

Fox Foot-Operated Safety Switch: Gives the Operator Extra Safety

The Fox, foot-operated safety switch, is used when the operator has to have both hands free during crucial safety device bypass operations. Fox is very safe because of its unique three-position function, doubled contacts and robust safety cover. Fox has been developed for industrial applications—i.e. it has high mechanical durability. Fox is used for set up on presses, bending machines, during adjustment of machinery, etc. Fox is available in single and double pedal versions. The double pedal is used for such tasks as jogging forward and reverse.

Safety Cover Protects Against Unintentional Actuation

To prevent accidental machine start by a person or falling objects, the Fox was designed with a robust metal safety cover. This feature fulfills the requirements outlined by EN 693 Machine Tools - Safety - Hydraulic Presses 5.4.6.1 that also requires that the switch permit access from one direction only. The robust aluminum safety cover can withstand harsh environments.

Three-Position Function - Fox 31/32

A safe three-position foot-operated device means that:

- Stop signals are provided in the top and bottom positions.
- Start/ready signals for separate starting are provided in a distinct middle position.
- After a stop in the bottom position, a start or clear signal cannot be given before the reset knob has been operated and then the pedal pushed into its middle position.

Two-Position Function - Fox 21/22

A two-position foot-operated device means that:

- A stop signal is provided in the top, or pedal released, position.
- A start/ready signal for separate starting is given in the bottom, or fully depressed, position.

Safety Level

A high safety level is secured by monitoring the pedal's double contacts with one of our safety relays (see Connection Examples on page 48 in the Safety Relay section.)

Furthermore, the third 'emergency' position of the Fox 31/32 pedal enhances safety and is required during bypass for teach mode or jog mode.



Fox foot-operated switches are available in single and double pedal versions.

Applications

- Presses
- Rolls
- Bending Machines
- Machine Adjustment, etc.

Features

- Control device that frees the hands
- Three-position pedal
- Highest safety level (category 4)
- Robust

Approvals



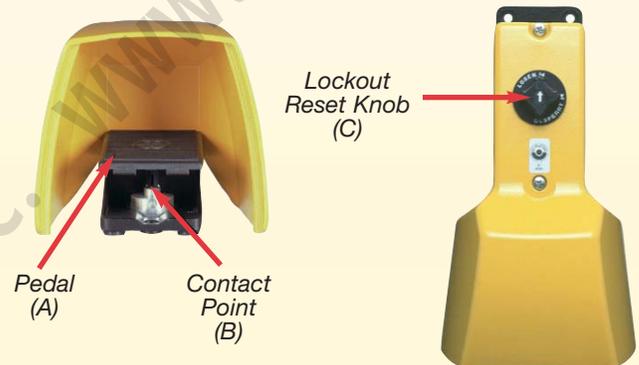
Fox Technical Data (all versions)

Manufacturer.....	JOKAB SAFETY
Ordering Data/Article Numbers.....	see page 29
Color.....	yellow and black
Rated Insulating Voltage Ui.....	690 V
Connection Cable Cross Sections	
Single Resp. Multi-Strand.....	1 - 4 mm ²
Fine Wire with Core End Bush (DIN 46228).....	0.75 - 2.5 mm ²
Terminal Screws.....	M4
Short Circuit Protection, Fusible Cut-Out (gL).....	25A max.
Insulation Requirements met up to.....	480V~
Ambient Operating Temperature.....	-15°C to +60°C

Switching Capacity AC-15.....	220 - 240 V, 6A 380 - 440 V, 4A 500 V, 3A
Degree of Protection as per EN 60529, DIN VDE 0470/1.....	IP65
Mechanical Life (Number of Operations)	
Position 2.....	1 x 10 ⁶
Position 3.....	3 x 10 ⁵
Material	
Safety Cover.....	Aluminum
Pedal.....	Shockproof thermoplastic
Weight (approx. with safety cover)	
Fox 31.....	1.7 kg
Fox 32.....	3.0 kg

Fox Pedal Function

1. The Pedal (A) is in its initial position. The contacts are open and the machine is stopped.
2. The contacts are closed when the pedal (A) is pressed down until the distinct contact point (B) is reached and the machine can now start.
3. In an emergency situation, if the operator presses the pedal to the bottom, a stop signal is immediately sent to the machine (the contacts open). The switch is mechanically locked in this position it has to be reset before a new start can be made.
4. Reset: The contacts will only be disengaged after the knob (C) is reset and the pedal is returned to its initial position (A).



Fox Versions



Fox 31
Pedal with three-position execution and reset knob.



