



**R. Stahl, Inc.**  
45 Northwestern Drive  
Salem, NH 03079-4809  
Tel: 800-782-4357 FAX: 603-870-9290  
E-mail: [sales@rstahl.com](mailto:sales@rstahl.com)  
Website: [www.rstahl.com](http://www.rstahl.com)

**R. STAHL**  
**Schaltgeräte GmbH**  
Geschäftsbereich Leuchten  
Nordstraße 10  
99472 Weimar, Germany

## **INSTALLATION OPERATION & MAINTENANCE MANUAL**

**EXLUX 6000**

**Series 6000/5**

**Explosion Protected Fluorescent  
Light Fixtures for Hazardous  
and Corrosive Applications**

# INSTALLATION OPERATION & MAINTENANCE MANUAL

EXLUX 6000

Series 6000/5

Explosion Protected Fluorescent Light Fixtures for Hazardous and Corrosive Applications



Please read this entire document before beginning any work.

## 1. Safety Instructions

Installation and maintenance of these fixtures should only be performed by qualified personnel in accordance with the National Electrical Code (NFPA) 70) and local codes.

### CAUTION:

- Disconnect power supply before installing or servicing these light fixtures.
- Any modification to these fixtures without written approval from the manufacturer is not permitted.
- Operate only undamaged and clean fixtures within the operating parameters listed in section 2.
- These fixtures shall be installed with conduit or wired with 90 °C cable, listed for the appropriate location, per the NEC requirements.
- These light fixtures must be transported and stored in their original packaging only.
- These fixtures are automatically de-energized by opening the central interlock mechanism.

## 2. Technical Data

Please also refer to the technical data on the nameplate of the light fixture.

### Certification

FM File No. J.I. 3D2A9.AE  
Class I, Zone 1 &2, AEx ed IIC, T4  
Class I, Div. 2, Groups ABCD T4  
Class II, Div. 1 & 2, Groups EFG  
Class III

### Ambient temperature

50 °C (122 °F) Max.  
-20 °C (-5 °F) Min.

### Environmental protection

IP 66 / Type 3, 4, 4X  
is achieved by proper installation of original entry hardware (see parts and accessories).

### Lamp Type

T8 Medium Bi-pin base

### Electrical:

(see fixture nameplate for supply voltage and lamp wattage).

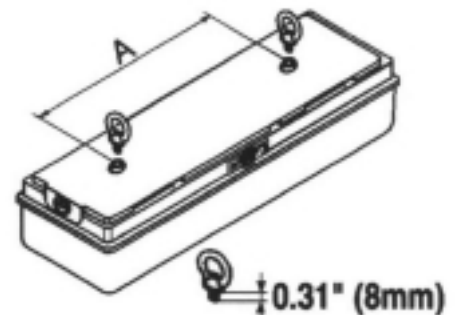
### EMI Protection

To ANSI C82.11

## 3. Fixture Mounting Methods

### 3.1 Suspensions on ring bolts with fixed suspension points (see parts and accessories).

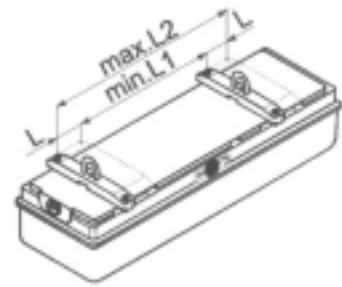
Version	A
2"	15.75" (400 mm)
4" and 6"	31.50" (800 mm)



### 3.2 Suspension Mounting

Using adjustable suspension hardware (see parts and accessories).

Version	min. L1	max. L2	L
2"	10 1/4" (260 mm)	18 3/4" (476 mm)	4 1/4" (108 mm)
4" and 6"	26" (660 mm)	34 1/2" (876 mm)	4 1/4" (108 mm)

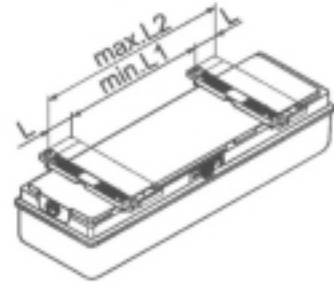


### 3.3 Adjustable Ceiling Mounting

This method allows mounting the fixture directly to the ceiling using screws (see parts and accessories).

