SIEMENS

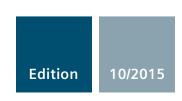


Industrial Controls

SIRIUS ACT

3SU1 Pushbuttons and Signaling Devices

System Manual



3SU11 complete units

5.1 Product description

The 3SU11 complete units are a modular range of devices for front plate mounting and rear cable connection. Complete units made up of an actuating or signaling element and contact modules and/or LED modules are offered for the most common applications.

The 3SU11 complete units are available in the following versions:

Material	Article number
Plastic	3SU110
Plastic / Metal, matte	3SU113
Metal	3SU115

3SU11 complete units are supplied with the following components:

- An actuating or signaling element in front of the control panel
- A holder for securing behind the control panel
- Up to two contact modules and / or one LED module

The complete units are supplied without the individual components installed.

You can find information on installing in Chapter "Installation (Page 145)".

For further information about contact modules refer to Chapter "3SU14 contact modules and LED modules (Page 165)"

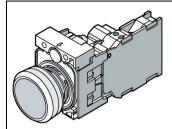
5.2 3SU11 devices for use on 3-slot holder

5.2.1 Pushbuttons

Pushbuttons are used to actuate contact modules and allow short-time contact or permanent closing / opening of a contact element. The button caps can be replaced from the front by the user.

Pushbuttons are available in different variants according to the following features:

- Height of button
- · Height of front ring
- · Collar and front ring material
- · Colors of the buttons
- Quantity and type of modules included in the scope of supply



Typical diagram

Pushbuttons (momentary contact type)

r danbattoria (momentary contact type)						
	Number of modules	Number of NO con- tacts	Number of NC con-tacts	Flat button	Raised button	
Collar / Front ring material				Article number		

Plastic / Plastic

Siemens Industry Mall (http://mall.industry.siemens.com/mall/en/en/Catalog/Products/10226606)

Siemens industry Maii (http://maii.industry.siemens.com/maii/en/en/catalog/F10ducts/10220000)						
Black	1	1	0	3SU1100-0AB10-xBA0		
	1	0	1	3SU1100-0AB10-xCA0	3SU1100-0BB10-1CA0 ¹⁾	
• Red	1	1	0	3SU1100-0AB20-xBA0	_	
	1	0	1	3SU1100-0AB20-xCA0	3SU1100-0BB20-1CA01)	
• Yellow	1	1	0	3SU1100-0AB30-xBA0	_	
• Green	1	1	0	3SU1100-0AB40-xBA0	_	
• Blue	1	1	0	3SU1100-0AB50-xBA0	3SU1100-0BB50-1BA0 ¹⁾	
• White	1	1	0	3SU1100-0AB60-xBA0		
• Clear	1	1	0	3SU1100-0AB70-1BA0 ¹⁾	_	

Plastic / Metal, matte

Siemens Industry Mall (http://mall.industry.siemens.com/mall/en/en/Catalog/Products/10221496)

		Number of modules	Number of NO con- tacts	Number of NC con- tacts	Flat button	Raised button
•	Black	1	1	0	3SU1130-0AB10-xBA0	_
		1	0	1	3SU1130-0AB10-xCA0	_
•	Red	1	1	0	3SU1130-0AB20-xBA0	_
		1	0	1	3SU1130-0AB20-xCA0	_
•	Yellow	1	1	0	3SU1130-0AB30-xBA0	_
•	Green	1	1	0	3SU1130-0AB40-xBA0	_
•	Blue	1	1	0	3SU1130-0AB50-xBA0	_
•	White	1	1	0	3SU1130-0AB60-xBA0	_

5.2 3SU11 devices for use on 3-slot holder

Metal / Metal								
Siemens Industry Mall (http://mall.industry.siemens.com/mall/en/en/Catalog/Products/10221497)								
	Number of modules	Number of NO contacts	Number of NC con- tacts	Flat button	Raised button			
Black	1	1	0	3SU1150-0AB10-xBA0	_			
	1	0	1	3SU1150-0AB10-xCA0	3SU1150-0BB10-1CA0 ¹⁾			
• Red	1	1	0	3SU1150-0AB20-xBA0				
	1	0	1	3SU1150-0AB20-xCA0	3SU1150-0BB20-1CA0 ¹⁾			
Yellow	1	1	0	3SU1150-0AB30-xBA0	_			
• Green	1	1	0	3SU1150-0AB40-xBA0	_			
• Blue	1	1	0	3SU1150-0AB50-xBA0	_			
White	1	1	0	3SU1150-0AB60-xBA0	_			

x: 1 = screw terminals

x: 3 = spring-loaded terminals

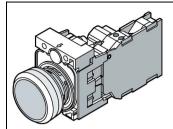
¹⁾ Available only with screw terminals

5.2.2 Illuminated pushbuttons

Illuminated pushbuttons are used to actuate contact modules and can also function as display devices by means of an LED module. The buttons can be replaced from the front by the user.

