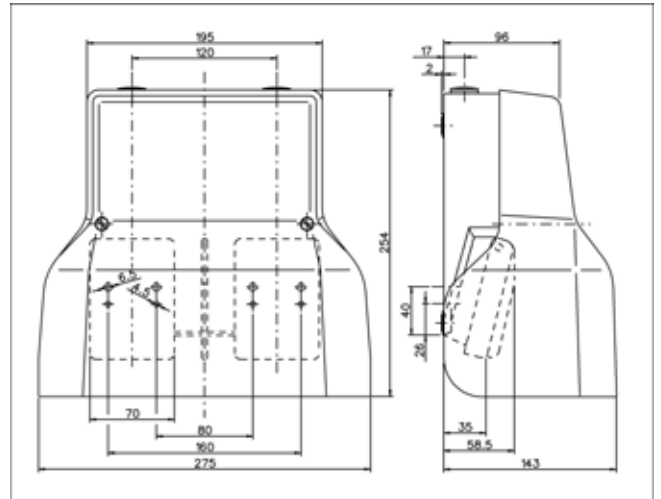


Safety foot-switch, single pedal

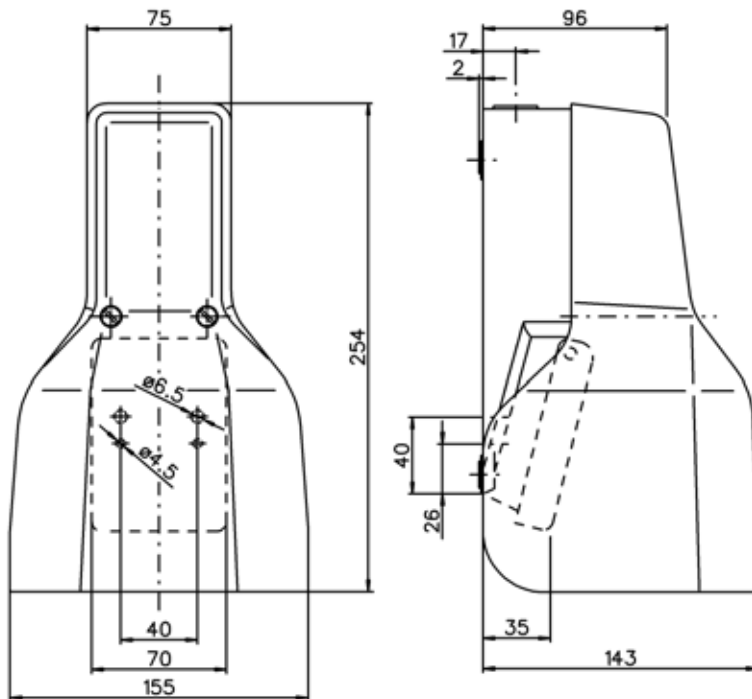


Foot-switch, single pedal



Safety foot-switch, double pedal





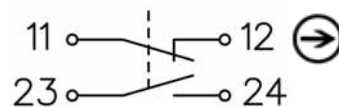
The foot pedal FE-FS1-U1-U is equipped with a switching element, which contains one NC and one NO contact. It may e.g. be used for the selection of AKAS® Box bending function or opening of a press.

#### Switching diagram:

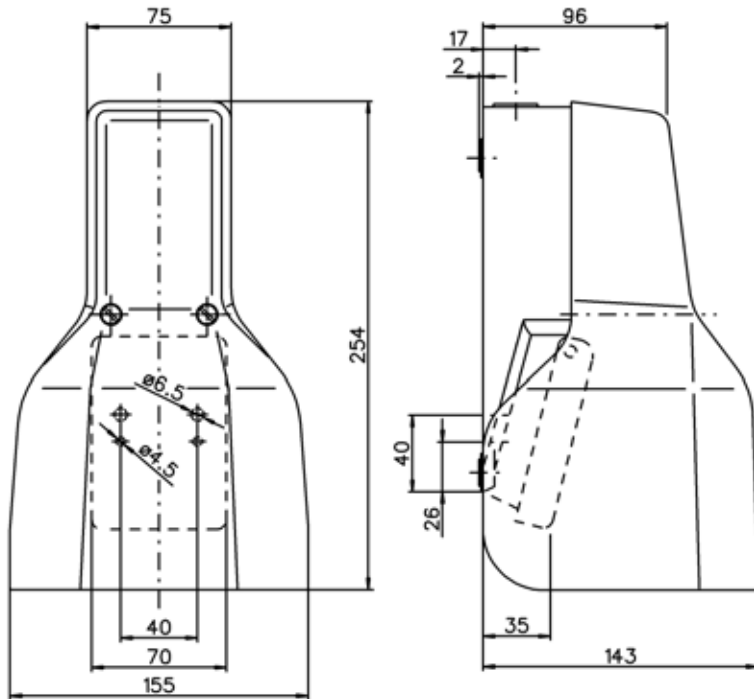
	free position	pressed down
23-24		
11-12		

Contact closed   
 Contact open

#### Switching elements:

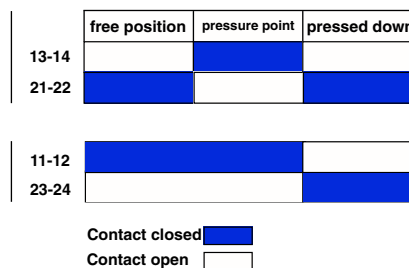


Execution	1-aluminum foot pedal heavy version free standing on slip elastic feet
Operating voltage	max. 500 VAC, 40-60Hz
Switching current	max. 10 A
Operations	min. 10 Mio.
Contact Material	Silver
Connection type	Screwterminal
Electrical connection	0,5-1,5 mm <sup>2</sup>
Cable entry	M20x1,5
Switching insert	1 changeover contact, positive opening
Switching function	Changeover
Switching system	Creep mechanism
Housing	Die cast aluminum, powder-coated RAL 7021 (dark gray)
Pedal	Thermoplastic fiberglass reinforced PA6.6 black
Accident cover	Die cast aluminum, powder-coated
Attachment	For mounting of the footpedal in the housing bottom (pedal area) are provided 2xØ4,5 and 2xØ6,5 holes (see drawing)
Protection type	IP65 to IEC/EN 60529
Operating temperature	-30°C to +80°C
Regulations	IEC/EN 60204 IEC/EN 60947-5-1
Order code	FE-FS1-U1-U-xx (xx = RD = cover firered RAL 3000) (xx = YE = cover yellow RAL 1021)

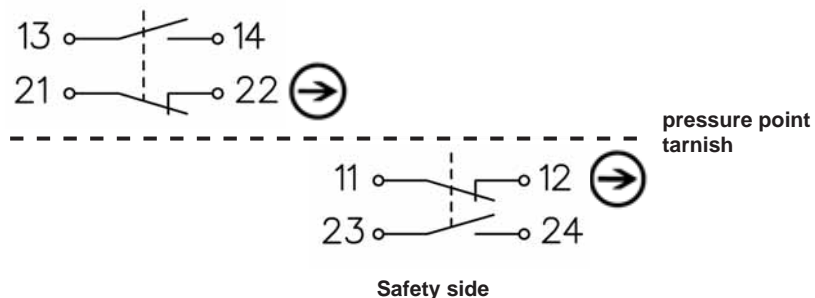


The foot pedal has 3 positions, with a pressure point, to control dangerous movements (for instance get down of a press brake ect...). It has 2 working contacts (1NC+1NO) to drive the movement and one safety switch (1 positive opening NC contact + 1NO) to stop the movement. Pressing the foot pedal, till the pressure point, allows the changeover of the 2 working contacts. Once the pressure point is got over, the 2 working contacts return to their first position and the positive opening safety contact is activated in order to initiate immediately the dangerous movement. Thus a redundant information for the safety circuit is available. A restart of the machine is only possible after releasing the foot switch.

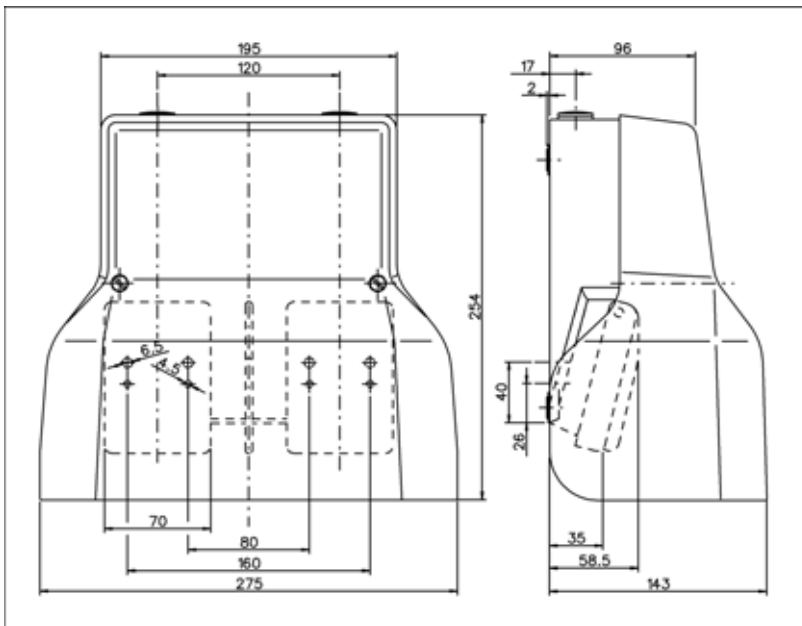
#### Switching diagram:



#### Switching elements:



Execution	1-aluminum foot pedal heavy version free standing on slip elastic feet
Operating voltage	max. 500 VAC, 40-60Hz
Switching current	max. 10 A
Operations	min. 10 Mio.
Contact Material	Silver
Connection type	Screwterminal
Electrical connection	0,5-1,5 mm <sup>2</sup>
Cable entry	M20x1,5
Switching insert	1 changeover contact, positive opening with tarnish after pressure point, 1 changeover contact, positive opening
Switching function	Changeover
pressure point	200 N operating force
Switching system	Jump-/ creep mechanism
Housing	Die cast aluminum, powder-coated RAL 7021 (dark gray)
Pedal	Thermoplastic fiberglass reinforced PA6.6 black
Accident cover	Die cast aluminum, powder-coated
Attachment	For mounting of the footpedal in the housing bottom (pedal area) are provided 2xØ4,5 and 2xØ6,5 holes (see drawing)
Protection type	IP65 to IEC/EN 60529
Operating temperature	-30°C to +80°C
Regulations	IEC/EN 60204 IEC/EN 60947-5-1
Order code	FE-FS1-SU1ASDU1-U-xx (xx = RD = cover firered RAL 3000 )



The safety foot pedal FE-FS2-SU1ASDU1/U1-U use safety switches.

The right foot pedal have two positions (free position and pressed down position). It may e.g. be used for the selection of AKAS® Box bending function or opening of a press. The left foot pedal have 3 positions, with a pressure point, to control dangerous movements (for instance get down of a press brake ect...). It has 2 working contacts ( 1NC+1NO) to drive the movement and one safety switch (1 positive opening NC contact + 1NO) to stop the movement. Pressing the foot pedal, till the pressure point, allows the changeover of the 2 working contacts. Once the pressure point is got over, the 2 working contacts return to their first position and the positive opening safety contact is activated in order to initiate immediately the dangerous movement. Thus a redundant information for the safety circuit is available.

A restart of the machine is only possible after releasing the foot switch.

#### Left pedal:

#### Right pedal:

#### Switching diagram:

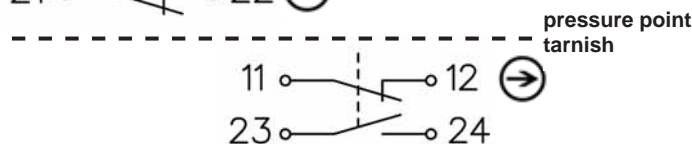
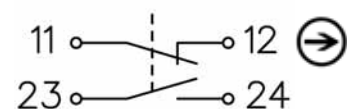
	free position	pressure point	pressed down
13-14			
21-22			
11-12			
23-24			

	free position	pressed down
23-24		
11-12		

Contact closed ■  
Contact open □

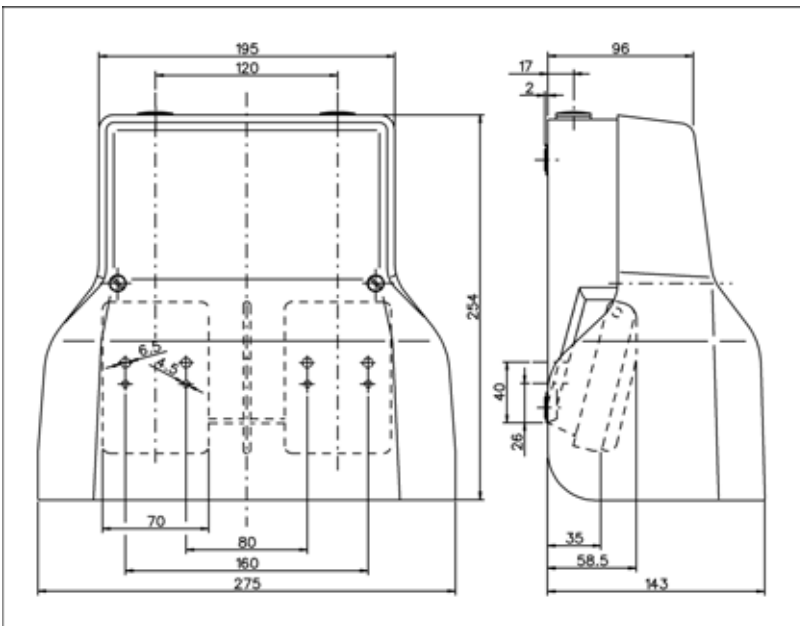
#### Switching elemnts:

Contact closed ■  
Contact open □



Safety side

Execution	2 aluminum foot pedal heavy version free standing on slip elastic feet
Operating voltage	max. 500 VAC, 40-60Hz
Switching current	max. 10 A
Operations	min. 10 Mio.
Contact Material	Silver
Connection type	Screwterminal
Electrical connection	0,5-1,5 mm <sup>2</sup>
Cable entry	1x M20x1,5 (middle), 2x PG13,5
Switching insert	Left pedal: 1 changeover contact, positive opening with tarnish after pressure point, 1 changeover contact, positive opening Right pedal: 1 changeover contact, positive opening
Switching function	Left pedal: sequential circuit with pressure point
Pressure point	Left pedal: 200 N operating force
Switching system	Left pedal: Jump-/ creep mechanism Right pedal: Creep mechanism
Housing	Die cast aluminum, powder-coated RAL 7021 (dark gray)
Pedal	Thermoplastic fiberglass reinforced PA6.6 black
Accident cover	Die cast aluminum, powder-coated
Attachment	For mounting of the footpedal in the housing bottom (pedal area) are provided 2xØ4,5 and 2xØ6,5 holes (see drawing)
Protection type	IP65 to IEC/EN 60529
Operating temperature	-30°C to +80°C
Regulations	IEC/EN 60204 IEC/EN 60947-5-1
Order code	FE-FS2-SU1ASDU1/U1-U1-U-xx (xx = RD = cover firered RAL 3000 )



The safety foot pedal FE-FS2-U1/SU1ASDU1-U-RD use safety switches.

The left foot pedal have two positions (free position and pressed down position). It may e.g. be used for the selection of AKAS® Box bending function or opening of a press. The right foot pedal have 3 positions, with a pressure point, to control dangerous movements (for instance get down of a press brake ect...). It has 2 working contacts ( 1NC+1NO) to drive the movement and one safety switch (1 positive opening NC contact + 1NO) to stop the movement. Pressing the foot pedal, till the pressure point, allows the changeover of the 2 working contacts. Once the pressure point is got over, the 2 working contacts return to their first position and the positive opening safety contact is activated in order to initiate immediately the dangerous movement. Thus a redundant information for the safety circuit is available. A restart of the machine is only possible after releasing the foot switch.

### Left pedal:

### Right pedal:

#### Switching diagram:

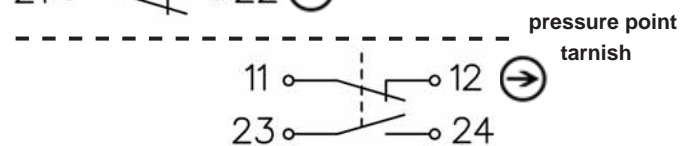
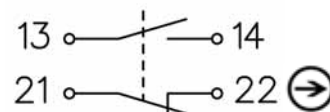
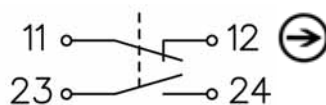
	free position	pressed down
23-24		
11-12		

Contact closed   
 Contact open

	free position	pressure point	pressed down
13-14			
21-22			
11-12			
23-24			

Contact closed   
 Contact open

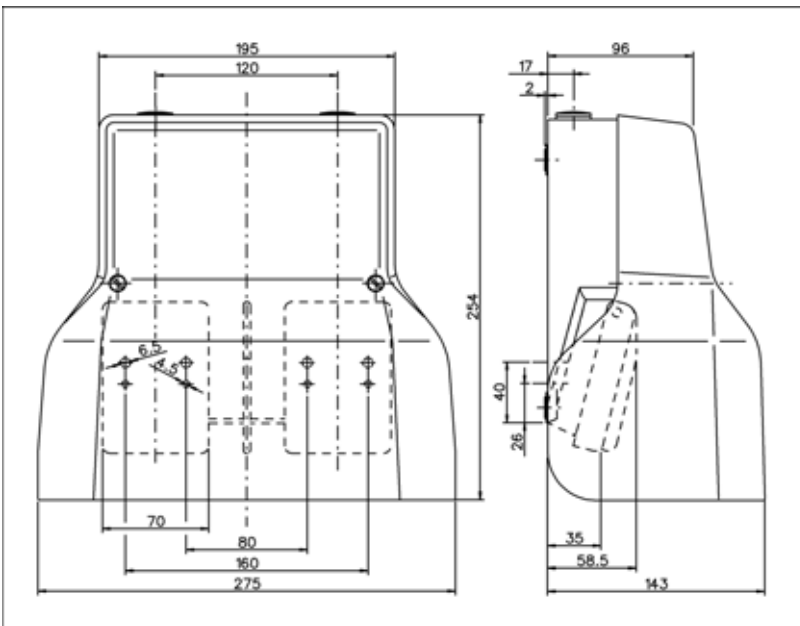
#### Switching elements:



Safety side



Execution	2 aluminum foot pedal heavy version free standing on slip elastic feet
Operating voltage	max. 500 VAC, 40-60Hz
Switching current	max. 10 A
Operations	min. 10 Mio.
Contact Material	Silver
Connection type	Screwterminal
Electrical connection	0,5-1,5 mm <sup>2</sup>
Cable entry	1x M20x1,5 (middle), 2x PG13,5
Switching insert	Left pedal: 1 changeover contact, positive opening Right pedal: 1 changeover contact, positive opening with tarnish after pressure point, 1 changeover contact, positive opening
Switching function	Right pedal: sequential circuit with pressure point
Pressure point	Right pedal: 200 N operating force
Switching system	Left pedal: Creep mechanism Right pedal: Jump-/ creep mechanism
Housing	Die cast aluminum, powder-coated RAL 7021 (dark gray)
Pedal	Thermoplastic fiberglass reinforced PA6.6 black
Accident cover	Die cast aluminum, powder-coated
Attachment	For mounting of the footpedal in the housing bottom (pedal area) are provided 2xØ4,5 and 2xØ6,5 holes (see drawing)
Protection type	IP65 to IEC/EN 60529
Operating temperature	-30°C to +80°C
Regulations	IEC/EN 60204 IEC/EN 60947-5-1
Order code	FE-FS2-U1/SU1ASDU1-U-xx (xx = RD = cover firered RAL 3000 )



The safety foot pedal FE-FS2-S2DO2A/U1-U use safety switches.

The right foot pedal have two positions (free position and pressed down position). It may e.g. be used for the selection of AKAS® Box bending function or opening of a press. The left foot pedal have 3 positions, with a pressure point, to control dangerous movements (for instance get down of a press brake ect...). It has 2 working contacts ( 2NO) to drive the movement and one safety switch (2 positive opening NC contact ) to stop the movement. Pressing the foot pedal, till the pressure point, allows the changeover of the 2 working contacts. Once the pressure point is got over, the 2 working contacts return to their first position and the positive opening safety contact is activated in order to initiate immediately the dangerous movement. Thus a redundant information for the safety circuit is available.

A restart of the machine is only possible after releasing the foot switch.

#### Left pedal:

#### Right pedal:

#### Switching diagram:

	free position	pressure point	pressed down
13-14			
23-24			

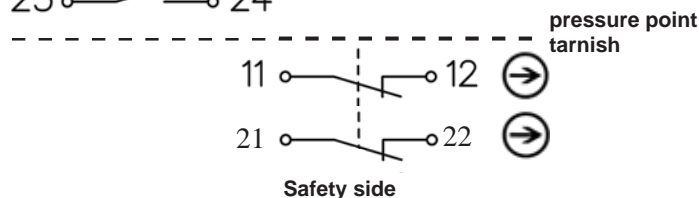
	free position	pressed down
23-24		
11-12		

Contact closed   
 Contact open

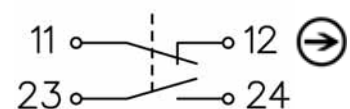
#### Switching elemnts:

11-12		
21-22		

Contact closed   
 Contact open

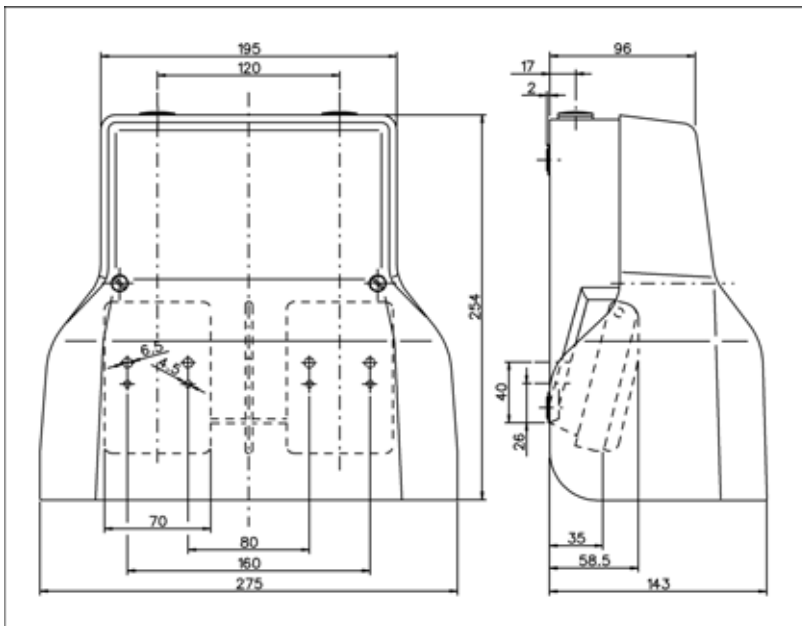


Safety side



pressure point tarnish

Execution	2 aluminum foot pedal heavy version free standing on slip elastic feet
Operating voltage	max. 500 VAC, 40-60Hz
Switching current	max. 10 A
Operations	min. 10 Mio.
Contact Material	Silver
Connection type	Screwterminal
Electrical connection	0,5-1,5 mm <sup>2</sup>
Cable entry	1x M20x1,5 (middle), 2x PG13,5
Switching insert	Left pedal: 2 NO contacts, with tarnish after pressure point, 2 NC contacts, positive opening
Switching function	Right pedal: 1 changeover contact, positive opening Left pedal: sequential circuit with pressure point
Pressure point	Left pedal: 200 N operating force
Switching system	Left pedal: Jump-/ creep mechanism Right pedal: Creep mechanism
Housing	Die cast aluminum, powder-coated RAL 7021 (dark gray)
Pedal	Thermoplastic fiberglass reinforced PA6.6 black
Accident cover	Die cast aluminum, powder-coated
Attachment	For mounting of the footpedal in the housing bottom (pedal area) are provided 2xØ4,5 and 2xØ6,5 holes (see drawing)
Protection type	IP65 to IEC/EN 60529
Operating temperature	-30°C to +80°C
Regulations	IEC/EN 60204 IEC/EN 60947-5-1
Order code	FE-FS2-S2DO2A/U1-U-XX (xx = RD = cover firered RAL 3000 )



The safety foot pedal FE-FS2-SU1DO2A/U1-U use safety switches.

The right foot pedal have two positions (free position and pressed down position). It may e.g. be used for the selection of AKAS® Box bending function or opening of a press. The left foot pedal have 3 positions, with a pressure point, to control dangerous movements (for instance get down of a press brake ect...). It has 2 working contacts ( 1NC+1NO) to drive the movement and one safety switch (2 positive opening NC contacts) to stop the movement. Pressing the foot pedal, till the pressure point, allows the changeover of the 2 working contacts. Once the pressure point is got over, the 2 working contacts return to their first position and the positive opening safety contact is activated in order to initiate immediately the dangerous movement. Thus a redundant information for the safety circuit is available.

