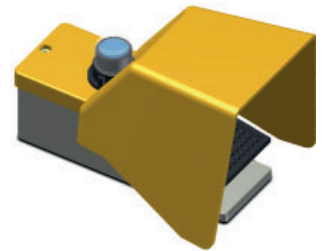




INSTALLATION INSTRUCTIONS

1- General Information

- Scope: The information contained in this instruction manual applies exclusively to the **SF43C** product and it is subject to technical modification without notice.
- Function: This instruction manual provides information about mounting, installation and commissioning to ensure safe operation and disassembly of the product. Read these instructions carefully. Save them for future reference.
- Target audience: The operations described in this manual should be carried out only by qualified personnel with full capacity to understand them and with the technical qualifications required to operate the machines and installations in which the product will be installed.

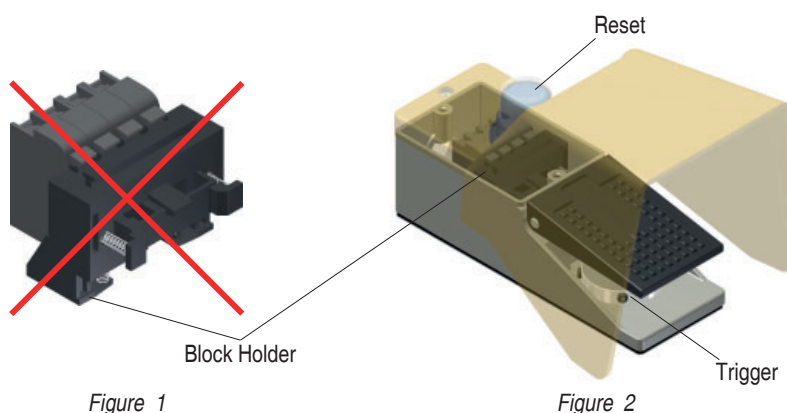


⚠ WARNING

- Turn off the power to make electrical connections or before any maintenance on the switch or equipment where it is applied. **Electric shock will result in death or serious injury.**
- Proper use: please before installing and operating the product, make sure that you have read and understood these installation instructions and that you know all applicable safety and accident prevention laws. If the product described in this instruction manual implements safety-related functions as part of a machine or an entire plant, it is the responsibility of the manufacturer of a machine or plant to ensure the correct functionality of the entire machine or plant. The manufacturer of the machine must carefully select the harmonized standards to be followed, other technical specifications for the selection, assembly, integration of components, as well as all current safety standards and accident prevention standards regulations.
- General safety instructions: The installation of the product is not sufficient to guarantee the safety of the operator or the conformity with the safety standards or machinery directives. Before installing the product, perform a specific risk analysis according to the main health and safety requirements of the machine. We only guarantee the operation of the product referred to in this instruction manual, and not the functional safety of the machine or the installation.
- Responsibilities: We do not assume any responsibility for damages and malfunctions resulting from improper assembly or failure due to non-compliance with the instructions in this manual. The manufacturer does not accept any responsibility for damage resulting from the use of unauthorized parts or accessories, as well as damages resulting from invasive work, arbitrary repairs, conversions and / or modifications on the product. Inappropriate use of the product could result in personal injury and/or property.
- Additional informations: any doubt concerning installation or operation methods contact comex@kap.com.br

2- Additional Care

- 2.1- Do not disassemble the switch block holder to make the electrical connections (*figure 1 and 2*).
- 2.2- Check periodically the functionality of the product, especially the reset button and the trigger (*figure 2*).
- 2.3- Avoid environments with the presence of condensation, excessive vibration, shock as well as explosive or flammable gas. They may damage the switch operation.
- 2.4- By installing the product, follow the specified limits to ensure a correct performance.



3- Disposal

At the end of service life product must be disposed of properly, according to the rules in force in the place in which the disposal takes place.





