



## Ex foot switches

### Single-pedal types

// Series Ex GF

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// Series Ex GFS

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// Series Ex GFI

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// Series Ex GFSI

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### Double-pedal types

// Series Ex GF 2

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// Series Ex GFS 2

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### Triple-pedal types

// Series Ex GF 3

from page 210

// Series Ex GFS 3

from page 211



# Ex foot switches

## Range of application

Ex foot switches are mounted on machines and plants in cases where operation by hand is not possible. They are used to start and stop operations and production processes. Depending on the environmental conditions and mechanical duty, different versions of foot switches are used.

## Design and operating principle

The Ex GFS and Ex GFSI range foot switches are mounted with a shield to protect against unintentional actuation.

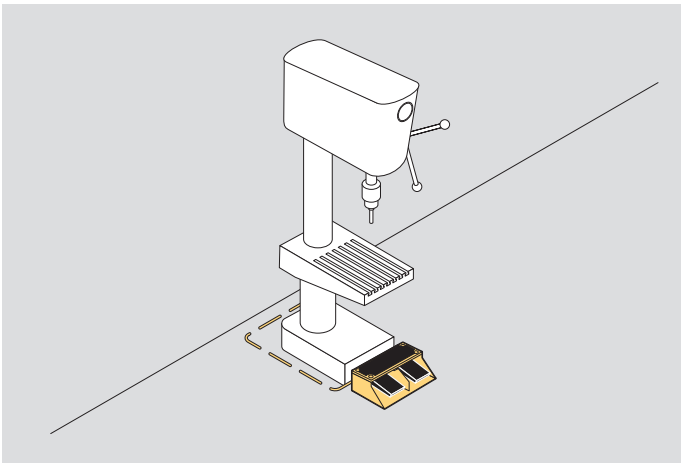
All Ex foot switches are equipped with slow or snap action contacts. They have IP 65 degree of protection.

All foot switches series Ex GF, Ex GFS, Ex GFI and Ex GFSI are Ex approved according to ATEX.

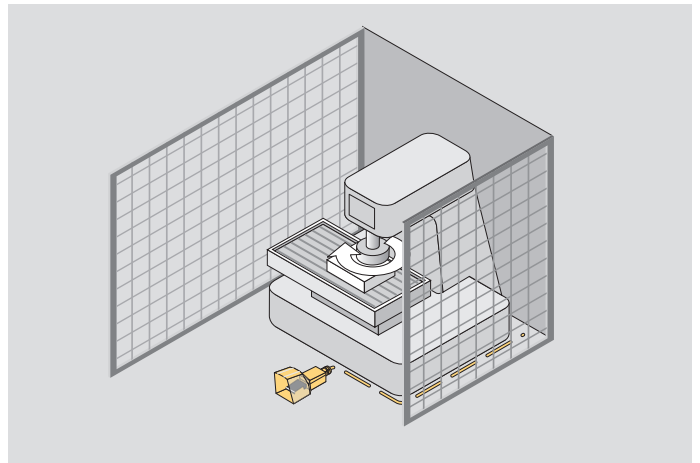
The foot switches bear the CE mark according to the Low Voltage Directive 06/95/EC and to ATEX 94/9/EC. The Ex foot switches per equipment category 3D bear the CE mark without the number of the notified body and have received a CE declaration of manufacturer conformity.

## Application

Foot switch on a drill machine



Foot switch on a CNC machining centre






# Ex foot switches

## // Series Ex GF

### Features/Options

- Ex zone 1 and 21
- Single-pedal
- Metal enclosure
- Without protective shield
- Max. 2 contacts
- Low pedal height
- With pre-wired cable, cable length 3 metres
- Available with special finish in RAL colour tones
- Special version only for dust Ex zone 22 available

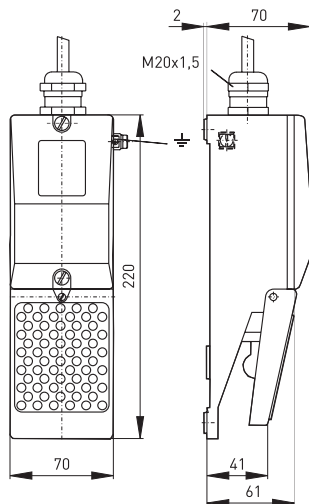
### Technical data

<b>Standards</b>	EN 60947-5-1; EN 1088; EN 60079-0, EN 60079-1, EN 60079-31; EN ISO 13849-1
<b>Enclosure</b>	aluminium die-cast, enamel finish, RAL 5011
<b>Cover</b>	glass-fibre reinforced thermoplastic
<b>Pedal</b>	glass-fibre reinforced thermoplastic
<b>Connection</b>	cable H05VV-F, length 3 m
<b>Cable section</b>	3 or 4 x 0.75mm <sup>2</sup> (incl. conductor ferrules)
<b>Contact material</b>	silver
<b>Protection class</b>	IP 65 to IEC/EN 60529
<b>Switching system</b>	slow action type Zb: 1 NC/1 NO contact with positive break ⊖; snap action type C: change-over contact with single break, type Za: 1 NC/1 NO contact with double break
<b>Switch insert</b>	slow action Ex GF: type Zb: Ex 14 snap action Ex GFM: type C: ExM 14, type Za: ExM 14 10/1S
<b>B<sub>10d</sub> (10 % load)</b>	Ex GF: 2 million
<b>T<sub>M</sub></b>	max. 20 years
<b>Utilisation category</b>	AC-15; DC-13
<b>I<sub>e</sub>/U<sub>e</sub></b>	type Zb: 6 A/250 VAC; 0,25 A/230 VDC, T > 65 °C: 3 A/250 VAC; 4 A/24 VDC; Form Za: 5 A/250 VAC; 0,2 A/230 VDC, type C: 5 A/250 VAC, 0.16 A/230 VDC
<b>Max. fuse rating</b>	Ex GF: 6 A gG/gN-fuse Ex GFM: 5 A gG/gN-fuse
<b>Ambient temperature</b>	T6: -20 °C ... +60 °C; T5: -20 °C ... +75 °C
<b>Mechanical life</b>	> 1 million operations
<b>Ex marking</b>	⊕ II 2G Ex d IIC T6/T5 Gb, II 2D Ex tb IIIC T80°C/T95°C Db IP65 IECEx Ex d IIC T6/T5 Gb Ex tb IIIC T80°C/T95°C Db IP65
<b>Approvals</b>	PTB 11 ATEX 2002 X; IECEx PTB 11.0090 X Ex GF: IECEx   

