

Automation



// SYSTEMATIC CONTROL SWITCHGEAR

Multifunction handles



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// SAFE SWITCHGEAR FOR DEMANDING AND CRITICAL APPLICATIONS

Wireless



Automation



Extreme



Meditec



»Safe switchgear for demanding and critical applications«. True to this motto, steute has been providing its customers with innovative, practical and durable switchgear solutions – for over 50 years.

When our customers are successful, so are we. Because we always focus on our customers, our company has grown steadily and sustainably over the last decades. Steute is committed to continuing this growth – in close cooperation with our customers.

We are situated in East Westphalia, a key region for machine building and electrical goods manufacturing. It is home to qualified specialists committed to developing and manufacturing innovative products. It is also the location of renowned universities, research and educational institutions to which we maintain healthy contacts.

Markets are no longer restricted by national borders. This is why our products are developed and tested for extreme conditions all over the world. We take care to ensure that our products are always certified according to the latest international standards. In every industrial or emerging nation in the world, steute has access to qualified specialists who can guarantee competent support and a quick service.

As a medium-sized company we are able to react with speed to customer wishes and market trends. We are continually developing innovative products and using new technologies as we consistently open up new fields of application for our switchgear.

steute is currently active in four different business fields, producing switchgear, sensors and control units for use in industry and in medical equipment:

Wireless

Cable free switchgear and sensors for use in machinery and process plants. These industrial-strength wireless switches communicate with higher level control systems via reliable radio transmission. »Energy harvesting« can play a major role in these products.

Automation

Standard and customised switchgear for machinery and process plants. Tried and tested electromechanical and non-contact technologies for classical applications in industrial automation and process control – always with a view to the latest global requirements.

Extreme

Switchgear and sensors for use in extreme environments or under extreme conditions. Certified products for use in hazardous areas worldwide (e. g. ATEX, IECEx, GOST).

Meditec

A comprehensive range of standard and customised foot and hand controls for medical devices, meeting the highest ergonomic and availability requirements. Produced in accordance with the certified EN ISO 13485 quality management system for medical products.

The following information provides an overview of our standard range of switchgear for complex and demanding applications. We will be happy to provide you with any additional information you require. If you cannot find the solution for your application: just get in touch. We have already helped numerous customers by developing »tailor-made« switchgear for their individual needs.

Marc Stanesby
Managing Director
steute Schaltgeräte GmbH & Co. KG





Multifunction handles thermoplastic

// Series TG
from page 10



Multifunction handles

Application

The door handle switches are suitable for unlocking of solenoid interlocks on sliding, hinged and removable guard doors that need to be closed to secure the required operators' safety. By integration of the emergency-stop, start, enabling, reset and LED display function the door handle switch allows for additional monitoring and operation of the machine directly at the door or flap.

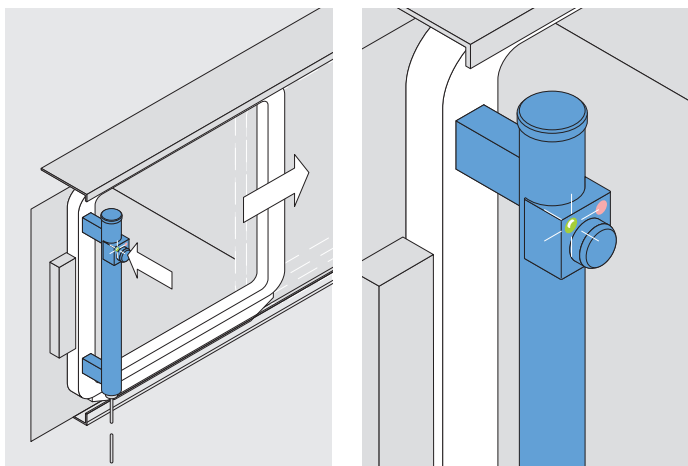
Design and operating principle

The door handle switches are available with NO or change-over contact. The emergency-stop push-button can either be provided with one or two NC contacts and conform to EN 418. All door handle switches shown in this chapter are equipped with a plug-in connector. Different colours of push-button caps for door handle switches series TG and TGM are available on request. For customised versions we give support by providing a »selection guide« at the end of the chapters TG and TGM. This page should be faxed to steute. Do not hesitate to contact us.

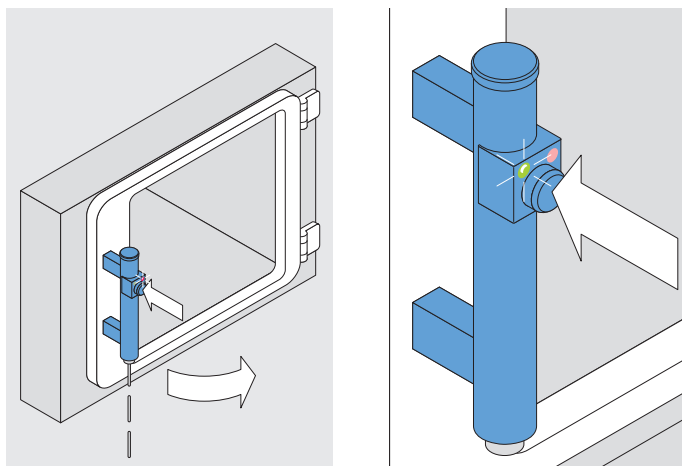
All door handle switches described in this chapter bear the CE mark according to the low voltage directive 06/95/EG.

Application

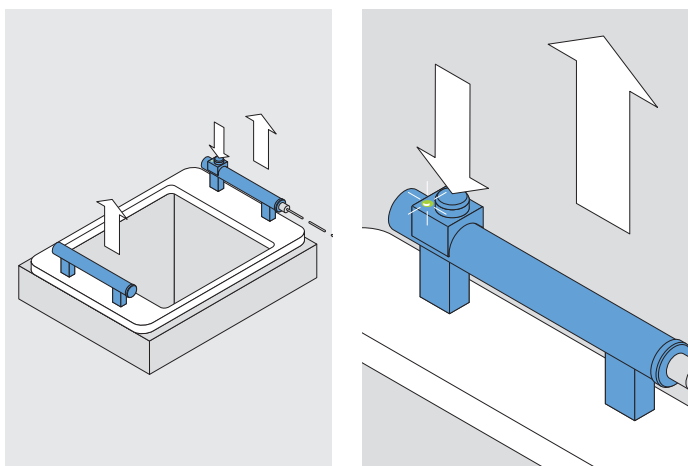
On sliding doors



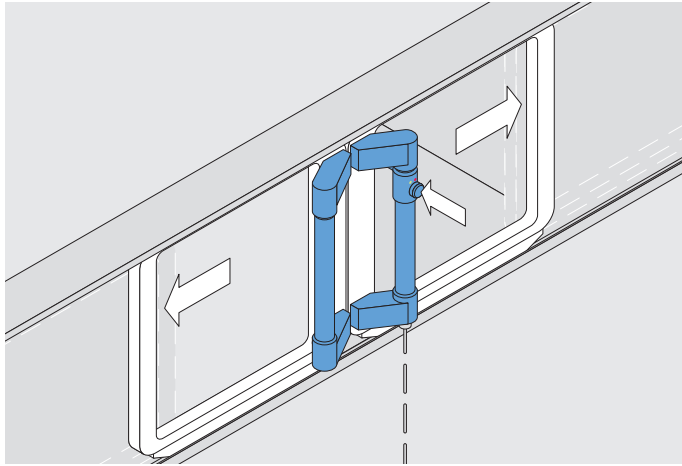
On hinged doors



On removable doors



On double doors



Multifunction handles

// Series TG

Features/options

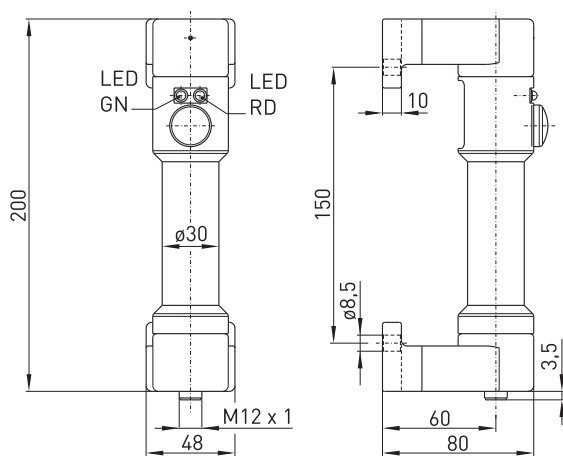
- Thermoplastic handle
- High life time
- Green and red LED
- Green enabling push-button:
TG-W GR xx: single break change-over, order No. 97 75 50 01
TG-ÖS GR xx: 1 NC/1 NO contact, order No. 97 15 50 02
- Protection class IP 65
- With plug-in connector M12 x 1, 8-poles
- Available as radio switch with solar cell, for detailed information see catalogue »Industrial switchgear with radio technology«

// TG



Technical data

Directives	IEC/EN 60947-5-1
Enclosure	Glassfibre reinforced, shockproof thermoplastic, POM
Protection class	IP 65 per IEC/EN 60529
Termination	Plug-in connector, A-coded
U _e LEDs	max. 24 VDC +10%
U _c	0.1 VAC/DC . . . 25 VAC/42 VDC
Rated switching current	max. 0.1 A AC/DC
Rated switching capacity	max. 0.6 W
Degree of pollution	3
Mechanical life	> 1 million operations
Ambient temperature	-25 ... +55 °C



Contact variants: Contacts

	TG-W GR xx	TG-ÖS GR xx
LEDs		
Enabling push-button		
Plug-in configuration (view from plug side)		

