILVER
LENS: POLYCARBONATE
SWITCH SETTING ADJUSTABILITY: 0° C - 111°C.

SWITCH RATING: UL/CSA RATING:
10 AMPS AND 1/3 HP @ 125, 250, VAC
1/2 AMP @ 125 VDC (NON-INDUCTTIVE)
1/4 AMP @ 250 VDC (NON-INDUCTIVE)
4 AMPS @ 125 VAC "L" (LAMP LOAD)

DIELECTRIC STRENGTH: 2,000 VOLTS TO GROUND FOR 60 SECONDS.
SWITCH DIFFERENTIAL: 7.5°C±2.5°C.
ACCURACY: 2% OF DIAL RANGE.

TO ADJUST SWITCH INDICATOR(S):
A) REMOVE BEZEL AND LENS ASSEMBLY.
B) LOOSEN SCREWS AND MOVE SWITCH SETTING INDICATOR TO DESIRED SETTING. RE-TIGHTEN SCREWS.
C) REPLACE BEZEL AND LENS ASSEMBLY.

TO CHECK SWITCH OPERATION MANUALLY:
A) REMOVE BEZEL AND LENS ASSEMBLY.
B) TURN POINTER CLOCKWISE PAST THE SWITCH SETTING INDICATOR.
C) SLOWLY RETURN THE POINTER TO ITS ORIGINAL POSITION.
D) REPLACE BEZEL AND LENS ASSEMBLY.

CAUTION!! POINTER MUST NEVER BE TURNED COUNTERCLOCKWISE.

REMOTE OUTPUT DATA:

ENCLOSURE: NEMA TYPE 4 - GRAY
TERMINAL BLOCK: 300 VOLTS, 20 AMPS
#6-32 SCREWS ACCEPT 12 AWG OR SMALLER & .31 WIDE RINGS & SPADE TERMINALS.
INPUT: UNIVERSAL 90-264VAC 50/60Hz OR 125/250 VDC, CONNECT TB2 1-2.
OUTPUT: 4-20 MILLIAMPERES INTO 0-700 OHMS MAX. CURRENT INTO LOAD PROPORTIONAL TO TEMPERATURE.
SWITCH #1 OPERATES ON RISING TEMPERATURE.

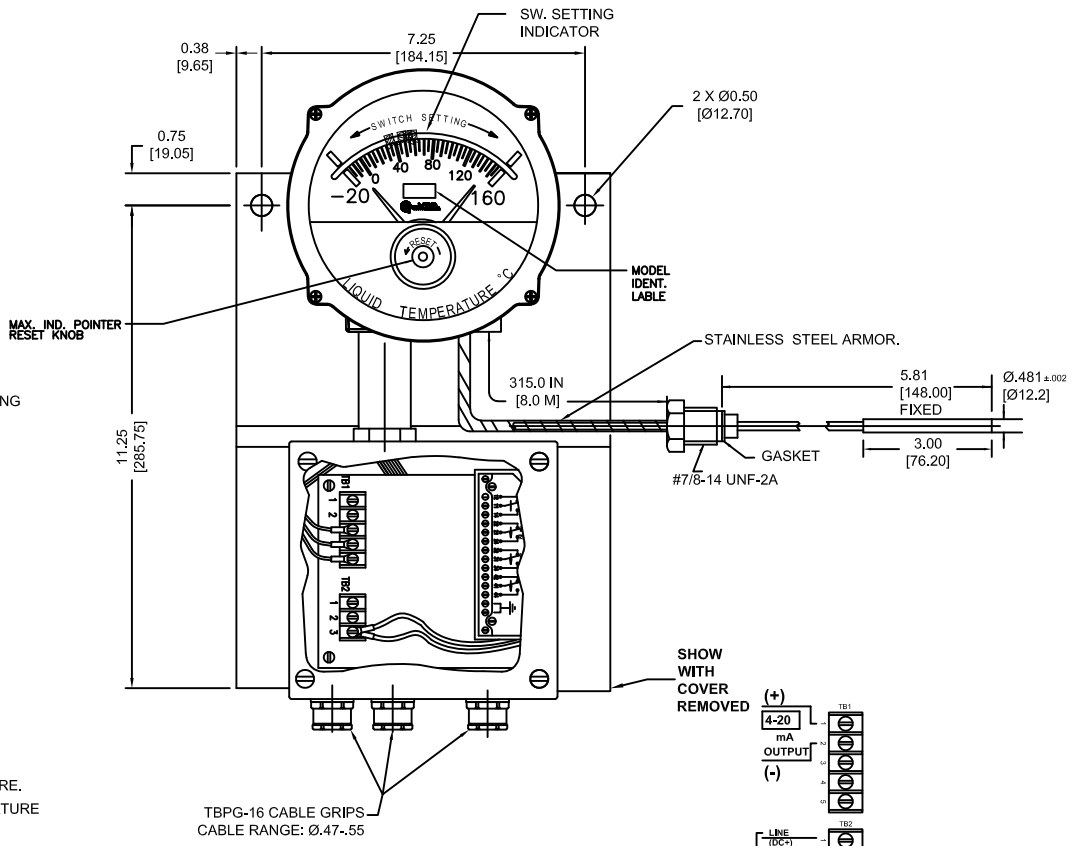
SWITCH SETTING 1: 55°C ON RISING TEMPERATURE

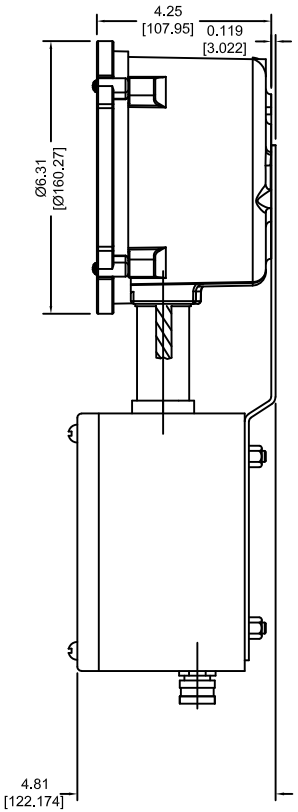
SWITCH SETTING 2: 65°C

SWITCH SETTING 3: 95°C

SWITCH SETTING 4: 110°C

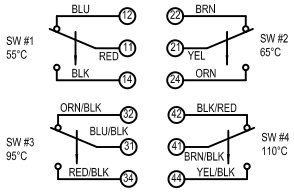
CABLE LENGTH = NOT PROVIDED





ENVIRONMENT: OUTDOOR/VENTED

WIRING DIAGRAM



SHOWN LOOKING AT MALE INSUL. ASS'Y FROM OUTSIDE OF CASE

LET	DATE	ALTERATION	C.N.
-	02-01-2024	DRAWING CREATED	-

TOLERANCE UNLESS NOTED, [MM] IS FOR REF.:
2 PLC. DECIMAL ± .02 [.5]
3 PLC. DECIMAL ± .005 [.13]
ANGULAR ± 2 DEG.