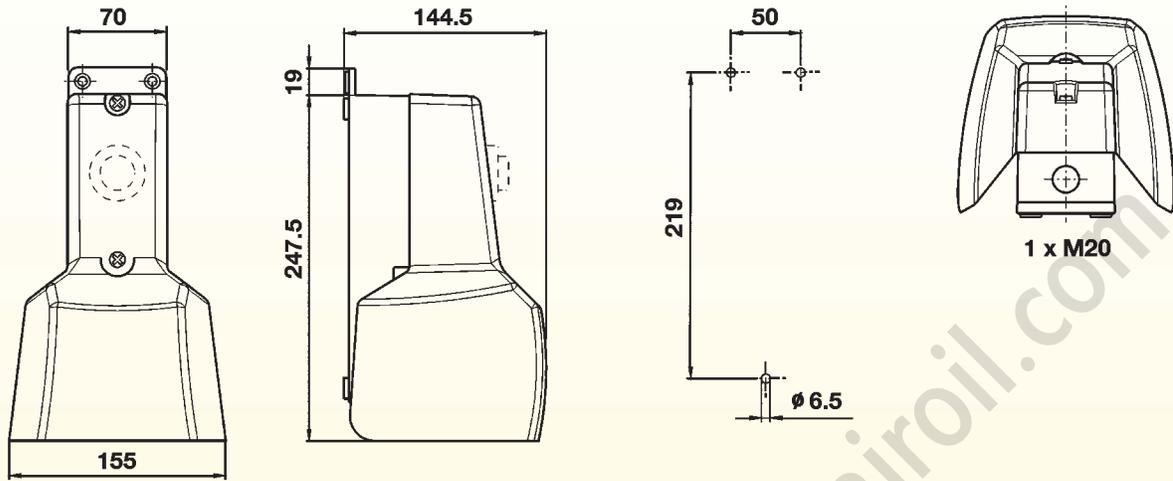
Fox 32
Double pedal with three-position execution and reset knob.



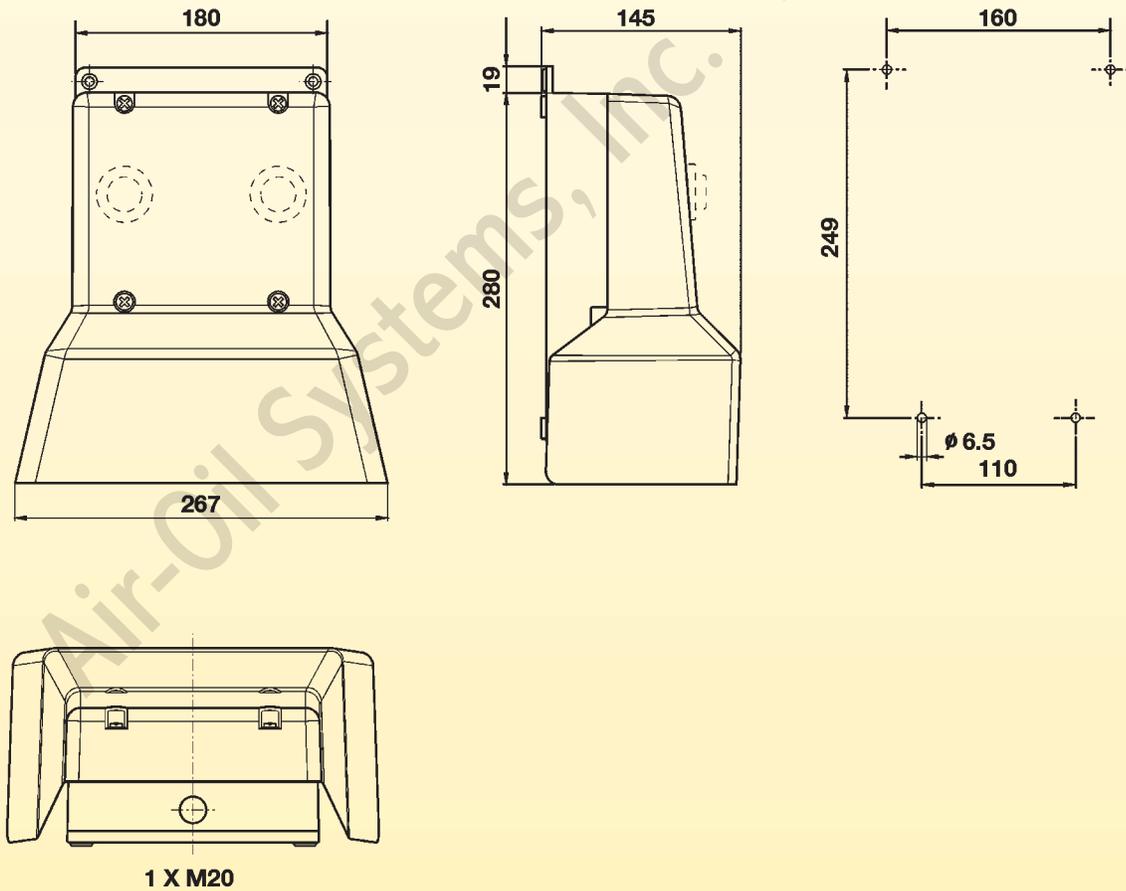
Fox 21
Pedal with two-position execution.

Note: Also available in a double pedal - Fox 22.

Fox 31/21 Dimensions

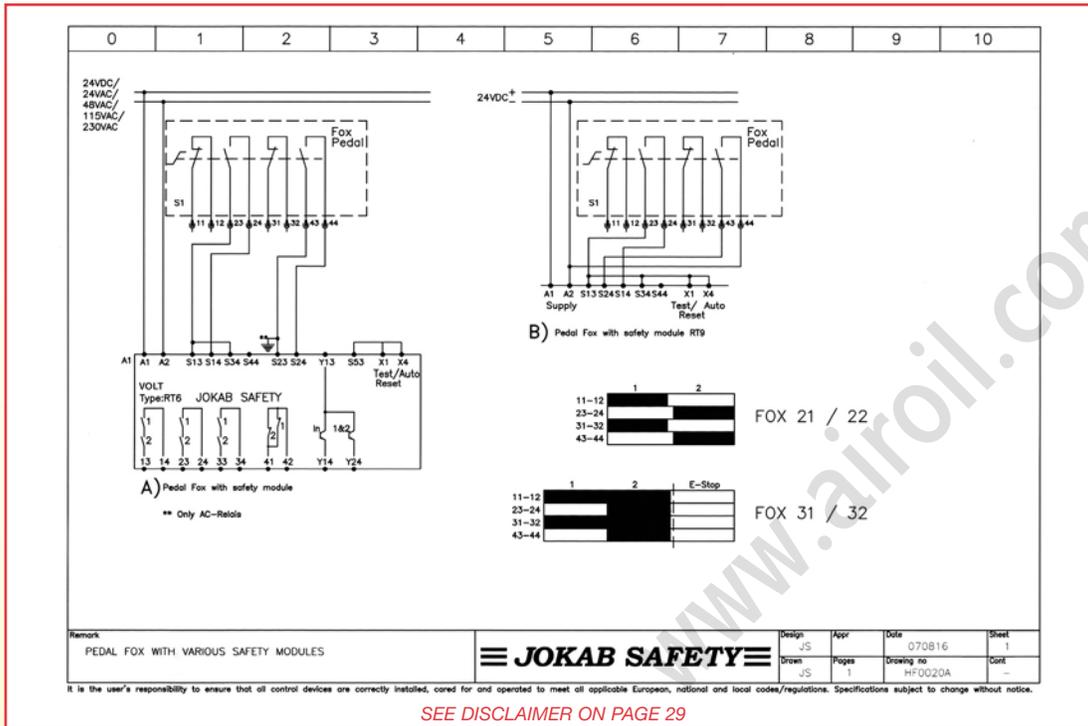


Fox 32/22 Dimensions



Fox Connection Example

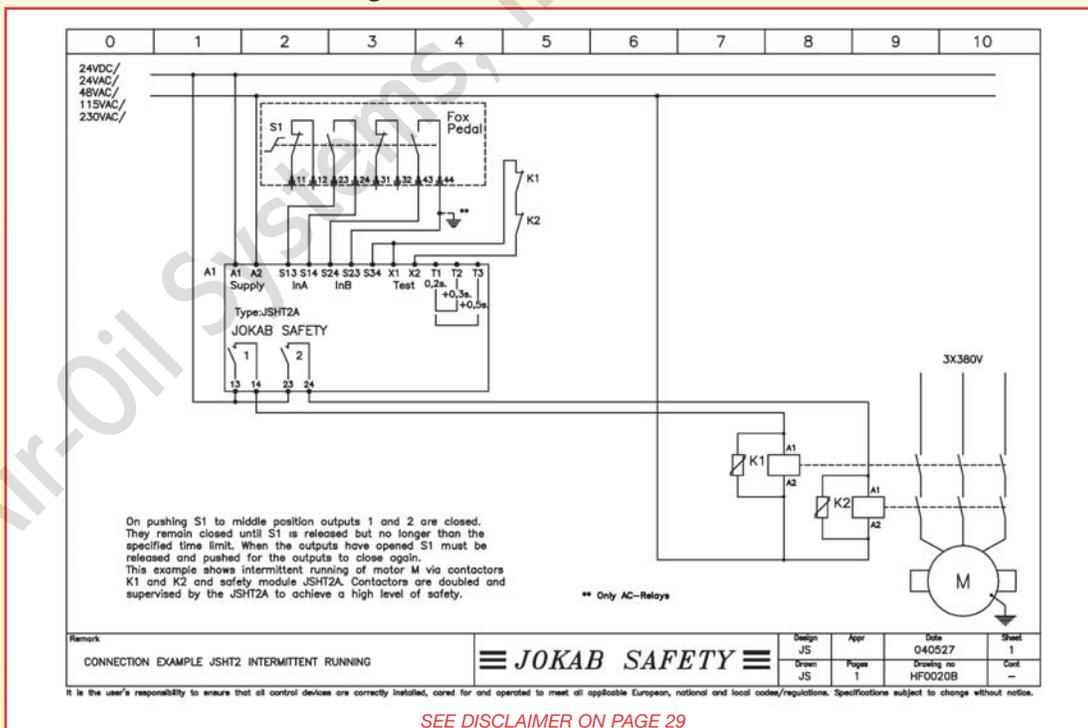
Fox Pedal with Various Safety Modules



SEE DISCLAIMER ON PAGE 29

Fox 21 Connection Example

Fox with JHT2 Intermittent Running



SEE DISCLAIMER ON PAGE 29