

Jerguson® **LumaStar™** Illuminators



The Ten-Year Solution™



JERGUSON®
A PRODUCT OF CLARK-RELIANCE

Without the Right Illumination, You Could Be In the Dark!



**A Typical Dirty Glass Level
Gage Without Illumination**

Case 1: Top of fluid level is between glass sections.

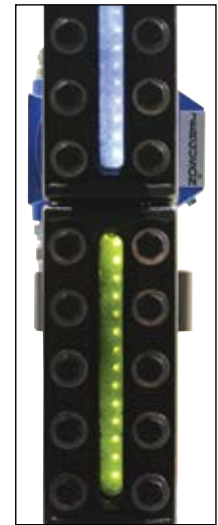


**Competitive Light A
(Green LED's)**

With the top of the fluid level right between the glass sections, your indicator could create a dangerous situation as the operator may easily think the gage was full or empty.



**Competitive Light B
(Amber LED's)**



**Jerguson® LumaStar™
Illuminator (White LED's)**

High contrast illumination makes it easy to see that the level is between glass sections.

There's No Mistaking Your Level with a LumaStar™ Illuminator

Case 2: Top of fluid level is within a glass section.



**Competitive Light A
(Green LED's)**

With dirt on the glass, the level is not as clear. Your indicator could create a dangerous situation as the operator may easily think the gage was full or empty if viewing from a distance or in poor lighting conditions.

A colored LED can have the negative affect of "blending in" with the color of the process fluid, making it difficult to see the level.



**Competitive Light B
(Amber LED's)**



**Jerguson® LumaStar™
Illuminator (White LED's)**

Even with dirty glass, there is no doubt where the level is!

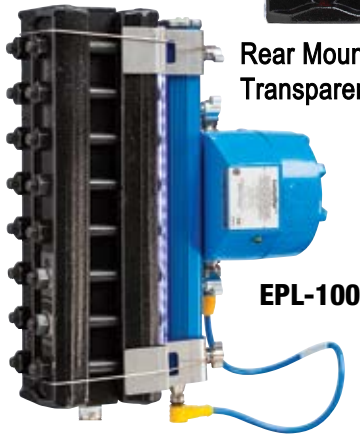
**Color is
Critical!**

"I purchased some 50 units of EPL-100 Illuminators for Chevron's Hawaii Refinery. The operators are very pleased with this unit as it radiates a tremendous amount of lighting through the gage glasses unlike the older incandescent types we had here. This makes verifying levels in columns, vessels, drums, etc. much easier. This is a good product and suited our needs perfectly."

- **Darin M. Matsumiya,**
I/E Supervisor/Analyst at
Chevron Texaco Hawaii



Rear Mount
Transparent Gage



EPL-100

LumaStar™ Illuminator Model EPL-100

The Ten-Year Solution: Anodized Aluminum Construction

Jerguson® LumaStar™ Illuminators' white LED design combines long-life performance with superior visibility for hazardous locations. Jerguson's Model EPL-100 is approved for use in Class I, Div 1, Group B, C & D and Zone 1 environments and available in sizes up to 58" long with a single power supply. That means a four section size nine or five section size seven gage from a single power supply at less than 250 mA! Contact your local representative or a Jerguson Applications Engineer to configure an EPL-100 for your transparent glass level gages.

- High Contrast
- Superior Visibility Day or Night
- Maintenance FREE
- Long Life ~100,000 hrs.
- No Heat Generation
- Field Upgradable
- Fits any glass gage!
- NEMA 4x (Power Supply Enclosure)
- Eliminates "bulb-changes"
- Longest Field-of-View
- Covers up to 4 Size 9 Gage Sections or 5 Size 7 Gage Sections
- Explosion-Proof Power Supply, Intrinsically Safe Lighting Circuit
- Pays for itself in electricity savings alone!

For use on Transparent and Reflex style gages.



