NOW AVAILABLE IN HIGH-INTENSITY LED [SERIES HI-LED]

LIGHTING FOR HAZARDOUS LOCATIONS

Series SLEX-100 and REX-100

A COMPACT, EXPLOSION-PROOF LIGHT UL-844 & C-UL/CSA C22.2 LISTED TO PROVIDE LIGHTING AND VIEWING THROUGH A SINGLE SIGHT PORT

Explosion-proof, UL-844 and C-UL/CSA C22.2 No. 137 listed, electric lighting fixtures are used in hazardous (classified) locations. Lights for single port viewing have been designed to meet the needs of our customers who require lighting and viewing through a single sightglass.

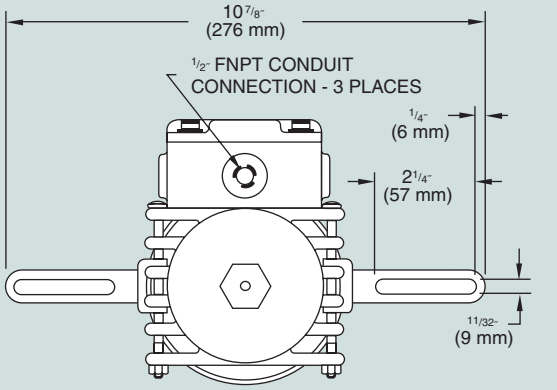
Designated the REX-100 and the SLEX-100, both models use high-intensity halogen lamps to provide bright, glare-free illumination of the interior of vessels, tanks, hoppers, silos, mixers, and other normally closed containers in hazardous locations requiring explosion-proof equipment. The REX-100 is provided with a highly polished internal reflector which increases the illumination intensity.

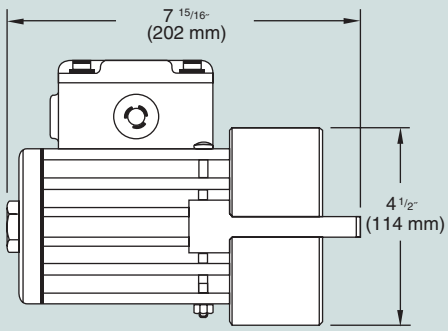
The explosion-proof light can be supplied mounted to the upper flange of our circular sightglass to form a complete light/sightglass assembly. The light fixture can also be mounted to our smaller viewing diameter sightglasses such as 3-1/4" and 4" to form illumination ports. The illumination port used in conjunction with a standard sightglass offers the user many options. A typical option would be the use of a video or TV camera on the free sightglass while the illumination port provides the necessary lighting.

The explosion-proof light fixtures can also be easily mounted to existing sightglasses by means of the slotted brackets provided.

FEATURES

- The fixture can be relamped without removing the unit from the sight port or disturbing any electrical connections.
- Lamp and wiring compartments are separate and are individually explosion-proof per UL-844 and C-UL/CSA C22.2 No. 137.
- Lighting fixture is mounted to outer sightglass flange, completely external to vessel pressure.
- The fixture can easily be mounted on existing pressure vessel installations by means of brackets provided.
- The corrosion resistant fixtures are made of copper-free (less than 0.004 copper content) aluminum alloy–No. 356T6.
- Castings have heavy walls to withstand internal explosions without damage. They will also contain and extinguish the flames of burning gases–before they ignite the surrounding atmosphere.
- All metal joints are either threaded or ground. The glass lens is finely ground borosilicate glass that mates with the precisely machined seat in the body of the fixture to form the seal.





NEW! Now available in High-Intensity LED [HI-LED]:
>BRIGHT, white, brilliant illumination [same output as a 100W Halogen]!
>LONG LIFE [40,000-50,000 Hours]!
>NO AFFECTED by Vibration!
>Will NOT OVER-HEAT!
>"STATE OF THE ART" HI-LED "Light Engine" . Not a cheap "off the shelf" immitation!

NOW AVAILABLE IN HIGH-INTENSITY LED [SERIES HI-LED]

HAZARDOUS LOCATION LIGHTING

LISTINGS: HALOGEN & SERIES HI-LED MODEL# SLEX-HI-LED & REX-HI-LED

MODEL	REFLECTOR	WATTS (MAX)	CLASS	DIV	GROUP	TEMP CODE	MAXIMUM OPERATING TEMP
SLEX|HI-LED	NO	100	I	1.2	C, D	T4A	120°C
SLEX|HI-LED	NO	100	II	1	E,F,G	T3C	160°C
REX|HI-LED	YES / NO	100	I	1	C,D	T2B*	260°C

*Operating temperatures exceed safe temperatures for some Group C materials. To prevent fire or explosion, install only as intended.

