

Instructions

EP-SEMC-21-08-10

Third Edition

May 13, 2022

Safety instructions:

Note: for skilled electricians and instructed personnel in accordance with national regulations, including the relevant standards and where applicable, in accordance with IEC 60079-17 on electrical apparatus for explosive gas atmospheres.

1. The RE & PL must not be operated in EPL a (zone 0 and zone 20) hazardous areas.
2. Change of design and modifications to the RE & PL are not permitted.
3. The RE& PL shall be operated as intended and only in undamaged and perfect conditions.
4. Only genuine shomal spare parts shall be used for repair and replacement.
5. The RE& PL shall be kept clear of dust.
6. The technical data indicated on the RE& PL are to be observed.
7. The equipment shall be operated as intended and only in undamaged and perfect condition.
8. Repairs that effect the explosion protection may only be carried out by S.E.M.C or qualified electricians and will subsequently have to be checked by an expert in compliance with the respective national regulations.
9. Prior to putting protect light into operation, they shall be checked in accordance with the "putting into operation" section of this manual.
10. All foreign matter shall be removed from the equipment before the initial operation.
11. Remove these operating instruction before operation.
12. The purchaser should make the manufacturer aware of any External effects or Aggressive substances that the equipment may be exposed to.

Observe the national safety rules and regulations for prevention of accidents as well as safety instruction included in this operating instruction.

This products is in comply to EN IEC 60309-1 and EN IEC 61439-1 for Creepage and clearance distances.

Also the pin position of this equipment is in comply with EN IEC 60309-2 for industrial sockets and plugs

Putting into operation:

Prior to putting the apparatus into operation, the test specified in the relevant national regulations should be carried out. In addition, the correct functioning and installation of the apparatus in accordance with these operating instructions and other applicable regulations must be checked.

Incorrect installation and use of the equipment can invalidate the guarantee.

The IP rating of the equipment must be maintained for the area of use, using the correct arrangement of Cable/gland/sealing arrangements and in accordance with the installation codes as detailed in IEC 60079-14, and these operating instructions.

All unused entry holes must be sealed by a suitable certified stopping plug with the same protection level of the equipment.

Each entry shall have no more than one thread adaptor, and that thread adaptors shall not be used with blanking elements.

The apparatus must not be modified without reference to S.E.M.C. as this will invalidate certification.

Field of application:

Equipment protection level of Re and PL "Gb" for gas group IIC and "Db" for dust group IIIC, reference in IEC/EN60079-0 the RE and PL series is suitable for use in hazardous areas according to IEC/EN 60079-10-1 and IEC/EN60079-10-2.

Ambient temperature:

-30°C TO +55°C

Cable entry:

Socket: Up to 2xM50/M40, or NPT, on request

Plug: 1 x M40, or 1" NPT on request

NPT thread joints shall be made up Wrench tight.

Make sure that the cable is fitted properly through the inlet!

Follow the manufacture installation manual of cable glands!

Detail of cable connection into plug::

Internal connection details between cable and pins for plug:

Take off the grub screw "1" through the hole on the sleeve (see fig. A)

Unscrew the lower part "3" and slip off the sleeve "2" from the plug "5" (see fig. A)

Loosen the grub screw "4" and draw out the insulating bodies from plug "5" (see fig. B)

House and solder the wires in the proper cavities on the pins the earthed neutral to be connected with the longer pin

Reinsert the insulating bodies sure that earth pin in line with the longitudinal cavity on the plug (see fig. C)

Slip sleeve "2" on plug "5"

Completely screw on the lower part "3" adjusting its position that its circular niche should coincide with the threaded the hole on the plug "5"

Reinsert the grub screw "1" through the hole on sleeve



Attention : - screw on without blocking the grub screw "4" taking care does not protrude damaging the coupling between sleeve

- The cylindrical coupling between sleeve "2" and plug "5" kept constantly lubricated avoiding carefully the damaging
- The lower part "3" of the plug is not interchangeable with corresponding part of the others plugs.