LARSON MAGNETICS

		DATE
DRAWN		02-01-2024
CHECK		
APP'D		

TITLE: 6" REMOTE MT. THERMO (4 SWT.) w/ 4-20 mA OUTPUT, LIQUID TEMP.

MATERIAL:

FINISH: REFER NOTES

SCALE: NTS

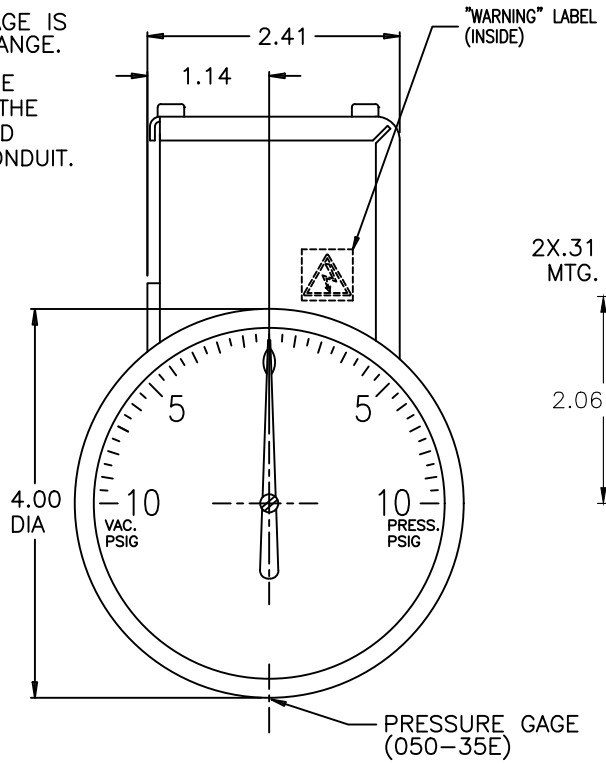
SHEET OF 1 1

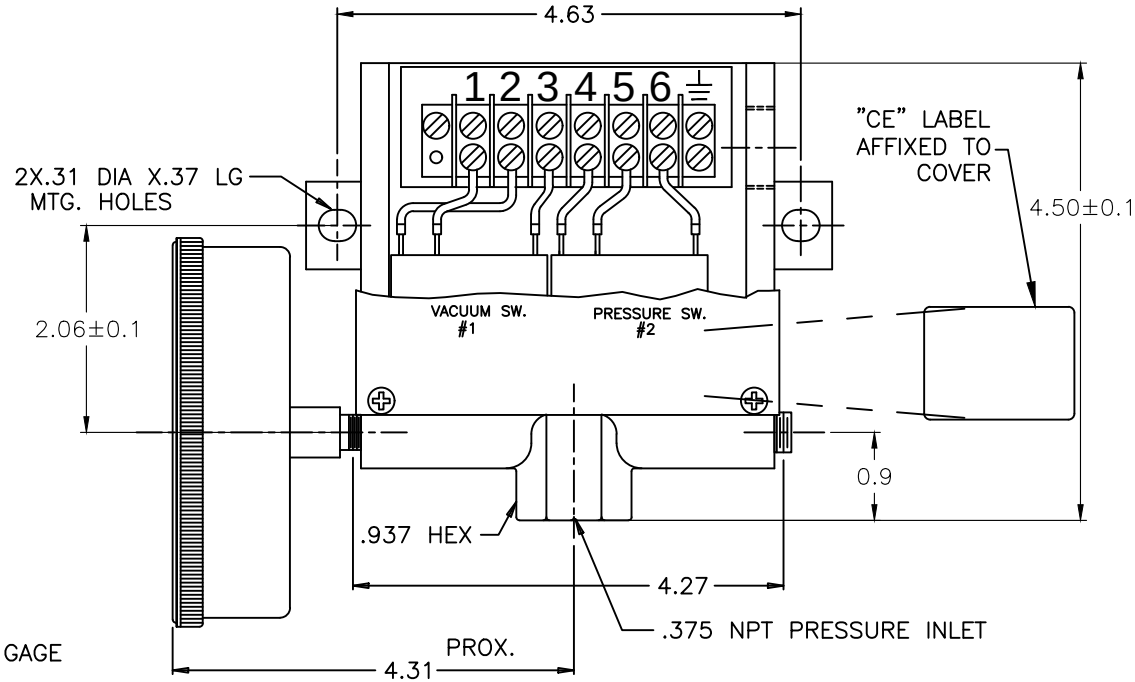
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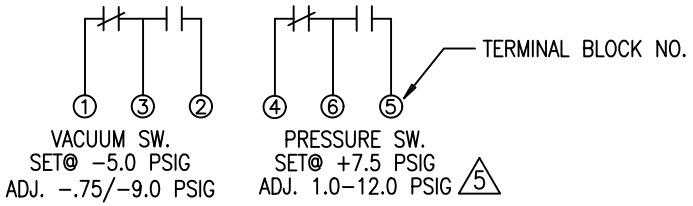
MODEL NO.

