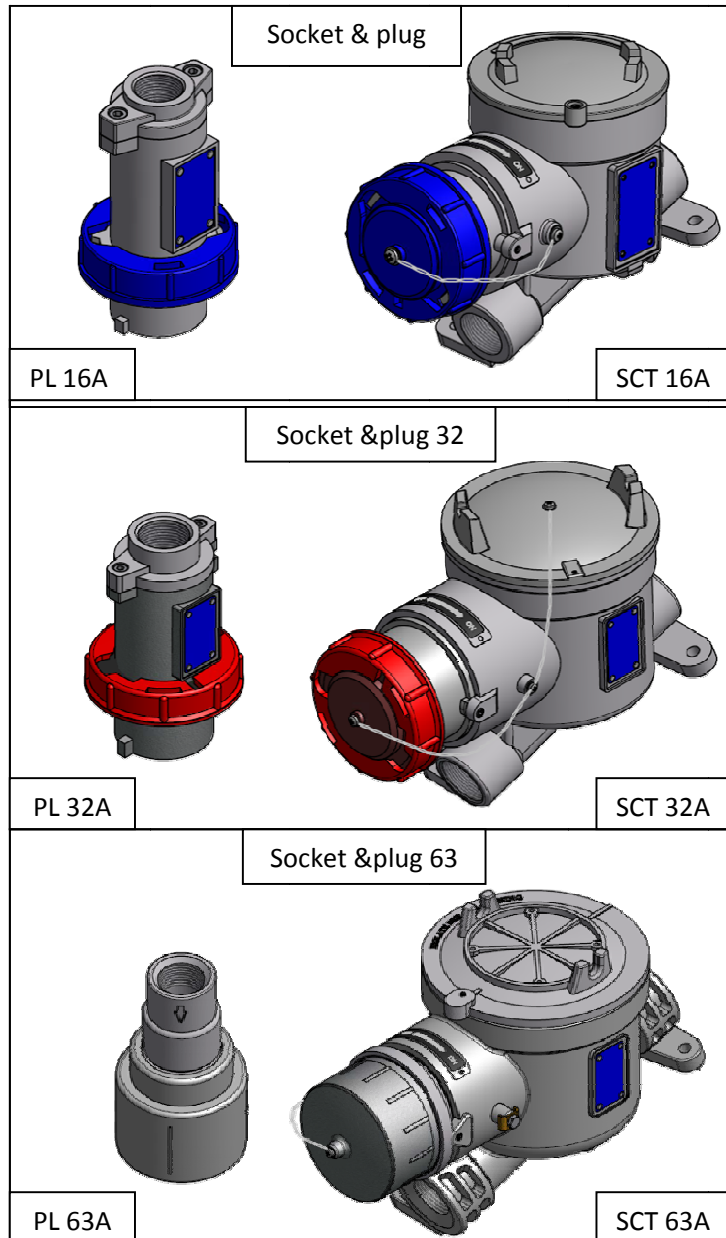




Shomal Engineering & Manufacturing Co.(Pirooz)

ماشین سازی شمال

Operating Instruction for SCT&PL... series socket outlets and ...series plugs
Application II 2 G Ex db IIC Gb T6