Front Mount
Reflex Gage

Specifications – Model EPL-100

Power Supply:	115 or 230 VAC @ 50-60 Hz
Power Supply Weight:	5.2 lbs
Power Consumption:	<125mA @ 230 max <250mA @ 115 max
Estimated Life:	100,000 Hours (continuous)
Wire Size:	Min 18 AWG (0.8 mm ²) / Max 12 AWG (3.5 mm ²)
Max Distance from Power Supply to Light Strip:	72 ft (22 m)
Electrical Connection:	3/4" FNPT

US/Canada Approvals:

Class I, Division 1, Groups B,C,D T4
Class I, Zone 1, AEx db [ib] IIB+H2 T4 Gb (Power Supply)
Class I, Zone 1, AEx ib IIB+H2 T4 Gb (Light)
Ex db [ib] IIB+H2 T4 Gb (Power Supply)
Ex ib IIB+H2 T4 Gb (Light)
-40°F (-40°C) ≤ Ta ≤ +140°F (60°C)

ATEX Approvals:

II 2(2) G Ex db [ib] IIB+H2 T4 Gb (Power Supply)
II 2 G Ex ib IIB+H2 T4 Gb (Light)
-40°F (-40°C) ≤ Ta ≤ +140°F (60°C)

IECEx:

Ex db [ib] IIB+H2 T4 Gb (Power Supply)
Ex ib IIB+H2 T4 Gb (Light)
-40°F (-40°C) ≤ Ta ≤ +140°F (60°C)

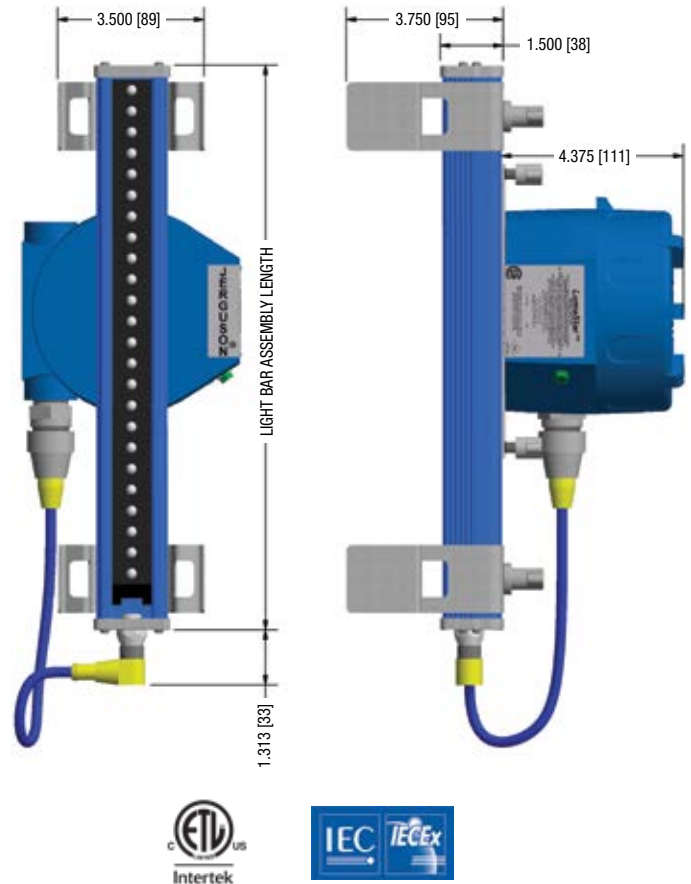
**24VDC Barrier Drive Option
Available, see page 8**