Fig.A

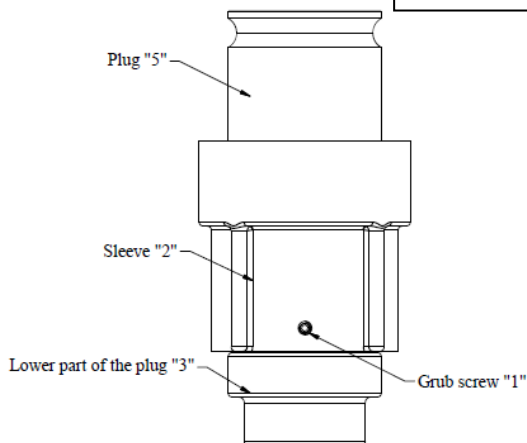


Fig.C

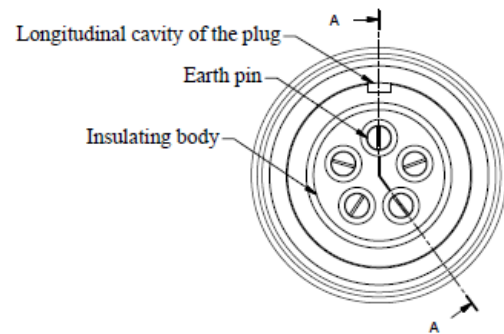
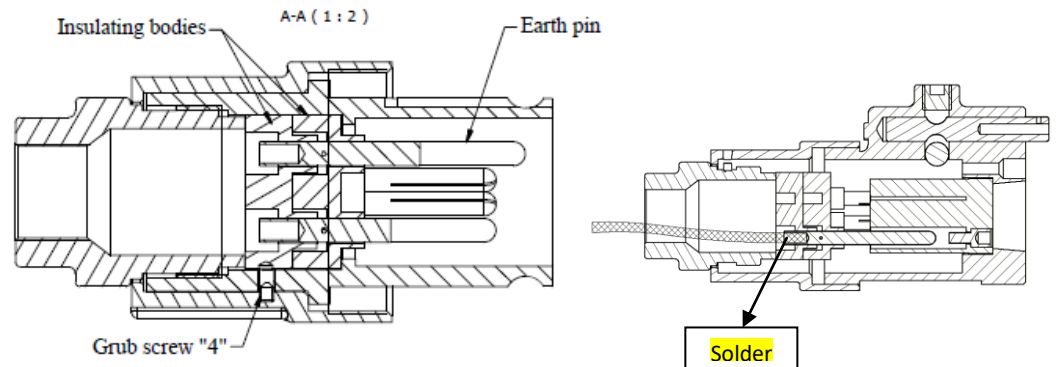


Fig.B



Plug connection:

Take off the cover "B" on socket "A" fig. 1

Insert the plug "C" keeping the reference marks "e" duly aligned fig. 2

Screw only the part "f" of the plug, keeping the part "g" with the reference marks "e" aligned fig.2

Insert completely the part "f" of plug.

To operate the internal switch lift up the handle "h" of socket fig. 3

In this moment voltage is applied to the plug

To take off the plug :

Move the handle "h" on of position.

Unscrew the part "f" keeping the reference marks "e" duly aligned fig. 4



Attention : the plug will be locked into the socket, if the switch is in "ON" position (with handle "h" in up position), or/and if the reference marks "e" are not aligned on the same axis.

Before inserting the plug, make sure that the threaded joints are clean and duly lubricated. After removing the plug reassemble the protection cover "B" on the socket and screw it completely.



Attention: wire connection to the internal switch , to access the internal switch , take off the cover "d". connect the wires directly to the internal switch. The cover "d" can be screwed directly to the body of the plug.

*Installation of equipment has to proceed according to EN 60079-14.