WI-27(PCD-P-01)/00



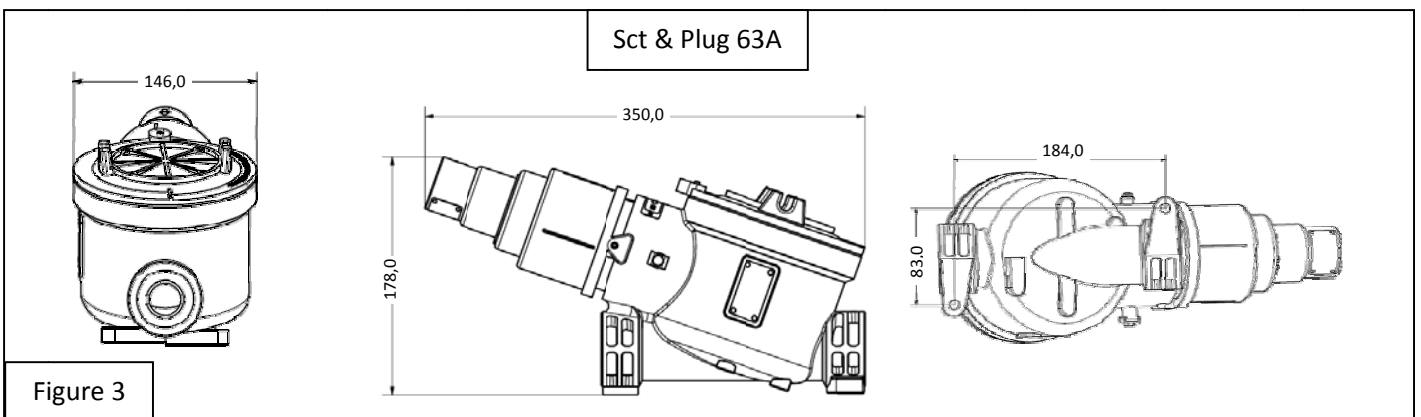
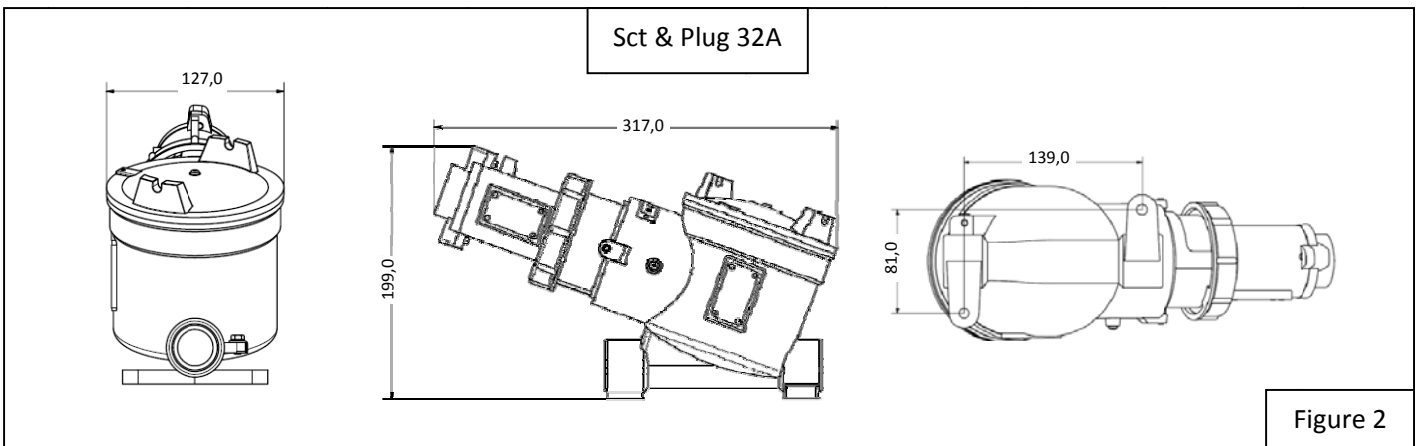
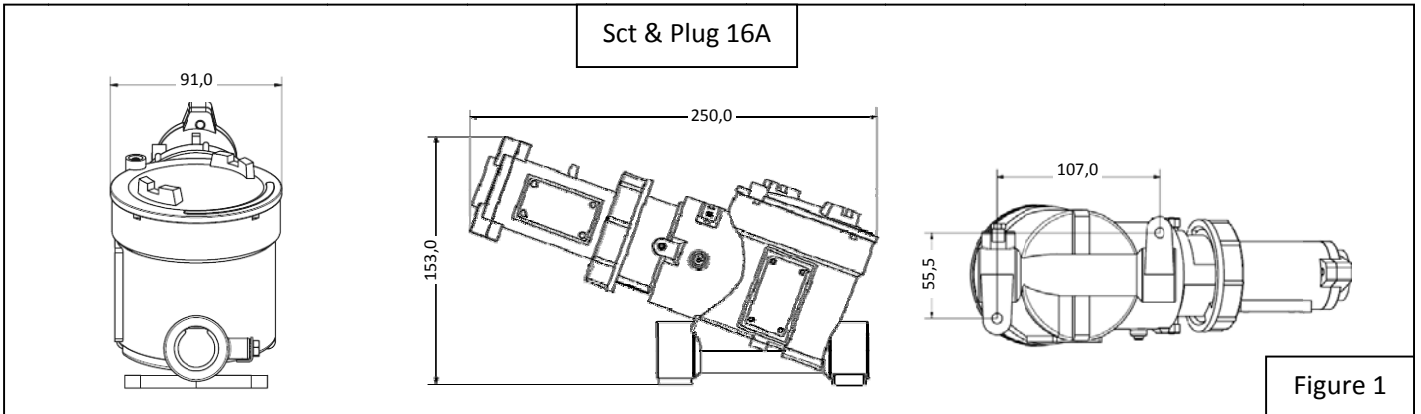
THIS GUIDE SHOULD BE READ CAREFULLY BEFORE INSTALLATION.
INCORRECT INSTALLATION AND USE OF THE EQUIPMENT CAN INVALIDATE THE GUARANTEE!