Liquid Level Gages

LumaStar™ EPL-100

LumaStar Model EPL-100		Overall Length		Total Weight lbs.
Series 20/32	Series 300L	in	mm	
EPL-100-1_1		5.25	133	5.4
EPL-100-2_1		5.25	133	5.4
EPL-100-3_1		7.25	184	5.6
EPL-100-4_1		7.25	184	5.6
EPL-100-5_1		9.25	235	5.7
EPL-100-6_1	EPL-100-11_1	11.25	286	5.9
EPL-100-7_1		11.25	286	5.9
EPL-100-8_1	EPL-100-12_1	13.25	337	6.1
EPL-100-9_1	EPL-100-13_1	13.25	337	6.1
EPL-100-3_2	EPL-100-15_1	15.25	387	6.3
EPL-100-4_2		17.25	438	6.4
EPL-100-5_2	EPL-100-18_1	19.25	489	6.6
EPL-100-6_2	EPL-100-20_1	21.25	540	6.8
EPL-100-7_2	EPL-100-11_2	23.25	591	6.9
	EPL-100-12_2	25.25	641	
EPL-100-8_2	EPL-100-13_2	27.25	692	7.3
EPL-100-9_2		29.25	743	7.4
EPL-100-6_3	EPL-100-15_2	31.25	794	7.6
EPL-100-7_3	EPL-100-11_3	35.25	895	7.9
	EPL-100-18_2	37.25	946	
EPL-100-8_3	EPL-100-12_3	39.25	997	8.3
EPL-100-9_3	EPL-100-20_2 / EPL-100-13_3	41.25	1048	8.5
EPL-100-7_4	EPL-100-15_3	47.25	1200	9.0
EPL-100-8_4		53.25	1353	9.5
EPL-100-9_4	EPL-100-18_3	57.25	1454	9.9
EPL-100-7_5		59.25	1505	10.1

Consult Factory for Specifications of Models for Series 40 Level Gages



How to Specify LumaStar™ EPL-100

EPL-100-9-1-1-1-

LumaStar, Model EPL 100
115 or 230 VAC 50/60 Hz
NEMA 4x

Gage Window Size (1 thru 9 or 11 thru 20)

Prewired Terminal Connections

- 1 = Intertek/ETL for USA & Canada*, 115 VAC 50/60 Hz
- 2 = Intertek/ETL for USA & Canada*, 230 VAC 50/60 Hz
- 3 = ATEX/IECEx Approved*, 115 VAC 50/60 Hz
- 4 = ATEX/IECEx Approved*, 230 VAC 50/60 Hz

24 VDC option available, see page 8

Number of Gage Sections (1, 2, 3, 4)

Replacement 18" cable: V20509
(End-Fitting construction is Nickel-Plated Brass.)

Extension Cord for remote mount, 6.5 ft. length: V20601-6-5
(End-Fitting construction is Nickel-Plated Brass.)

*See page 4 for details

Note: Power Supply will be remote mounted for all single section size 7 and smaller illuminators.

Blank = Standard

D = Daisy Chain (for multiple single section light strips with connecting braided wire cable shielded for strength. Consult factory for maximum lengths and number of sections)

R = Remote Mount Power Supply (not required for single section size 7, see note)

Mounting Brackets

1 = Universal Mounting Bracket for cover plates up to 3-1/2" in width. Use for all Jerguson Series 20/30/32/L10/300L/5/12/18 and competitive L/M/H series gages.

4 = Series 20/32 CS Covers NF Ext.

5 = Series 20/32 SS Covers NF Ext.

6 = Series 30/900# Boiler Water Gages

7 = Reliance FG450/900

8 = Reliance FG1500

9 = Series 40/1100/1600# Boiler Water Gages

11 = Jogler

12 = Reflex Gage



EPL-316

FM/CSA Power Supply

LumaStar™ Offshore Illuminator Model EPL-316

All 316 Stainless Construction for Offshore & Other Severe Service Environments, Another Bright Ten-Year Solution

Jerguson® is pleased to announce the addition of the 316 Stainless Steel LED Gage Glass LumaStar™ Illuminator to the world's largest selection of level indication and control products. Jerguson's Model EPL-316 is approved for use in Class I, Div 1, Group B, C & D and Zone 1 environments and available in sizes up to 58" long with a single power supply. That means a four section size nine gage or five section size seven from a single power supply at less than 250 mA! Contact your local representative or a Jerguson Applications Engineer to configure an EPL-316 for your transparent glass level gages.