// EX GF



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### Contact variants: switch travel/contacts

	Snap action	Slow action
1 NC/1 NO contact	<b>Ex GFM 10/1S</b> GY 23 → 24 BK BU 11 → 12 BN	<b>Ex GF 10/1S</b> BN 11 → 12 BU BK 23 → 24 GY
1 change-over	<b>Ex GFM</b> BN → GY BK	

### Type code

**Ex GFM K 10/1S-3D-3m**

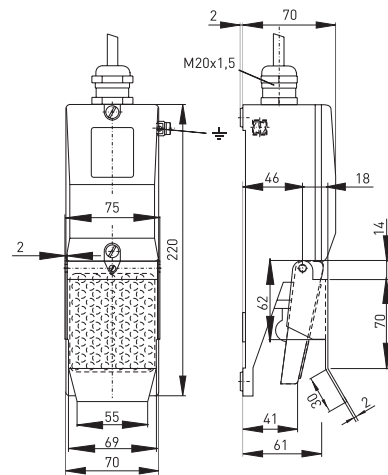
Cable length 3 m  
Equipment Categ. 3D,  
dust Ex zone 22  
1 NC/1 NO contact  
Pedal cover  
M Snap action (without M slow action)  
Series  
Ex certified component

Ex foot switches  
// Series Ex GF, variants

// Pedal cover K



// Pedal cover K






# Ex foot switches

## // Series Ex GFS

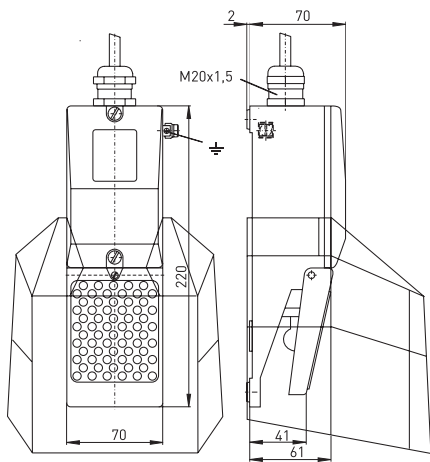
### Features/Options

- Ex zone 1 and 21
- Single-pedal
- Metal enclosure
- With protective shield
- Max. 2 contacts
- Low pedal height
- With pre-wired cable, cable length 3 metres
- Available with special finish in RAL colour tones
- Special version only for dust Ex zone 22 available

### Technical data

<b>Standards</b>	EN 60947-5-1; EN 1088; EN 60079-0, EN 60079-1, EN 60079-31; EN ISO 13849-1
<b>Enclosure</b>	aluminium die-cast, enamel finish, RAL 5011
<b>Pedal</b>	glass-fibre reinforced thermoplastic
<b>Protective shield</b>	aluminium die-cast, enamel finish, RAL 5011
<b>Connection</b>	cable H05VV-F, length 3 m
<b>Cable section</b>	3 or 4 x 0.75mm <sup>2</sup> (incl. conductor ferrules)
<b>Contact material</b>	silver
<b>Protection class</b>	IP 65 to IEC/EN 60529
<b>Switching system</b>	slow action type Zb: 1 NC/1 NO contact with positive break ⊖; snap action type C: change-over contact with single break, type Za: 1 NC/1 NO contact with double break
<b>Switch insert</b>	slow action Ex GF: type Zb: Ex 14 snap action Ex GFM: type C: ExM 14, type Za: ExM 14 10/1S
<b>B<sub>10d</sub> (10 % load)</b>	Ex GFS: 2 million
<b>T<sub>M</sub></b>	max. 20 years
<b>Utilisation category</b>	AC-15; DC-13
<b>I<sub>e</sub>/U<sub>e</sub></b>	type Zb: 6 A/250 VAC; 0,25 A/230 VDC, T > 65 °C: 3 A/250 VAC; 4 A/24 VDC; Form Za: 5 A/250 VAC; 0,2 A/230 VDC, type C: 5 A/250 VAC, 0,16 A/230 VDC
<b>Max. fuse rating</b>	Ex GFS: 6 A gG/gN-fuse Ex GFSM: 5 A gG/gN-fuse
<b>Ambient temperature</b>	T6: -20 °C ... +60 °C; T5: -20 °C ... +75 °C
<b>Mechanical life</b>	> 1 million operations
<b>Ex marking</b>	⊕ II 2G Ex d IIC T6/T5 Gb, II 2D Ex tb IIIC T80°C/T95°C Db IP65 IECEx Ex d IIC T6/T5 Gb Ex tb IIIC T80°C/T95°C Db IP65
<b>Approvals</b>	PTB 11 ATEX 2002 X; IECEx PTB 11.0090 X Ex GFS: IECEx   

// EX GFS



### Contact variants: switch travel/contacts

	Snap action	Slow action
1 NC/1 NO contact	<b>Ex GFSM 10/1S</b> GY 23 → 24 BK BU 11 → 12 BN	<b>Ex GFS 10/1S</b> BN 11 → 12 BU BK 23 → 24 GY
1 change-over	<b>Ex GFSM</b> BN → GY BK	

### Type code

**Ex GFSM K 10/1S-3D-3m**

- Cable length 3 m
- Equipment Categ. 3D, dust Ex zone 22
- 1 NC/1 NO contact
- Pedal cover
- M Snap action (without M slow action)
- S Protective shield
- Series
- Ex certified component

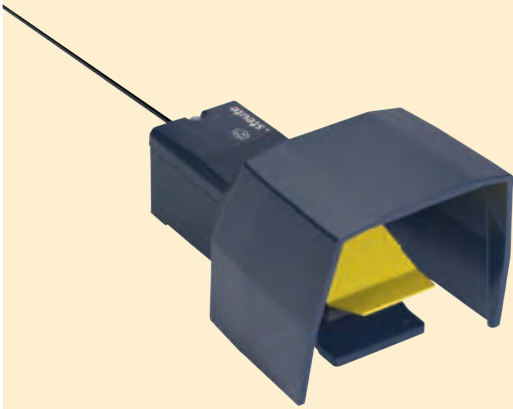
# Ex foot switches

## // Series Ex GFS, variants

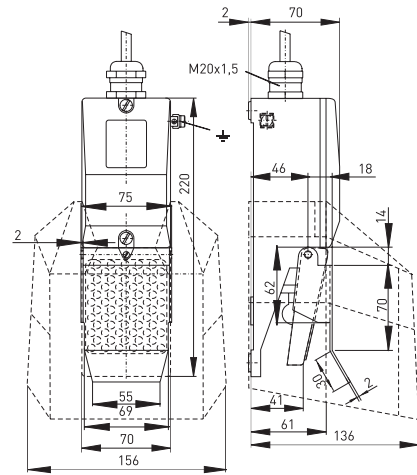
### Features/Options

- Carrying handle: stainless steel 1.1.4104 with thermoplastic grip

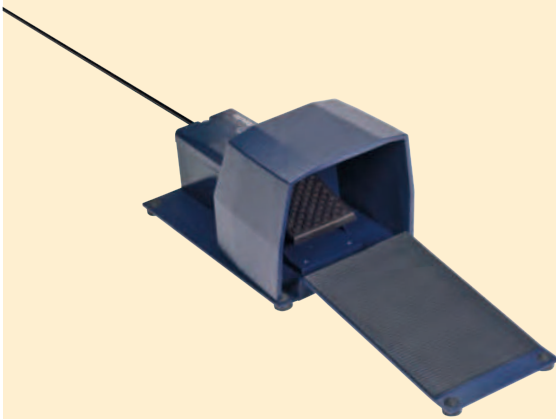
// Pedal cover K



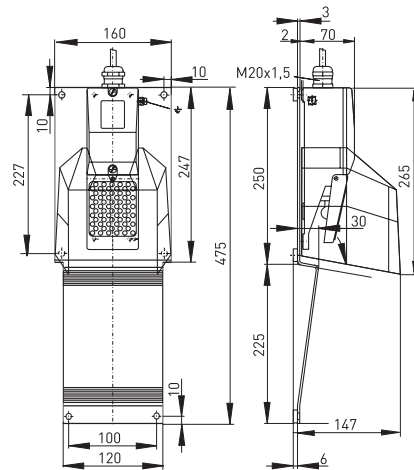
// Pedal cover K



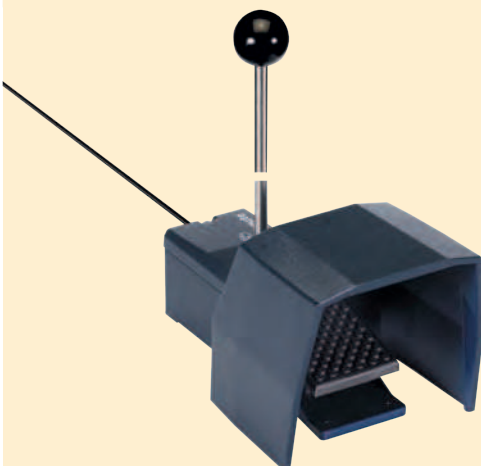
// Foot rest FST



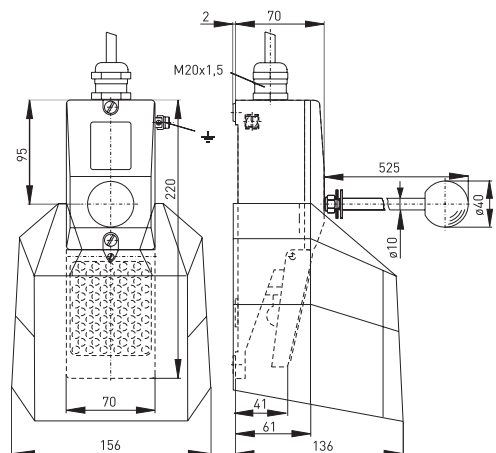
// Foot rest FST



// Carrying handle TST



// Carrying handle TST








# Ex foot switches

## // Series Ex GFI

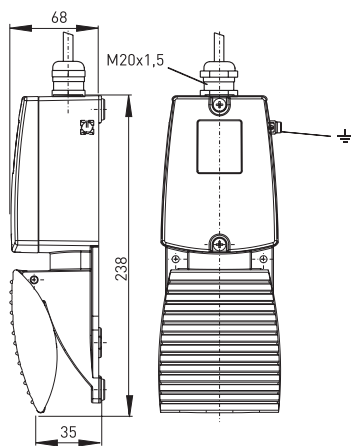
### Features/Options

- Ex zone 1 and 21
- Single-pedal
- Metal enclosure
- Without protective shield
- Max. 2 contacts
- Low pedal height
- With pre-wired cable, cable length 3 metres
- Available with special finish in RAL colour tones
- Special version only for dust Ex zone 22 available

### Technical data

<b>Standards</b>	EN 60947-5-1; EN 1088; EN 60079-0, EN 60079-1, EN 60079-31; EN ISO 13849-1
<b>Enclosure</b>	aluminium die-cast, enamel finish, RAL 5011
<b>Cover</b>	aluminium die-cast, enamel finish, RAL 2004
<b>Pedal</b>	aluminium die-cast, enamel finish, RAL 5011
<b>Connection</b>	cable H05VV-F, length 3 m
<b>Cable section</b>	3 or 4 x 0.75mm <sup>2</sup> (incl. conductor ferrules)
<b>Contact material</b>	silver
<b>Protection class</b>	IP 65 to IEC/EN 60529
<b>Switching system</b>	slow action type Zb: 1 NC/1 NO contact with positive break ⊖; snap action type C: change-over contact with single break, type Za: 1 NC/1 NO contact with double break
<b>Switch insert</b>	slow action Ex GF: type Zb: Ex 14 snap action Ex GFIM: type C: ExM 14, type Za: ExM 14 1Ö/1S
<b>B<sub>10d</sub> (10 % load)</b>	Ex GFI: 2 million
<b>T<sub>M</sub></b>	max. 20 years
<b>Utilisation category</b>	AC-15; DC-13
<b>I<sub>e</sub>/U<sub>e</sub></b>	type Zb: 6 A/250 VAC; 0,25 A/230 VDC, T > 65 °C: 3 A/250 VAC; 4 A/24 VDC; Form Za: 5 A/250 VAC; 0,2 A/230 VDC, type C: 5 A/250 VAC, 0.16 A/230 VDC
<b>Max. fuse rating</b>	Ex GFI: 6 A gG/gN-fuse Ex GFIM: 5 A gG/gN-fuse
<b>Ambient temperature</b>	T6: -20 °C ... +60 °C; T5: -20 °C ... +75 °C
<b>Mechanical life</b>	> 1 million operations
<b>Ex marking</b>	⊕ II 2G Ex d IIC T6/T5 Gb, II 2D Ex tb IIIC T80°C/T95°C Db IP65 IECEX Ex d IIC T6/T5 Gb Ex tb IIIC T80°C/T95°C Db IP65
<b>Approvals</b>	PTB 11 ATEX 2002 X; IECEx PTB 11.0090 X Ex GFI: IECEx   

// EX GFI



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### Contact variants: switch travel/contacts

	Snap action	Slow action
1 NC/1 NO contact	<b>Ex GFIM 1Ö/1S</b> GY 23 → 24 BK BU 11 → 12 BN	<b>Ex GFI 1Ö/1S</b> BN 11 → 12 BU BK 23 → 24 GY
1 change-over	<b>Ex GFIM</b> BN → GY BK	

### Type code

**Ex GFIM 1Ö/1S-3D-3m**

Cable length 3 m  
Equipment Categ. 3D,  
dust Ex zone 22  
1 NC/1 NO contact  
M Snap action (without M slow action)

Series  
Ex certified component




# Ex foot switches

## // Series Ex GFSI

### Features/Options

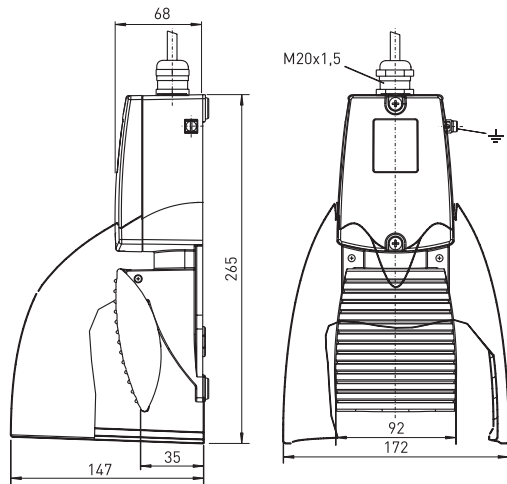
- Ex zone 1 and 21
- Single-pedal
- Metal enclosure
- With protective shield
- Max. 2 contacts
- Low pedal height
- With pre-wired cable, cable length 3 metres
- Available with special finish in RAL colour tones
- Special version only for dust Ex zone 22 available

### Technical data

<b>Standards</b>	EN 60947-5-1; EN 1088; EN 60079-0, EN 60079-1, EN 60079-31; EN ISO 13849-1
<b>Enclosure</b>	aluminium die-cast, enamel finish, RAL 5011
<b>Pedal</b>	aluminium die-cast, enamel finish, RAL 5011
<b>Protective shield</b>	aluminium die-cast, enamel finish, RAL 2004
<b>Connection</b>	cable H05VV-F, length 3 m
<b>Cable section</b>	3 or 4 x 0.75mm <sup>2</sup> (incl. conductor ferrules)
<b>Contact material</b>	silver
<b>Protection class</b>	IP 65 to IEC/EN 60529
<b>Switching system</b>	slow action type Zb: 1 NC/1 NO contact with positive break ⊖; snap action type C: change-over contact with single break, type Za: 1 NC/1 NO contact with double break
<b>Switch insert</b>	slow action Ex GF: type Zb: Ex 14 snap action Ex GFM: type C: ExM 14, type Za: ExM 14 1Ö/1S
<b>B<sub>10d</sub> (10 % load)</b>	Ex GFSI: 2 million
<b>T<sub>M</sub></b>	max. 20 years
<b>Utilisation category</b>	AC-15; DC-13
<b>I<sub>e</sub>/U<sub>e</sub></b>	type Zb: 6 A/250 VAC; 0,25 A/230 VDC, T > 65 °C: 3 A/250 VAC; 4 A/24 VDC; Form Za: 5 A/250 VAC; 0,2 A/230 VDC, type C: 5 A/250 VAC, 0.16 A/230 VDC
<b>Max. fuse rating</b>	Ex GFSI: 6 A gG/gN-fuse Ex GFSIM: 5 A gG/gN-fuse
<b>Ambient temperature</b>	T6: -20 °C ... +60 °C; T5: -20 °C ... +75 °C
<b>Mechanical life</b>	> 1 million operations
<b>Ex marking</b>	⊕ II 2G Ex d IIC T6/T5 Gb, II 2D Ex tb IIIC T80°C/T95°C Db IP65 IECEX Ex d IIC T6/T5 Gb Ex tb IIIC T80°C/T95°C Db IP65
<b>Approvals</b>	PTB 11 ATEX 2002 X; IECEX PTB 11.0090 X Ex GFSI: IECEX   

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// EX GFSI



### Contact variants: switch travel/contacts

	Snap action	Slow action
1 NC/1 NO contact	<b>Ex GFSIM 1Ö/1S</b> GY 23 — 24 BK BU 11 — 12 BN	<b>Ex GFSI 1Ö/1S</b> BN 11 ; 12 BU BK 23 — 24 6Y
1 change-over	<b>Ex GFSIM</b> BN — GY BK	

### Type code

**Ex GFSIM 1Ö/1S-3D-3m**

Cable length 3 m  
Equipment Categ. 3D,  
dust Ex zone 22  
1 NC/1 NO contact  
M Snap action (ohne M Slow action)  
Series, S Protective shield  
Ex certified component




# Ex foot switches

## // Series Ex GF 2

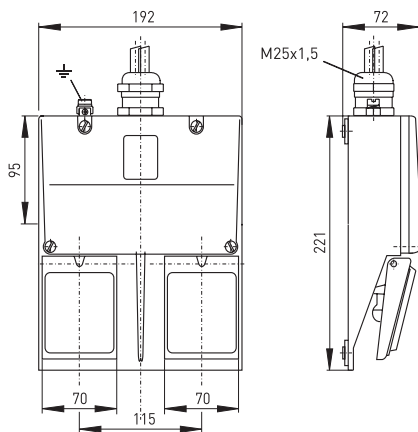
### Features/Options

- Ex zone 1 and 21
- Double-pedal
- Metal enclosure
- Without protective shield
- Max. 2 contacts per pedal
- Low pedal height
- With pre-wired cable, cable length 3 metres
- Available with special finish in RAL colour tones
- Special version only for dust Ex zone 22 available

### Technical data

<b>Standards</b>	EN 60947-5-1; EN 1088; EN 60079-0, EN 60079-1, EN 60079-31; EN ISO 13849-1
<b>Enclosure</b>	aluminium die-cast, enamel finish, RAL 5011
<b>Cover</b>	aluminium die-cast, enamel finish, RAL 5011
<b>Pedal</b>	glass-fibre reinforced thermoplastic
<b>Connection</b>	cable H05VV-F, length 3 m
<b>Cable section</b>	3 or 4 x 0.75mm <sup>2</sup> (incl. conductor ferrules)
<b>Contact material</b>	silver
<b>Protection class</b>	IP 65 to IEC/EN 60529
<b>Switching system</b>	slow action type Zb: 1 NC/1 NO contact with positive break ⊖; snap action type C: change-over contact with single break, type Za: 1 NC/1 NO contact with double break
<b>Switch insert</b>	slow action Ex GF: type Zb: Ex 14 snap action Ex GFM: type C: ExM 14, type Za: ExM 14 10/15
<b>B<sub>10d</sub> (10 % load)</b>	Ex GF 2: 2 million
<b>T<sub>M</sub></b>	max. 20 years
<b>Utilisation category</b>	AC-15; DC-13
<b>I<sub>e</sub>/U<sub>e</sub></b>	type Zb: 6 A/250 VAC; 0,25 A/230 VDC, T > 65 °C: 3 A/250 VAC; 4 A/24 VDC; Form Za: 5 A/250 VAC; 0,2 A/230 VDC, type C: 5 A/250 VAC, 0.16 A/230 VDC
<b>Max. fuse rating</b>	Ex GF 2: 6 A gG/gN-fuse Ex GFM 2: 5 A gG/gN-fuse
<b>Ambient temperature</b>	T6: -20 °C ... +60 °C; T5: -20 °C ... +75 °C
<b>Mechanical life</b>	> 1 million operations
<b>Ex marking</b>	⊕ II 2G Ex d IIC T6/T5 Gb, II 2D Ex tb IIIC T80°C/T95°C Db IP65 IECEX Ex d IIC T6/T5 Gb Ex tb IIIC T80°C/T95°C Db IP65
<b>Approvals</b>	PTB 11 ATEX 2002 X; IECEx PTB 11.0090 X Ex GF 2: IECEx   

// EX GF 2



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### Contact variants: switch travel/contacts

	Snap action	Slow action
1 NC/1 NO contact per pedal	<b>Ex GFM 2 10S/10S</b> GY 23 → 24 BK BU 11 → 12 BN	<b>Ex GF 2 10S/10S</b> BN 11 → 12 BU BK 23 → 24 GY
1 change-over per pedal	<b>Ex GFM 2</b> BN → GY BK	

### Type code

**Ex GFM 2 10S/10S-3D-3m**

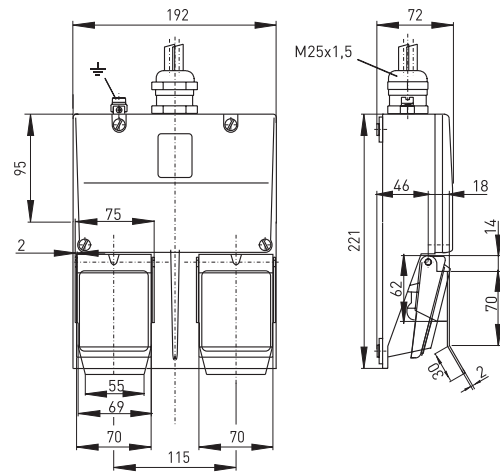
Cable length 3 m  
Equipment Categ. 3D,  
dust Ex zone 22  
1 NC/1 NO contact per pedal  
2 pedals  
M Snap action (without M slow action)  
Series  
Ex certified component

Ex foot switches  
// Series Ex GF 2, variants

// Pedal cover K



// Pedal cover K






# Ex foot switches

## // Series Ex GFS 2

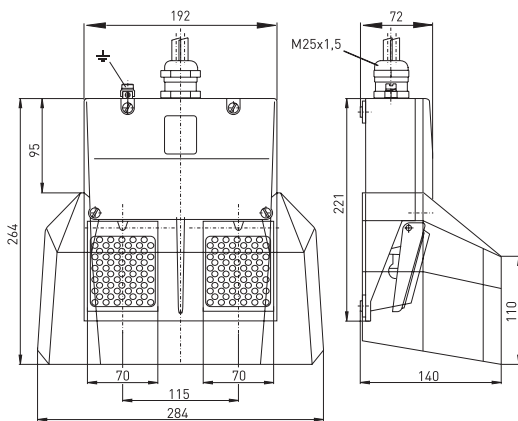
### Features/Options

- Ex zone 1 and 21
- Double-pedal
- Metal enclosure
- With protective shield
- Max. 2 contacts per pedal
- Low pedal height
- With pre-wired cable, cable length 3 metres
- Available with special finish in RAL colour tones
- Special version only for dust Ex zone 22 available

### Technical data

<b>Standards</b>	EN 60947-5-1; EN 1088; EN 60079-0, EN 60079-1, EN 60079-31; EN ISO 13849-1
<b>Enclosure</b>	aluminium die-cast, enamel finish, RAL 5011
<b>Pedal</b>	glass-fibre reinforced thermoplastic
<b>Protective shield</b>	aluminium die-cast, enamel finish, RAL 5011
<b>Connection</b>	cable H05VV-F, length 3 m
<b>Cable section</b>	3 or 4 x 0.75mm <sup>2</sup> (incl. conductor ferrules)
<b>Contact material</b>	silver
<b>Protection class</b>	IP 65 to IEC/EN 60529
<b>Switching system</b>	slow action type Zb: 1 NC/1 NO contact with positive break ⊖; snap action type C: change-over contact with single break, type Za: 1 NC/1 NO contact with double break
<b>Switch insert</b>	slow action Ex GF: type Zb: Ex 14 snap action Ex GFM: type C: ExM 14, type Za: ExM 14 10/1S
<b>B<sub>10d</sub> (10 % load)</b>	Ex GFS 2: 2 million
<b>T<sub>M</sub></b>	max. 20 years
<b>Utilisation category</b>	AC-15; DC-13
<b>I<sub>e</sub>/U<sub>e</sub></b>	type Zb: 6 A/250 VAC; 0,25 A/230 VDC, T > 65 °C: 3 A/250 VAC; 4 A/24 VDC; Form Za: 5 A/250 VAC; 0,2 A/230 VDC, type C: 5 A/250 VAC, 0.16 A/230 VDC
<b>Max. fuse rating</b>	Ex GFS 2: 6 A gG/gN-fuse Ex GFSM 2: 5 A gG/gN-fuse
<b>Ambient temperature</b>	T6: -20 °C ... +60 °C; T5: -20 °C ... +75 °C
<b>Mechanical life</b>	> 1 million operations
<b>Ex marking</b>	⊕ II 2G Ex d IIC T6/T5 Gb, II 2D Ex tb IIIC T80°C/T95°C Db IP65 IECEx Ex d IIC T6/T5 Gb Ex tb IIIC T80°C/T95°C Db IP65
<b>Approvals</b>	PTB 11 ATEX 2002 X; IECEx PTB 11.0090 X Ex GFS 2: IECEx   

### // EX GFS 2

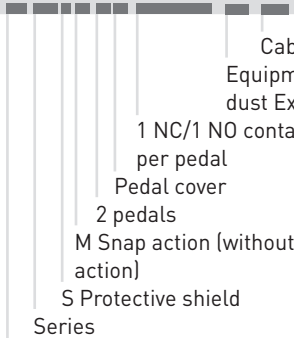


### Contact variants: switch travel/contacts

	Snap action	Slow action
1 NC/1 NO contact per pedal	Ex GFSM 2 10S/10S GY 23 → 24 BK BU 11 → 12 BN	Ex GFS 2 10S/10S BN 11 → 12 BU BK 23 → 24 GY
1 change-over per pedal	Ex GFSM 2 BN → GY BK	

### Type code

Ex GFSM 2 K 10S/10S-3D-3m


  
Cable length 3 m  
Equipment Categ. 3D,  
dust Ex zone 22  
1 NC/1 NO contact  
per pedal  
Pedal cover  
2 pedals  
M Snap action (without M slow  
action)  
S Protective shield  
Series  
Ex certified component

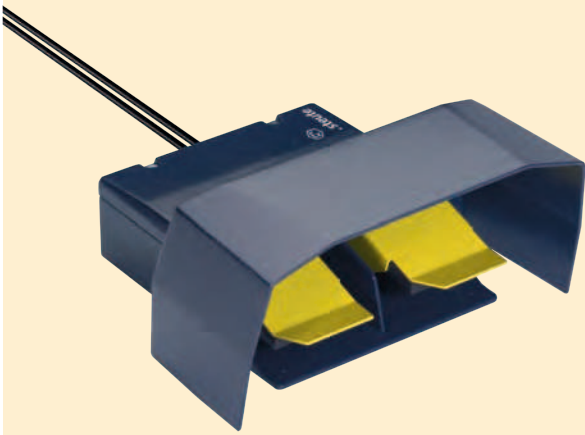
# Ex foot switches

## // Series Ex GFS 2, variants

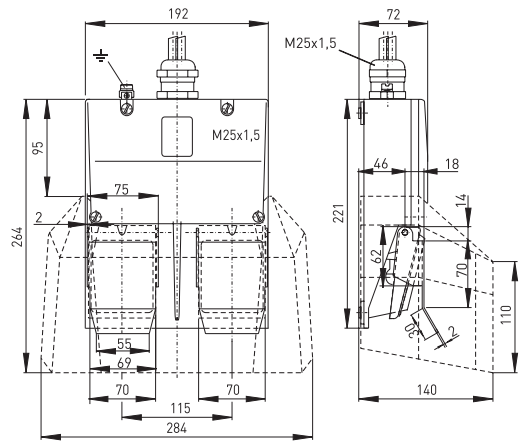
### Features/Options

- Carrying handle:  
stainless steel 1.4104 with thermoplastic grip

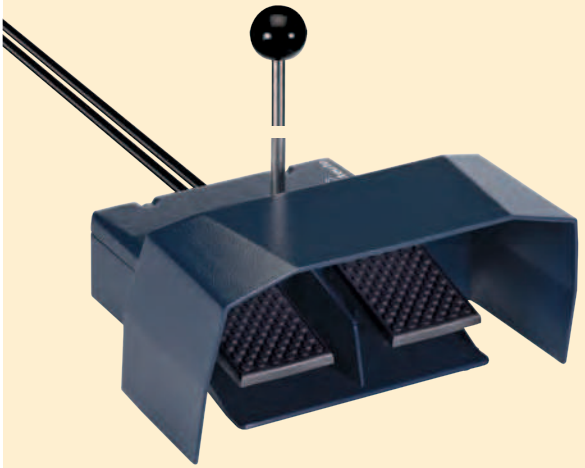
// Pedal cover K



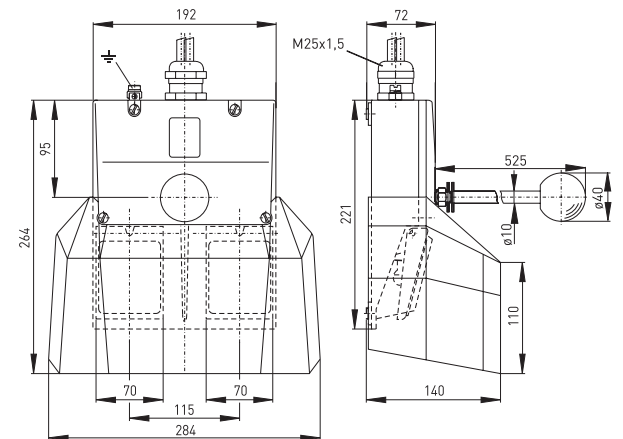
// Pedal cover K



// Carrying handle TST



// Carrying handle TST



# Ex foot switches

## // Series Ex GF 3

### Features/Options

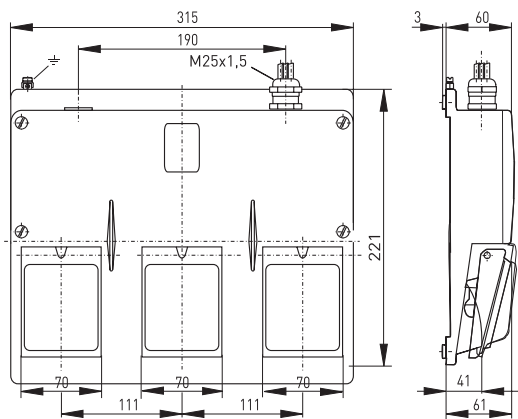
- Ex zone 1 and 21
- Triple-pedal
- Metal enclosure
- Without protective shield
- Max. 2 contacts per pedal
- Low pedal height
- With pre-wired cable, cable length 3 metres
- Available with special finish in RAL colour tones
- Special version only for dust Ex zone 22 available

// EX GF 3



### Technical data

<b>Standards</b>	EN 60947-5-1; EN 1088; EN 60079-0, EN 60079-1, EN 60079-31; EN ISO 13849-1
<b>Enclosure</b>	aluminium die-cast, enamel finish, RAL 5011
<b>Cover</b>	aluminium die-cast, enamel finish, RAL 5011
<b>Pedal</b>	glass-fibre reinforced thermoplastic
<b>Connection</b>	cable H05VV-F, length 3 m
<b>Cable section</b>	3 or 4 x 0.75mm <sup>2</sup> (incl. conductor ferrules)
<b>Contact material</b>	silver
<b>Protection class</b>	IP 65 to IEC/EN 60529
<b>Switching system</b>	slow action type Zb: 1 NC/1 NO contact with positive break ⊖; snap action type C: change-over contact with single break, type Za: 1 NC/1 NO contact with double break
<b>Switch insert</b>	slow action Ex GF: type Zb: Ex 14 snap action Ex GFM: type C: ExM 14, type Za: ExM 14 10/1S
<b>B<sub>10d</sub> (10 % load)</b>	Ex GF3: 2 million
<b>T<sub>M</sub></b>	max. 20 years
<b>Utilisation category</b>	AC-15; DC-13
<b>I<sub>e</sub>/U<sub>e</sub></b>	type Zb: 6 A/250 VAC; 0,25 A/230 VDC, T > 65 °C: 3 A/250 VAC; 4 A/24 VDC; Form Za: 5 A/250 VAC; 0,2 A/230 VDC, type C: 5 A/250 VAC, 0.16 A/230 VDC
<b>Max. fuse rating</b>	Ex GF 3: 6 A gG/gN-fuse Ex GFM 3: 5 A gG/gN-fuse
<b>Ambient temperature</b>	T <sub>6</sub> : -20 °C ... +60 °C; T <sub>5</sub> : -20 °C ... +75 °C
<b>Mechanical life</b>	> 1 million operations
<b>Ex marking</b>	⊕ II 2G Ex d IIC T6/T5 Gb, II 2D Ex tb IIIC T80°C/T95°C Db IP65 IECEx Ex d IIC T6/T5 Gb Ex tb IIIC T80°C/T95°C Db IP65
<b>Approvals</b>	PTB 11 ATEX 2002 X; IECEx PTB 11.0090 X Ex GF 3: IECEx