CONTENT:

Dimentional Drawings	3
Conformity With Standards	4
Safety Instruction	4
Putting into operation.....	4
Field Of Application	5
Amient Temprature	5
Technical specification	5
Technical Data	6
Detail Of Cable Connection Into Plug	7
Plug Connection.....	8
Maintence /Servicing	10
Storage Preservation Guide.....	10
Inspection/Repair/Overhaul/Modification	10
Earth Connection	10
Disposal / Recycling	10

Dimensional Drawings:

Size Information	Socket & plug 16A	Socket & plug 32A	Socket & plug 63A
Approximation weight (Kg)	1.4	2.8	4.1



Important notes:

- This guide should be read carefully before installation,
- Incorrect installation and use of the socket & plug can invalid guarantee.
- The purchaser should make the manufacturer aware of any External effects or Aggressive substances that the equipment may be exposed to.

Conformity With Standards:

The socket & plugs 16A to 63 A meet the requirements of the following standards:

IEC-60079-0

IEC-60079-1

AND ACCORDING TO DIRECTIVE 2014/34/EU.

Safety Instructions:

Note: for a skilled electricians and trained 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 SOCKET & PLUG IS NOT SUITABLE FOR ZONE 0 AND ZONE 20 HAZARDOUS AREAS.
2. MODIFICATIONS TO THE EQUIPMENT OR DESIGN CHANGES ARE PROHIBITED. THEY SHALL BE USED FOR THEIR INTENDED PURPOSE AND IN PERFECT AND CLEAN CONDITION.
3. ONLY GENUINE SHOMAL SPARE PARTS SHALL BE USED FOR REPAIR AND REPLACEMENT.
4. THE TECHNICAL DATA AND MARKING MUST BE OBSERVABLE.
5. THE EQUIPMENT SHALL BE OPERATED AS INTENDED AND ONLY IN UNDAMAGED AND PERFECT CONDITION.
6. REPAIRS THAT AFFECT 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.
7. PRIOR TO PUTTING SOCKET AND PLUG INTO OPERATION, THEY SHALL BE CHECKED IN ACCORDANCE WITH THE "PUTTING INTO OPERATION" SECTION OF THIS MANUAL.
8. ALL FOREIGN MATTER SHALL BE REMOVED FROM THE EQUIPMENT BEFORE THE INITIAL OPERATION.
9. REMOVE THESE OPERATING INSTRUCTIONS BEFORE OPERATION.

