ST
Foot switch

Read this manual before installing, operating or maintaining this actuator. Failure to follow safety precautions and instructions could cause actuator failure and result in serious injury, death or property damage.
Contents

1 General ..........................................................2
  1.1 Using these technical instructions ..............................2
  1.2 Explanation of symbols ........................................2
  1.3 Correct usage ................................................2
  1.4 Environmental conditions .....................................2

2 Functional method  ................................................2

3 Installation and commissioning  ..................................3
  3.1 Components supplied .........................................3
  3.2 Installation ..................................................3
  3.3 Connection ....................................................3

4 Operation ........................................................4
  4.1 Operation without memory function ............................4
  4.2 Operation with memory function ...............................4

5 Servicing and maintenance ........................................5
  5.1 Maintenance ...................................................5
  5.2 Servicing .....................................................5
  5.3 Guarantee ....................................................5
  5.4 Disposal .....................................................5
  5.5 Liability .....................................................6

6 Technical data ....................................................6

7 Fault locating and clearance .....................................6

Compliance with standards
  ▶ EN 60601-1
  ▶ EN 60335-1
  ▶ UL 2601-1

SKF Actuations System (Liestal) AG
Oristalstrasse 97
CH-4410 Liestal, Switzerland
Phone +41 / 61 / 925 41 11
Fax +41 / 61 / 921 37 04
Email actuators@skf.com

531e2950_03/01
1 General

1.1 Using these technical instructions

The technical instructions are intended for design engineers who are using this Magnetic product in their applications, and for installation engineers who are working with the product. The technical instructions contain all relevant information about this Magnetic product, and are subject to alteration in the interests of technological progress.

Please read the technical instructions carefully and observe the safety instructions.

The technical instructions can also be used to produce the operating manual for the end product.

1.2 Explanation of symbols

The technical instructions identify possible dangers and important information using symbols next to the relevant text.

1.3 Correct usage

The foot switch, in one-way to five-way versions, is used to operate between 1 and a maximum of 5 linear drives. It is intended for use with the following Magnetic drives and control units:

STF:
- SEM1 Control (for Ecomag)
- KOM1/3 Control
- Matrix MAX62/63/64/65 Drive
- Telesmart TXG Drive
- ZVB Distribution Box, SPP Blocking Device

STG:
- KOM2/4 Control
- ZVB Distribution Box

STH:
- KOM6 Control
- ZVB Distribution Box, SPP Blocking Device

The switch must not be subjected to poor weather conditions. No equipment should be operated in an atmosphere where there is a risk of explosion.

2 Functional method

A pair of pushbuttons is fitted on the foot switch for each drive to be controlled. The function in question is identified using the relevant symbols. Pressing on one of the pushbuttons initiates drive operation. The drive will run for as long as the button is held down.

Operation:
- Temperature: 0°C to 40°C
- Air humidity: max. 85%

Storage/transportation:
- Temperature: -20°C to 60°C
- Air humidity: max. 95%
3 Installation and commissioning

3.1 Components supplied
The foot switch comprises
• 1 to 5 pushbutton pairs, with connected cable set.

Options
• Expanding threaded inserts (ZBE-521122)
• Rubber stops (ZBE-135310)

3.2 Installation
Free-standing installation with rubber stops
The foot switch can be positioned on any level surface using the 4 rubber stops (see options).

Fixed installation
For fixed installation there are 4 holes with embedded expanding threaded inserts. See fig. 1:

3.3 Connection
The foot switch line is connected to the relevant control unit, the blocking device (SPP), the distribution box (ZVB) or directly to the drive.

When connecting the foot switch to the relevant equipment, please observe the technical instructions for that equipment.
4 Operation

4.1 Operation without memory function

The drive is controlled directly using the direction keys \( \uparrow \) and \( \downarrow \).
- Key \( \uparrow \): Drive is disengaged.
- Key \( \downarrow \): Drive is engaged.

4.2 Operation with memory function

Initialisation run
Move the drive (drives) using the \( \uparrow \) and \( \downarrow \) keys on the foot switch in counter-load direction to the limit position (= reference position)

The drive is controlled directly using the direction keys \( \uparrow \) and \( \downarrow \).
- Key \( \uparrow \): Drive is disengaged.
- Key \( \downarrow \): Drive is engaged.

Keys 1, 2 and 3 on the foot switch are used to move to saved positions.
Saving memory positions
1. Use the keys to move all the drives into the position you want to save on key 1. (Hold down the relevant keys until the required position has been reached.)
2. Press the \textit{m} key followed by (or simultaneously) key 1. There should be a gap of no longer than 0.5 seconds between pressing the two keys. The save procedure is confirmed by an acoustic signal. If no acoustic signal is sounded, repeat step 2. It may be that the 0.5 seconds has been exceeded.
Repeat steps 1 to 3 for programming keys 2 and 3 as required.

Retrieving memory positions
- To retrieve a memory position, press the corresponding key 1, 2 or 3 on the foot switch. Hold down the key until the drives have reached their positions. All drives will move simultaneously to the saved position. If the drives have not been moved to the reference positions during the commissioning process, this can be triggered by pressing the memory pushbutton \textit{M}.

5 Servicing and maintenance

5.1 Maintenance
The plastic housing and the connected cable need to be checked periodically (every six months) for mechanical damage (cracks).
For multi-way switches, a check must be conducted regularly to ensure that the fixing chamber between the individual switches is securely in position. Two fastening clamps are required per connection.
Damaged parts should normally be replaced by Magnetic Customer Services.

5.2 Servicing
Water protection, cleaning, disinfecting
The foot switch must only be washed or disinfected with the plug properly connected. Protection classification IPx5 only applies when the unit is plugged in.
Following contamination, the foot switch should be cleaned as soon as possible to prevent residues drying onto the switch.
A damp cloth and water are suitable for cleaning by hand. The addition of isopropyl alcohol is permitted.

5.3 Guarantee
Under the proviso that the operating conditions have been observed and that the equipment does not show any evidence of mechanical damage due to incorrect usage, a guarantee period of 12 months following delivery shall apply to all mechanical and electrical components.

5.4 Disposal
Control components and drives can be returned to Magnetic AG, Liestal for disposal.

5.5 Liability
Liability for the correct functioning of the equipment shall be transferred to the owner or user, in all cases where the equipment has been incorrectly installed, maintained or serviced by persons not representing Magnetic Service or if the equipment has been operated in a manner inconsistent with the correct usage. Magnetic Aktiengesellschaft shall accept no liability for damage caused by non-compliance with the instructions provided in this documentation. The instructions provided in this document shall not represent additions to the guarantee and liability conditions for the sales and delivery conditions from Magnetic Aktiengesellschaft.
The product is not subject to identification regulations conforming to CE or EMC guidelines. The necessary EMC measures must be taken for the end product by the manufacturer of the end product, in accordance with the installation conditions, wiring and control system, and checked for the intended use. The manufacturer of the machine or system shall be obliged to observe these regulations.

6 Technical data

<table>
<thead>
<tr>
<th>Technical data</th>
<th>Foot switches STF/STH/STG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switching voltage</td>
<td>12V DC</td>
</tr>
<tr>
<td>Switched current</td>
<td>50 mA</td>
</tr>
<tr>
<td>Connection cable</td>
<td>2500 mm</td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>0/+40 °C</td>
</tr>
<tr>
<td>Protection type/ classification</td>
<td>IPx5/Safety extra-low voltage</td>
</tr>
<tr>
<td>Colour</td>
<td>grey/blue</td>
</tr>
<tr>
<td>Weight</td>
<td>500/1000/1500 g</td>
</tr>
<tr>
<td>Fixing screws</td>
<td>M5 x (8 + material thickness)</td>
</tr>
</tbody>
</table>

7 Fault elimination and troubleshooting

<table>
<thead>
<tr>
<th>Fault</th>
<th>Cause</th>
<th>Rectification</th>
</tr>
</thead>
<tbody>
<tr>
<td>No function</td>
<td>Poor plug connection</td>
<td>Check plug connections</td>
</tr>
</tbody>
</table>

The instructions in customer-specific documentation must also be observed. Should it not be possible to rectify a fault, please contact Magnetic AG, Liestal.

*Fig. 5 – Dimension drawing*