CODE NUMBERS FOR TEMPERATURE RANGES

Code No.	T1	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
°C	450	300	280	260	230	215	200	180	165	160	135	120	100	85
°F	842	572	536	500	446	419	392	356	329	320	275	248	212	185

NOTES

1. Line voltage 120/220/230 VAC only. Maximum UL & C-UL listed power: 100 watts. Approximate Lumens: 1800.
2. Maximum operating temperatures listed represent the maximum external surface equilibrium temperature of the fixture at a 40°C ambient condition as measured by Underwriters Laboratories. Maximum operating temperature data should be used by the plant safety engineer to determine suitability of the fixture for use in their particular hazardous location.

HAZARDOUS LOCATIONS: DEFINITIONS & CLASSIFICATIONS

The classifications and definitions have been simplified and abbreviated. For a complete listing of the various liquids and vapors, consult American National Standard ANSI/NFPA 497M and Articles 500 through 503 of the NEC. The final determination of hazardous location requirements must be made by your local inspector.

CLASSES

Class I. Flammable gases or vapors

Class II. Combustible dusts

DIVISIONS

Division 1. Hazardous conditions present under normal operating conditions.

Division 2. Hazardous conditions present only in case of abnormal or unusual operating conditions, such as failures of mechanical ventilation systems or ruptures of containers.

CLASS I LOCATIONS

Group C. Atmospheres containing acetaldehyde, cyclopropane, diethyl ether, ethylene, isoprene, unsymmetrical dimethyl hydrazine (UDMH), etc.

Group D. Atmospheres containing acetone, acrylonitrile, ammonia, benzene, butane, 1-butanol (butyl alcohol) ethane, methane, methyl ethyl ketone, petroleum naphtha, octane, pentane, etc.

CLASS II LOCATIONS

Group E. Atmospheres containing dusts of aluminum, magnesium or their commercial alloys.

Group F. Atmospheres containing carbon black, coal or coke dust.

Group G. Atmospheres containing flour, starch or grain dust.

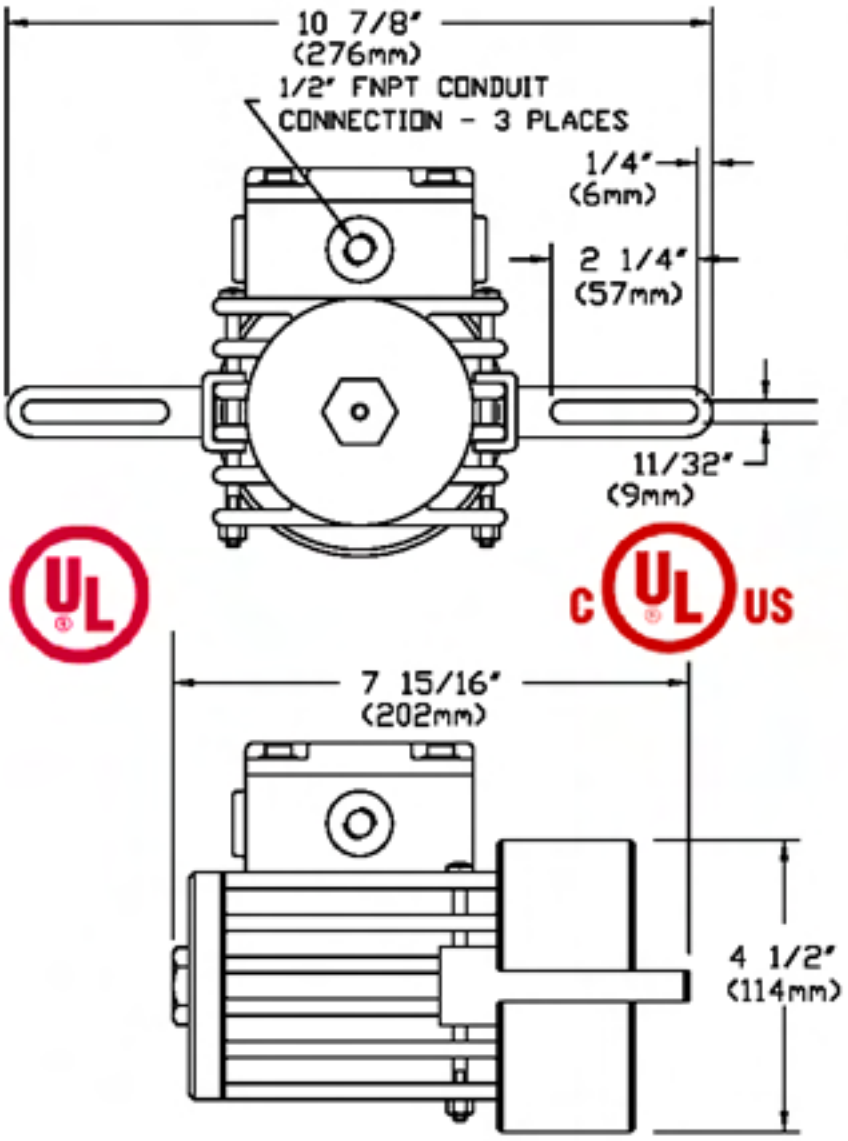
BASIC PRINCIPLES APPLIED TO EXPLOSION-PROOF EQUIPMENT