OBSERVE THE NATIONAL SAFETY RULES AND REGULATIONS FOR PREVENTION OF ACCIDENTS AS WELL AS SAFETY INSTRUCTIONS INCLUDED IN THIS OPERATING INSTRUCTIONS.

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.

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

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

Field of Application:

GROUP II 2G FOR USE IN ZONES 1 OR ZONE 2.

Ambient Temperature:

-20°C TO +40°C

-30°C TO +55°C

Technical Specification:

Marking	Ex db IIC T6 Gb
Type Series	See figure 1,2,3 & See Table 1,2,3*
Approval	EU type examination certificate: LOM 17ATEX1036X
Ambient temperature	-30 °C to + 55°C
Rated Voltage	See table 1,2,3*
Material of enclosure	Metal alloy aluminum, copper free aluminum
Entries of cables	See figure 1,2,3 (Acc. series of types)
Dimensions	See figure 1,2,3

* Available On Request

** other size/thread forms on request

Type	Arrangement	Switch	Amp code	Rated Current in AC1-AC2	Rated Current in AC3 Duty	Rated power(KW) in AC3 duty at the following AC voltages				Wire size
						220v	380v	550v	690v	
SCT 16A	2p+PE	16A	16A	20A	16A	220v	380v	550v	690v	1*2.5 mm ²
						3.7 kw	6.8 kw	-	-	
SCT 32A	3p+PE	32A	32A	40A	32A	220v	380v	550v	690v	1*6 mm ²
						9 kw	15 kw	19 kw	22 kw	
SCT 63A	2p+PE	63A	63A	75A	63A	220v	380v	550v	690v	1*10 mm ²
	3p+PE					19 kw	32 kw	42 kw	42 kw	

Technical data:

This product as follow as offer in bellow at table 1,2,3 :









Table 1								
	Number of pins	Frequency (HZ)	Rate voltage/color	Arrangement	Socket code	Socket entry	Plug code	Plug entry
16A	2P + 	50/60	200/250	 6h	16 B RE 3 16	2*3/4" NPT	16 B PL 3 16	Or M25 3/4" NPT
	2P + 	50/60	100/130	 4h	16 Y RE 3 16		16 Y PL 3 16	
	2P + 	50/60	20/25	 5h	16 V RE 3 16		16 V PL 3 16	
	2P + 	50/60	40/50	 +12h	16 W RE 3 16		16 W PL 3 16	
