Multifunction handles

Features/options

- Blue start push-button: 1 NO contact
- Green and red LED
- Green enabling push-button: single break change-over
- Protection class IP 65
- With plug-in connector M12 x 1, 8-poles
- Order No. 97 75 59 21

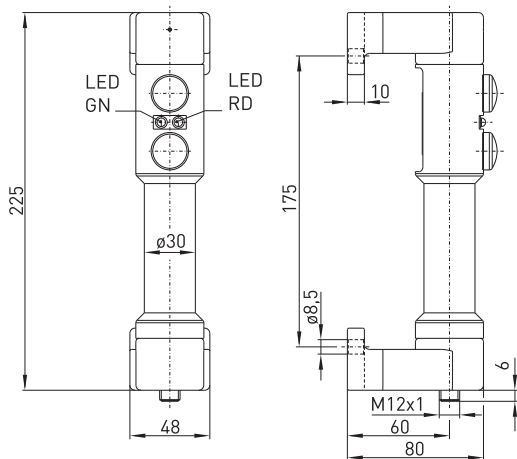
Features/options

- Grey start push-button: 1 NO contact
- Green and red LED
- Green enabling push-button: 1 NO contact
- Protection class IP 65
- With plug-in connector M12 x 1, 8-poles

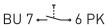
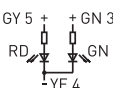

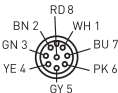
```
// 2 push-buttons
```



```
// 2 push-buttons
```



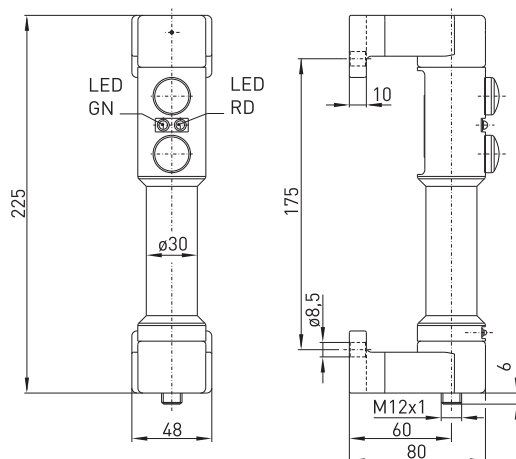
Contact variants: Contacts

	TG-W GR x S
Start push-button	
LEDs	
Enabling push-button	
Plug-in configuration (view from plug side)	


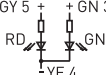

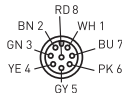
```
// 2 push-buttons
```



```
// 2 push-buttons
```



Contact variants: Contacts

	TG-S GR x S
Start push-button	BU 7 
LEDs	GY 5 
Enabling push-button	WH 1 
Plug-in configuration (view from plug side)	

Multifunction handles

// Series TG, variants

Features/options

- Grey start push-button: 1 NO contact
- Green and red LED
- Green enabling push-button: 1 change-over contact
- Protection class IP 65
- With plug-in connector M12 x 1, 8-poles
- Order No. 97 75 59 04

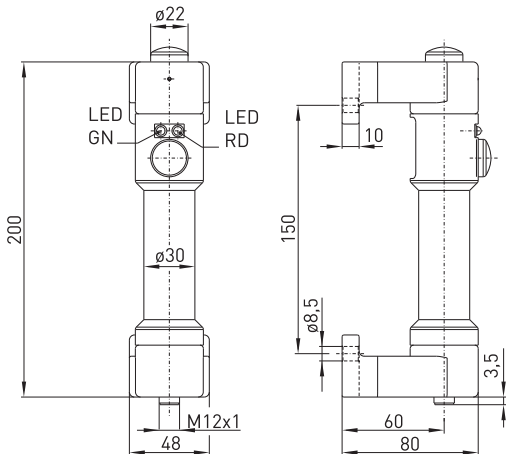
Features/options

- Green enlightened start push-button: 1 NO contact, glow lamp
- Green and red LED
- Green enabling push-button: 1 NO contact
- Protection class IP 65
- With plug-in connector M12 x 1, 8-poles
- Order No. 97 95 59 02

// Push-button top, 1 push-button



// Push-button top, 1 push-button



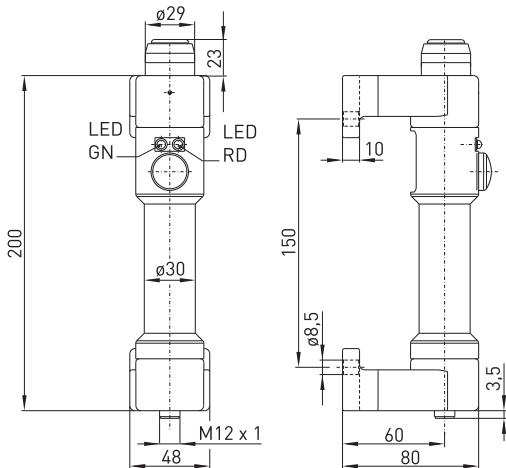
Contact variants: Contacts

	TG-W GR x S
Start push-button	BU 7 6 PK
LEDs	<div> <div>GY 5</div> <div>RD</div> <div>YE 4</div> <div>GN 3</div> <div>GN</div> </div>
Enabling push-button	BN 2 8 RD WH 1
Plug-in configuration (view from plug side)	

// Push-button top enlightened, 1 p.-button



// Push-button top enlightened, 1 p.-button



Contact variants: Contacts

	TG-S GR x SG
Start push-button, enlighted	BU 7 6 PK
LEDs	<div> <div>GY 5</div> <div>RD</div> <div>YE 4</div> <div>GN 3</div> <div>GN</div> </div> <div> <div>BN 2</div> <div>YE 4</div> <div>GN</div> </div>
Enabling push-button	WH 1 8 RD
Plug-in configuration (view from plug side)	

Features/options

- Key switch: single break change-over, latching
- Grey start push-button: 1 NO contact
- Green and red LED
- Green enabling push-button: single break change-over
- Protection class IP 65
- With plug-in connector M23 x 1, 12-poles
- Order No. 97 75 59 07

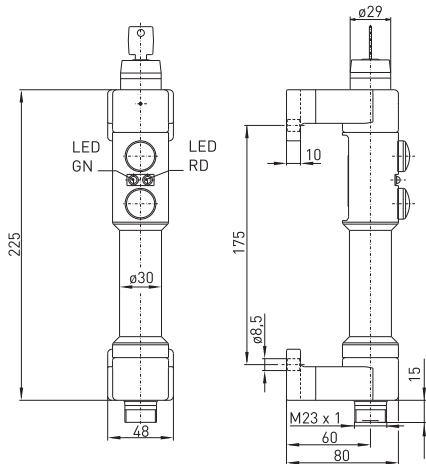
Features/options

- Emergency-stop push-button:
TG-W GR 1Ö x 1-channel ⊖, order No. 97 75 50 02
TG-W GR 2Ö x 2-channel ⊖, order No. 97 75 59 03
- Emergency-stop push-button per EN 418
- Green and red LED
- Green enabling push-button: single break change-over
- Protection class IP 65
- TG-W GR 1Ö x: with plug-in connector M12 x 1, 8-poles
TG-W GR 2Ö x: with plug-in connector M23 x 1, 12-poles

// Key switch, 2 push-buttons



// Key switch, 2 Push-buttons



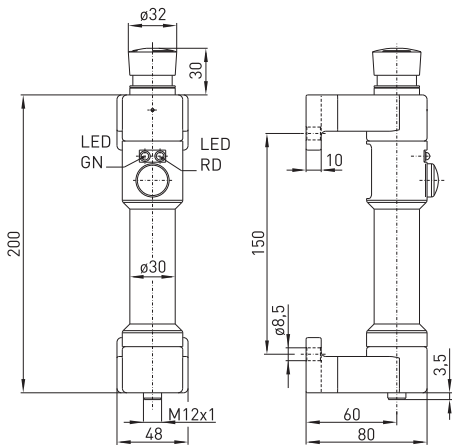
Contact variants: Contacts

	TG-W GR x SW
Key switch	
LEDs	
Start-/Enabling push-button	
Plug-in configuration (view from plug side)	

// Emergency-stop p.-button, 1 p.-button



// Emergency-stop p.-button, 1 p.-button



Contact variants: Contacts

	TG-W GR 1Ö x	TG-W GR 2Ö x
Emergency-stop push-button		
LEDs		
Enabling push-button		
Plug-in configuration (view from plug side)		

Multifunction handles

// Series TG, variants

Features/options

- Emergency-stop push-button, 2-channel ⊖
- Emergency-stop push-button per EN 418
- Green and yellow LED
- Black enabling push-button: 1 NC/1 NO contact
- Protection class IP 65
- With plug-in connector M23 x 1, 12-poles
- Order No. 97 15 59 02

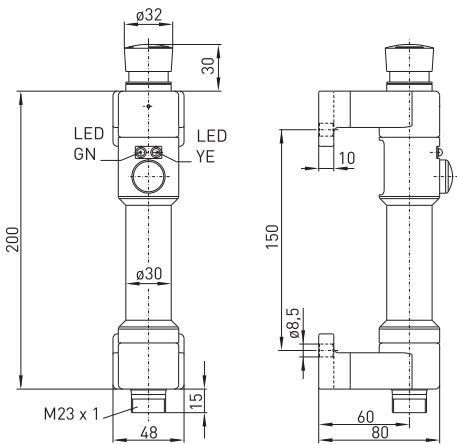
Features/options

- Emergency-stop push-button, 2-channel ⊖
- Emergency-stop push-button per EN 418
- Black start push-button: 1 NO contact
- Black enabling push-button: 1 NO contact
- Protection class IP 65
- With plug-in connector M12 x 1, 8-poles
- Order No. 97 95 59 12

