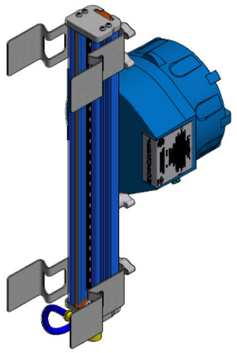
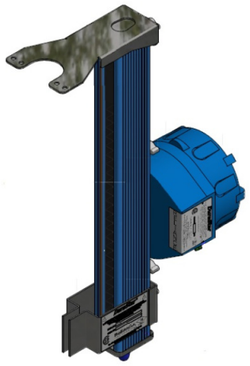
ALL LIGHT ASSEMBLY MODELS

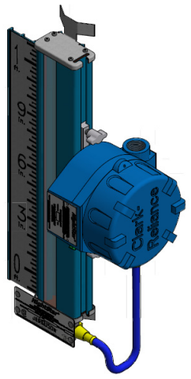
Light Assembly models use the following power supplies for VAC mains operation, see page 2 of 3:
S25119-XXX for cETLus or
S25481-XXX for ATEX/IECEx
The Lumastar, for cETLus only, can also use a customer supplied 24 VDC power supply with an approved intrinsically safe diode barrier, see page 3 of 3.



LUMASTAR/LEVELITE
Models: #-EPL-###-#-#-#-#-#-#

DURASTAR
Models: RD#5000-###H-#





NIGHTSTAR
Models: A27348-#-###-## and
A30335-#-###-##

PHAETON/FLOWLITE SL/HL
Models: #-TIK-PH-##-####-#

A) GENERAL WARNINGS AND NOTES

1) ALL NATIONAL AND LOCAL CODES AND REGULATIONS MUST BE ADHERED TO WHEN INSTALLING THE ILLUMINATOR IN A HAZARDOUS ENVIRONMENT.
2) WARNING: SUBSTITUTION OF COMPONENTS MAY IMPAIR INTRINSIC SAFETY.
3) MODIFICATIONS TO OR USING THE POWER SUPPLY AND LED LIGHT ASSEMBLIES IN A MATTER NOT SPECIFIED MAY RESULT IN PROTECTION IMPAIRMENT.
4) REFER TO THIS DOCUMENT AND/OR THE INDIVIDUAL IOM DOCUMENTATION FOR ADDITIONAL WARNINGS OR INFORMATION WHEN THE FOLLOWING CAUTION SYMBOL IS INDICATED.

B) INSTALLATION

1) INSPECT ALL PARTS FOR DAMAGE BEFORE INSTALLATION.
2) SEE INDIVIDUAL PRODUCT IOM DOCUMENTATION FOR MECHANICAL INSTALLATION.
3) SEE APPROPRIATE PAGE 2 OR 3 OF THIS DOCUMENT FOR WIRING AND CONNECTING THE POWER SUPPLY.
4) COPY OF SPECIFIC NAMEPLATE INFORMATION WILL ACCOMPANY EACH PRODUCT.

C) MAINTENANCE

1) PERIODICALLY INSPECT THE EQUIPMENT FOR ANY DAMAGE OR IMPROPER OPERATION.
2) ROUTINE MAINTENANCE OF ILLUMINATOR: KEEP WINDOW ON FRONT OF THE LIGHT CLEAN USING COMMERCIAL GLASS CLEANER. NEVER USE HARSH ABRASIVES, WIRE BRUSHES, METAL SCRAPER, OR ANY MATERIAL THAT COULD SCRATCH THE WINDOW. THE WINDOW MAY BE CLEANED WHILE UNIT IS IN OPERATION.

D) REPAIR AND TROUBLESHOOTING

1) WARNING:TO PREVENT IGNITION OF FLAMMABLE ATMOSHPERES, DISCONNECT POWER BEFORE SERVICING. DO NOT REMOVE ENCLOSURE COVER WITH DEVICE POWERED OR IN THE PRESENCE OF A FLAMMABLE ATMOSPHERE.
AVERTISSEMENT: POUR PRÉVENIR L'INFLAMMATION DES ATMOSPHÈRES INFLAMMABLE, DÉBRANCHER L'ALIMENTATION AVANT L'ENTRETIEN. NE RETIREZ PAS LE COUVERCLE DE L'ENCEINTE AVEC L'APPAREIL ALIMENTÉ OU EN PRÉSENCE D'UNE ATMOSPHÈRE INFLAMMABLE.
2) THERE ARE NO SERVICEABLE PARTS IN THE LED LIGHT ASSEMBLY.
3) CHECK ALL WIRE CONNECTIONS FOR ANY LOSE WIRING.
4) CONTACT FACTORY SHOULD FUSES CONTINUE TO BLOW OR IF OTHER PROBLEMS ARISE.