NOTES:

1. ON INCREASING VACUUM, TERM'S. 3 & 2 CLOSE; ON DECREASING VACUUM, TERM'S. 3 & 2 OPEN.
2. TEST PER PPS-69
3. DIAPHRAGM MATERIAL- NITRILE
4. "LOCTITE STAINLESS STEEL PST THREAD SEALANT" APPLIED TO ALL THREADED CONNECTIONS.
5. NOTE THAT DIAL RANGE OF GAGE IS LESS THAN SWITCH SETTING RANGE.
6. UNIT IS VENTED AND MEETS THE REQUIREMENTS OF IP54 WHEN THE CABLING IS PROPERLY INSTALLED THROUGH A CABLE GRIP OR CONDUIT.







PROOF PRESSURE: 50.0 PSIG

LET	DATE	ALTERATION	C.N.
-	1-18-18	ADD CE, WARNING LABELS & GND SCREW	
-	1-15-15	ADDED NOTED 6, IP RATING	
-	8-14-12	VAC ADJ -.75/-9.0 PSIG WAS 1.5-18.0 Hg	

LARSON MAGNETICS

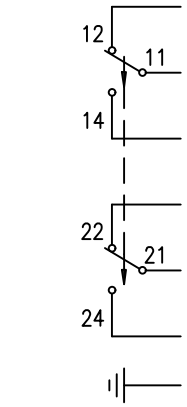
DIMENSIONS AND TOLERANCES IN ACCORDANCE WITH ASME Y14.5M-1994

FORM 0-473 REV. F 04/06/06

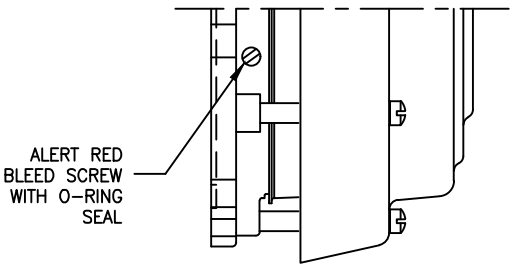
TITLE: DUAL PRESSURE / VACUUM SWITCH W/ GAGE ASSY.

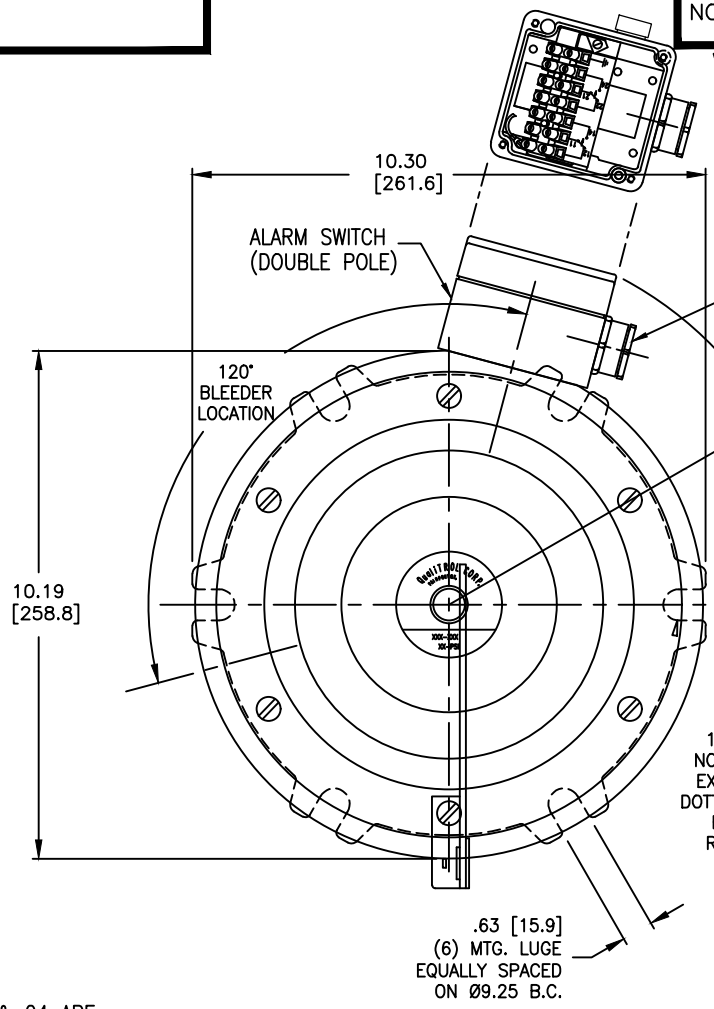
MODEL NO.

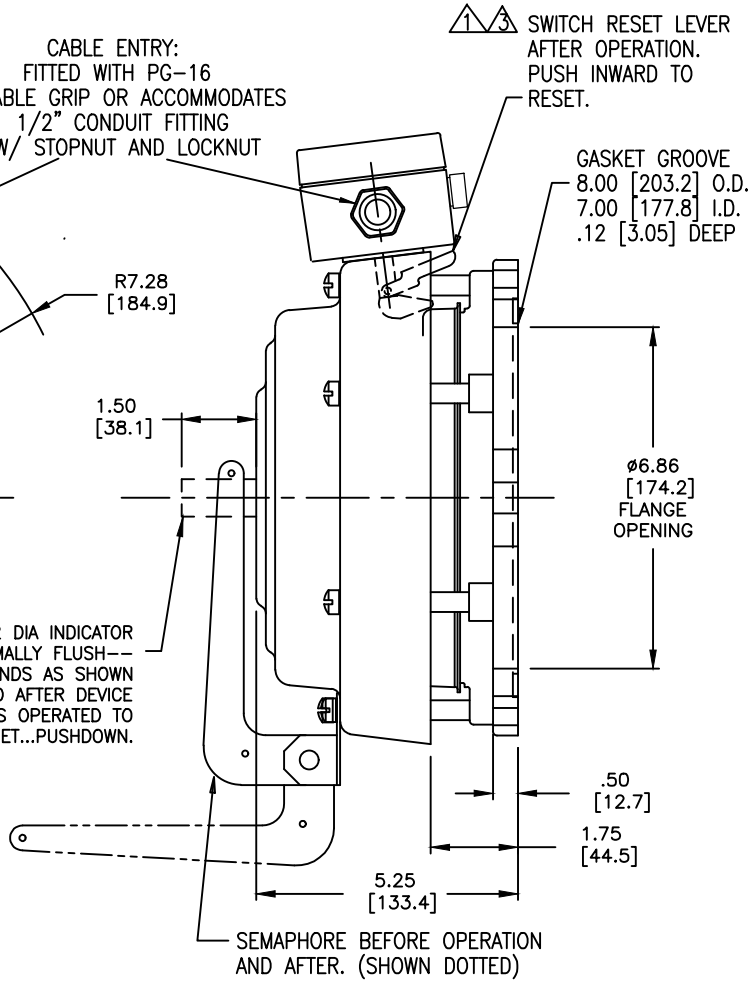
MODEL NO.



WIRING DIAGRAM (7J02)
(AS SHOWN ON ALARM SWITCH LABEL)







NOTES:

1. 11 AND 12, 21 AND 22 ARE CLOSED. 11 & 14, 21 & 24 ARE OPEN WHEN ALARM SWITCH IS MOUNTED AND ARMED AS SHOWN.
2. WHEN DEVICE OPERATES; 11 & 12, 21 & 22 OPEN, 11 & 14, 21 & 24 CLOSE.
3. WHEN THE SWITCH RESET LEVER IS MANUALLY DEPRESSED; 11 & 12, 21 & 22 WILL CLOSE, 11 & 14, 21 & 24 WILL OPEN.
4. SWITCH RATING: 10 A @ 125/250 VAC
   7 A (INDUCTIVE) @ 28 VDC
   10 A (RESISTIVE) @ 28 VDC
   INSULATION CLASS: 2,000 VAC, 50/60 Hz, 1 MIN.
5. ENCLOSURE IS FREE BREATHING AND CONFORMS TO THE REQUIREMENTS OF IP54.
6. FINISH: ASA #70 LT GRAY EPOXY
7. OPERATING PRESSURE: 10±1 PSI (0.69±.07 BAR)
8. GASKET MATERIAL: NITRILE for MINERAL OIL
9. INDICATOR COLOR: YELLOW
10. SEMAPHORE COLOR/MATERIAL: YELLOW/POLYCARBONATE
11. GASKET RETENTION TYPE: EPOXY POTTED
12. STANDARD OUTDOOR USE
13. MOUNTING GASKET(S): (2) NITRILE SUPPLIED WITH UNIT

LET	DATE	ALTERATION	C.N.
–	3/22/17	WAS ENC-023-3 WITH VNT-013-1	
–	10-19-12	CORRECTED BLEED SCREW LOCATION RELATIVE TO SWT	–
–	3-13-08	DRAWING CREATED	–

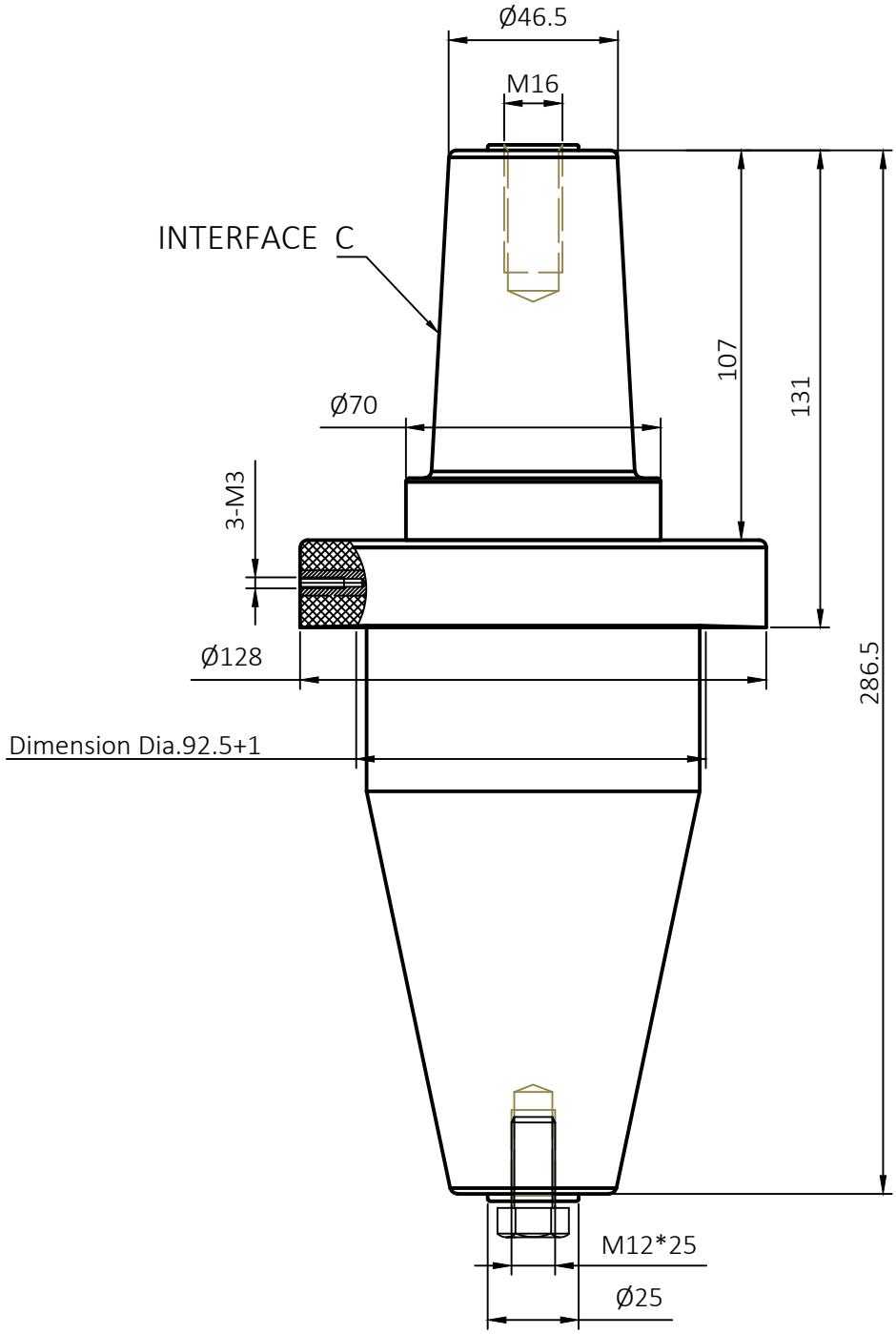
LARSON MAGNETICS

DIMENSIONS AND TOLERANCES IN ACCORDANCE WITH ASME Y14.5M-1994

FORM 0-473 REV. F 04/06/06

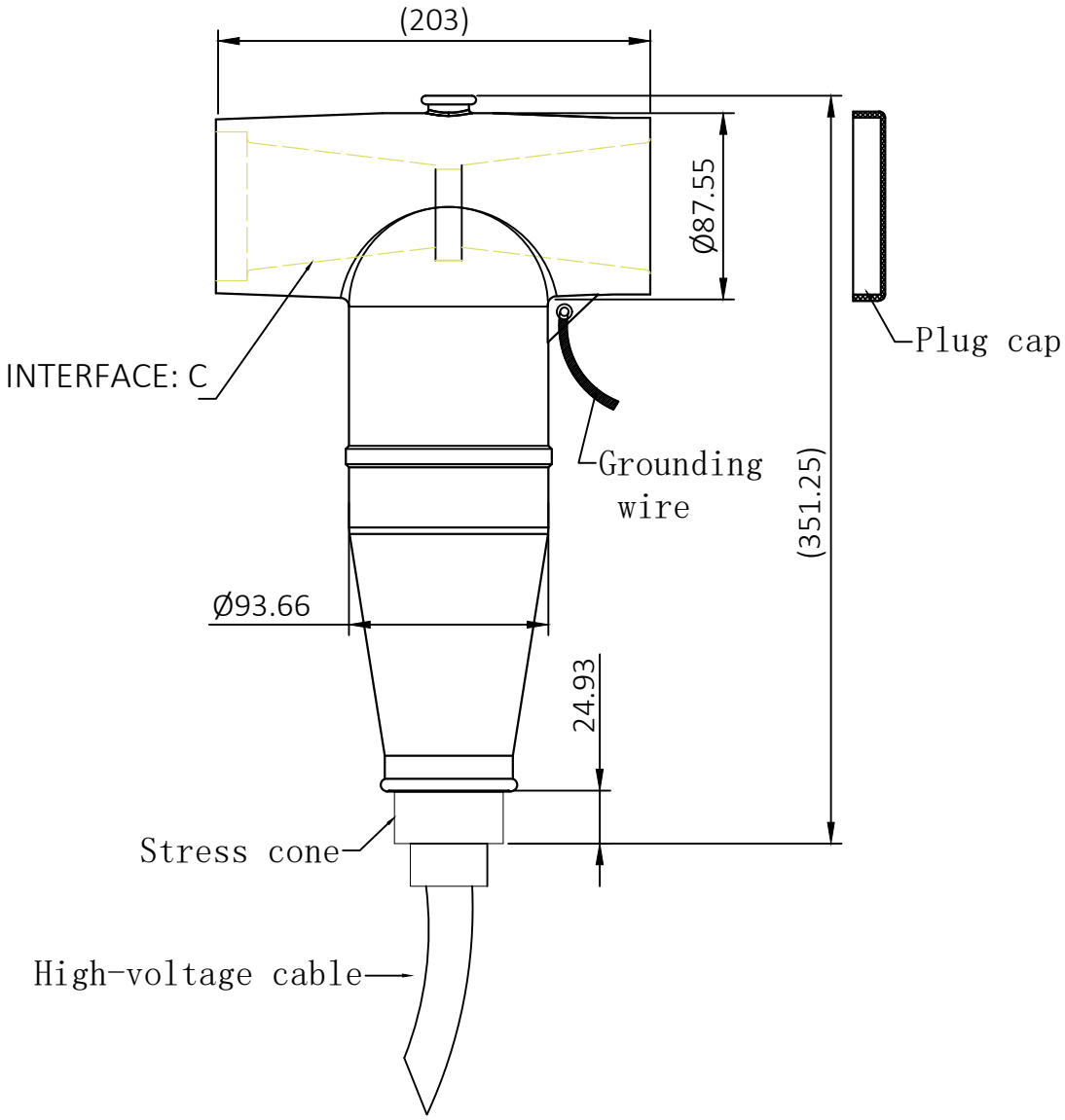
TITLE: PRESSURE RELIEF DEVICE w/ DIRECT (2 POLE) SWITCH WIRING

MODEL NO.