- 316 Stainless Steel Construction
- High Contrast
- Superior Visibility Day or Night
- Maintenance FREE
- Long Life ~100,000 hrs.
- No Heat Generation
- Field Upgradable
- Fits any glass gage!
- NEMA 4x (Power Supply Enclosure and Light bar)
- Eliminates "bulb-changes"
- Longest Field-of-View
- Covers up to 4 Size 9 Gage Sections or 5 Size 7 Gage Sections
- Explosion-Proof Stainless Steel Power Supply, Intrinsically Safe Lighting Circuit
- Pays for itself in electricity savings alone!
- IP66 Light Bar

**24VDC Barrier Drive Option
Available, see page 8**

Specifications – Model EPL-316

Power Supply:	115 or 230 VAC @ 50-60 Hz
Power Supply Weight:	7.4 lbs
Power Consumption:	<125mA @ 230 max <250mA @ 115 max
Estimated Life:	100,000 Hours (continuous)
Wire Size:	Min 18 AWG (0.8 mm ²) / Max 12 AWG (3.5 mm ²)
Max Distance from Power Supply to Light Strip:	72 ft (22 m)
Electrical Connection:	3/4" FNPT

US/Canada Approvals:

Class I, Division 1, Groups B,C,D T4
Class I, Zone 1, AEx db [ib] IIB+H2 T4 Gb (Power Supply)
Class I, Zone 1, AEx ib IIB+H2 T4 Gb (Light)
Ex db [ib] IIB+H2 T4 Gb (Power Supply)
Ex ib IIB+H2 T4 Gb (Light)
-40°F (-40°C) ≤ Ta ≤ +140°F (60°C)

ATEX Approvals:

II 2(2) G Ex db [ib] IIB+H2 T4 Gb (Power Supply)
II 2 G Ex ib IIB+H2 T4 Gb (Light)
-40°F (-40°C) ≤ Ta ≤ +140°F (60°C)

IECEX:

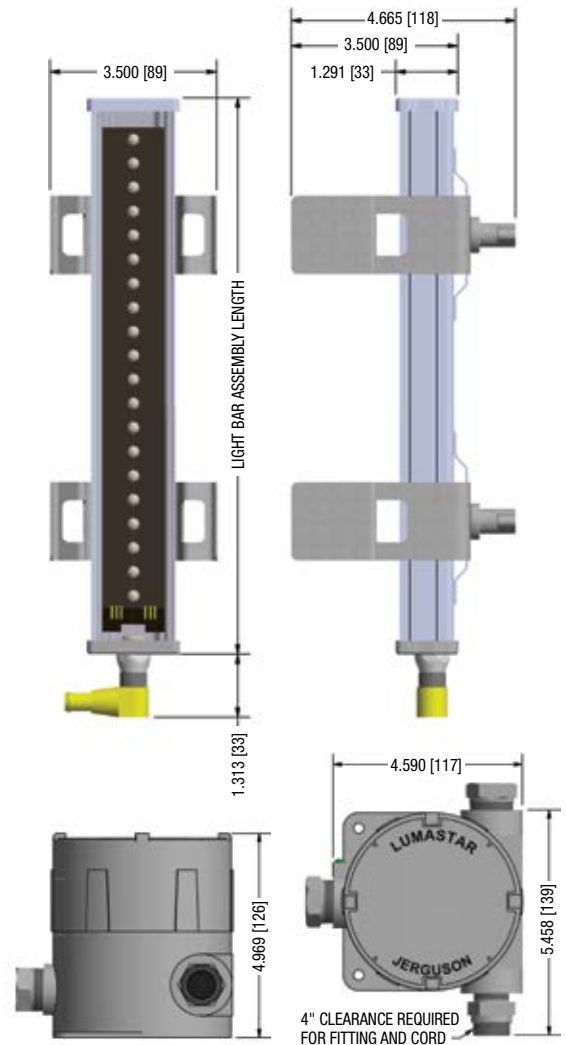
Ex db [ib] IIB+H2 T4 Gb (Power Supply)
Ex ib IIB+H2 T4 Gb (Light)
-40°F (-40°C) ≤ Ta ≤ +140°F (60°C)