E) SPECIFIC CONDITIONS OF USE

1) ENVIRONMENT: -40°C/-40°F ≦ Ta ≦ 60°C/140°F
2) EXTERNAL NON-METALLIC AND/OR PAINTED SURFACES OF THE EQUIPMENT MAY STORE ELECTROSTATIC CHARGE AND BECOME A SOURCE OF IGNITION IN APPLICATIONS WITH A LOW HUMIDITY <~30% RELATIVE HUMIDITY. KEEP EXTERNAL NON-METALLIC AND PAINTED SURFACES FREE OF SURFACE CONTAMINATION SUCH AS DIRT, DUST OR OIL USING ONLY A DAMP CLOTH.
3) WARNING: THIS EQUIPMENT CONTAINS NON-METALLIC/PAINTED ENCLOSURE PARTS, TO PREVENT THE RISK OF ELECTROSTATIC SPARKING, ALL NON-METALLIC/PAINTED SURFACES SHOULD ONLY BE CLEANED WITH A DAMP CLOTH.
AVERTISSEMENT: LES ÈQUIPMENTS CONTIENNENT DES PIÈCES DE BOÎTIERS NON MÉTALLIQUES//PEINTES, AFIN DE PRÉVENIR UN RISQUE D'ÉTINCELLES ÉLECTROSTATIQUE, LES SURFACES NON MÉTALLIQUE/PEINTES NE DEVRAIENT ÊTRE NETTOYÉES QU'AVEC UN TISSU HUMIDE.
4) TAKE PRECAUTIONS TO AVOID POSSIBLE IGNITION HAZARDS BY IMPACT OR FRICTION.

NOTES

1) AGENCY CONTROLLED DOCUMENT.

REV	DATE	REVISION	BY
2	01/26/2021	UPDATED NOBO # FROM 0359 TO 2575. UPDATED DRAWING TEMPLATE	SH
1	9/30/2020	UPDATE PER ATEX & IECEx REQUIREMENTS	RAC
0	12/14/2016	NEW RELEASE	DMB

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ILLUMINATOR: CONTROL AND INSTALLATION DRAWING
SHEET 1 OF 3

JERGUSON®

DRAWN: RAC
CHECKED: SRM
DATE: 08/23/2016
DRAWING NO.: CI-26677
REV.: 2
CDC: 2 : PER CDC 21-041: SH: 01/26/2021
MATERIAL: PER ORDER
PART NUMBER: CI-26677

TOLERANCES (U.O.N.):
3 Decimal Places: N/A
2 Decimal Places: N/A
Fractions: N/A
Machined Holes: N/A
Angles: N/A
Finish Marks: N/A
(See PES-004 for details.)