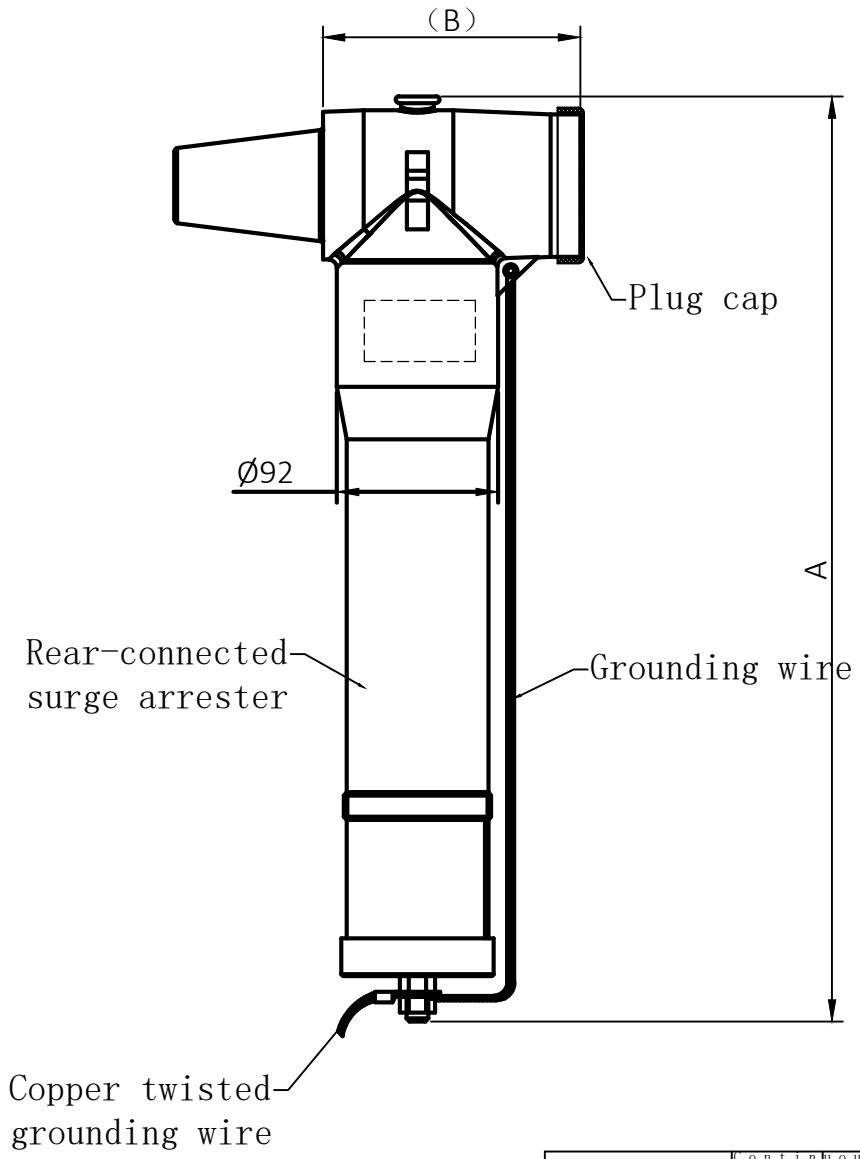


Caution:Horizontal installation

Requirements	Type and size		Date Design	
	Rated current A	900A		Name of sample
	Rated voltage kV	36kV(18/30kV)		36kv/900A Oil immersed casing
	AC voltage test	95kV/1min		
	DC 15 Minute Withstand	156kV/1min		Note
	Impulse voltage test	200kV,10impulses of each polarity		Meets ANSI : EN 50180/50181 IEC 60502.4
	Partial discharge	45kV≤10pc		



Requirements				
	Type and size		Date Design	
	Rated current A	900A		Name of sample
	Rated voltage kV	36kV (18/30kV)		36kV/900A T(Front) Connector
	AC voltage test 50Hz	95kV/1min		
	DC 15 Minute Withstand			Note
	Impulse voltage test	200kV,5impulses of each polarity		Meets ANSI : IEC 60502.4 EN 50180/50181
	Partial discharge	43kV≤10pc		



Product	Continuous operating voltage kV	A (in.)	A (mm)	B
		24.0	20.70	
		30.0	20.70	
		33.0	20.70	
		36.0	20.70	
		39.0	20.70	
		41.0	20.70	

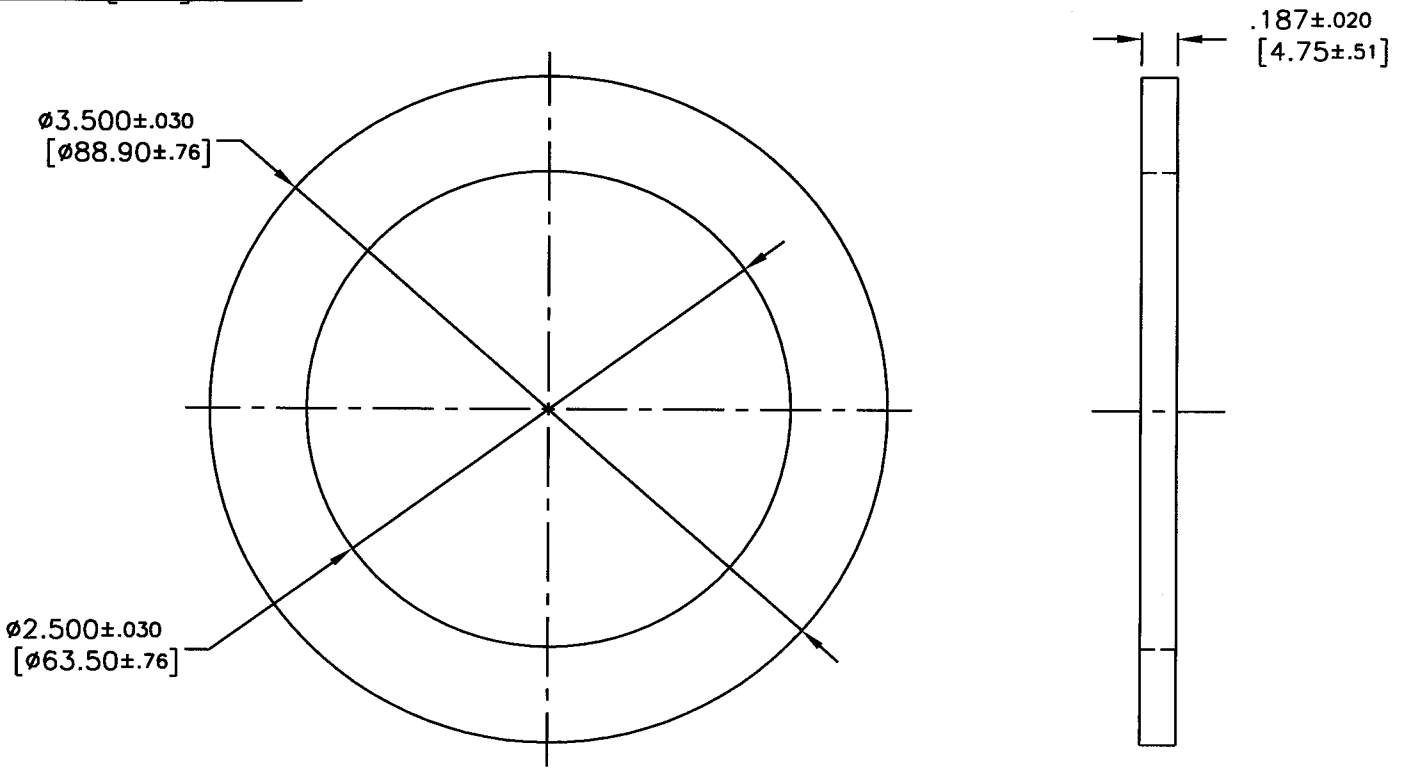
Requirements				
	Type and size		Date Design	
	Rated current A	900A		Name of sample
	Rated voltage kV	36kV (18/30kV)		36kV/900A Rear Surge Arrester
	AC voltage test 50Hz	95kV/1min		
	DC 15 Minute Withstand			Note
	Impulse voltage test	200kV,5impulses of each polarity		Meets ANSI : IEC 60502.4 EN 50180/50181
	Partial discharge	43kV≤10pc		

DO NOT SCALE PRINT | DIMENSIONS AND TOLERANCES IN ACCORDANCE WITH ASME Y14.5M-1994 | WAS NO. | DRAWING NO.