#### CAUTION

Make sure the ceiling is such that the fixture is not twisted which would impair the Ingress Protection.



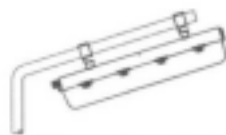
### 3.4 Pole Mounting

Pole mounting of the fixture is permissible only by using a pair of pipe clamps with matching brackets which provide reliable attachment at four points.

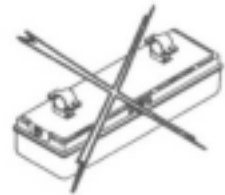
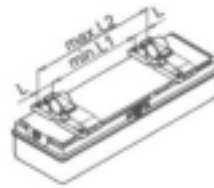
Standard pipe clamps do not provide adequate stability and are not suitable for pole mounting (see parts and accessories).



Wall or corner pole 1 1/2" mounting method (see parts and accessories).



Pole mounting method 1 1/2" or 2"



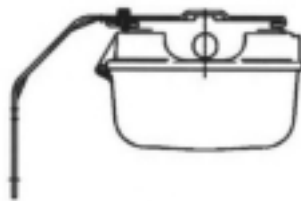
Do not mount the clamps directly to the fixture.

#### CAUTION:

Make sure the fixture is not twisted which would impair the Ingress Protection.

### 3.5 Wall Bracket Mounting

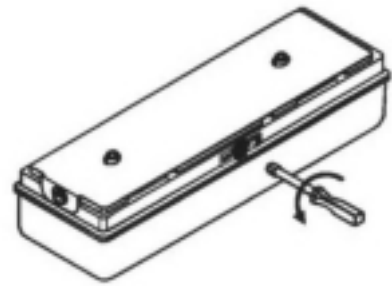
Installation with wall brackets 90° or 50° (see parts and accessories).



#### 4. Connection and Wiring

##### 4.1 Opening the Fixture

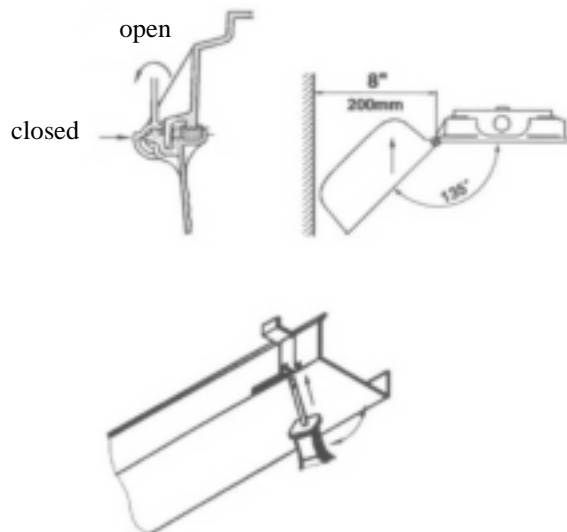
1. Remove the central interlock cap  
Support the lens with one hand while using the 1/2" or 13 mm socket wrench (P/N 81 980 05 40 0), to rotate the hexagon on the central interlock 1/2 turn counter-clockwise.
2. Swivel the lens open. Make sure it is supported as it may easily be removed from the hinges.
3. To remove the lens, rotate it open to approximately 135° and then lift the lens from the hinges.
4. Two optional safety clips can be added to avoid unintentional detachment (see parts and accessories).