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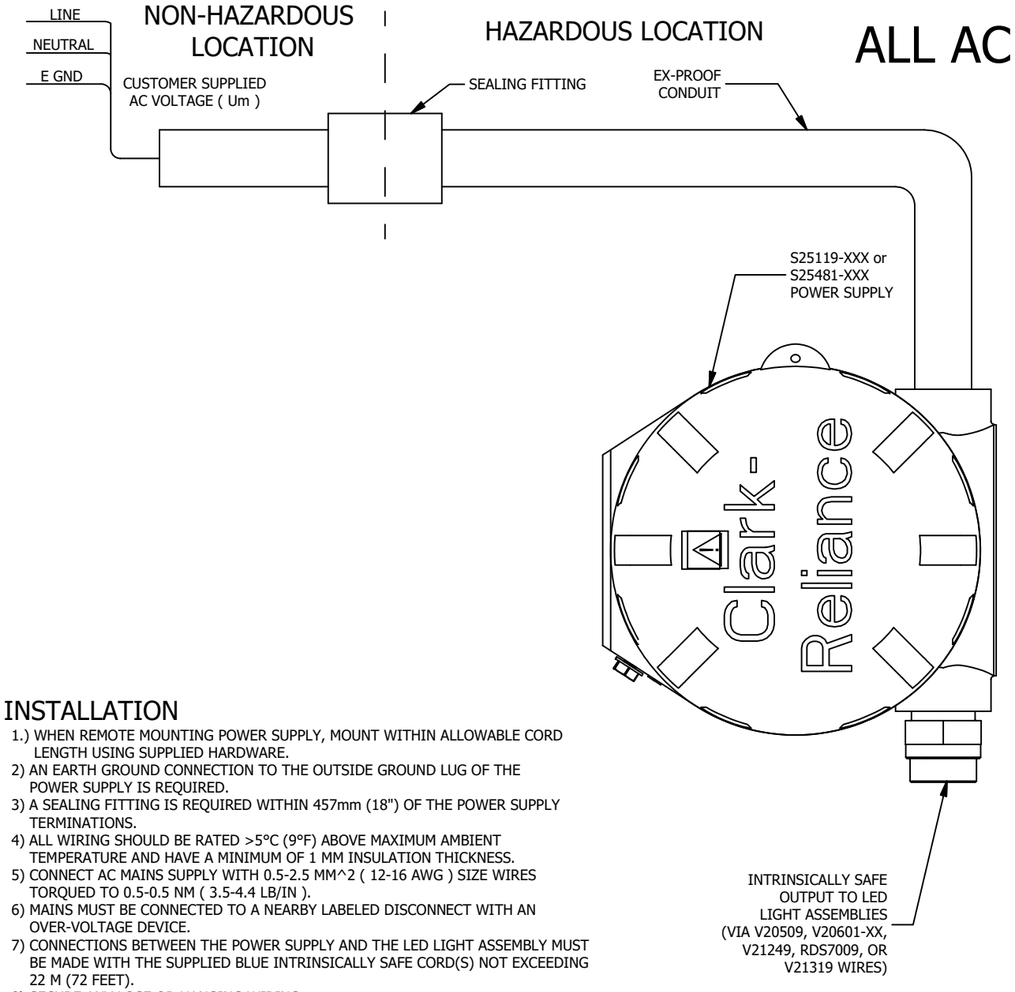
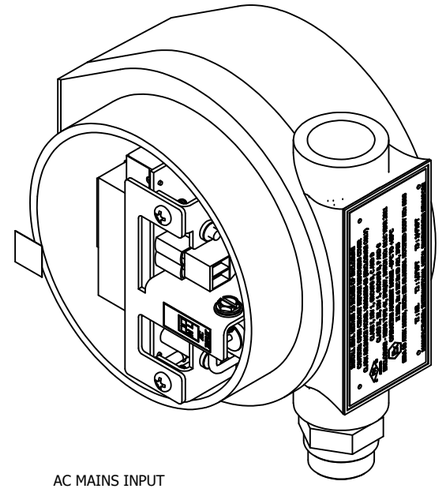
ALL AC MAINS POWERED LED LIGHT SYSTEMS



SPECIFICATIONS

POWER SUPPLY (Um):	115 OR 230 VAC @ 50-60 Hz ± 10%
HAZARDOUS LOCATION APPROVALS:	cETLus: CLASS I, DIV 1, GROUPS B,C,D,T4 IP66/TYPE 4X ETLus: CLASS I, ZONE 1, AEx db [ib] IIB+H2 T4 Gb IP66/TYPE 4X cETL: Ex db [ib] IIB+H2 T4 Gb IP66/TYPE 4X INTERTEK 5014669 ATEX: II 2 G Ex db [ib] IIB+H2 T4 Gb IP66/TYPE 4X ITS20ATEX25919X IECEx: Ex db [ib] IIB+H2 Gb IP66/TYPE 4X IECEx ETL 20.0063X
ORDINARY LOCATION APPROVALS:	CONFORMS TO UL STDS 913, 1203, 60079-0, 60079-11, & 60079-1 CERTIFIED TO CSA STDS C22.2 60079-0, 60079-11, 60079-1, & 30
AMBIENT TEMPERATURE:	-40°C/-40°F ≦ Ta ≦ 60°C/140°F
WIRE SIZE:	MIN 0.8mm²/ MAX 3.5mm² (MIN 18 AWG/ MAX 12 AWG)
MAX DIST. POWER SUPPLY TO LIGHT:	22M (72 FEET) VIA CLARK RELIANCE CORDS V20509/V20601-XX ONLY.
ELECTRICAL CONN.:	3/4 FNPT
ELECTRICAL OUTPUT MAXIMUM:	21.42Vdc, 0.148A, 1.18W