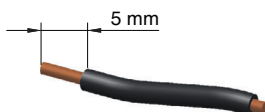
INSTALLATION INSTRUCTIONS - Continuation

4- Electrical Connection

4.1- Wire gauge (flexible cables)

- minimum: 1 x 0,34 mm² (1 x AWG 22)
- maximum: 2 x 1,5 mm² (2 x AWG 16)
- Fixing torque: 0,6 until 0,8 Nm

4.2- Cable preparation



4.3- Cable entry:

Pg13,5

4.4- Cover screws - Torque:

2 N.m

5- Technical Data

- In conformity with standards
- Utilization Category
- Rated Operational Voltage (Ue)
- Rated Operational Current (Ie)
- Rated Insulation Voltage (Ui)
- Conventional Free Air Thermal Current (Ith)
- Degree of Protection

IEC 60947-5-1 / EN 60947-5-1/ IEC 60947-1/ EN 60947-1/ IEC 60529/ EN 60529

AC-15 DC13

250 V 250 V

6 A 0,3 A

250 V

10 A

IP65 (IEC 60529) (with IP65 cable gland mounted or higher)

Equipment Protection: protection against ingress of dust-tight and powerfull jeting

People Protection: protection against ingress of wire

+80°C máximo

Foot switch: 1.000.000 cycles

Trigger: 50.000 cycles

50.000 cycles

not applicable (IEC 60947-1)

- Immunity: equipment not incorporating electronic circuits

- Emission: occasional electromagnetic disturbances in the order of milliseconds and it is not necessary specific verification

- Ambient Temperature

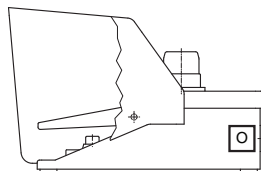
- Mechanical Durability

- Electrical Durability

- Electromagnetic Compatibility (EMC)

6- Operation Steps and Travel Diagram

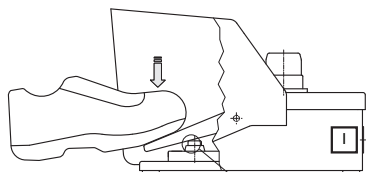
1st Step: foot switch is free; not activated.



Contacts: ⁽¹⁾

11 — 12
21 — 22
13 — 14
23 — 24

2nd Step: foot switch activated - functional. The operator actuates the pedal only until he finds the *extra force point* where resistance is noticeable.

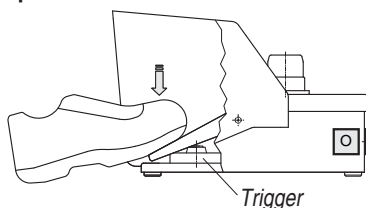


Contacts: ⁽¹⁾

11 — 12
21 — 22
13 — 14
23 — 24

Extra strength point

3rd Step: foot switch activated - not functional. The operator forces the *trigger* that disarms after the *extra force* is overcome. The pedal reaches full travel. The trigger disarms. All contacts remain **locked open**.

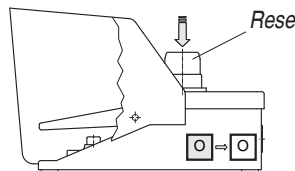


Contacts: ⁽¹⁾

11 — 12
21 — 22
13 — 14
23 — 24

⁽¹⁾ 11-12 / 21-22: monitoring contacts
13-14 / 23-24: work contacts

The *Reset* button must be pressed manually, with de foot switch free, to allow the pedal to return to *1st Step*.



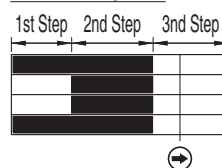
Contacts: ⁽¹⁾

11 — 12
21 — 22
13 — 14
23 — 24

(reset)

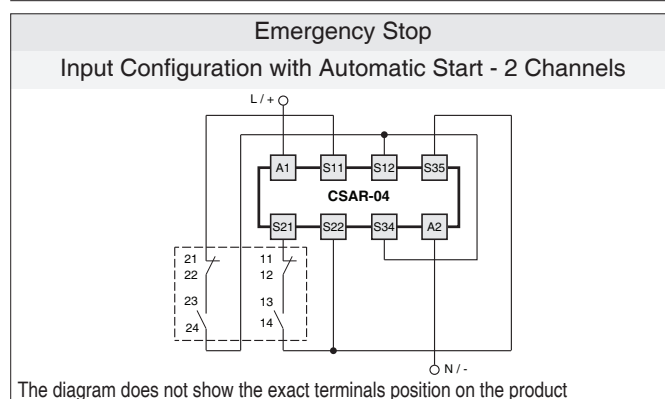
11 — 12
21 — 22
13 — 14
23 — 24

Travel Diagram:



■ : NC contact
□ : NO contact
⊕ : Positive open for NC contact

7- Connection Example - CSAR-04 Relay ⁽²⁾



⁽²⁾ See RS series catalog