The illuminated pushbuttons are available in different variants according to the following features:

- Height of button
- · Collar and front ring material
- · Colors of the buttons
- Illumination
- Quantity and type of modules included in the scope of supply



Typical diagram

Illuminated	pushbuttons	(momen	tary cor	itact type)	

Collar / Front ring material	Number of modules	Number of NO con- tacts	Number of NC contacts	Article number			
Plastic / Plastic	Plastic / Plastic						
Siemens Industry Mall (htt	p://mall.indust	ry.siemens.co	m/mall/en/en/C	Catalog/Products/10221496)			
• Red	1	1	0	3SU110y-0AB20-xBA0			
	1	0	1	3SU110y-0AB20-xCA0			
• Yellow	1	1	0	3SU110y-0AB30-xBA0			
• Green	1	1	0	3SU110y-0AB40-xBA0			
• Blue	1	1	0	3SU110y-0AB50-xBA0			
White	1	1	0	3SU110y-0AB60-xBA0			
• Clear	1	1	0	3SU1100-0AB70-xBA0			

Plastic / Metal, matte

Siemens Industry Mall (http://mall.industry.siemens.com/mall/en/en/Catalog/Products/10226606)

	Number of modules	Number of NO con- tacts	Number of NC contacts	Article number
• Red	1	1	0	3SU113y-0AB20-xBA0
	1	0	1	3SU113y-0AB20-xCA0
• Yellow	1	1	0	3SU113y-0AB30-xBA0
• Green	1	1	0	3SU113y-0AB40-xBA0
• Blue	1	1	0	3SU113y-0AB50-xBA0
• White	1	1	0	3SU113y-0AB60-xBA0
• Clear	1	1	0	3SU113y-0AB70-xBA0

Metal / Metal

Siemens Industry Mall (http://mall.industry.siemens.com/mall/en/en/Catalog/Products/10221497)

	Number of modules	Number of NO con- tacts	Number of NC contacts	Article number
• Amber	1	1	0	3SU115y-0AB00-xBA0
• Red	1	1	0	3SU115y-0AB20-xBA0
	1	0	1	3SU115y-0AB20-xCA0
• Yellow	1	1	0	3SU115y-0AB30-xBA0
• Green	1	1	0	3SU115y-0AB40-xBA0
• Blue	1	1	0	3SU115y-0AB50-xBA0
White	1	1	0	3SU115y-0AB60-xBA0
Clear	1	1	0	3SU115y-0AB70-xBA0

x: 1 = screw terminals

x: 3 = spring-loaded terminals

y: 2 = 24 V AC/DC LED

y: 3 = 110 V AC LED

y: 6 = 230 V AC LED

Note

Not all combinations listed in the tables are available. In the case of special versions, please consult Technical Assistance, or initiate a P1000 request.

5.2.3 Mushroom pushbuttons

Overview of 40 mm diameter mushroom pushbuttons

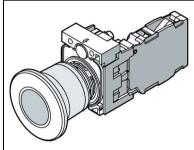
Mushroom pushbuttons are used to actuate contact modules.

Their large, easily accessible button surface makes them easy to operate with the whole palm of the hand.

The actuator is available in diameter 40 mm.

Mushroom pushbuttons are available in different variants according to the following features:

- Collar and front ring material
- Quantity and type of modules included in the scope of supply



_		
1 v	nıcal	l diagram

Collar / Front ring material Number of modules Number of Number of NC contacts Plastic / Plastic	
	iber
Siemens Industry Mall (http://mall.industry.siemens.com/mall/en/en/Catalog/Products/10221498)	
• Red 1 0 1 3SU1100-1	BA20-xCA0
Plastic / Metal, matte	
Siemens Industry Mall (http://mall.industry.siemens.com/mall/en/en/Catalog/Products/10226607)	
• Red 1 0 1 3SU1130-1	BA20-1CA0
Metal / Metal	
Siemens Industry Mall (http://mall.industry.siemens.com/mall/en/en/Catalog/Products/10221499)	
• Red 1 0 1 3SU1150-1	BA20-xCA0

x: 1 = screw terminals

x: 3 = spring-loaded terminals

5.2.4 EMERGENCY STOP mushroom pushbuttons

EMERGENCY STOP mushroom pushbuttons are devices for actuating contact modules, and they are used in conjunction with a safety relay to bring a machine / plant to a safe state.