ASSOCIATED EQUIPMENT SYSTEM MODELS:

(Light Assemblies using S25119-XXX cETLus or S25481-XXX ATEX/IECEx Vac Power Supplies)

LUMASTAR/LEVELITE

Models: a-EPL-bbb-#-c-#-#-d-e where a = E for Levelite
= none for Lumastar
bbb = 100 for aluminum
= 316 for 316SS
c = 1 for115 Vac mains
= 2 for 230 Vac mains
d = none for standard
= D for Daisy chain
= R for Remote power supply
e = none for cETLus
= X for ATEX/IECEx

PHAETON/FLOWLITE SL/HL

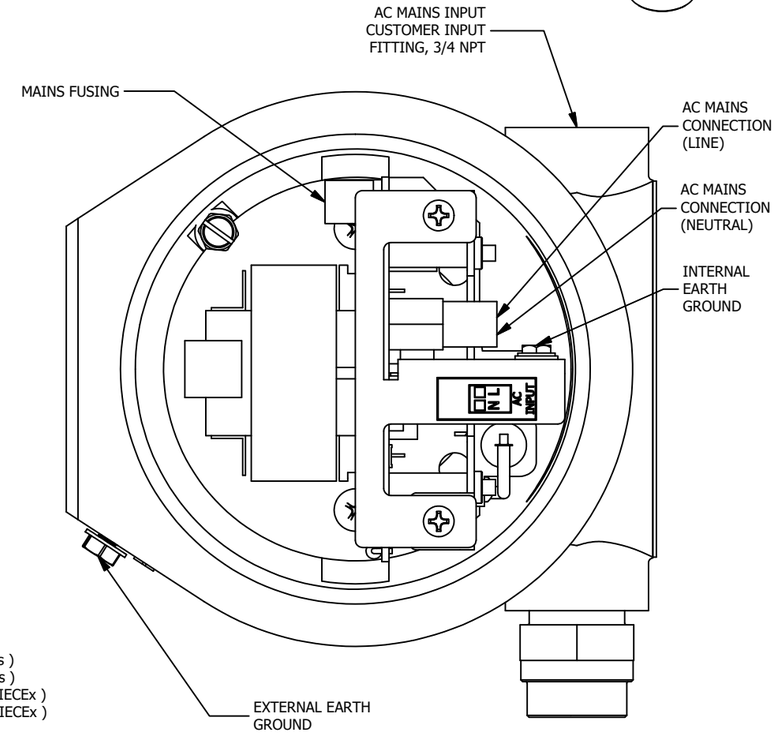
Models: a-TIK-PH-##-bc##-d where a = E fpr Flowlite SL/HL
= none for Phaeton SL/HL
b = L for aluminum
= S for 316SS
c = 1 for 115 Vac mains
= 2 for 230 Vac mains
d = none for cETLus
= X for ATEX/IECEx

NIGHTSTAR

Models: A27348-a-###-## where a = 1 for 115 Vac mains (all aluminum cETLus)
= 2 for 230 Vac mains (all aluminum cETLus)
A30335-a-###-## where a = 1 for 115 Vac mains (all aluminum ATEX/IECEx)
= 2 for 230 Vac mains (all aluminum ATEX/IECEx)

DURASTAR

Models: RDa5000-##bH-# where a = S for cETLus (all aluminum)
= X for ATEX/IECEx (all aluminum)
b = 1 for 115 Vac mains (all aluminum)
= 2 for 230 Vac mains (all aluminum)