Fig. 1

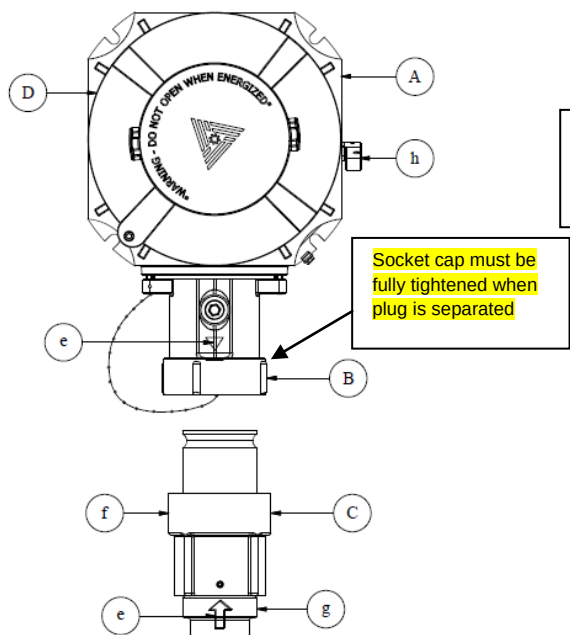


Fig. 2

Enclosure door must be fully tightened then align the lock/set screw

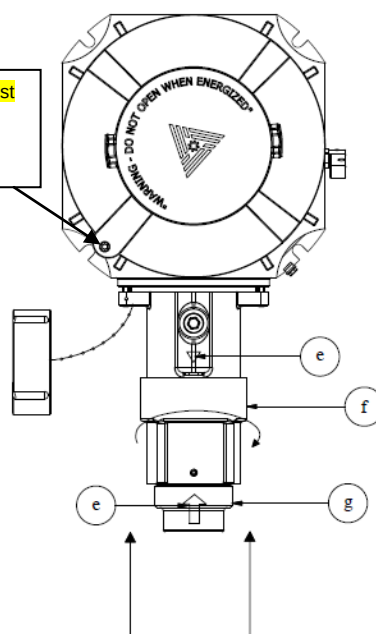


Fig. 3

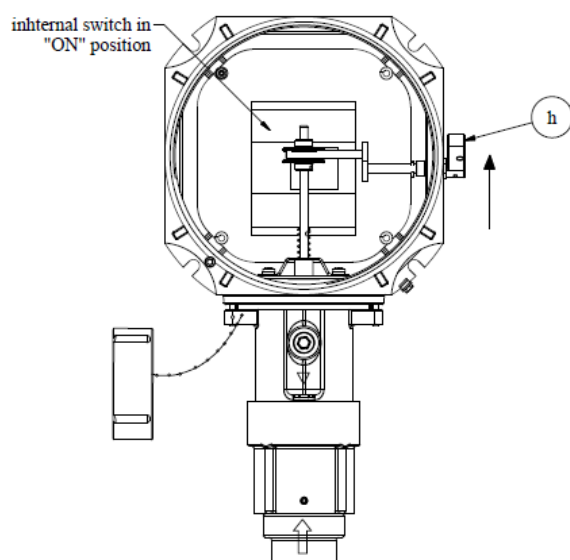
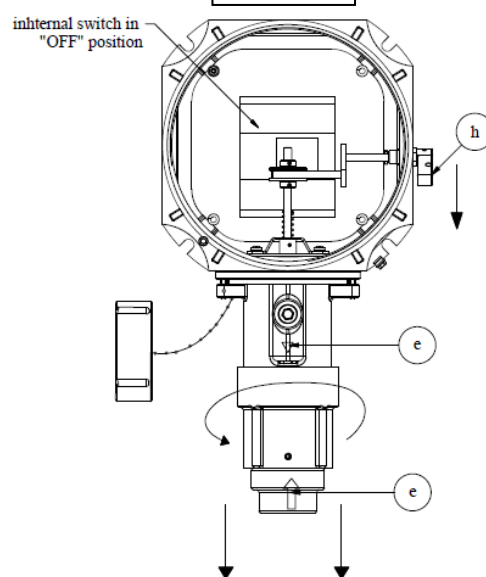


Fig. 4



Maintenance/Service:

Observe the national rules applicable to maintenance, servicing, inspection and repairing of apparatus for explosive atmospheres, as well as the general rules of engineering.

For dust explosive application, pay special attention don't have present dust layers above 5 mm on side of the apparatus.

NOTE: Before opening the equipment enclosure that the apparatus is disconnected from the supply voltage! Or take appropriate protective measures.

The required maintenance intervals depend on the respective application and will therefore have to be determined by the user depending on the conditions of use.

When servicing, in particular those components that affect the explosion protection, will have to check. e.g.:

- The flameproof joints must be cleaned, undamaged, without corrosion and perfectly greased.
- Gaskets/O-rings must be examined for their perfect conditions.
- Cable entries must be free of corrosion.
- Inspection and maintenance of equipment has to proceed according to EN 60079-17.

Blinding plugs must be examined for their firm fit. If during servicing it is discovered that repairs are necessary, the Repair/Overhaul/Modification section of this manual must be observed.