// Emergency-stop p.-button, 1 p.-button



// Emergency-stop p.-button, 1 p.-button



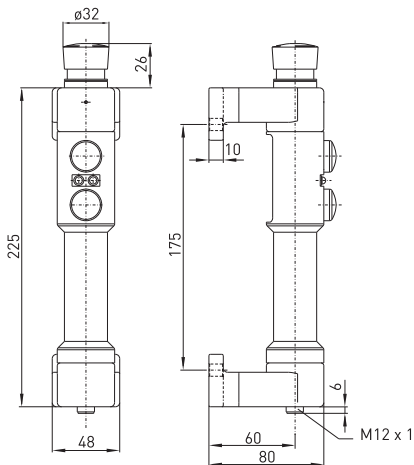
Contact variants: Contacts

	TG-ÖS GY 20 x
Emergency-stop push-button	
LEDs	
Enabling push-button	
Plug-in configuration (view from plug side)	

// E-stop push-button, 2 push-buttons



// E-stop push-button, 2 push-buttons



Contact variants: Contacts

	TG-S xx 20 S
Emergency-stop push-button	
Enabling push-button	
Start push-button	
Plug-in configuration (view from plug side)	

Features/options

- Emergency-stop push-button, 2-channel ☹
- Emergency-stop push-button per EN 418
- Black start push-button: 1 NO contact
- Grey reset push-button: 1 NO contact
- Green LED
- Green enabling push-button: 1 NO contact
- Protection class IP 65
- With plug-in connector M23 x 1, 12-poles
- Order No. 97 95 59 06

Features/options

- Emergency-stop push-button, 2-channel ☹
- Emergency-stop push-button per EN 418
- Red enlighth start push-button: 1 NO contact
- Green and red LED
- Green enabling push-button: 1 NO contact
- Protection class IP 65
- With plug-in connector M23 x 1, 12-poles
- Order No. 97 95 59 03

// E-stop push-button, 3 push-buttons



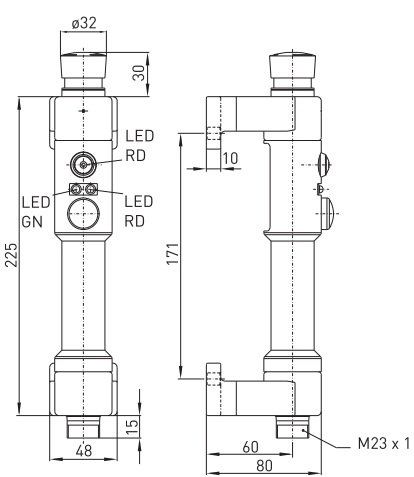
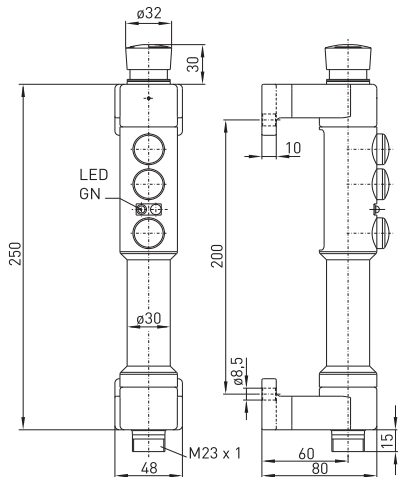
// E-stop push-button, 3 push-buttons

// E-stop p.-button, enlighth p.-button








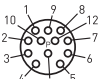
// E-stop p.-button, enlighth p.-button


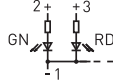




15



Contact variants: Contacts

Contact variants: Contacts

	TG-S G 2Ö SS		
Emergency-stop push-button			
LEDs			
Start/Reset/ Enabling push-button			
Plug-in configuration (view from plug side)			

	TG-S GR 2Ö SR		
Emergency-stop push-button			
LEDs			
Enabling/Start push-button			
Plug-in configuration (view from plug side)			

Multifunction handles

// Series TG, variants

Features/options

- Door handle without electrical function
- Application on double doors
- Length: 200 mm
- Order No. 97 90 09 01

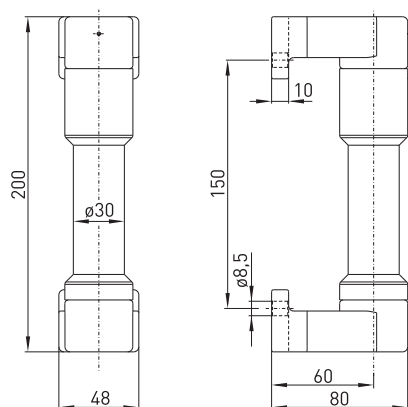
Features/options

- Door handle without electrical function
- Application on double doors
- Length: 225 mm
- Order No. 97 90 09 04

// Without electrical function



// Without electrical function

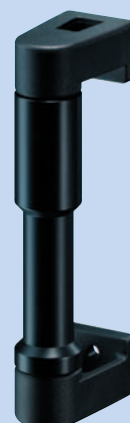


Contact variants: Contacts

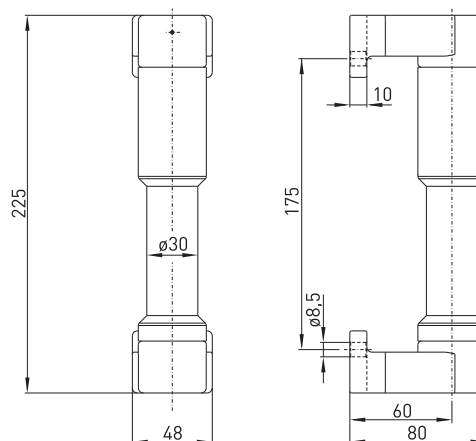
TG-x-150

Without electrical
function

// Without electrical function



// Without electrical function

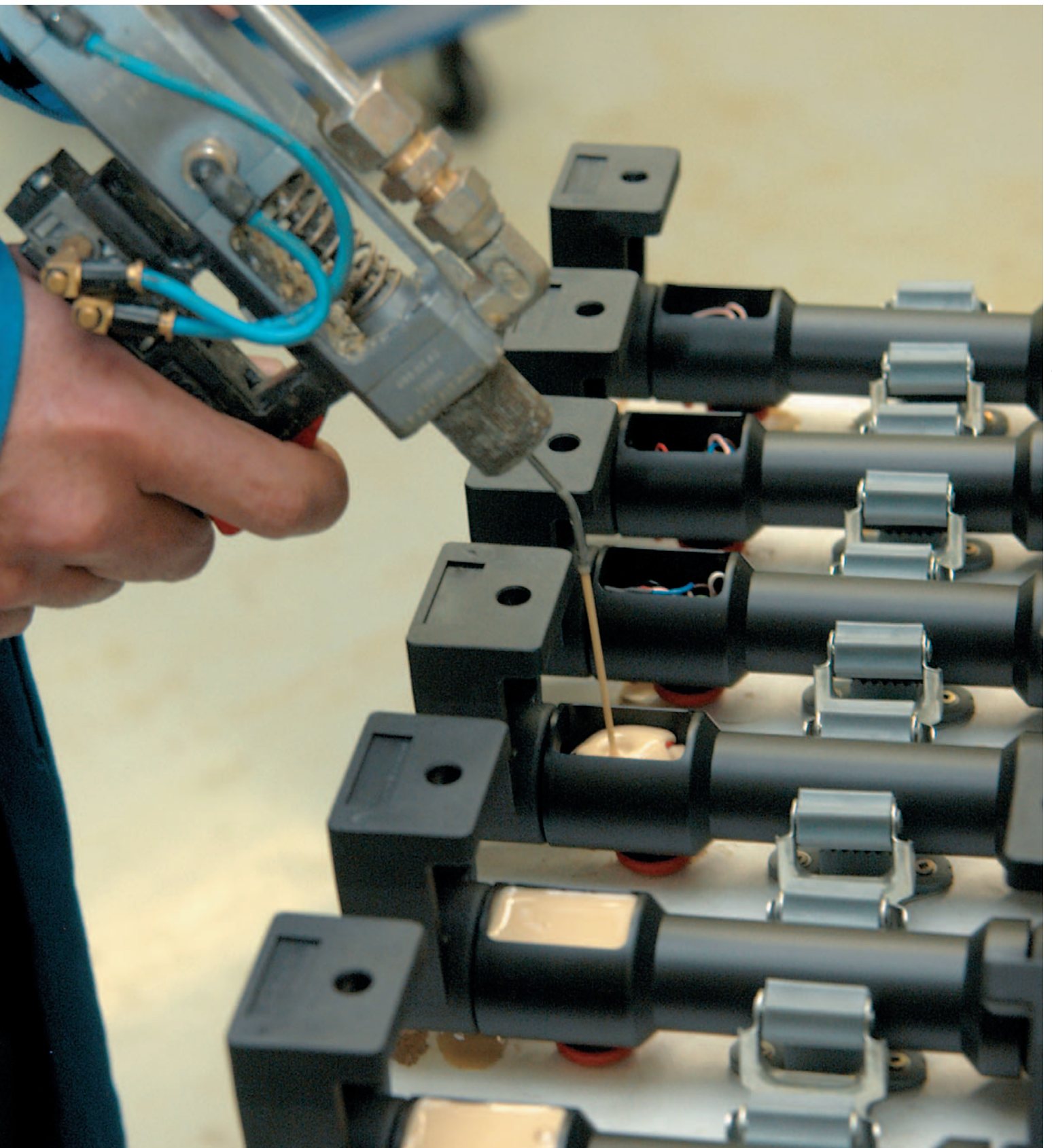


Contact variants: Contacts

TG-x-175

Without electrical
function

PRODUCTION PROCESS ASSEMBLY
MOULDING OF MULTIFUNCTION HANDLES



Multifunction handles

// Series TG, variants

Features/options

- Variant for right-hinged doors
- Green and red LED
- Green enabling push-button: single break change-over
- Protection class IP 65
- With plug-in connector M12 x 1, 8-poles
- TG-W GR xx: order No. 97 75 59 02