A) INSTALLATION

1.) WHEN REMOTE MOUNTING POWER SUPPLY, MOUNT WITHIN ALLOWABLE CORD LENGTH USING SUPPLIED HARDWARE.
2) AN EARTH GROUND CONNECTION TO THE OUTSIDE GROUND LUG OF THE POWER SUPPLY IS REQUIRED.
3) A SEALING FITTING IS REQUIRED WITHIN 457mm (18") OF THE POWER SUPPLY TERMINATIONS.
4) ALL WIRING SHOULD BE RATED >5°C (9°F) ABOVE MAXIMUM AMBIENT TEMPERATURE AND HAVE A MINIMUM OF 1 MM INSULATION THICKNESS.
5) CONNECT AC MAINS SUPPLY WITH 0.5-2.5 MM^2 (12-16 AWG) SIZE WIRES TORQUED TO 0.5-0.5 NM (3.5-4.4 LB/IN).
6) MAINS MUST BE CONNECTED TO A NEARBY LABELED DISCONNECT WITH AN OVER-VOLTAGE DEVICE.
7) CONNECTIONS BETWEEN THE POWER SUPPLY AND THE LED LIGHT ASSEMBLY MUST BE MADE WITH THE SUPPLIED BLUE INTRINSICALLY SAFE CORD(S) NOT EXCEEDING 22 M (72 FEET).
8) SECURE ANY LOSE OR HANGING WIRING.

B) OPERATION

1) VERIFY THAT ALL COMPONENTS ARE IN GOOD CONDITION AND FREE OF ANY CRACKS, CUTS, BROKEN GLASS, BAD SEALS, OR OTHER VISIBLE DEFECTS.
2) ENSURE THAT ALL POWER, EARTH GROUND, AND INTRINSICALLY SAFE WIRE CONNECTIONS ARE MADE TO THE POWER SUPPLY AND BETWEEN THE POWER SUPPLY AND THE LED LIGHT ASSEMBLY AND THAT THE LID ON THE POWER SUPPLY IS SECURELY CLOSED.
3) APPLY THE MAIN POWER AND VERIFY THAT ALL THE LEDS IN THE LED LIGHT ASSEMBLY ARE LIT AND PROPERLY OPERATING.

C) REPAIR AND TROUBLESHOOTING

1) ONLY THE AC MAINS FUSE IS SERVICEABLE IN THE POWER SUPPLY. OPEN POWER SUPPLY LID AND REMOVE PLASTIC FUSE COVER ON PCB. REMOVE BLOWN FUSE CAREFULLY AND REPLACE AS FOLLOWS WITH FUSE MEETING ONE OF THESE EXACT SPECIFICATIONS:
(ONE) METRIC 5 X 20 MM 250V CERAMIC CARTRIDGE WITH A 1500A INTERRUPT RATING
FOR USE WITH 115 VAC INPUT: T0.25A 250V (250 MA SLOW BLOW) OR
FOR USE WITH 230 VAC INPUT: T0.125A 250V (125 MA SLOW BLOW)
REPLACE PLASTIC FUSE COVER AND SECURE POWER SUPPLY ENCLOSURE LID TIGHTLY.

NOTES

1) AGENCY CONTROLLED DOCUMENT.

REV	DATE	REVISION	BY
2	01/26/2021	UPDATED NOBO # FROM 0359 TO 2575. UPDATED DRAWING TEMPLATE	SH
1	9/30/2020	UPDATE PER ATEX & IECEx REQUIREMENTS	RAC
0	12/14/2016	NEW RELEASE	DMB

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ILLUMINATOR: CONTROL AND INSTALLATION DRAWING SHEET 2 OF 3

JERGUSON®

DRAWN: RAC | DRAWING NO.: CI-26677 | REV.: 2
CHECKED: SRM
DATE: 08/23/2016
CDC: 2 : PER CDC 21-041: SH: 01/26/2021
MATERIAL: PER ORDER
PART NUMBER: CI-26677

TOLERANCES (U.O.N.):
3 Decimal Places: N/A
2 Decimal Places: N/A
Fractions: N/A
Machined Holes: N/A
Angles: N/A
Finish Marks: N/A
(See PES-004 for details.)