Liquid Level Gages

LumaStar™ EPL-316

LumaStar Model EPL-316		Overall Length		Light Assembly Weight lbs	Total Weight (including Remote Mount Power Supply)
Series 20	Series 300L	in	mm		
EPL-316-1_1		5.25	133	0.5	7.9
EPL-316-2_1		5.25	133	0.5	7.9
EPL-316-3_1		7.25	184	0.7	8.1
EPL-316-4_1		7.25	184	0.7	8.1
EPL-316-5_1		9.25	235	0.9	8.3
EPL-316-6_1	EPL-316-11_1	11.25	286	1.1	8.5
EPL-316-7_1		11.25	286	1.1	8.5
EPL-316-8_1	EPL-316-12_1	13.25	337	1.3	8.7
EPL-316-9_1	EPL-316-13_1	13.25	337	1.3	8.7
EPL-316-3_2	EPL-316-15_1	15.25	387	1.5	8.9
EPL-316-4_2		17.25	438	1.7	9.1
EPL-316-5_2	EPL-316-18_1	19.25	489	1.9	9.3
EPL-316-6_2	EPL-316-20_1	21.25	540	2.1	9.5
EPL-316-7_2	EPL-316-11_2	23.25	591	2.3	9.7
	EPL-316-12_2	25.25	641	2.5	9.9
EPL-316-8_2	EPL-316-13_2	27.25	692	2.7	10.1
EPL-316-9_2		29.25	743	2.9	10.3
EPL-316-6_3	EPL-316-15_2	31.25	794	3.1	10.5
EPL-316-7_3	EPL-316-11_3	35.25	895	3.5	10.9
	EPL-316-18_2	37.25	946	3.7	11.1
EPL-316-8_3	EPL-316-12_3	39.25	997	3.9	11.3
EPL-316-9_3	EPL-316-20_2 / EPL-316-13_3	41.25	1048	4.1	11.5
EPL-316-7_4	EPL-316-15_3	47.25	1200	4.7	12.1
EPL-316-8_4		53.25	1353	5.3	12.7
EPL-316-9_4	EPL-316-18_3	57.25	1454	5.7	13.1
EPL-316-7_5		59.25	1505	5.9	13.3

Consult Factory for Specifications of Models for Series 40 Level Gages



How to Specify LumaStar™ EPL-316

EPL-316-9-1-1-1-

LumaStar, Model EPL 316
115 or 230 VAC 50/60 Hz
NEMA 4x

Gage Window Size (1 thru 9 or 11 thru 20)

Prewired Terminal Connections

- 1 = Intertek/ETL for USA & Canada*, 115 VAC 50/60 Hz
- 2 = Intertek/ETL for USA & Canada*, 230 VAC 50/60 Hz
- 3 = ATEX/IECEx Approved*, 115 VAC 50/60 Hz
- 4 = ATEX/IECEx Approved*, 230 VAC 50/60 Hz

Number of Gage Sections (1, 2, 3, 4)

Replacement 72" cable: V21249
(End-Fitting construction is 316/316L SS.)

*See page 6 for details

Note: All Power Supplies are remote mounted.

Blank = Standard

D = Daisy Chain (for multiple single section light strips with connecting armored cable, consult factory for maximum lengths and number of sections)

Mounting Brackets

1 = Universal Mounting Bracket for cover plates up to 3-1/2" in width. Use for all Jerguson Series 20/30/32/L10/300L/5/12/18 and competitive L/M/H series gages.



EPL-316



EPL-100

LumaStar™ Illuminator

Model EPL-100 & EPL-316

The Ten-Year Solution: Barrier Driven 24VDC Power Supply Option

Jerguson® LumaStar™ Illuminators' white LED design combines long-life performance with superior visibility for hazardous locations. Jerguson's illuminators with 24VDC power supplies are approved for use in Class I, Div 1, Group A, B, C & D environments and available in sizes up to 58" long with a single power supply. That means a four section size nine or five section size seven gage from a single power supply at less than 250 mA! Contact your local representative or a Jerguson Applications Engineer to configure an illuminator for your transparent glass level gages.

- 24VDC Power Supply
- Terminal Housing or Field-Wireable Connector Available
- High Contrast
- Superior Visibility Day or Night
- Maintenance FREE
- Long Life ~100,000 hrs.
- No Heat Generation
- 316SS Light Bar is IP66 / NEMA 4x
- Field Upgradable
- Fits any glass gage!
- Eliminates "bulb-changes"
- Longest Field-of-View
- Covers up to 4 Size 9 Gage Sections or 5 Size 7 Gage Sections
- Pays for itself in electricity savings alone!