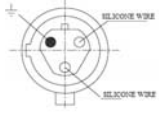



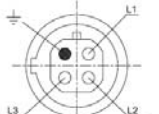

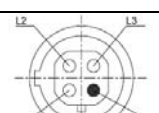
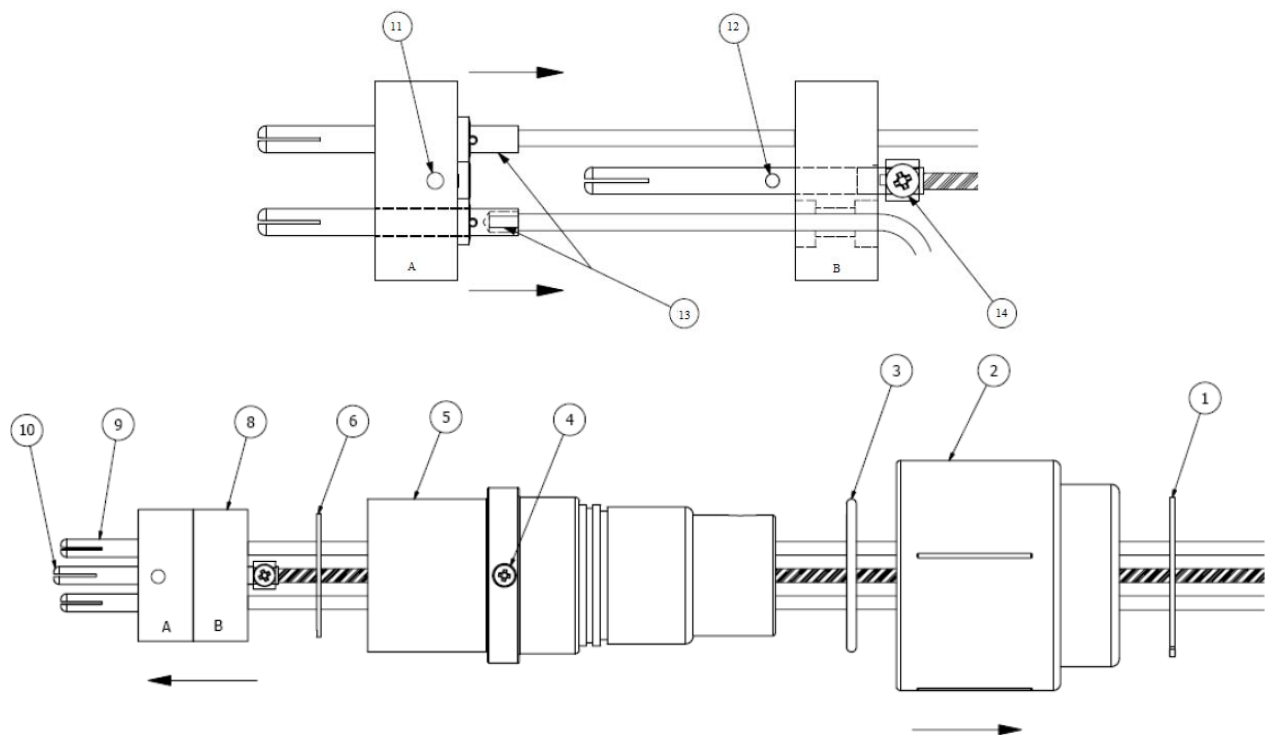
Table 2								
	Number of pins	Frequency (HZ)	Rate voltage/color	Arrangement	Socket code	Socket entry*	Plug code	Plug entry
32A	3P + 	50/60	200/250	 9h	32 B RE 4 32	2*M32*1.5 OR 2*1" NPT	32 B PL 4 32	Or M25/M32 1" NPT
	3P + 	50/60	100/130	 4h	32 Y RE 4 32		32 Y PL 4 32	
	3P + 	50/60	500	 7h	32 K RE 4 32		32 K PL 4 32	
	3P + 	50/60	380/415	 6h	32 R RE 4 32		32 R PL 4 32	
	3P + 	50/60	440	 +11h	32 R RE 4 32		32 R PL 4 32	
	3P + 	50/60	20/25	 5h	32 V RE 4 32		32 V PL 4 32	
	3P + 	50/60	50	 2h	32 G RE 4 32		32 G PL 4 32	

Table 3								
	Number of pins	Frequency (HZ)	Rate voltage/color	Arrangement	Socket code	Socket entry	Plug code	Plug entry
63A	2P + 	50/60	220/250		63 B RE 3 63	1" NPT	63 B PL 3 63	Or M25/M32 1" NPT
	2P + 	50/60	110/125		63 Y RE 3 63		63 Y PL 3 63	
	3P + 	50/60	380/415		63 R RE 4 63		63 Y PL 3 63	
	3P + 	50/60	220/250		63 B RE 4 63		63 Y PL 3 63	

*Other Entries Available On Request

Detail of cable connection into plug:

Internal connection details between cable and pins for plug (PL63):



- Removing ring 1,
- Remove rotating coupling 2,
- Part 3 is oring , application for sealing
- Unscrew screw 4,then Remove socket with pins 8 connect earthing cable to the terminal 10 (more details is number 11 & 12).
- Part 5 : plug body , part 6 : sealing washer
- Divide the two isolating sockets A and B weld phase/neural cable into the pins 9
- To reassembly the plug proceed with the same operations in the opposite direction.
- Silicone wire in to the pin is welded.
- Then 14 as follow as installation earth pin

Plug connection:

Take off the cover "B" on socket "A", to insert the plug "C" with the reference marks "F" aligned according to figure 5.