By opening the interlock mechanism, the lamp circuit will be

##### 4.1.1 Open the Reflector Panel

1. Open the safety latch on the reflector panel using a screwdriver. Pivot the reflector panel open.

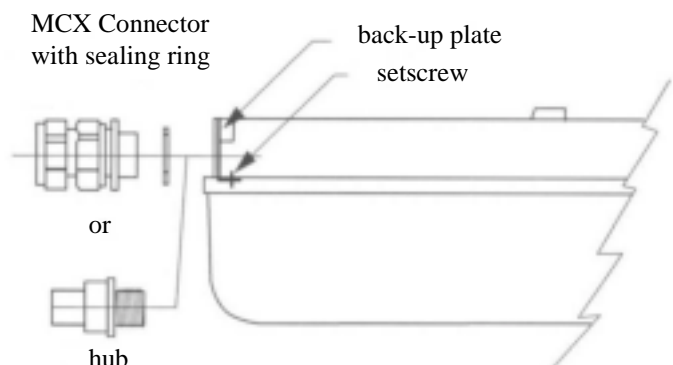


#### 4.2 Electrical Installation

The fixture is provided with one opening for 1/2" or 3/4" fittings. The opening with nominal diameter of 0,89" (22,5 mm) is for installation of the 1/2" cable connector MCX050 or 1/2" conduit hub 8166/11-01 G. The opening with a nominal diameter of 1.1" (28 mm) is for installation of the 3/4" cable connector MCX075 or 3/4" conduit hub 8166/11-02 G. Suitable cable for the MCX connectors are MC-HL or ITC-HL cable (see parts and accessories). In case of feed through wiring a close-up plug is installed at the second opening and needs to be exchanged with the appropriate entry hardware.

##### 4.2.1 Fitting of entry hardware

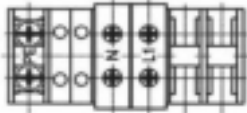
- 1a. For cable installation:  
Install the MCX cable connector through the sealing ring (P/N NCS1 (1/2") or NCS2 (3/4")) into the fixture. Refer to MCX connector instruction for sealing procedure.
  - 1b. For conduit installation:  
Install conduit hub(s) 1/2" (8166/11-01 G) or 3/4" (8166/11-02 G)
2. Thread the entry hardware tightly into the back-up plate which is inside the fixture.
  3. The back-up plate includes a setscrew for securing and bonding the entry hardware. This must be tightened firmly using screwdriver.
  4. All unused openings must be closed up with appropriate close-up plugs. (see parts and accessories)



**CAUTION:** Make sure the fixture is free of mechanical tension which could result in bending, breaking or twisted and would impair the Ingress Protection.

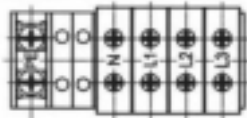
#### 4.2.2 Wiring Power connection

1. insert cable through the MCX connector into the fixture and follow the instruction of the cable connector.
2. In case of conduit installation, connect the hub/conduit and pull the wires through per the NEC.  
(see parts and accessories).



Terminal block for 3 wire connection.

L1 = Phase conductor  
N = Neutral conductor  
PE = Ground conductor (Protective earth)

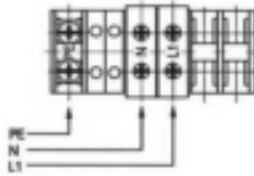


Terminal block for 5 wire connection.

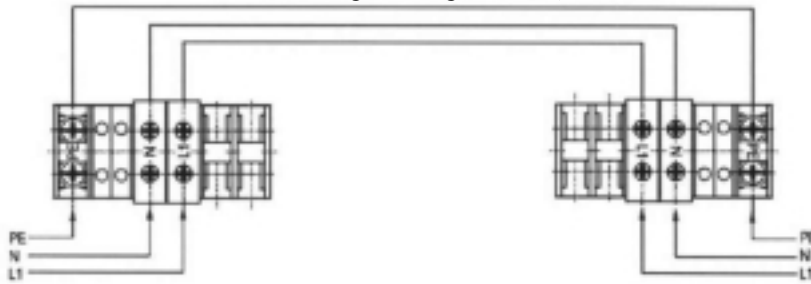
L1, L2, L3 = Phase conductor  
N = Neutral conductor  
PE = Ground conductor (Protective earth)

Terminal capacity:  
Max 2 stranded wires  
10 AWG (4 mm<sup>2</sup>)  
per terminal

Dead end wiring (3 wires)