### Contact variants: switch travel/contacts

	Snap action	Slow action
1 NC/1 NO contact per pedal	<b>Ex GFM 3 10S/10S/10S</b> GY 23 → 24 BK BU 11 → 12 BN	<b>Ex GF 3 10S/10S/10S</b> BN 11 → 12 BU BK 23 → 24 GY
1 change-over per pedal	<b>Ex GFM 3</b> BN → GY BK	

### Type code

<b>Ex GFM 3 K 10S/10S/10S-3D-3m</b>	Cable length 3 m
	Equipment Category 3D, dust Ex zone 22
	1 NC/1 NO contact per pedal
	Pedal cover 3 pedals
	M Snap action (without M slow action)
	Series
	Ex certified component




# Ex foot switches

## // Series Ex GFS 3

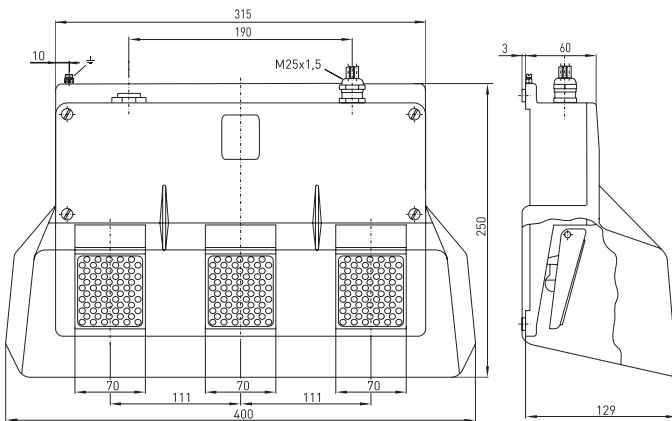
### Features/Options

- Ex zone 1 and 21
- Triple-pedal
- Metal enclosure
- With protective shield
- Max. 2 contacts per pedal
- Low pedal height
- With pre-wired cable, cable length 3 metres
- Available with special finish in RAL colour tones
- Special version only for dust Ex zone 22 available

### Technical data

<b>Standards</b>	EN 60947-5-1; EN 1088; EN 60079-0, EN 60079-1, EN 60079-31; EN ISO 13849-1
<b>Enclosure</b>	aluminium die-cast, enamel finish, RAL 5011
<b>Pedal</b>	glass-fibre reinforced thermoplastic
<b>Protective shield</b>	aluminium die-cast, enamel finish, RAL 5011
<b>Connection</b>	cable H05VV-F, length 3 m
<b>Cable section</b>	3 or 4 x 0.75mm <sup>2</sup> (incl. conductor ferrules)
<b>Contact material</b>	silver
<b>Protection class</b>	IP 65 to IEC/EN 60529
<b>Switching system</b>	slow action type Zb: 1 NC/1 NO contact with positive break ⊖; snap action type C: change-over contact with single break, type Za: 1 NC/1 NO contact with double break
<b>Switch insert</b>	slow action Ex GF: type Zb: Ex 14 snap action Ex GFM: type C: ExM 14, type Za: ExM 14 10/1S
<b>B<sub>10d</sub> (10 % load)</b>	Ex GFS3: 2 million
<b>T<sub>M</sub></b>	max. 20 years
<b>Utilisation category</b>	AC-15; DC-13
<b>I<sub>e</sub>/U<sub>e</sub></b>	type Zb: 6 A/250 VAC; 0,25 A/230 VDC, T > 65 °C: 3 A/250 VAC; 4 A/24 VDC; Form Za: 5 A/250 VAC; 0,2 A/230 VDC, type C: 5 A/250 VAC, 0.16 A/230 VDC
<b>Max. fuse rating</b>	Ex GFS 3: 6 A gG/gN-fuse Ex GFSM 3: 5 A gG/gN-fuse
<b>Ambient temperature</b>	T6: -20 °C ... +60 °C; T5: -20 °C ... +75 °C
<b>Mechanical life</b>	> 1 million operations
<b>Ex marking</b>	⊕ II 2G Ex d IIC T6/T5 Gb, II 2D Ex tb IIIC T80°C/T95°C Db IP65 IECEx Ex d IIC T6/T5 Gb Ex tb IIIC T80°C/T95°C Db IP65
<b>Approvals</b>	PTB 11 ATEX 2002 X; IECEx PTB 11.0090 X Ex GFS 3: IECEx   

// EX GFS 3



### Contact variants: switch travel/contacts

	Snap action	Slow action
1 NC/1 NO contact per pedal	Ex GFSM 3 10S/10S/10S GY 23 — 24 BK BU 11 — 12 BN	Ex GFS 3 10S/10S/10S BN 11 ; 12 BU BK 23 — 24 6Y
1 change-over per pedal	Ex GFSM 3 BN — GY BK —	

### Type code

Ex GFSM 3 K 10S/10S/10S-3D-3m

Cable length 3 m  
Equipment Category 3D, dust Ex zone 22  
1 NC/1 NO contact per pedal  
Pedal cover  
3 pedals  
M Snap action (without M slow action)  
S Protective shield  
Series  
Ex certified component