Screwed only the part "D" of plug, locked the part "E" with the reference marks "F" aligned according to figure 5.

To insert completely the part "D" of plug. (Note: "F" in socket 16A & 32A Specified in figure 8)

For switched "ON" of socket to turn in clockwise position the part "E" of the plug according to figure 6.

For takeoff the plug:

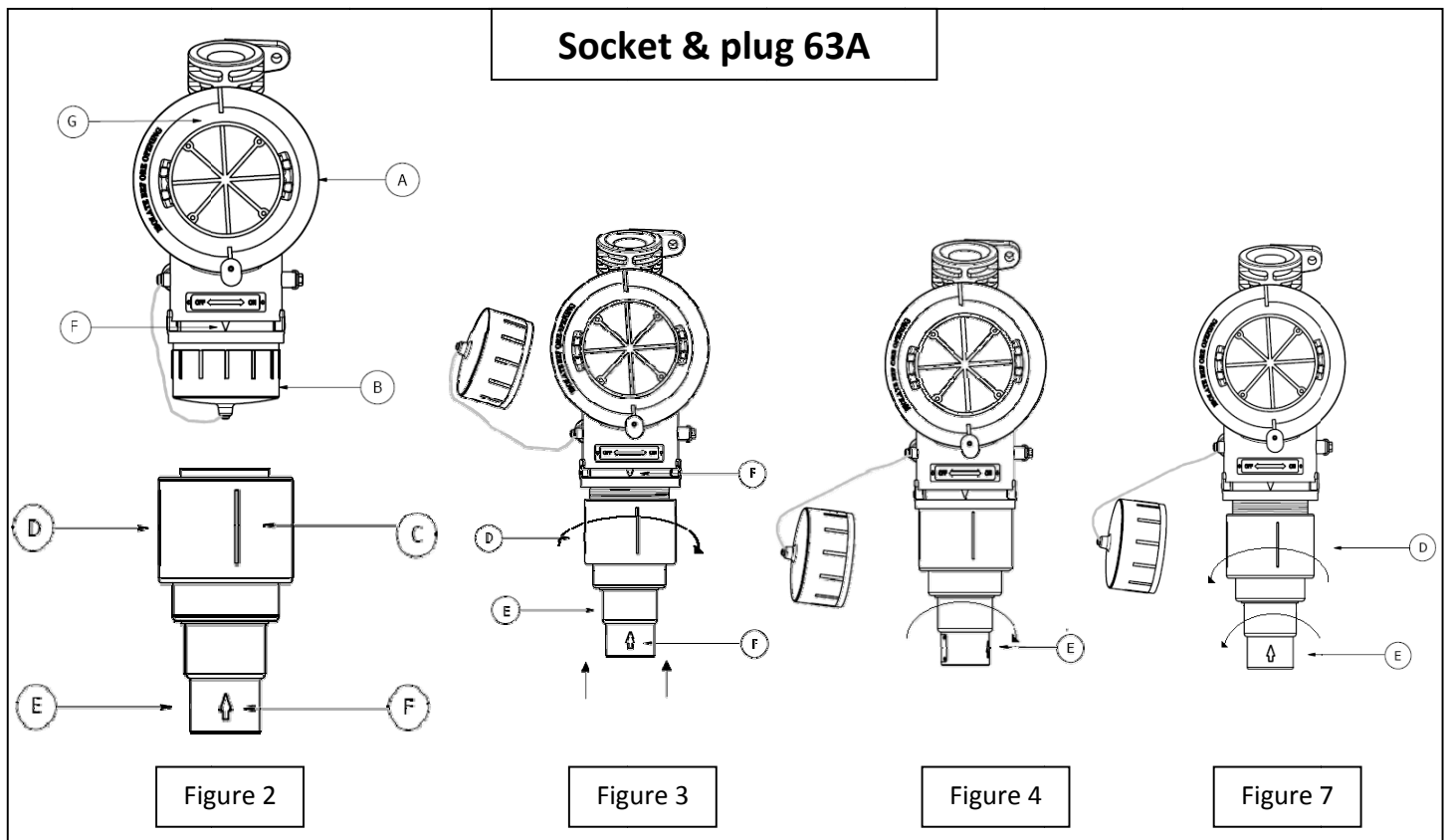
To turn in counter clockwise position the part "E" of plug unscrewed the part "D" with the reference marks "F" aligned according to the figure 7.

