

The Ten-Year Solution™









# **LumaStar** Illuminators

# 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)



Competitive Light B (Amber 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.



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)



Competitive Light B (Amber 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.



Jerguson<sup>®</sup> LumaStar<sup>™</sup> Illuminator (White LED's)

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



# **LED Illuminator for All Jerguson® Glass Level Gages**



# **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!

"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

24VDC Barrier Drive Option Available, see page 8

### **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<sup>2</sup>) / Max 12 AWG (3.5 mm<sup>2</sup>)

**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)

 $-40^{\circ}F (-40^{\circ}C) \le Ta \le +140^{\circ}F (60^{\circ}C)$ 

#### **ATEX Approvals:**

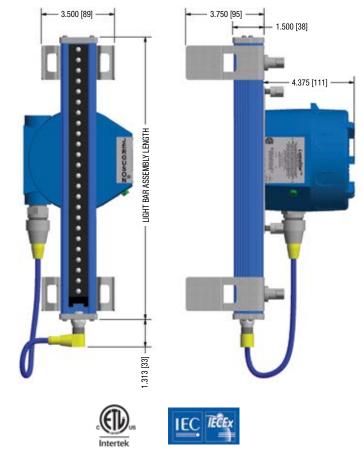
II 2(2) G Ex db [ib] IIB+H2 T4 Gb (Power Supply) II 2 G Ex ib IIB+H2 T4 Gb (Light)  $-40^{\circ}F$  ( $-40^{\circ}C$ )  $\leq Ta \leq +140^{\circ}F$  ( $60^{\circ}C$ )

#### **IECEx:**

Ex db [ib] IIB+H2 T4 Gb (Power Supply) Ex ib IIB+H2 T4 Gb (Light)  $-40^{\circ}F$  ( $-40^{\circ}C$ )  $\leq Ta \leq +140^{\circ}F$  ( $60^{\circ}C$ )

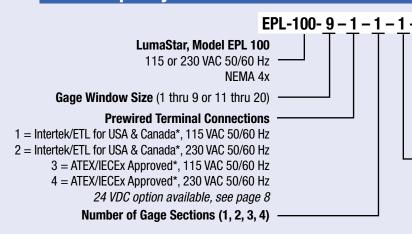
### **LumaStar™ EPL-100**

LumaStar Model EPL-100		Overall Length		Total Weight
Series 20/32	Series 300L	in	mm	lbs.
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**



#### 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 FG 450/900
- 8 = Reliance FG1500
- 9 = Series 40/1100/1600# Boiler Water Gages
- 11 = Jogler
- 12 = Reflex Gage



# **LED Offshore Illuminator for Jerguson® Stainless Steel Glass Level Gages**







FM/CSA Power Supply

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

# **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

## **Specifications – Model EPL-316**

115 or 230 VAC @ 50-60 Hz **Power Supply:** 

**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<sup>2</sup>) / Max 12 AWG (3.5 mm<sup>2</sup>)

**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)

 $-40^{\circ}\text{F} (-40^{\circ}\text{C}) \le \text{Ta} \le +140^{\circ}\text{F} (60^{\circ}\text{C})$ 

#### **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)  $-40^{\circ}F (-40^{\circ}C) \le Ta \le +140^{\circ}F (60^{\circ}C)$ 

#### **IECEx:**

Ex db [ib] IIB+H2 T4 Gb (Power Supply) Ex ib IIB+H2 T4 Gb (Light)  $-40^{\circ}F (-40^{\circ}C) \le Ta \le +140^{\circ}F (60^{\circ}C)$ 

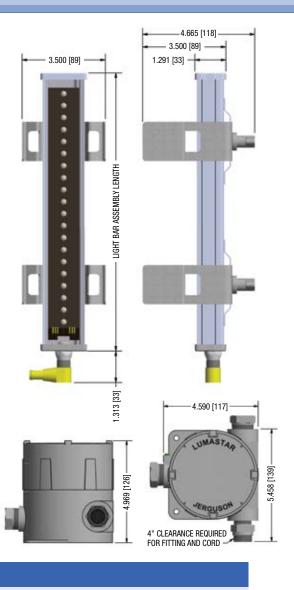
### **LumaStar™ EPL-316**

LumaStar Model EPL-316		Overall Length		Light Assembly Weight	Total Weight (including Remote
Series 20	Series 300L	in	mm	lbs	Mount Power Supply)
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 Blank = Standard 115 or 230 VAC 50/60 Hz NEMA 4x **Gage Window Size** (1 thru 9 or 11 thru 20) **Prewired Terminal Connections Mounting Brackets** 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.

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

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.



# **Barrier Driven 24VDC LED Illuminator for** All Jerguson® Glass Level Gages



**EPL-100** 



**EPL-316** 

# **LumaStar** Illuminator

Model FPL-100 & FPL-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

Class I, Div 1, Grps. A, B, C, & D, T4

Wire Size: Min 18 AWG (0.8 mm<sup>2</sup>) / Max 12 AWG (3.5 mm<sup>2</sup>)

**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)

### **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



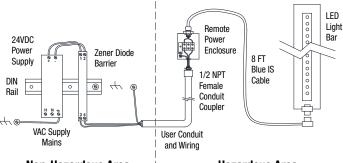
Pin detail for Field Wireable Connector



**\$24927:** Terminal Enclosure; FRP for model EPL-100



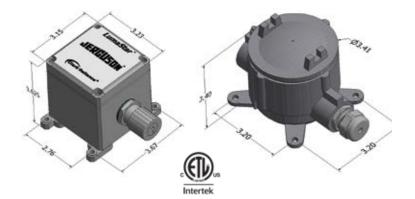
**\$24928:** Terminal Enclosure; 316SS for model EPL-316



Non-Hazardous Area



EPL-100-5-1-1-



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

**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 Enclosure<sup>1</sup> 6 = Barrier + Field Wireable Connector<sup>1</sup>

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

7 = Terminal Enclosure<sup>2</sup>

8 = Field Wireable Connection<sup>2</sup>

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:

- <sup>1</sup> Barrier provided is Turck item number MZB28P, or equal.
- <sup>2</sup> 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