Features/options

- Variant for left-hinged doors
- Green and red LED
- Green enabling push-button: single break change-over
- Protection class IP 65
- With plug-in connector M12 x 1, 8-poles

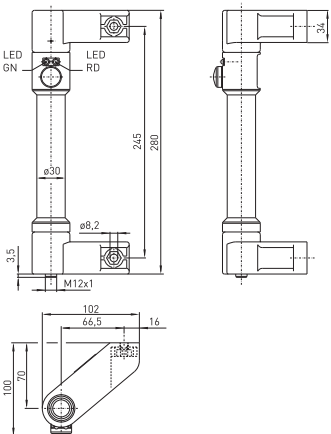
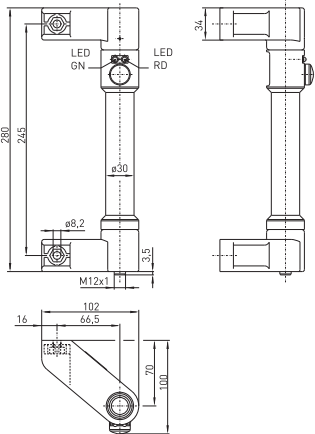
// Mounting left side, 1 push-button



// Mounting right side, 1 push-button



// Mounting left side, 1 push-button



Contact variants: Contacts

	TG-W GR xx	TG-ÖS GR xx
LEDs		
Enabling push-button		
Plug-in configuration (view from plug side)		

Contact variants: Contacts

	TG-W GR xx	TG-ÖS GR xx
LEDs		
Enabling push-button		
Plug-in configuration (view from plug side)		

Features/options

- Variant for right-hinged doors
- Green enlightened start push-button: 1 NO contact, glow lamp
- Green and red LED
- Green enabling push-button: 1 NO contact
- Protection class IP 65
- With plug-in connector M12 x 1, 8-poles
- Order No. 97 95 59 01

Features/options

- Variant for left-hinged doors
- Green enlightened start push-button: 1 NO contact, glow lamp
- Green and red LED
- Green enabling push-button: 1 NO contact
- Protection class IP 65
- With plug-in connector M12 x 1, 8-poles

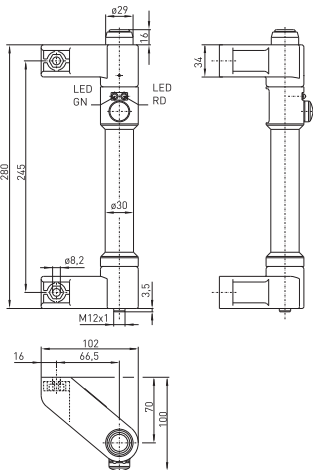
// Mounting left side, 2 push-buttons



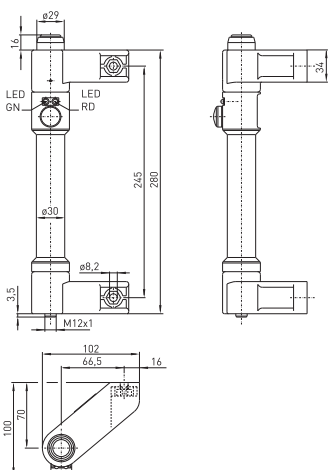
// Mounting right side, 2 push-buttons



// Mounting left side, 2 push-buttons



// Mounting right side, 2 push-buttons



Contact variants: Contacts

	TG-S GR x SG
Start push-button, enlightened	BU 7 $\xrightarrow{1}$ 6 PK YE 4 $\xrightarrow{1}$ GN
LEDs	GY 5 $\xrightarrow{1}$ GN 3 RD $\xrightarrow{1}$ GN -YE 4
Enabling push-button	WH 1 $\xrightarrow{1}$ 8 RD
Plug-in configuration (view from plug side)	BN 2 RD 8 WH 1 BU 7 GN 3 GN 3 PK 6 YE 4 GY 5

Contact variants: Contacts

	TG-S GR x SG
Start push-button, enlightened	BU 7 $\xrightarrow{1}$ 6 PK YE 4 $\xrightarrow{1}$ GN
LEDs	GY 5 $\xrightarrow{1}$ GN 3 RD $\xrightarrow{1}$ GN -YE 4
Enabling push-button	WH 1 $\xrightarrow{1}$ 8 RD
Plug-in configuration (view from plug side)	BN 2 RD 8 WH 1 BU 7 GN 3 GN 3 PK 6 YE 4 GY 5

Multifunction handles

// Series TG, variants

Features/options

- Variant for right-hinged doors
- Emergency-stop push-button:
TG-W GR 10 x 1-channel ⊖
TG-W GR 20 x 2-channel ⊖
- Emergency-stop push-button per EN 418
- Green and red LED
- Green enabling push-button: single break change-over
- Protection class IP 65
- TG-W GR 10 x: with plug-in connector M12 x 1, 8-poles
TG-W GR 20 x: with plug-in connector M23 x 1, 12-poles

Features/options

- Variant for left-hinged doors
- Emergency-stop push-button:
TG-W GR 10 x 1-channel ⊖, order No. 97 75 59 01
TG-W GR 20 x 2-channel ⊖, order No. 97 75 59 14
- Emergency-stop push-button per EN 418
- Green and red LED
- Green enabling push-button: single break change-over
- Protection class IP 65
- TG-W GR 10 x: with plug-in connector M12 x 1, 8-poles
TG-W GR 20 x: with plug-in connector M23 x 1, 12-poles

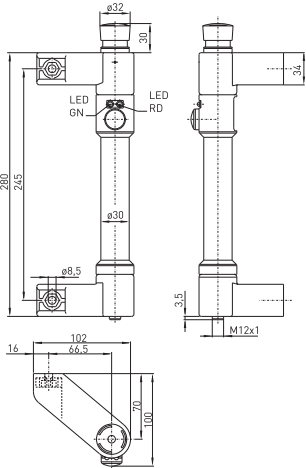
// Mounting left side, E-stop push-button



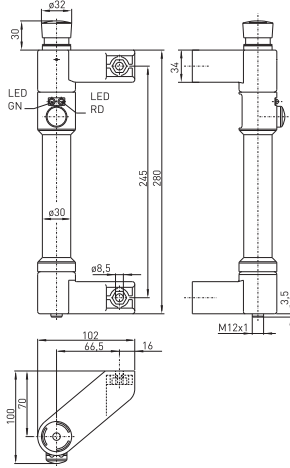
// Mounting right side, E-stop p.-button



// Mounting left side, E-stop push-button



// Mounting right side, E-stop p.-button



Contact variants: Contacts

	TG-W GR 10 x	TG-W GR 20 x
Enabling push-button	BN 2 WH 1 8 RD	8 10 9
LEDs	GY 5 + GN 3 RD GN YE 4	2+ 3 RD GN -1
Emergency-stop push-button	BU 7 6 PK	4 5 6 7
Plug-in configuration (view from plug side)	BN 2 RD 8 GN 3 WH 1 YE 4 BU 7 GY 5 PK 6	10 9 8 12 2 7 3 6 4 11 5

Contact variants: Contacts

	TG-W GR 10 x	TG-W GR 20 x
Enabling push-button	BN 2 WH 1 8 RD	8 10 9
LEDs	GY 5 + GN 3 RD GN YE 4	2+ 3 RD GN -1
Emergency-stop push-button	BU 7 6 PK	4 5 6 7
Plug-in configuration (view from plug side)	BN 2 RD 8 GN 3 WH 1 YE 4 BU 7 GY 5 PK 6	10 9 8 12 2 7 3 6 4 11 5

QUALITY MANAGEMENT
LIFE TEST OF A PUSH-BUTTON ON A DOOR HANDLE SWITCH



Multifunction handles

// Series TG, AS-Interface variants

Features/options

- Green enabling push-button
- Green and red LED
- Protection class IP 65
- With plug-in connector M12 x 1, 4-poles, A-coded
- Order No. 97 95 59 10

Features/options

- Grey start push-button
- Green and red LED
- Blue enabling push-button
- Protection class IP 65
- With plug-in connector M12 x 1, 4-poles, A-coded
- Order No. 97 95 59 07