⚠ Attention : the plug will be locked into the socket, if the switch is in "ON" position (with plug turn in right position), or/and if the reference marks "F" will not be aligned.

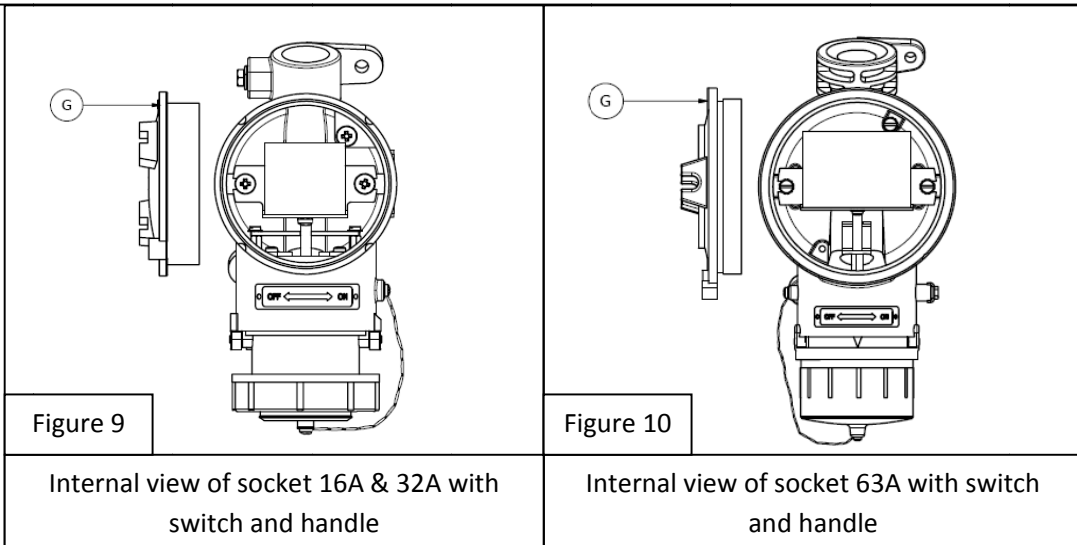
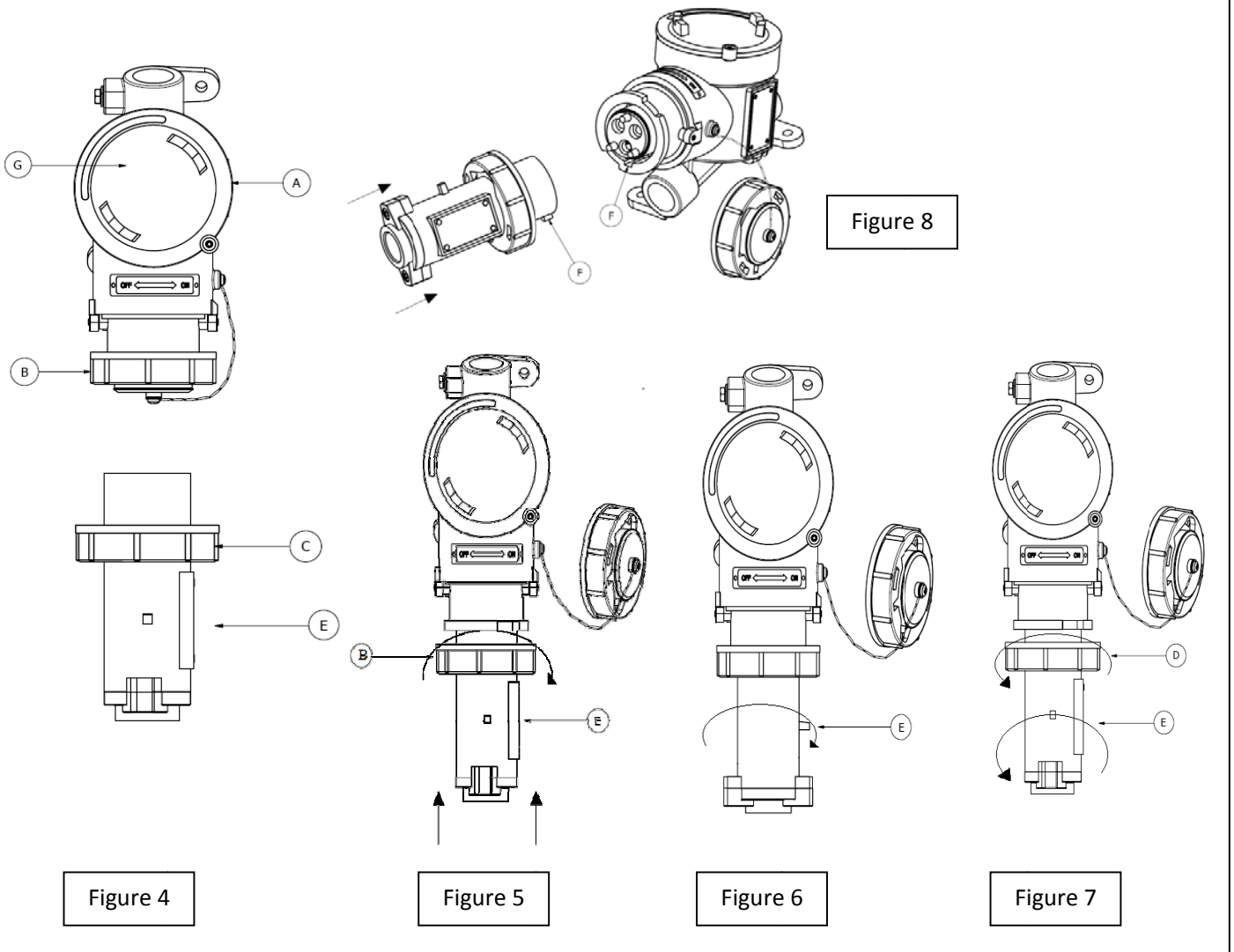
Before to insert the plug into socket , to verify the clean and the lubricant of the threaded joints after to take-off the plug, remember of to insert completely the protection cover "B".

⚠ Attention : the indications prescribed on tags of the sockets and the plugs are to be observed. Are not possible to connect sockets and plugs with different voltages due to the various positions of male-female internal pins (more information in table 1,2,3)

⚠ Attention: wire the connection to the internal switch , for to access at the internal switch , unscrewed the cover "G". if for the wire connection, to take-off the internal switch, before to insert it, verify the correct position of the switch handle and the correction position of the internal equipment with female pins.



Socket & plug 16A & 32A



Maintenance /Servicing:

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

NOTE: Before opening the equipment ensure 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.

Those components that affect the explosion protection must be checked at servicing stages, 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.
- 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.

Repairing

- 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

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.