NOTES: (UNLESS OTHERWISE SPECIFIED)
1. DIMENSIONS ARE IN INCHES [MILLIMETERS].

FOR USE ONLY WITH STANDARD 900/910 SERIES RPRR GASKET GROOVE OF 3.56 [90.4] O.D. x .13 [3.3] DP

REVISION	PART NO.	MATERIAL
26501 10-26-07		NITRILE 70 DUROMETER
265001 10-26-07		VITON 70 DUROMETER



LET	DATE	ALTERATION	C.N.
–	10-26-07	RELEASED	26501

TITLE: RPRR MTG. GASKET

MATERIAL: SEE CHART

FINISH:

TOLERANCE UNLESS NOTED, [MM] IS FOR REF.:
2 PLC. DECIMAL ± .02 [.5]
3 PLC. DECIMAL ± .005 [.13]
ANGULAR ± 2 DEG.

FORM 0-465 REV. E 04/06/06

LARSON MAGNETICS

DRAWN	DATE	10-4-07
CHECK		10-26-07
APP'D		10-26-07

SCALE 1:1

SHEET 1 OF 1

DRAWING NO.

DO NOT SCALE PRINT	DIMENSIONS AND TOLERANCES IN ACCORDANCE WITH ASME Y14.5M-1994	WAS NO. N/A	DRAWING NO.

NOTES: (UNLESS OTHERWISE SPECIFIED)

1. UNIT IS SHOWN WIRED FOR 120 VAC. SEE SCHEMATIC TABLE FOR DIFFERENT VOLTAGE INPUTS.

2. TERMINAL BLOCK:
   SCREW: #6-32 CADMIUM PLATED STEEL
   RATING: UL 20A @ 600V.
   WIRE RANGE: 12-22 AWG

3. STANDARD MODEL CONTACT RATINGS: (MANUFACTURER)

VOLTAGE (VOLTS)	MAKE (AMPS)	CARRY (AMPS)	BREAK (AMPS)	
			RESISTIVE	INDUCTIVE*
120 AC	30	8	8	6.5
240 AC	15	8	8	3.5
24 DC	8	8	8	3
48 DC	0.58	2	2	1
125 DC	0.22	1	0.22	0.22
250 DC	0.11	1	0.11	0.11

*WHERE $\frac{L(\text{HENRYS})}{R(\text{OHMS})} \leq .070$

CONTACT RATING: VDE 0435, 0631, 0700, 0860, UL508, 873, CSA 22.2 No.14

***TRIP CONTACT OUTPUT IS COMPRISED OF (2) CONTACTS EACH WITH THE RATINGS LISTED IN PARALLEL.

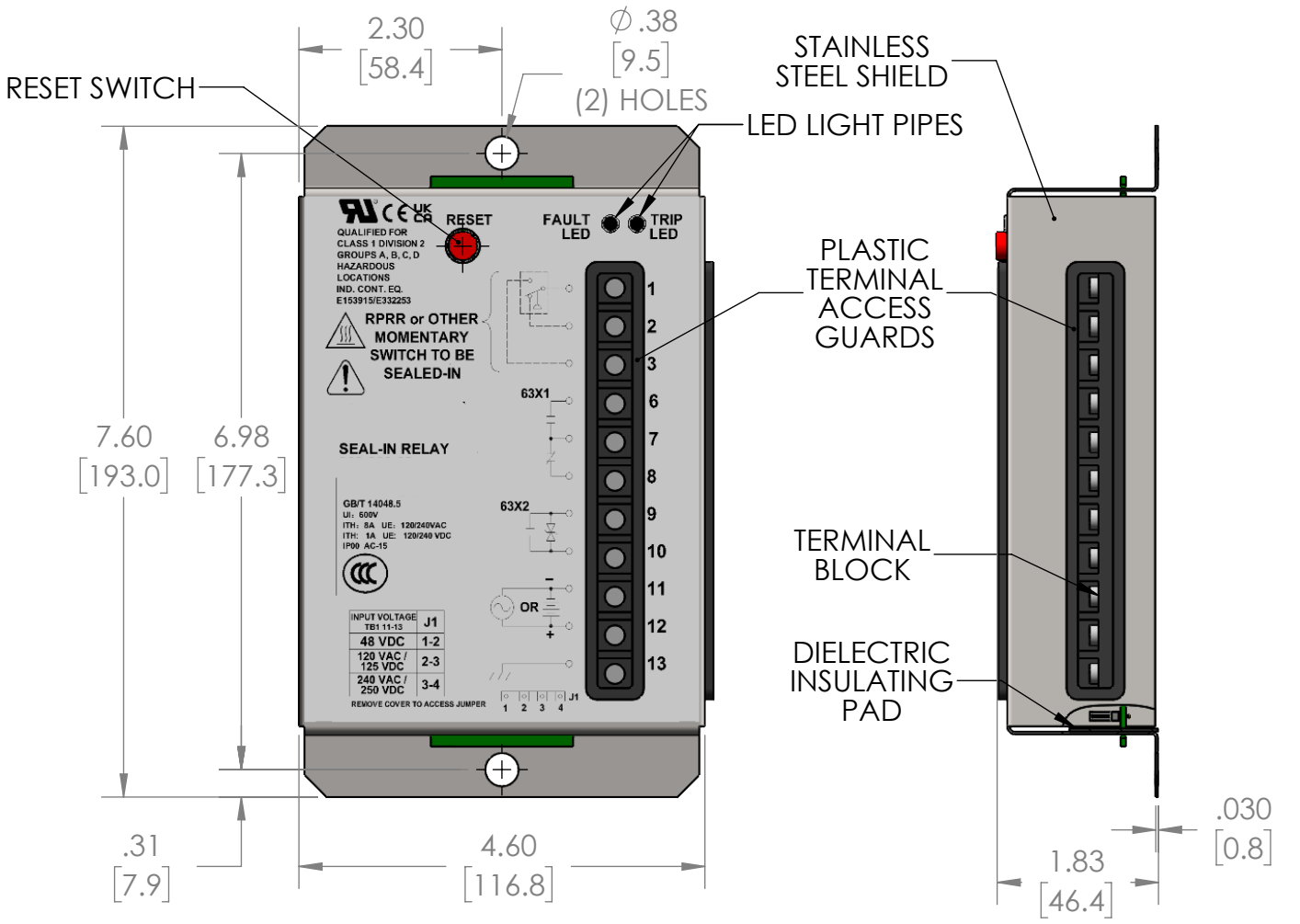
TRIP: 1/4 HP @ 120/250 VAC
8A @ 30 VDC RESISTIVE
8A @ 250 VAC GENERAL USE
B300 & R300 PILOT DUTY