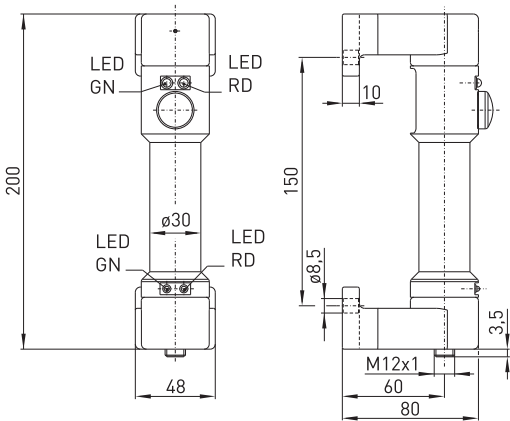
// TG-AS-Interface, 1 push-button



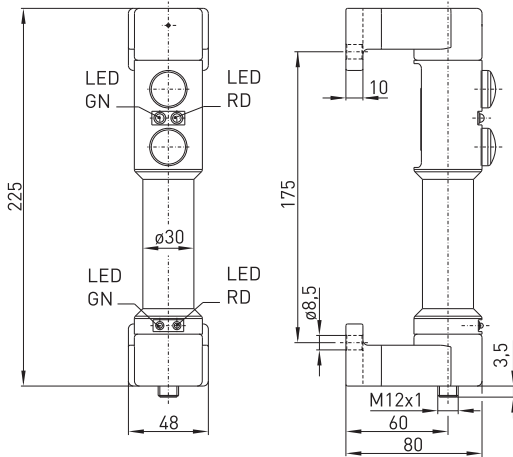
// TG-AS-Interface, 2 push-buttons



// TG-AS-Interface, 1 push-button



// TG-AS-Interface, 2 push-buttons



Contact variants: Contacts

	TG-S GR xx-A
PIN 1	AS-Interface +
PIN 2	not configured
PIN 3	AS-Interface -
PIN 4	not configured
Plug-in configuration (view from plug side)	

Contact variants: Contacts

	TG-S GR x S-A
PIN 1	AS-Interface +
PIN 2	not configured
PIN 3	AS-Interface -
PIN 4	not configured
Plug-in configuration (view from plug side)	

Features/options

- Grey start push-button
- Green and red LED
- Green enabling push-button
- Protection class IP 65
- With plug-in connector M12 x 1, 4-poles, A-coded
- Order No. 97 95 59 11

Features/options

- AS-Interface Safety at Work
- Emergency-stop push-button per EN 418
- Green enabling push-button
- Green and red LED
- Protection class IP 65
- With plug-in connector M12 x 1, 4-poles, A-coded

// TG-AS-Interface, Push-button at top



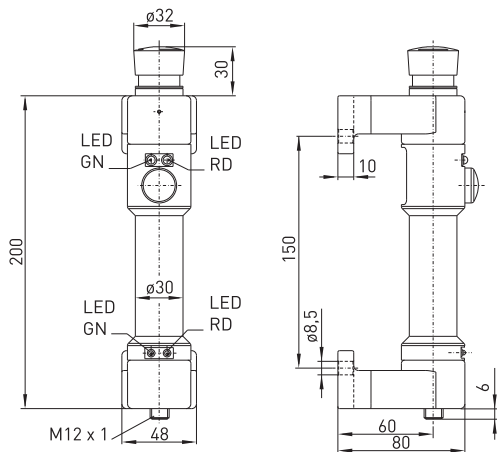
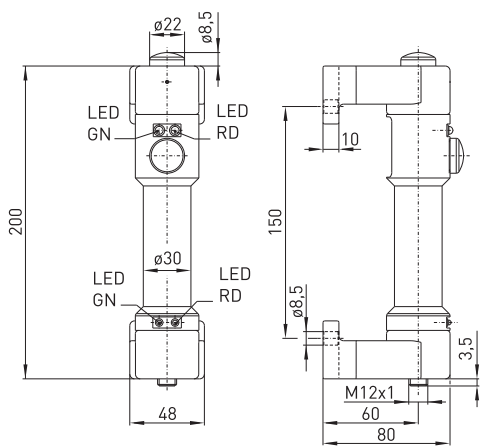
// TG-AS-Interface, Push-button at top


// TG-AS-Interface, E-stop push-button

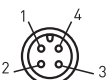


// TG-AS-Interface, E-stop push-button

23



Contact variants: Contacts	
	TG-S GR-x S-A
PIN 1	AS-Interface +
PIN 2	not configured
PIN 3	AS-Interface -
PIN 4	not configured
Plug-in configuration (view from plug side)	

Contact variants: Contacts	
	TG-S GR x S-A-AS
PIN 1	AS-Interface +
PIN 2	not configured
PIN 3	AS-Interface -
PIN 4	not configured
Plug-in configuration (view from plug side)	

Multifunction handles

// Series TG, AS-Interface variants

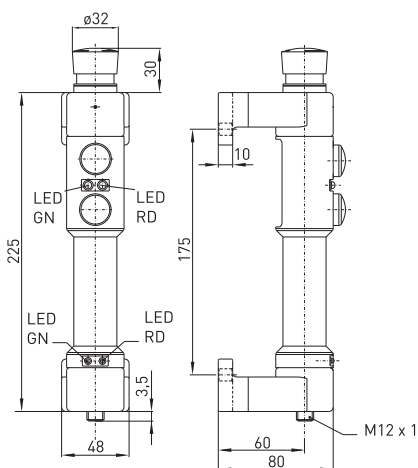
Features/options

- AS-Interface Safety at Work
- Emergency-stop push-button per EN 418
- Grey start push-button
- Green and red LED
- Green enabling push-button
- Protection class IP 65
- With plug-in connector M12 x 1, 4-poles, A-codiert
- Order No. 97 95 58 01

// TG-AS-Interface, E-stop push-button



// TG-AS-Interface, E-stop push-button



Contact variants: Contacts

	TG-S GR 20 S-A-AS
PIN 1	AS-Interface +
PIN 2	not configured
PIN 3	AS-Interface -
PIN 4	not configured
Plug-in configuration (view from plug side)	

Multifunction handles

// Series TG, selection guide

Please mark your choice.

The technical drawing shows a vertical industrial control station. At the top is a large E-stop button. Below it are three push-buttons arranged vertically. The middle two have circular indicator lights above them. Further down is a small rectangular LED indicator. At the bottom is a connector port. Callout lines connect these components to their respective configuration options.

<input type="checkbox"/> E-stop push-button top	<input type="checkbox"/> 1-channel <input type="checkbox"/> 2-channel
<input type="checkbox"/> Push-button on top	<input type="checkbox"/> NO contact <input type="checkbox"/> Change-over
Colour of push-button	<input type="checkbox"/> Blue <input type="checkbox"/> Green <input type="checkbox"/> Red <input type="checkbox"/> Grey <input type="checkbox"/> Black <input type="checkbox"/> Green enlightened
<input type="checkbox"/> Push-button	<input type="checkbox"/> NO contact <input type="checkbox"/> Change-over
Colour of push-button	<input type="checkbox"/> Blue <input type="checkbox"/> Green <input type="checkbox"/> Red <input type="checkbox"/> Grey <input type="checkbox"/> Black <input type="checkbox"/> Red enlightened LED
<input type="checkbox"/> Push-button	<input type="checkbox"/> NO contact <input type="checkbox"/> Change-over
Colour of push-button	<input type="checkbox"/> Blue <input type="checkbox"/> Green <input type="checkbox"/> Red <input type="checkbox"/> Grey <input type="checkbox"/> Black <input type="checkbox"/> Red enlightened LED
<input type="checkbox"/> LED	
Colour	<input type="checkbox"/> Left <input type="checkbox"/> Right <input type="checkbox"/> Red <input type="checkbox"/> Red <input type="checkbox"/> Green <input type="checkbox"/> Green <input type="checkbox"/> Yellow <input type="checkbox"/> Yellow
<input type="checkbox"/> Push-button	<input type="checkbox"/> NO contact <input type="checkbox"/> Change-over
Colour of push-button	<input type="checkbox"/> Blue <input type="checkbox"/> Green <input type="checkbox"/> Red <input type="checkbox"/> Grey <input type="checkbox"/> Black <input type="checkbox"/> Red enlightened LED
<input type="checkbox"/> AS-Interface version	
<input type="checkbox"/> Mounting bracket	<input type="checkbox"/> Straight <input type="checkbox"/> Angled
	<input type="checkbox"/> Left <input type="checkbox"/> Right
Not to be filled in by customer!	
<input type="checkbox"/> Plug-in M12 x 1	<input type="checkbox"/> 4-poles <input type="checkbox"/> 8-poles <input type="checkbox"/> 12-poles <input type="checkbox"/> 12-poles <input type="checkbox"/> 17-poles



Multifunction handles metal

// Series TGM
from page 28



Multifunction handles

// Series TGM

Features/options

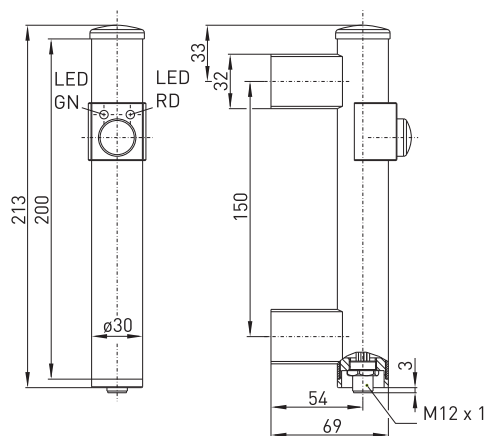
- Metal door handle
- High life time
- Blue enabling push-button: single break change-over or 1 NC/1 NO contact
- Green and red LED
- Protection class IP 67
- With plug-in connector M12 x 1, 8-poles
- Available as radio switch with solar cell, for detailed information see catalogue »Industrial switchgear with radio technology«
- Different door handle available on request

// TGM



Technical data

Standards	IEC/EN 60947-5-1
Enclosure	Stainless steel 1.4301 (V2A), aluminium silver or black anodised
Protection class	IP 67 per IEC/EN 60529
Termination	Plug-in connector, A-coded
U _e LEDs	max. 24 VDC +10%
U _c	0.1 VAC/DC . . . 25 VAC/42 VDC
Rated switching current	max. 0.1 A AC/DC
Rated switching capacity	max. 0.6 W
Degree of pollution	3
Mechanical life	> 1 million operations
Ambient temperature	-25 ... +55 °C



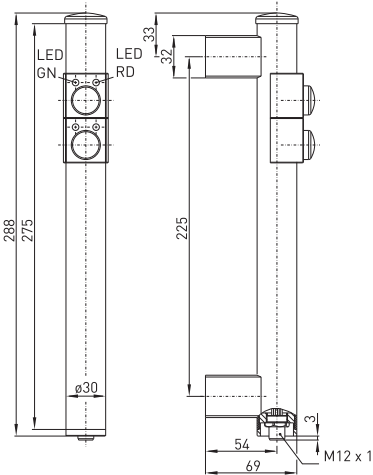
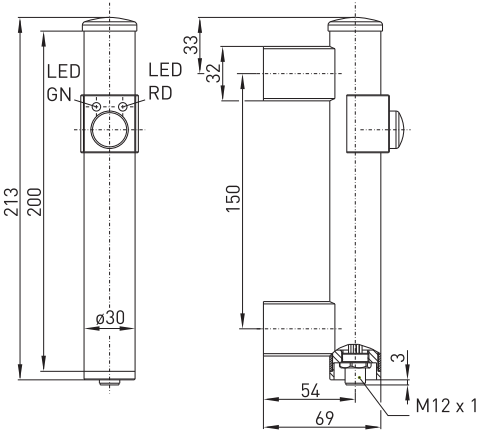
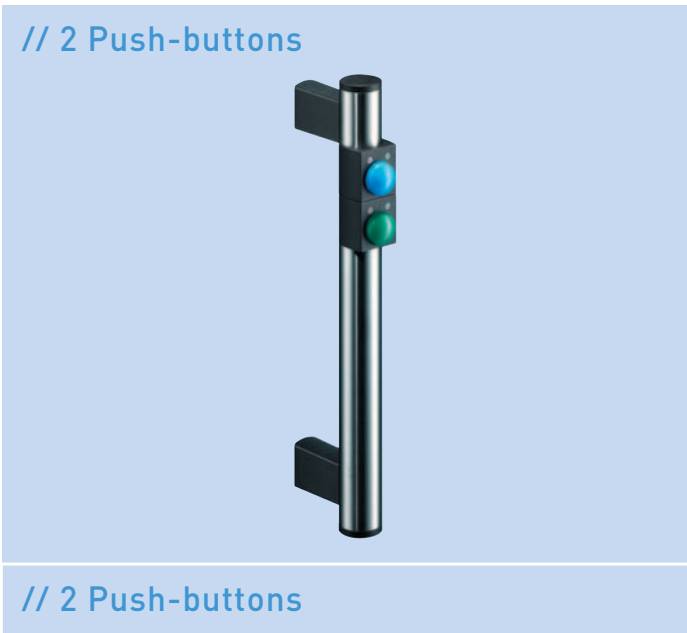
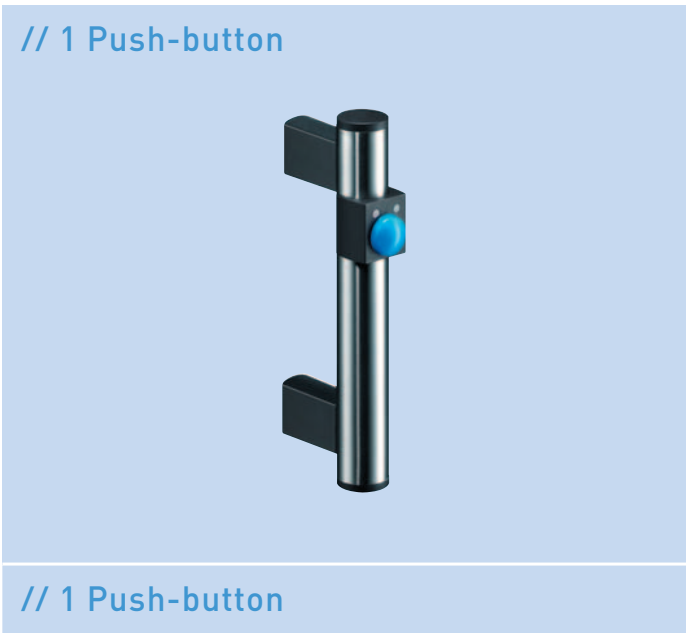
Contact variants: Contacts

	TGM-W GR xx	TGM-ÖS GR xx
LEDs		
Enabling push-button		
Plug-in configuration (view from plug side)		

Multifunction handles
// Series TGM, variants

- Stainless steel V2A
- Green and red LED
- Blue enabling push-button: TGM-W GR xx: single break change-over
- Protection class IP 67
- With plug-in connector M12 x 1, 8-poles
- Available as radio switch with solar cell, for detailed information see catalogue »Industrial switchgear with radio technology«
- Different door handle available on request

- Stainless steel V2A
- Blue start push-button: 1 NO contact
- Green and red LED
- Green enabling push-button: 1 NO contact
- Protection class IP 67
- With plug-in connector M12 x 1, 8-poles
- Available as radio switch with solar cell, for detailed information see catalogue »Industrial switchgear with radio technology«
- Different door handle available on request
- Order No. 97955937



Contact variants: Contacts

	TGM-W GR xx	TGM-ÖS GR xx
LEDs		
Enabling push-button		
Plug-in configuration (view from plug side)		

Contact variants: Contacts

	TGM-S GR x S
Start push-button	
LEDs	
Enabling push-button	
Plug-in configuration (view from plug side)	

Multifunction handles

// Series TGM, variants

Features/options

- Stainless steel V2A
- Blue start push-button: 1 NO contact
- Green and red LED
- Green enabling push-button: 1 NO contact
- Red stop push-button: 1 NO contact
- Protection class IP 67
- With plug-in connector M12 x 1, 12-poles
- Available as radio switch with solar cell, for detailed information see catalogue »Industrial switchgear with radio technology«
- Different door handle available on request

Features/options

- Stainless steel V2A
- Variant with mounting brackets for mounting from outside
- Green and red LED
- Green enabling push-button:
TGM-W GR xx: single break change-over
TGM-ÖS GR xx: 1 NC/1 NO contact
- Protection class IP 67
- With plug-in connector M12 x 1, 8-poles
- Different door handle available on request

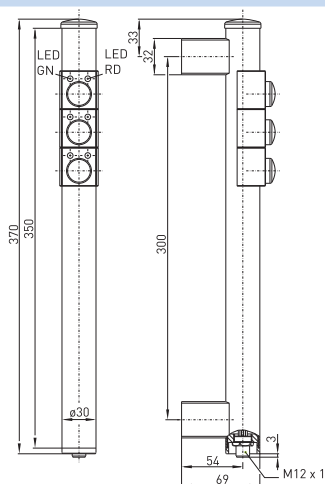
// 3 Push-buttons



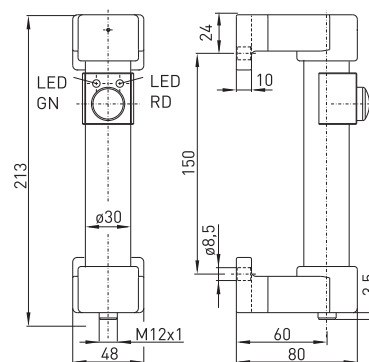
// Mounting bracket



// 3 Push-buttons



// Mounting bracket



Contact variants: Contacts

	TGM-S GR x SS
Start/Enabling/ Stop push-button	RD 9 \rightarrow VT 10 BK 7 \rightarrow GY 8 GY/PK 11 \rightarrow RD/BU12
LEDs	BU 2 \rightarrow WH 3 RD \rightarrow GN BN 1
Plug-in configuration (view from plug side)	BN 1 RD 9 GY 8 RD/BU 12 VT 10 BU 2 BK 7 WH 3 YE 6 PK 6 GN 4 GY/PK 11

Contact variants: Contacts

	TGM-W GR xx	TGM-ÖS GR xx
LEDs	GY 5 \rightarrow GN 3 RD \rightarrow GN YE 4	GY 5 \rightarrow GN 3 RD \rightarrow GN YE 4
Enabling push-button	BN 2 \rightarrow 8 RD WH 1 \rightarrow 8 RD	WH1 \rightarrow 7 BU BN 2 \rightarrow 8 RD
Plug-in configuration (view from plug side)	RD 8 WH 1 BU 7 BN 2 GN 3 PK 6 YE 4 GY 5	RD 8 WH 1 BU 7 BN 2 GN 3 PK 6 YE 4 GY 5

Features/options

- Stainless steel V2A
- Emergency-stop push-button per EN 418:
TGM-W GR 10 x 1-channel ⊖
TGM-W GR 20 x 2-channel ⊖
- Protection class IP 67
- With plug-in connector M12 x 1, 8-poles
- Different door handle available on request

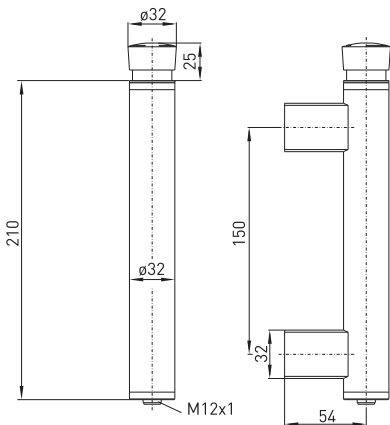
Features/options

- Stainless steel V2A
- Emergency-stop push-button per EN 418:
TGM-W GR 10 x 1-channel ⊖
TGM-W GR 20 x 2-channel ⊖, order No. 97 75 50 04
- Green and red LED
- Blue enabling push-button: single break change-over
- Protection class IP 67
- TGM-W GR 10 x: with plug-in connector M12 x 1, 8-poles
TGM-W GR 20 x: with plug-in connector M12 x 1, 12-poles
- Different door handle available on request