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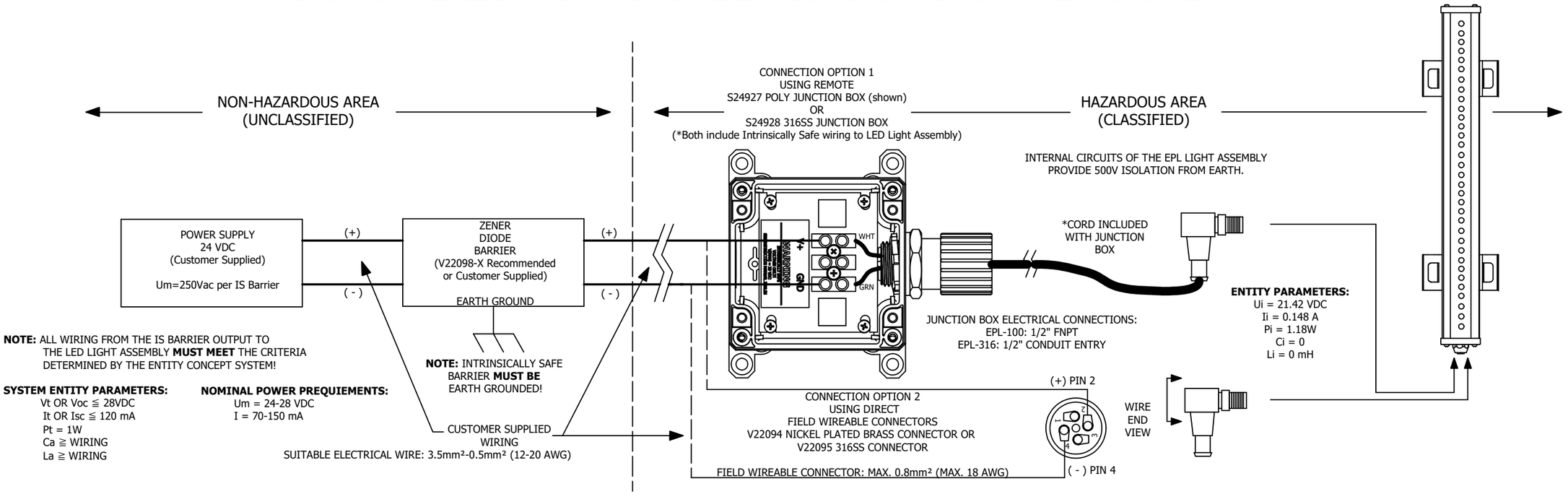
DC POWERED WITH BARRIER LUMASTAR SYSTEMS ONLY



NOTE: ALL WIRING FROM THE IS BARRIER OUTPUT TO THE LED LIGHT ASSEMBLY **MUST MEET** THE CRITERIA DETERMINED BY THE ENTITY CONCEPT SYSTEM!