A restart of the machine is only possible after releasing the foot switch.

#### Left pedal:

#### Right pedal:

#### Switching diagram:

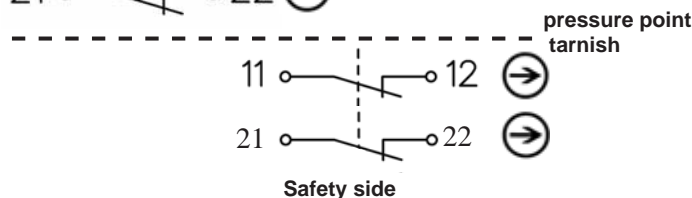
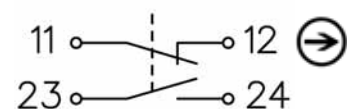
	free position	pressure point	pressed down
13-14			
21-22			
11-12			
21-22			

	free position	pressed down
23-24		
11-12		

Contact closed   
Contact open

#### Switching elemnts:

Contact closed   
Contact open



Execution	2 aluminum foot pedal heavy version free standing on slip elastic feet
Operating voltage	max. 500 VAC, 40-60Hz
Switching current	max. 10 A
Operations	min. 10 Mio.
Contact Material	Silver
Connection type	Screwterminal
Electrical connection	0,5-1,5 mm <sup>2</sup>
Cable entry	1x M20x1,5 (middle), 2x PG13,5
Switching insert	Left pedal: 1 changeover contact, positive opening with tarnish after pressure point, 2 positive opening contacts
Switching function	Rigth pedal: 1 changeover contact, positive opening Left pedal: sequential circuit with pressure point
Pressure point	Left pedal: 200 N operating force
Switching system	Left pedal: Jump-/ creep mechanism Right pedal: Creep mechanism
Housing	Die cast aluminum, powder-coated RAL 7021 (dark gray)
Pedal	Thermoplastic fiberglass reinforced PA6.6 black
Accident cover	Die cast aluminum, powder-coated
Attachment	For mounting of the footpedal in the housing bottom (pedal area) are provided 2xØ4,5 and 2xØ6,5 holes (see drawing)
Protection type	IP65 to IEC/EN 60529
Operating temperature	-30°C to +80°C
Regulations	IEC/EN 60204 IEC/EN 60947-5-1
Order code	FE-FS2-SU1DO2A/U1-U-XX (XX = RD = cover firered RAL 3000 )

## other Safety products



Safety Mats



Safety-Footpedal



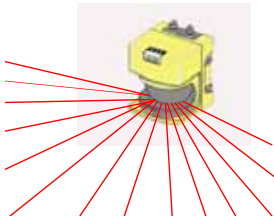
Parametricable  
Safetycontrol FPSC



Press Brake Protection  
System AKAS



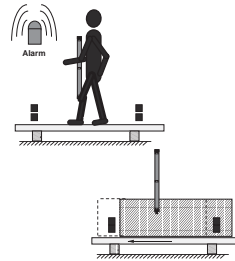
Safety-Light-Curtain



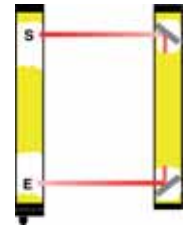
Proximity Laser Scanner



Single-Safety-Beam



Safety-Light-Grid with muting function



Safety-Light-Grid

## Service

As a special feature for training our customers, Fiessler Elektronik offers one-day safety workshops. Our service team provides you with expert advice and information for the reliable integration of our safety equipment into your machine.

## HOMOLOGATIONS

In order to ensure and maintain the high quality level of the Fiessler safety products, a quality control security system has been established early. Fiessler Elektronik holds the DIN ISO EN 9001 Certificate and, thanks to the company-owned EMC laboratory, all products must pass a inspection without exception before they leave the company. All safety equipment comply with the applicable national and international standards. Development and Design is made in close cooperation with the German employer's liability insurance associations. All homologations are obtained only after having passed strict tests by the German surveyor organisation TÜV.



## AWARD OF APPRECIATION

for exemplary performance in the development of the press brake protection system AKAS.

The award was bestowed upon Fiessler Elektronik by the ministry of trade and commerce of the federal state of Baden-Württemberg.



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Fiessler Elektronik has representations in all major industrial nations.