// Emergency-stop push-button



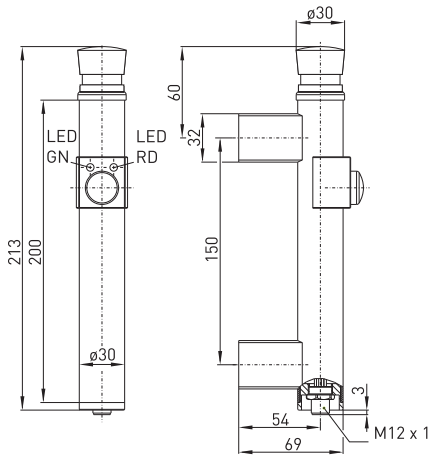
// Emergency-stop push-button



// E-stop push-button, 1 push-button



// E-stop push-button, 1 push-button



Contact variants: Contacts

	TGM-10 x	TGM-20 x
Emergency-stop push-button	BU 7 6 PK	GN 4 PK 5 YE 6 BK 7
Plug-in configuration (view from plug side)		

Contact variants: Contacts

	TGM-W GR 10 x	TGM-W GR 20 x
Emergency-stop push-button	BU 7 6 PK	GN 4 PK 5 YE 6 BK 7
LEDs	GY 5 + GN 3 RD YE 4	BU 2 + WH 3 RD GN BN 1
Enabling push-button	BN 2 8 RD WH 1	GY 8 RD 9 VT 10
Plug-in configuration (view from plug side)		

Multifunction handles

// Series TGM, variants

Features/options

- Aluminium, black anodised
- Emergency-stop push-button per EN 418:
TGM-W GR 10 x 1-channel ⊖
TGM-W GR 20 x 2-channel ⊖
- Green and red LED
- Blue enabling push-button: single break change-over
- Protection class IP 67
- TGM-W GR 10 x: with plug-in connector M12 x 1, 8-poles
TGM-W GR 20 x: with plug-in connector M12 x 1, 12-poles
- Different door handle available on request

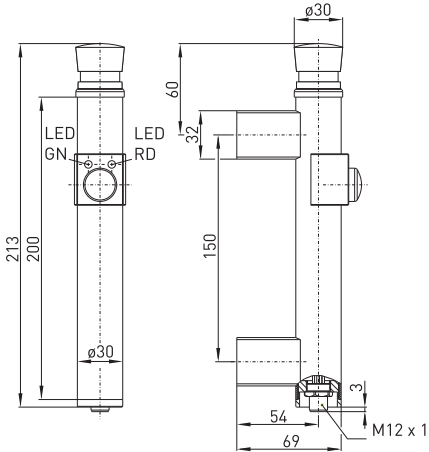
Features/options

- Stainless steel V2A
- Door handle without electrical function
- Application on double doors
- Length: 213 mm
- Different door handle available on request
- Order No. 97900908

// E-stop push-button, 1 push-button



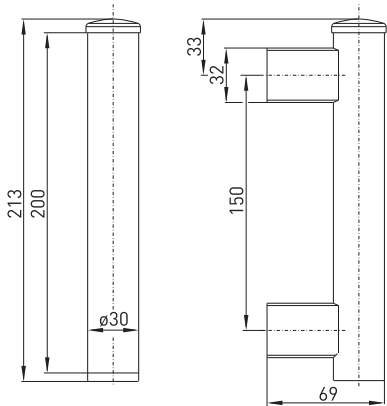
// E-stop push-button, 1 push-button
















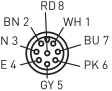
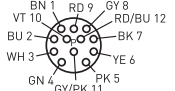
// Without electrical function



// Without electrical function



Contact variants: Contacts

	TGM-W GR 10 x	TGM-W GR 20 x
Emergency-stop push-button	BU 7  6 PK	GN 4  PK 5 YE 6  BK 7
LEDs	GY 5  GN 3 RD  GN YE 4 	BU 2  WH 3 RD  GN BN 1 
Enabling push-button	BN 2  8 RD WH 1 	GY 8  RD 9 VT 10 
Plug-in configuration (view from plug side)		

Contact variants: Contacts

	TGM-x-150
Without electrical function	

PRODUCTION PROCESS ASSEMBLY
SEALING OF A PUSH-BUTTON ON A DOOR HANDLE SWITCH



Multifunction handles

// Series TGM, variants

Features/options

- Stainless steel V2A
- Variant for right-hinged doors
- Green and red LED
- Green enabling push-button:
TGM-W GR xx: single break change-over
TGM-ÖS GR xx: 1 NC/1 NO contact
- Protection class IP 67
- With plug-in connector M12 x 1, 8-poles
- Different door handle available on request

Features/options

- Stainless steel V2A
- Variant for left-hinged doors
- Green and red LED
- Blue enabling push-button:
TGM-W GR xx: single break change-over
TGM-ÖS GR xx: 1 NC/1 NO contact
- Protection class IP 67
- With plug-in connector M12 x 1, 8-poles
- Different door handle available on request

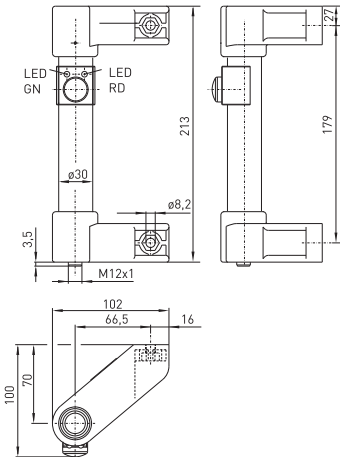
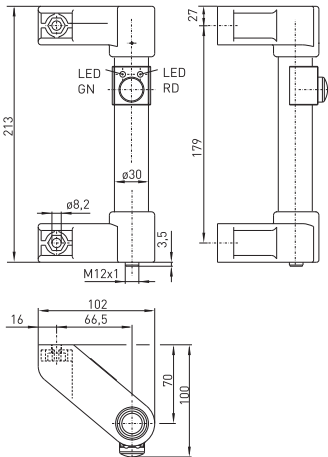
// Mounting left side, 1 push-button



// Mounting right side, 1 push-button



// Mounting left side, 1 push-button



Contact variants: Contacts

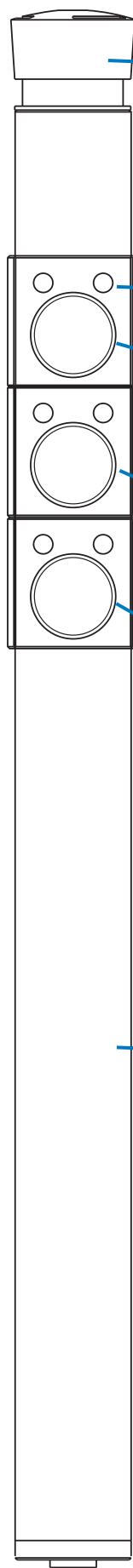
	TGM-W GR xx	TG-ÖS GR xx
LEDs		
Enabling push-button		
Plug-in configuration (view from plug side)		

Contact variants: Contacts

	TGM-W GR xx	TG-ÖS GR xx
LEDs		
Enabling push-button		
Plug-in configuration (view from plug side)		

Multifunction handles

// Series TGM, selection guide



Please mark your choice.

___ E-stop push-button top ___ 1-channel
___ 2-channel

___ Push-button top ___ NO contact
___ Change-over
Colour of push-button ___ Blue ___ Green
___ Red ___ Grey
___ Black
___ Green enlightened

___ LED ___ left ___ right
Colour ___ Red ___ Red
___ Green ___ Green
___ Yellow ___ Yellow

___ Push-button ___ NO contact
___ Change-over
Colour of push-button ___ Blue ___ Green
___ Red ___ Grey
___ Black
___ Red enlightened LED

___ Push-button ___ NO contact
___ Change-over
Colour of push-button ___ Blue ___ Green
___ Red ___ Grey
___ Black
___ Red enlightened LED

___ Push-button ___ NO contact
___ Change-over
Colour of push-button ___ Blue ___ Green
___ Red ___ Grey
___ Black
___ Red enlightened LED

___ Label above the LEDs, max. 8 letters
Push-button 1 _____
Push-button 2 _____
Push-button 3 _____

Handle length _____ mm
Material ___ Stainless steel V2A
___ Aluminium, black anodised
___ Aluminium, silver anodised

___ Mounting bracket ___ Straight ___ Mounting outside
___ Mounting inside
___ Angled ___ left
___ right
___ Mounting dimension on customer request _____ mm

Not to be filled in by customer!

