



**OPERATING INSTRUCTIONS**  
*Motors for Drum and Container Pumps*



**Type F 460 Ex UL**  
**Type F 460-1 Ex UL**

## General Data F 460 Ex and F 460 -1 Ex

	F 460 Ex	F 460-1 Ex
Class	1	1
Group	C and D	C and D
RPM	8500	9500
Insulation Class	F	F
Phase	1	1
Max. Amb.	+40°C	+40°C
Temperature code	T4	T4
Duty	Cont.	Cont.
Code Letter	A	A
Volts	120	120
Hz	60	60
A	4 A	6,8
Input Power	0,63 HP / 0,46 kW	0,95 HP / 0,7 kW
Output Power	0,46 HP / 0,34 kW	0,72 HP / 0,53 kW

## Safety Instructions

- Comply with the operating instructions of the pump.
- Never store the motor in areas in which corrosive vapours exist.
- Before inserting the electrical plug into the socket, ensure that the Start/Stop switch is set to "0" (Stop).
- Regularly check the motors according to the relevant national safety regulations and/or rules for prevention of accidents.



- **Power supply must include a fault current breaker.**  
Dirt accumulation, high humidity or material damage on the motor housing may lead to dangerous current surges.
- **The motors F 460 Ex and F 460-1 Ex are equipped with an integral overload cut-out switch.**  
The motor is switched off automatically in case of overloading. After having cooled down, the motor can be switched on again by actuating the Start/Stop switch.
- **Make sure that the motor is secured against unintentional re-starting.**  
The pump is to be arranged in a way that no friction and impinge sparks may form.

## Replacement of power supply cable

- When replacing the power supply cable, only UL-listed cables and plugs may be used. Cable type at least: SO/SOW 3X16 AWG / 600V.
- If the power supply cable has been properly mounted, the insulation resistance must be tested and must be higher than 2 MΩ.
- The resistance of ground wire must not exceed 100 mΩ.

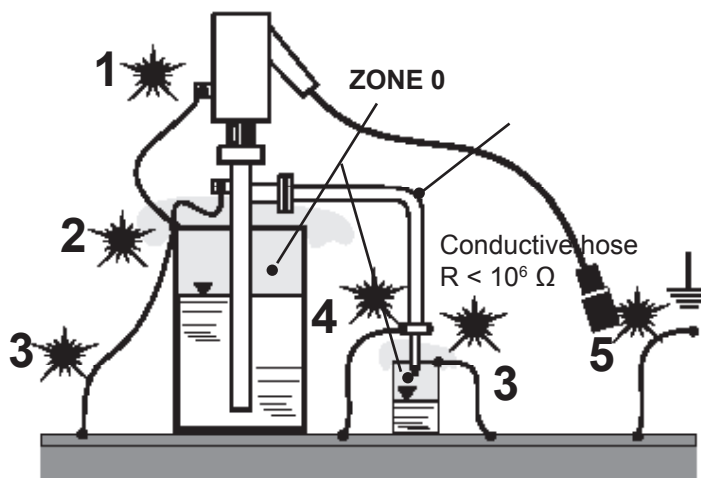
## Testing / Repair



- Repairs to explosion-proof motors should only be carried out by the manufacturer or by an authorized repair shop.

## Before starting operation in hazardous locations

- If the electrical socket or terminal box is positively located outside the hazardous area, connection to explosion-proof equipment must not be undertaken.
- 1 Connect the earth continuity conductor (earth wire) to the designated screw on the explosion-proof motor.
  - 2 Connect the earth continuity conductor (earth wire) to the designated screw on the pump.
  - 3 The containers should be grounded separately, if they are not already grounded by the mode of the installation.
  - 4 Only use electrically conductive hoses. This will provide a conductive path for the pump, hose and fittings.
  - 5 Only use an explosion-proof plug device or an explosion-proof terminal box for connecting the pump to the mains.



## For use in hazardous locations

- Only use explosion-proof electric motors which are approved for ZONE 1.
- The explosion-proof motor has to be outside the container.
- For transferring flammable liquids only use pumps which are approved for such application.
- Only clean the power supply cable outside of the hazardous area.

## Starting Operation

- Put the motor onto the pump.
- Always check the power supply cable for damage before starting operation.
- Keep solvents away from the power supply cable.
- Before inserting the electrical plug into the socket ensure that the Start/Stop switch is set to "0" ( Stop ).
- Insert the plug.
- Switch on the motor.



**FLUX-GERÄTE GMBH**

Talweg 12 · D-75433 Maulbronn

Tel +49 7043 101-0 · Fax +49 7043 101-444

info@flux-pumpen.de · www.flux-pumps.com