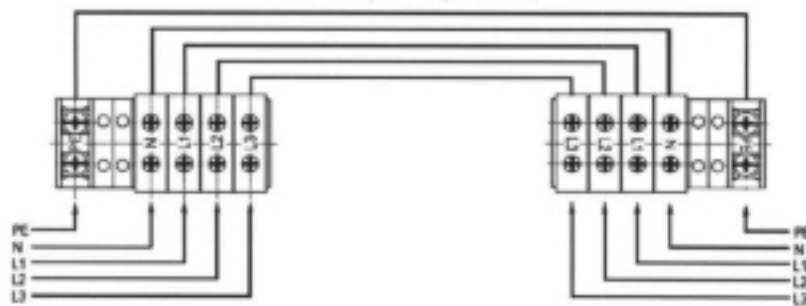


Feed Through.Wiring (3 Wires)



**Note:** The internal feed through-wiring between terminal blocks is rated for 16 Amps.

Feed Through.Wiring (5 Wires)

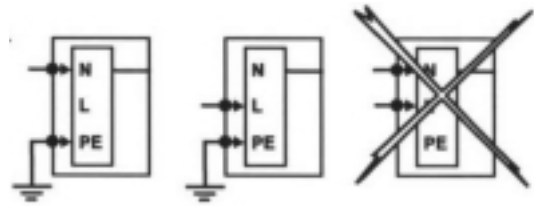


#### Important!

- After connection the wires, ensure that:
- All wires are connected to the correct terminals (please observe the terminal designations).
  - All screws on the terminal blocks are tightened (to 18 in-lbs or 2 Nm); including
  - All entry hardware is installed properly.
  - All unused openings have been closed.

### 4.3 Lighting Circuit Insulation Test

Before performing this test, make sure the fixture is de-energized and disconnected from the supply wires. A DC insulation test of the circuit can be performed with  $\leq 1000V$  DC and 1 mA current between the Neutralline and the ground. Testing between Lines and Neutral is nor permitted. When performing this test the lens needs to be open.

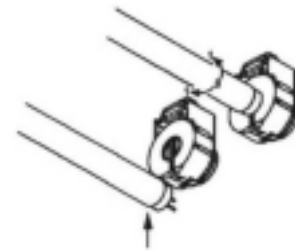


#### CAUTION:

Before energizing the circuit, ensure all wires are reconnected properly.

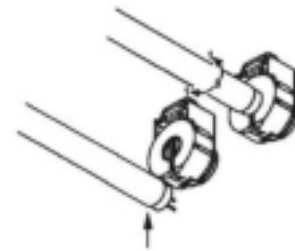
### 4.4 Closing the reflector panel

Rotate the reflector panel and engage the safety latch.



### 4.5 Lamp Installation

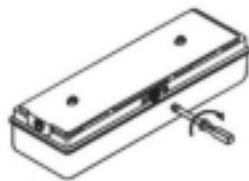
Refer to the fixture nameplate to determine the lamp type. Insert both lamp sockets into the respective slots of the lampholder into the middle of the socket and up to the stop. Turn the lamp left or right until a notch position is felt.



### 4.6 Closing the fixture lens

Before closing the lens, ensure that:

All hinges engage correctly in the enclosure. The lens, gasket and mating surface



on the enclosure are clean and undamaged. Rotate the lens closed and turn the interlock mechanism with the 1/2" or 13 mm socket wrench (P/N 81 980 05 40 0) clockwise until the arrowhead on the hexagon points to the "closed" marking. Only then is the lens tight and the interlock switch in the closed position.

## 5. Start up

Before applying power to fixture ensure that:

- it is installed according to NEC
- the wiring has been done correctly
- unused entry openings are closed up
- the fixture is not damaged
- the lamps are properly inserted
- the interlock mechanism is entirely closed so that the interlock switches are in the closed position

## 6. Maintenance

### 6.1 Cleaning the Light Fixture

Use only a damp cloth to clean the light fixture. A solvent-free household detergent can be added to the cleaning water.