___ Plug-in M12 x 1 ___ 4-poles ___ 8-poles
___ 12-poles
___ Plug-in M23 x 1 ___ 12-poles
___ 17-poles

Appendix

// Accessories

Features/options

- Coupling for plug-in connector M 12 x 1
- With prewired cable, different length available
- Angled or straight coupling available
- Ordering unit: 1 piece

Features/options

- Coupling for plug-in connector M 23 x 1, 12-poles
- To be wired, soldering connection
- Art.-Nr. 01.36.2200
- With prewired cable available on request
- Ordering unit: 1 piece

// Coupling M12 x 1



// Coupling M23 x 1, 12-poles



Ordering details

Coupling M 12 x 1, 8-poles 5 m cable angled	01.36.2195
Coupling M 12 x 1, 8-poles 10 m cable angled	01.36.2221
Coupling M 12 x 1, 12-poles 5 m cable straight	01.36.2316
Coupling M 12 x 1, 12-poles 5 m cable angled	01.36.2327
Coupling M 12 x 1, 12-poles 10 m cable straight	01.36.2318
Coupling M 12 x 1, 12-poles 10 m cable angled	01.36.2334

Ordering details

Coupling M 23 x 1, 12-poles	01.36.2200
-----------------------------	------------

Appendix

// Wiring example

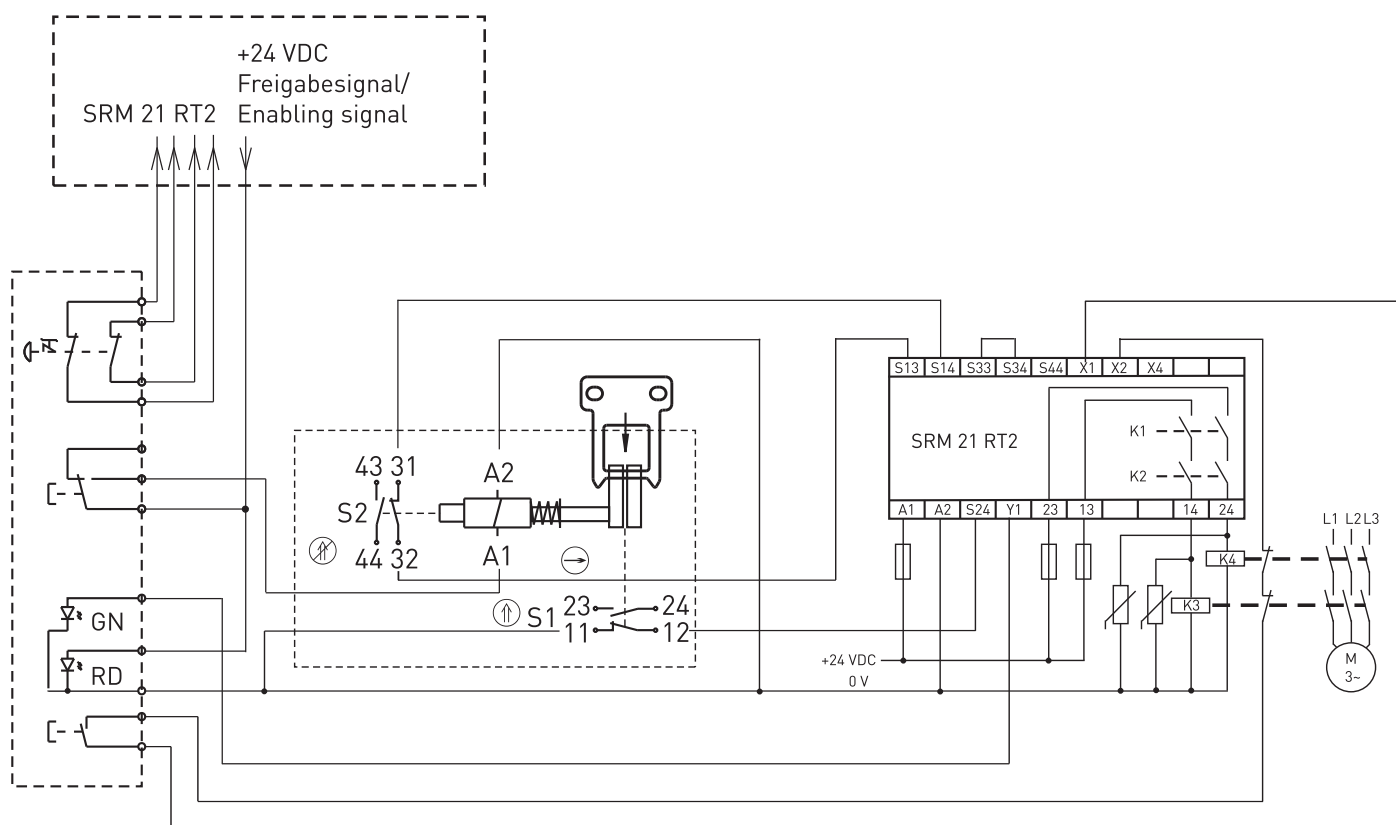
Features/options

- In combination with safety relay module SRM 21 RT2 and solenoid interlock STM 295
- Integrated emergency-stop push-button
- Enabling push-button: Unlocking of door by providing power to solenoid of solenoid interlock STM 295
- Green LED: lights up with closed and locked door;
- red LED: lights up with providing power for unlocking of door
- Start push-button: Machine start

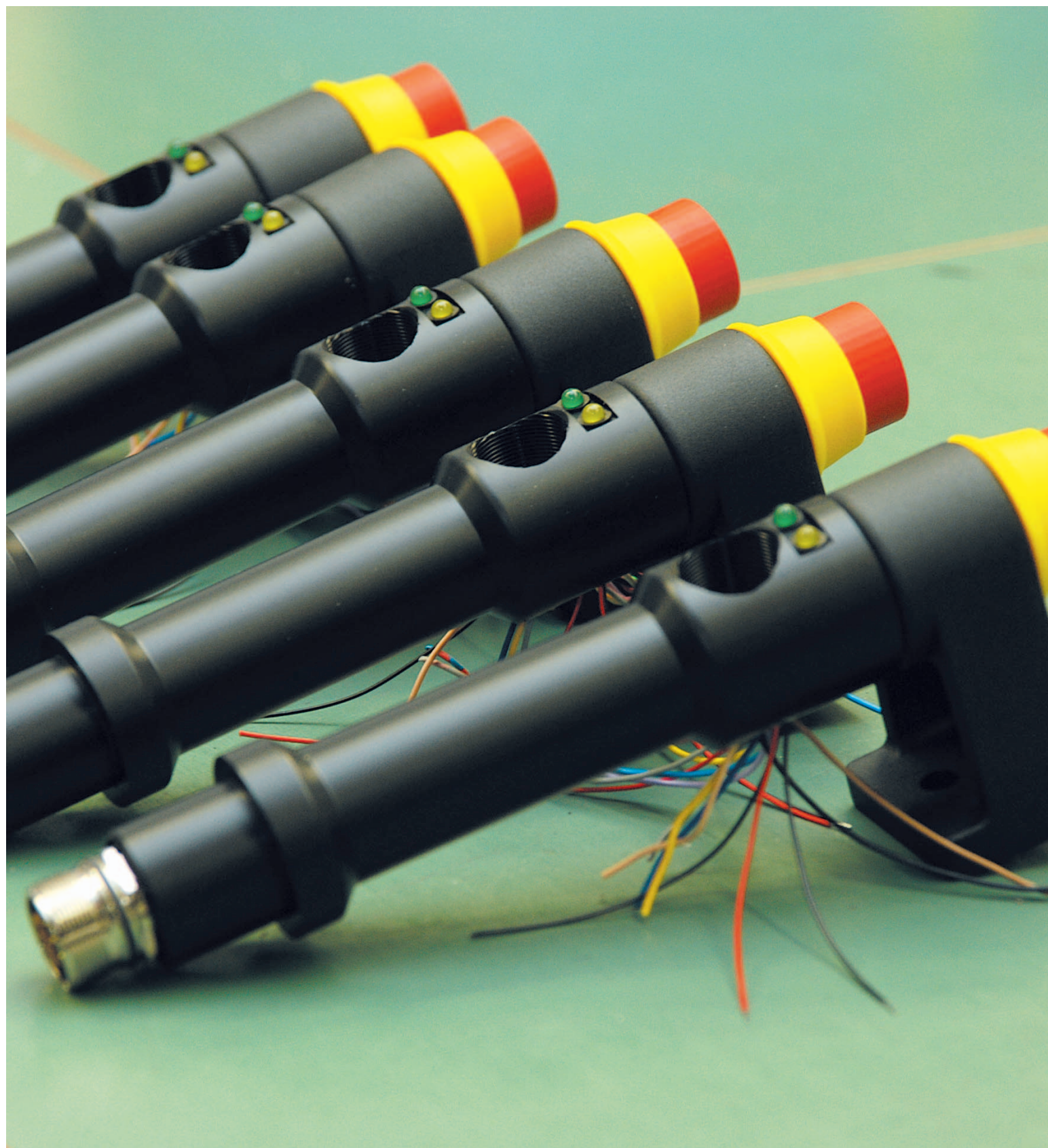
Legend

- ⊖ positive break NC contact
- ⊕ actuated
- ⊖ not actuated



// Door handle switch for unlocking of a solenoid interlock



SINCE MANY YEARS STEUTE SWITCHGEAR HAVE BEEN APPROVED IN THE CRITICAL APPLICATIONS OF CONTROL TECHNOLOGY



LEGEND

- positive break NC contact
- U_c Rated actuating voltage
- U_e Rated operating voltage
- Directive-compliant, see Declaration of Conformity

Colour code designation to DIN IEC 757

BK	black
BN	brown
BU	blue
GN	green
GY	grey
OG	orange
PK	pink
RD	red
TQ	turquoise
VI	violet
WH	white
YE	yellow

steute develops and manufactures safe switchgear for demanding and critical application. Besides a comprehensive standard range of products for »Wireless, Automation, Extreme and Meditec« applications, we also and increasingly develop customised switchgear for extreme conditions in all four business fields. Some examples: emergency pull-wire

switches for the mining industry, position switches for industrial automation and control panels for laser surgery. Our head office is in Löhne, Westphalia, Germany; worldwide sales are conducted through steute's subsidiaries and trading partners.

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