ALARM: 1/4 HP @ 125/250 VAC
8A @ 30 VDC RESISTIVE
8A @ 250 VAC GENERAL USE
B300 & R300 PILOT DUTY

4. DIELECTRIC STRENGTH:
   2500V: TB1-1 THRU TB1-12 TO TB1-13 (GND)

5. AMBIENT TEMPERATURE:
   -49°F to 104°F (-45°C to 40°C)
   SURROUNDING AIR TEMPERATURE:
   -49°F to 158°F (-45°C to 70°C)

6. PRODUCT TESTED AND FOUND SUITABLE FOR UL508 ORDINARY LOCATIONS. ALSO TESTED TO UL1604 AND FOUND SUITABLE FOR USE IN HAZARDOUS LOCATIONS CLASS 1, DIVISION 2, GROUPS A, B, C, AND D.



REV.	DATE	ALTERATION	ECN
-	20-AUG-25	UPDATE FOR CE COMPLIANCE	46481
-	23-MAY-17	ADDED C (CANADIAN) AND US TO UL MARK	36446
-	31-OCT-16	REVISED UL MARK AND NOTE 6	35657
-	4-APR-16	ALARM RATING WAS 1/4 HP @ 125/250 VDC	34887

TITLE: RPRR Seal-in Relay

MATERIAL: N/A

FINISH: N/A

TOLERANCE UNLESS NOTED, [MM] IS FOR REF.:
2 PLC. DECIMAL ± .02 [.5]
3 PLC. DECIMAL ± .005 [.13]
ANGULAR ± 2 DEG.

FORM 0-467 REV. E 04/06/06

LARSON MAGNETICS

DRAWN	DATE 01-FEB-23
CHECK	
APP'D	

SCALE 1:2

SHEET 1 OF 1

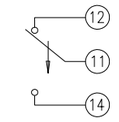
DRAWING NO.

MODEL
NO.

NOTES: UNLESS SPECIFIC OTHERWISE
1. MEETS QUALITROL PRODUCT PERFORMANCE SPECIFICATION PPS-9.
2. FOR OIL INSTALLATION ONLY.
3. UNIT CONFORMS TO THE REQUIREMENTS OF IP65.
4. PAINT: STD ANSI 70 GRAY EPOXY PAINT
5. ISOLATION TEST: 2000V TO GROUND FOR 60 SECONDS.
6. MOUNTING GASKETS, SPECIAL CONNECTORS CAN BE ADDED SEPARATELY.

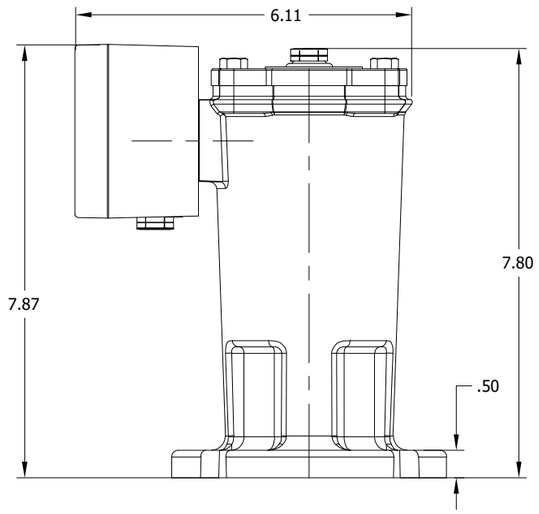
TERMINAL BOX
(4J02)

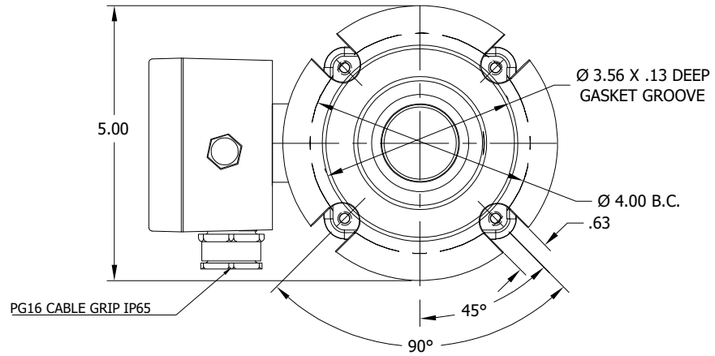
TERMINAL BOX



SWITCH RATING
15 AMP @ 125, 250, 480 VAC
.5 AMP @ 125 VDC - NON-INDUCTIVE
.25 AMP @ 250 VDC - NON-INDUCTIVE

TERMINAL BOX WITH FLANGE





-	3/3/20	PRELIMINARY	
LET	DATE	ALTERATION	C.N.

LARSON MAGNETICS

DIMENSIONS AND TOLERANCES IN
ACCORDANCE WITH ASME Y14.5M-1994

FORM 0-473 REV. F 04/06/06

TITLE: RAPID PRESSURE RISE RELAY
OIL USE

MODEL
NO.