### 6.2 Repairs and Maintenance

Only qualified personnel may perform repairs and maintenance on the light fixtures. Use only original replacement parts. Any other would invalidate the certification and waarenty (see parts and accessories)

### 6.3 Lamp Replacement









1. Follow the instruction in section 4.1 points 1 and 2 to open the fixture
2. Gently twist to release the lamp and remove it
3. Follow the instructions in sections 4.5 and 4.6

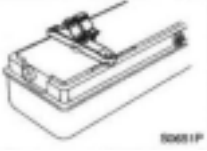

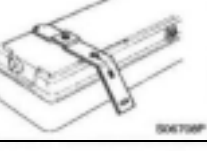







## 6.4 Troubleshooting




- is the fixture receiving power?
- is the interlock switch in good condition?
- is the interlock mechanism entirely closed so that the interlock switch is in the closed position?
- is the correct lamp securely installed and in good condition?
- are all the wires correctly terminated?
- is the ballast unit in good condition?

## 7. Parts and Accessories

Use only the following original spare parts and accessories, any others would invalidate the certification and warranty.

Description	Type		Part Number
Cast wall and corner mounting bracket for stanchion mounting		for 1 1/2" EMT conduit to mount the fixture to this bracket (to be used with pipe clamps PN 60 008 01 26 0)	461 717 0
Lens		2' 17 W for light fixture 4' 32 W 5' 40 W	60 000 33 05 0 60 000 34 05 0 60 000 35 05 0
Interlock switch 8080/1-3 L 20e		Switch block 2 NC	80 800 06 60 0
Retrofit kit for 5 wire feed through wiring		to retrofit dead-end fixture amperage rating 16 Amp max L1+L2+L3+N+PE 2' 17 W 4' 32 W 5' 40 W	60 088 12 87 0 60 088 14 87 0 60 088 16 87 0
Socket wrench 1/2" (13 mm)		to operate the central interlock mechanism	81 980 05 40 0
Entry back-up plate		stainless steel back-up plate with set screw and grounding provisions entry threads: 1x NPT 1/2" 1x NPT 3/4"	60 008 17 55 0 60 008 18 55 0
Ring bolts		1 pair can directly be screwed into the fixture	60 008 03 90 0
Mounting brackets with suspension lugs		1 pair of adjustable mounting brackets with suspension	60 008 07 75 0

Pipe clamps with mounting brackets		1 pair of stainless steel pipe clamps with adjustable mounting brackets for EMT 1 1/2" conduit EMT 2" conduit	60 008 01 26 0 60 008 02 26 0
Wall-mounting bracket 90°		1 pair of 90° stainless steel wall-mounting brackets	60 008 02 44 0
Wall-mounting bracket 50°		1 pair of 50° stainless steel wall-mounting brackets	60 008 01 44 0
Safety clips		10 pcs in one bag to avoid unintentional detachment of the lens from the fixture	60 008 02 94 0
Cable fitting 1/2" NPT		For MC-HL or ITC-HL cable	MCX 050
Sealing ring 1/2" NPT		for above MCX 050	NCS 1
Cable fitting 3/4" NPT		For MC-HL or ITC-HL cable	MCX 075
Sealing ring 1/2" NPT		for above MCX 075	NCS 2
Conduit Hub 1/2" NPT		PVC coated conduit hub 1/2" NPT with sealing ring	8166/11-01-G
Conduit Hub 3/4" NPT		PVC coated conduit hub 3/4" NPT with sealing ring	8166/11-02-G

Close-up plug 1/2" NPT		Polymeric close-up plug 1/2" NPT	PD-E-0-29-0
Close-up plug 1/2" NPT		Polymeric close-up plug 3/4" NPT	PD-E-0-30-0
Electronic Ballast Unit for use with fixtures EXLUX 6000		1x 17 W 2x 17 W 1x 32/40 W 2x 32 W 2x 40 W	60 420 65 01 0 60 420 53 01 0 60 420 66 01 0 60 420 54 01 0 60 420 55 01 0

**Note:**

The nature of these instructions is only informative and does not cover all of the details, variations or combinations in which this equipment may be used, storage, delivery, installation, safe operation and maintenance. Since conditions of use of the products are outside of the care, custody and control of the manufacturer, the purchaser should determine the suitability of the product for his intended use, and assumes all risk and liability whatsoever in connection therewith.