SYSTEM ENTITY PARAMETERS:
Vt OR Voc ≦ 28VDC
It OR Isc ≦ 120 mA
Pt = 1W
Ca ≧ WIRING
La ≧ WIRING

NOMINAL POWER PREQUIEMENTS:
Um = 24-28 VDC
I = 70-150 mA

A) INSTALLATION

1.) SECURELY MOUNT THE JUNCTION BOX, IF APPLICABLE, WITHIN ASSOCIATED WIRE LENGTH FROM MOUNTED LEVEL GAUGE AND/OR LED LIGHT ASSEMBLY USING SUPPLIED MOUNTING HARDWARE.
2) AN EARTH GROUND CONNECTION TO THE INTRINSICALLY SAFE BARRIER IS REQUIRED.
3) ALL WIRING SHOULD BE RATED >5°C (41°F) ABOVE MAXIMUM AMBIENT TEMPERATURE, HAVE A MINIMUM OF 1 MM INSULATION THICKNESS, AND MEET 500V ISOLATION REQUIREMENT.
4) THE ENTITY CONCEPT SYSTEM FOR SELECTING THE INTRINSICALLY SAFE DIODE BARRIER AND ALL WIRING SYSTEMS MUST BE FOLLOWED WHEN INSTALLING THIS PRODUCT. THE ENTITY CONCEPT SYSTEM REQUIREMENT ARE AS FOLLOWS:
   Vmax OR Ui ≥ Voc, Vt, OR Uo,
   Imax OR Ii ≥ UIsc OR Io,
   Pmax OR Pi ≥ Po,
   Ca ≥ Ci + Cwire, AND
   La ≥ Li + Lwire
5) THE SELECTED BARRIER MUST BE A LINEAR OUTPUT DEVICE AND HAVE THE SAME INTRINSIC SAFE HAZLOC QUALIFICATIONS INDICATED HEREIN. FOLLOW THE BARRIERS MANUFACTURERS RECOMMENDATIONS AND DRAWING FOR USE AND INSTALLATION.
6) THE MAXIMUM NON-HAZARDOUT LOCATION VOLTAGE SHALL NOT EXCEED THE Um OF THE APPLIED INTRINSICALLY SAFE BARRIER.
7) IF THE CAPACITANCE OF THE CONNECTING WIRING IS NOT KNOWN, USE THE FOLLOWING VALUES FOR CALCULATING THE MAX WIRE LENGTH.
   CAPACITANCE: 60pF/FT
   INDUCTANCE: 0.2uH/FT
8) THE TOTAL RESISTANCE BETWEEN THE INTRINSICALLY SAFE BARRIER GROUND AND THE EARTH GROUND MUST BE LESS THAN 1.0 OHM.
9) SECURE ANY LOSE OR HANGING WIRING.

NOTES

1) AGENCY CONTROLLED DOCUMENT.

B) OPERATION

1) ENSURE THAT ALL POWER, EARTH GROUND, AND INTRINSICALLY SAFE WIRE CONNECTIONS ARE MADE BETWEEN THE INTRINSICALLY SAFE DIODE BARRIER AND THE LED LIGHT ASSEMBLY.
2) APPLY POWER AND VERIFY THAT ALL LEDS ARE OPERATING PROPERLY.

INTRINSICALLY SAFE BARRIER DRIVEN MODELS ONLY:

LUMASTAR

Models: EPL-aaa-#-b-#-#-#-c
where aaa = 100 for aluminum
= 316 for 316SS
b = 5 for included Intrinsically safe diode barrier and poly or 316SS junction box
= 6 for included Intrinsically safe diode barrier with LED light assembly plug connector only
= 7 for customer supplied Intrinsically safe diode barrier and poly or 316SS junction box
= 8 for customer supplied Intrinsically safe diode barrier with LED light assembly plug connector only
c = none for cETLus version only

SPECIFICATIONS

POWER SUPPLY (Um):	(SEE NOTES)
HAZARDOUS LOCATION APPROVALS:	cETLus: CLASS I, DIV 1, GROUPS A, B,C,D,T4 IP66/TYPE 4X ETLus: CLASS I, ZONE 1, AEx db [ib] IIC T4 Gb IP66/TYPE 4X cETL: Ex db [ib] IIC T4 Gb IP66/TYPE 4X
ORDINARY LOCATION APPROVALS:	CONFORMS TO UL STDS 913, 1203, 60079-0, 60079-11, & 60079-1 CERTIFIED TO CSA STDS C22.2 60079-0, 60079-11, 60079-1, & 30
AMBIENT TEMPERATURE:	-40°C/-40°F ≦ Ta ≦ 60°C/140°F
WIRE SIZE:	MIN 0.8mm²/ MAX 3.5mm² (MIN 18 AWG/ MAX 12 AWG)
MAX DIST. POWER SUPPLY TO LIGHT:	(SEE NOTES)

Intertek 5014669

REV	DATE	REVISION	BY
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1	9/30/2020	UPDATE PER ATEX & IECEx REQUIREMENTS	RAC
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ILLUMINATOR: CONTROL AND INSTALLATION DRAWING
SHEET 3 OF 3

JERGUSON®

DRAWN: RAC | CHECKED: SRM | DATE: 08/23/2016
DRAWING NO.: CI-26677
REV.: 2
CDC: 2 : PER CDC 21-041: SH: 01/26/2021
MATERIAL: PER ORDER
PART NUMBER: CI-26677

TOLERANCES (U.O.N.):
3 Decimal Places: N/A
2 Decimal Places: N/A
Fractions: N/A
Machined Holes: N/A
Angles: N/A
Finish Marks: N/A
(See PES-004 for details.)

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