The EMERGENCY STOP mushroom pushbuttons are equipped with tamper protection (trigger action). The EMERGENCY STOP mushroom pushbutton does not latch without generating an EMERGENCY STOP signal. The EMERGENCY STOP signal is maintained until the EMERGENCY STOP device is reset (unlatched).

All SIRIUS ACT EMERGENCY STOP mushroom pushbuttons comply with DIN EN ISO 13850.

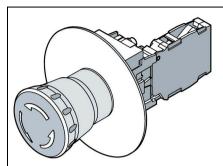
These pushbuttons are operated by pressure applied by the whole palm of the hand.

The actuators are available in diameter 40 mm.

EMERGENCY STOP mushroom pushbuttons are available in different variants according to the following features:

- Collar and front ring material
- · Colors (special variants)
- Switching function: latching
- Rotate to unlatch
- Pull to unlatch
- Quantity and type of modules included in the scope of supply

Overview of 40 mm diameter EMERGENCY STOP mushroom pushbuttons, rotate-to-unlatch type



Typical diagram

l ypical diagram				
Collar / Front ring material	Number of mod- ules	Number of NO contacts	Number of NC contacts	Article number
Plastic / Plastic	·		•	
Siemens Industry Mall (http://ma	all.industry.siemens.com	/mall/en/en/Catalog	g/Products/1022	<u>1500</u>)
• Red	1	0	1	3SU1100-1HB20-xCy0
	1	1	1	3SU1100-1HB20-xFy0
	1	0	2	3SU1100-1LB20-xPy0
Metal / Metal				
Siemens Industry Mall (http://ma	all.industry.siemens.com	/mall/en/en/Catalog	g/Products/1022	<u>1501</u>)
• Red	1	0	1	3SU1150-1HB20-xCy0
	1	1	1	3SU1150-1HB20-xFy0
	1	0	2	3SU1150-1LB20-xPy0

x: 1 = screw terminals

x: 3 = spring-loaded terminals

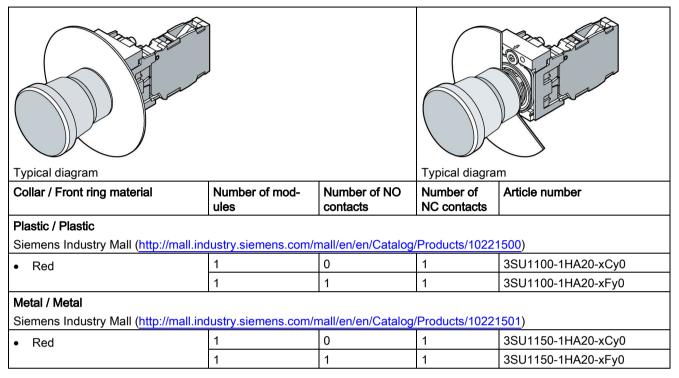
y: F = without backing plate

y: G = backing plate: EMERGENCY STOP

y: H = backing plate: NOT-HALT

y: J = backing plate: ARRET D'URGENCE

Overview of 40 mm diameter EMERGENCY STOP mushroom pushbuttons, pull-to-unlatch type



x: 1 = screw terminals

x: 3 = spring-loaded terminals

y: F = without backing plate

y: G = backing plate: EMERGENCY STOP

y: H = backing plate: NOT-HALT

y: J = backing plate: ARRET D'URGENCE

Note

Not all combinations listed in the tables are available. In the case of special versions, please consult Technical Assistance, or initiate a P1000 request.