The flame paths of these apparatus must be permanently greased in order to ensure protection in front of the corrosion, water ingress and seize-up problems. The remaining grease and corrosion must be cleaned without using sharp metallic devices, which can damage the surface of the joint. Thermally and chemically stable grease with a drop point > 200°C must be used.

Storage Preservation Guide:

- The Products shall not be stored or left in a wet or damp environment.
- Do not store The Products under direct sun light.
- Permanent Storage Temperature in Original Package is: -40°C TO +60°C
- Transport and storage of equipment is permitted in original package only

Inspection/Repair/Overhaul/Modification:

- The national regulations must be observed. The tasks of repairing must be carried out by "qualified" personnel.
- Repairs may only be carried out using genuine SHOMAL spare parts.
- Repairs that affect the explosion protection may only be carried out by SHOMAL or a qualified electrician in compliance with the applicable rules.

*Modifications to the apparatus or design changes are strictly prohibited.

*For repair electrical equipments in protection mode is suggested follow the instructions indicated in IEC 60079-19.

Earth connection:

These apparatus are provided with external and internal earth facility suitable for the largest conductor size.

Disposal / Recycling:

S.E.M.C. is concerned about environmental protection and will therefore take appropriate action with due consideration of relevant respect to terms and regulations of the goods' destination to ensure the proper disposal of its goods' packing and wrapping. Diversified waste disposal is strongly recommended.

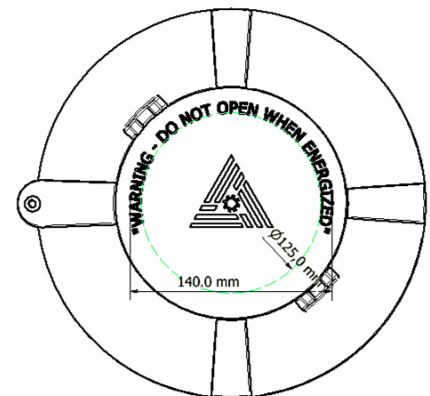
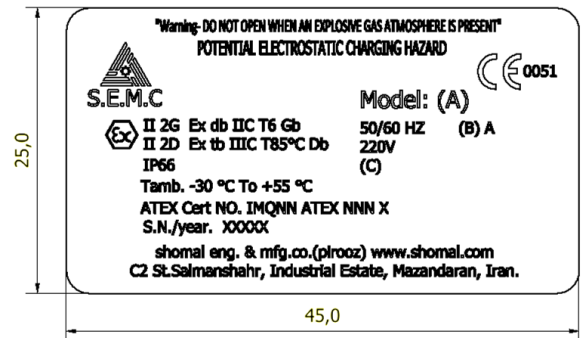
When the equipment is disposed, the relevant waste and disposal national regulations must be observed.

Nameplate

Marking label for RE series & PL series

code designation socket & plug as below

B	Table 1			
	C	Arrangement	A	
	Number of pins		Socket code	Plug code
63A	3P+N+ $\frac{1}{\text{PE}}$	 6h	REP63	PLP125
	3P+ $\frac{1}{\text{PE}}$	 6h	REQ63	PLQ125
	2P+ $\frac{1}{\text{PE}}$	 6h	RET63	PLT125
125A	3P+N+ $\frac{1}{\text{PE}}$	 6h	REP125	PLP125
	3P+ $\frac{1}{\text{PE}}$	 6h	REQ125	PLQ125
	2P+ $\frac{1}{\text{PE}}$	 6h	RET125	PLT125



	Specific marking of explosion protection
db	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d" According to 60079-1
tb	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t" according to 60079-31
IIC	Type of gas Group according to IEC 60079-0
Gb	Equipment Protection level: Equipment for explosive gas atmospheres, having a "high" Level of Protection, which is not a source of ignition in normal operation or during expected malfunctions
IIIC	Type of dust Group according to IEC 60079-0
Db	Equipment Protection level: Equipment for explosive dust atmospheres, having a "high" Level of Protection, which is not a source of ignition in normal operation or during expected malfunctions
T6	Classification of maximum surface temperatures for Group II electrical equipment
T85°C	Maximum surface temperature for Group III electrical equipment
X	Condition of safe use
Warning	"Do not open when an explosive gas atmosphere is present" Potential electrostatic charging hazard Do not open when energized (embedded on enclosure door)