Enclosures for equipment in Class I locations must be explosion-proof. This does not mean that they are made so that explosive gases or vapors cannot enter into them. They are made so that such gases or vapors can enter the enclosure, where they do ignite and explode, but the enclosure is made so that it can withstand and contain the force of the explosion. Moreover, the hot exploded gas does escape, but not until after it has passed through a tight joint that is either threaded or has a wide ground-finish flange. In either case, before it finally escapes to the outside of the enclosure, it has cooled to a temperature below the ignition temperature of the gas in the surrounding atmosphere. The cooling takes place while the gas passes through the long circuitous path of a threaded joint, or across the wide, tight-fitting ground-finish flange.

For Class II locations, enclosures must be dust-ignition-proof. Dust can be prevented from entering enclosures by means of gaskets, and enclosures can be made with large exposed surfaces for more rapid heat dissipation.

If a Class II dust-ignition-proof enclosure is used in a Class I location, gas can get in, explode and blow the enclosure to pieces; this might set off a larger explosion in the general area, leading to fire or injury to people. Likewise, if a Class I explosion-proof enclosure is installed in a Class II location, it can overheat when blanketed with dust and start a fire. Therefore, it is important that equipment be labeled for the specific location and division where it is installed.

LIGHTING



FEATURES:

The fixture can be relamped without removing the unit from the sight port or disturbing any electrical connections.

Lamp and wiring components are seperate and are individually explosion-proof per UL-844 and C-UL/CSA C22.2 No. 137.

Lighting fixture is mounted to outer sightglass flange, completely external to vessel pressure.

The fixture can easily be mounted on existing pressure vessel installations by means of brackets provided.

For corrosion resistance, fixtures are made of copper-free (less than 0.004 copper content) aluminium alloy - No. 356T6.

Castings have heavy walls to withstand internal explosions without damage. They will also contain and extinguish the flames of buring gases-before they ignite the surrounding atmosphere.

All metal joints are either threaded or ground. The glass lens is finely ground borosilicate glass that mates with the precisely machined seat in the body of the fixture to form the seal.

SERIES SLEX-100 and REX-100 EXPLOSION-PROOF LIGHT FIXTURE

Explosion-proof, UL-844 and cUL/CSA C22.2 No.137 listed, electrical lighting fixtures are used in hazardous (classified) locations. Both the REX-100 and the SLEX-100 models use high-intensity halogen lamps to provide bright, glarefree illumination of the interior of vessels, tanks, hoppers, silos, mixers and other normally closed containers in hazardous locations requiring explosion-proof equipment. The REX-100 is provided with a highly polished internal reflector whcih increases the illumination intensity

The explosion-proof light can be supplied mounted on to the upper flange of our circular sightglass to form a complete lght/sightglass assembly. The light fixture can also be mounted to our smaller viewing diameter sightglasses such as 3-1/4" and 4" to form an illumination port. The illumination port used in conjuction with a a standard sightglass offers the user many options. Such options include using a TV or Video camera on the free sightglass to capture images from the inside of the tank.

MODEL	REFLECTOR	VOLTS	WATTS (MAX)	CLASS	DIV.	GROUP	TEMPERATURE CODE	MAXIMUM OPERATING TEMP.	
SLEX-100	NO	120	100	I	1,2	C,D	T4A	248°F	120°C
SLEX-100	NO	120	100	II	1	E,F,G	T3C	320°F	160°C
REX-100	YES	120	100	I	1	C,D	T2B[1]	500°F	260°C

SERIES SLEX/REX-100
UL-844 LISTED EXPLOSIONPROOF LIGHT FIXTURE

SCALE: NTS DRAWING NO: