

# Foot-operated safety switch

## Fox 2



### Approvals:



### Application:

- Presses
- Bending machines
- Cutting machine
- Wood processing machines

### Features:

- Robust construction
- Protective cover
- Two or three position function
- Single and double pedals
- Duplicated contacts

#### A robust and safe product for a large variety of applications

A foot-operated safety switch is used when the operator needs to start and stop a machine in a safe way while both his hands are busy, holding a work piece for example.

#### Robust construction

Fox 2 has been designed to last and benefits of a robust housing in die cast aluminum alloy and a high electrical endurance. The housing achieves an IP65 rating.

#### High level of safety

All models are provided with a robust safety cover preventing unintentional machine starts initiated by a person or a falling object. The contacts are duplicated and with the right monitoring, most electrical faults can be detected. The third emergency position of Fox 231/232 enhances safety.

#### Models for each application

Four different models of Fox 2 are available for a better adaptation to your application, as a single or a double pedal, with a two or a three position function. Please note that Fox 221/222 are intended to be used as control devices and Fox 231/232 as safety devices.

#### - Two position function

The machine can start when the pedal is pushed in the bottom position. It is stopped when the pedal is in the top position (released).

#### - Three position function

The machine can start when the pedal is pushed in the distinctive middle position. It is stopped when the pedal is in the top position (released) or in the bottom position (totally pushed). After a stop in the bottom position, the pedal has to be reset.

#### - Single or double pedal

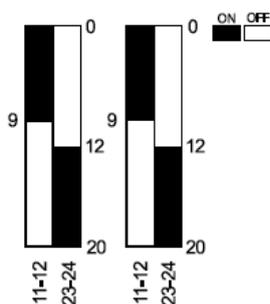
One pedal controls only one movement and the double pedal offers a compact solution when two different movements should be controlled, back and forth for example, one pedal for each direction, both in the same housing.



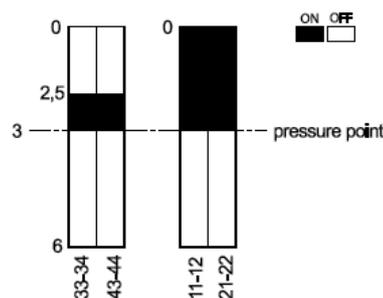
## Technical data - Fox 2 series

Article number	2TLA020160R4100	
Fox 221 Two position single foot pedal	2TLA020160R4200	
Fox 222 Two position double foot pedal	2TLA020160R3100	
Fox 231 Three position single foot pedal	2TLA020160R3200	
Fox 232 Three position double foot pedal		
Level of safety	Up to PL c/Cat.1 depending on system architecture	
EN ISO 13849-1	B <sub>10d</sub> : 200 000 (Fox 231/232) B <sub>10d</sub> : 2 000 000 (Fox 221/222)	
Utilisation category	AC-15	
Rated insulating voltage U <sub>i</sub>	500V	
Rated impulse withstand voltage U <sub>imp</sub>	6kV	
Permissible electrical load	BG: 400 V 6 A AC-15 CSA (Fox 221/222): 300V 6A GP A300 / P300 CSA (Fox 231/232): 250V, 10A, A300, Q150	
Connection	Screw terminals, self-lifting clamps	
Contact type	Slow action with double break, positive break NC contact per EN 60947-5-1	
Contact material	Fine silver	
Termination	0.75-2.5 mm <sup>2</sup>	
Terminal screws	M4	
Conditional short-circuit current	1000A	
Short circuit overload protection	6 A gG/gN fuse	
Insulation requirements	Up to 480V~	
Maximum frequency of use	1500/h	
Conduit entries	Fox 221/231: M20x1.5 Fox 222/232: M25x1.5	
Enclosure classification	IP65	
Ambient temperature	-25°C...80°C	
Switching element	Fox 221: 2x(1NO+1NC) Fox 231: 2NO+2NC	Fox 222: 2x(1NO+1NC) + 2x(1NO+1NC) Fox 232: (2NO+2NC) + (2NO+2NC)
Material	Protective Shield: Die cast aluminum alloy Pedal: Shockproof thermoplastic Housing: Die cast aluminum alloy	
Colour	Yellow and black	
Mechanical life	Middle position: 1x10 <sup>6</sup> Bottom position: 1x10 <sup>5</sup>	
Weight	Fox 221/Fox 231: 1200g Fox 222/Fox 232: 2750g	
Actuating force	Approx. 240 N (Pressure point)	
Conformity Fox 231 & 232	European Machinery Directive 2006/42/EC EN ISO 12100:2010, EN 60204-1:2006+A1:2009, EN ISO 13849-1:2008, EN 60947-5-1:2004+A1:2009, GS-ET-15	
Conformity Fox 221 & 222	European Low voltage directive 2006/95/EC, EN 60204-1:2006+A1:2009, EN 60947-5-1:2003+A1:2009	

## Contact configuration

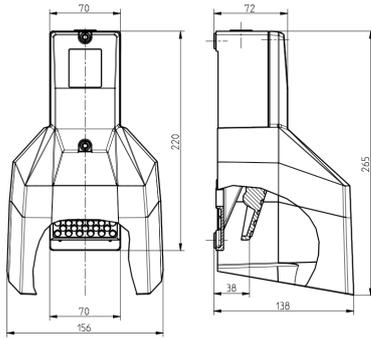


Fox 221 and Fox 222

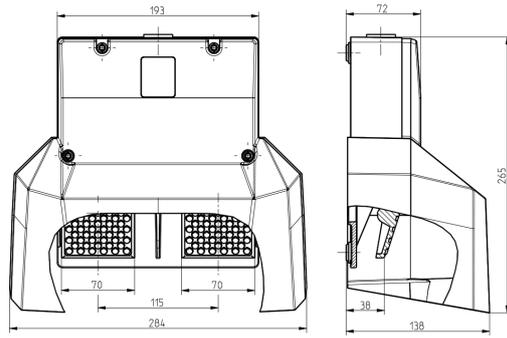


Fox 231 and Fox 232

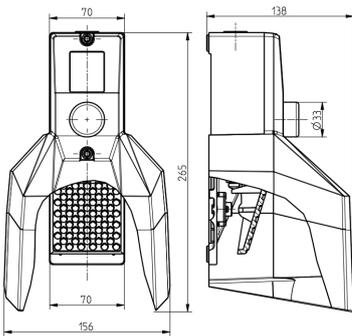
# Dimensions



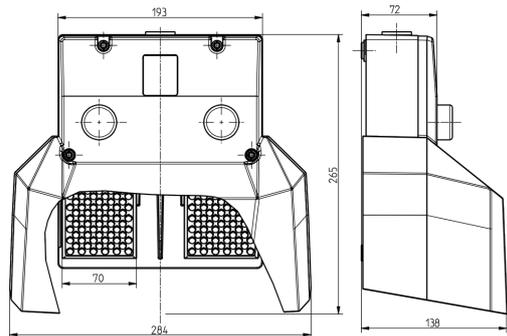
Fox 221



Fox 222



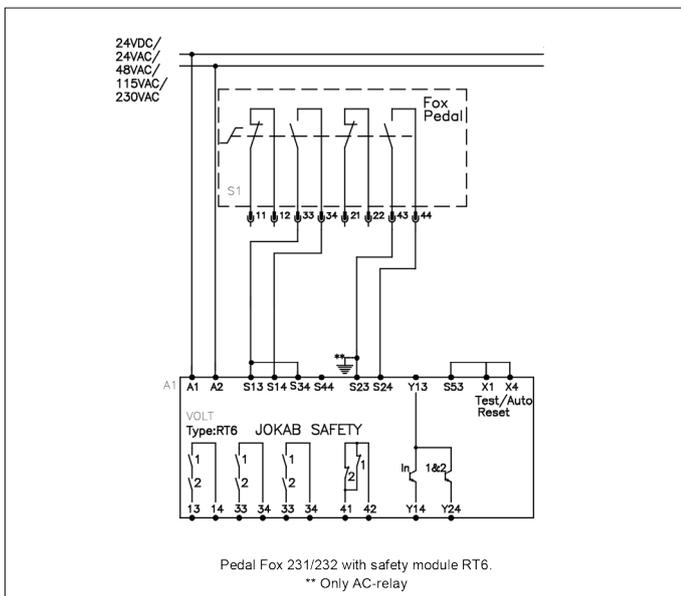
Fox 231



Fox 232

# Connection examples

This example is valid for Fox 231 and 232 only



It is the user's responsibility to ensure that all control devices are correctly installed, cared for and operated to meet European, national and local codes/regulations. Subject to change without notice.

# Contact us

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