Specifications – Model EPL-100 & EPL-316

Power Supply:	24VDC (Power supply not included as standard)
Estimated Life:	100,000 Hours (continuous)
Agency Approvals:	Intertek / ETL <i>Class I, Div 1, Grps. A, B, C, & D, T4</i>
Wire Size:	Min 18 AWG (0.8 mm ²) / Max 12 AWG (3.5 mm ²)
Max Distance from Barrier to Light Strip:	1800 ft (548m)
Ambient Temperature:	-40°F (-40°C) to 140°F (60°C)
Electrical Connection:	7/8" diameter Panel opening for customer supplied cable gland or conduit fitting 3/4" FNPT (316SS Enclosure)

Power Supply Order Information

Note: A 24VDC Power Supply is not included with the products described above.

Part Number: V22185

Specifications

Output: 24VDC @ 420mA, 10W

Input: 90-264 VAC, 50/60 Hz, 0.3A Max

Type: DIN Mount, NEC Class 2

Derating: >55°C, 2.5%/°C

Operating Temp: -25 to 71°C

Storage Temp: -25 to 85°C

Humidity: 5 to 95% RH (Non-Condensing)

Liquid Level Gages

Field Terminal Connections

See page 5 or 7 for light assembly dimensions.



Field Wireable Connector
Material: Nickel-Plated Brass
for model EPL-100 & 316SS for
model EPL-316



Pin detail for Field Wireable
Connector

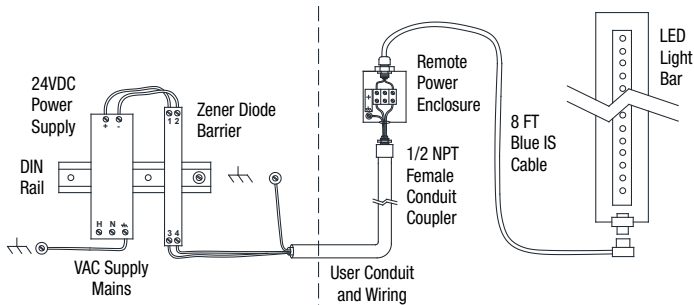


S24927: Terminal Enclosure;
FRP for model EPL-100

Field Terminal
Connection options
5 or 7



S24928: Terminal Enclosure;
316SS for model EPL-316



Non-Hazardous Area

Hazardous Area



How to Specify LumaStar™ EPL-100 & EPL-316

EPL-100-5-1-1-1-

100 = Aluminum Light Strip Housing
316 = Stainless Steel Light Strip Housing

Gage Window Size (1 thru 9 or 11 thru 20)

Field Terminal Connections

5 = Barrier + Terminal Enclosure¹

6 = Barrier + Field Wireable Connector¹

7 = Terminal Enclosure²

8 = Field Wireable Connection²

Number of Gage Sections (1, 2, 3, 4)

Replacement 8' cable, standard enclosure: V21906-8
(End-Fitting construction is Nickel-Plated Brass.)

Replacement 8' cable, 316SS enclosure: V21906-T-8
(End-Fitting construction is 316SS.)

Notes:

¹ Barrier provided is Turck item number MZB28P, or equal.

² Intrinsically safe barrier not included with these options.

All terminal enclosures are remote-mounted.

Blank = Standard

D = Daisy Chain (for multiple single section light strips with connecting braided wire cable shielded for strength. Consult factory for maximum lengths and number of sections)

Mounting Brackets

1 = Universal Mounting Bracket for cover plates up to 3-1/2" in width. Use for all Jerguson Series 20/30/32/L10/300L/5/12/18 and competitive L/M/H series gages.

4 = Series 20/32 CS Covers NF Ext.

5 = Series 20/32 SS Covers NF Ext.

6 = Series 30/900# Boiler Water Gages

7 = Reliance FG450/900

8 = Reliance FG1500

9 = Series 40/1100/1600# Boiler Water Gages

11 = Jogler

12 = Reflex Gage



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