5.2.5 Indicator lights

Indicator lights function as indicators and signaling devices. They are equipped with a smooth-surfaced lens that cannot be replaced by the user

Indicator lights are available in different variants according to the following features:

- · Collar and front ring material
- Colors
- Quantity and type of LED modules included in the scope of supply

Indicator lights with holder (available with screw terminals and spring-loaded terminals)				
Collar / Front ring material	Article number			
Plastic / Plastic				
Siemens Industry Mall (http://ma	all.industry.siemens.com/mall/en/en/Catalog/Products/10221512)			
Amber	3SU110y-6AA00-xAA0			
• Red	3SU110y-6AA20-xAA0			
Yellow	3SU110y-6AA30-xAA0			
Green	3SU110y-6AA40-xAA0			
• Blue	3SU110y-6AA50-xAA0			
White	3SU110y-6AA60-xAA0			
Clear	3SU110y-6AA70-xAA0			
Metal / Metal				
Siemens Industry Mall (http://ma	all.industry.siemens.com/mall/en/en/Catalog/Products/10221513)			
Amber	3SU115y-6AA00-xAA0			
• Red	3SU115y-6AA20-xAA0			
Yellow	3SU115y-6AA30-xAA0			
• Green	3SU115y-6AA40-xAA0			
Blue	3SU115y-6AA50-xAA0			
• White	3SU115y-6AA60-xAA0			
Clear	3SU115y-6AA70-xAA0			

x: 1 = screw terminals

x: 2 = spring-loaded terminals

y: 2 = variant with LED: 24 V AC/DC

y: 3 = variant with LED: 110 V AC

y: 6 = variant with LED: 230 V AC

Note

Not all combinations listed in the tables are available. In the case of special versions, please consult Technical Assistance, or initiate a P1000 request.

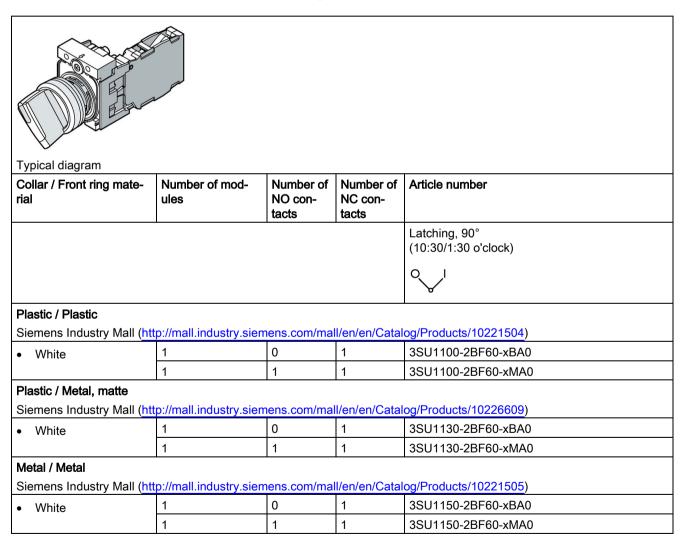
5.2.6 Selector switches

The selector switch is an actuator with 2 or 3 switch positions. Thanks to the rotary actuation, up to 3 contact modules can be operated with momentary contact or latching operation. The fiber-optic conductor integrated into the actuator can be illuminated using an LED module.

Selector switches are available in different variants according to the following features:

- Switch positions
- · Collar and front ring material
- Quantity and type of modules included in the scope of supply

Short black actuator, 2 switch positions, latching



x: 1 = screw terminals

x: 3 = spring-loaded terminals

Short black actuator, 3 switch positions

Collar / Front ring material	Number of modules	Number of NO contacts	Number of NC contacts	Article number			
				Latching 2x45°	Momentary contact 2x45°reset from left + right		
					\ \ \ \ \ \ \ \ \ \ \ \ \ \		
Plastic / Plastic							
Siemens Industry Mall (http	Siemens Industry Mall (http://mall.industry.siemens.com/mall/en/en/Catalog/Products/10221504)						
• White	2	2	2	3SU1100-2BL60-xLA0	3SU1100-2BM60-xLA0		
	2	2	0	3SU1100-2BL60-xNA0	3SU1100-2BM60-xNA0		
Plastic / Metal, matte							
Siemens Industry Mall (http://mall.industry.siemens.com/mall/en/en/Catalog/Products/10226609)							
• White	2	2	0	3SU1130-2BL60-xLA0	3SU1130-2BM60-xLA0		
	2	2	0	3SU1130-2BL60-xNA0	3SU1130-2BM60-xNA0		
Metal / Metal							
Siemens Industry Mall (http	Siemens Industry Mall (http://mall.industry.siemens.com/mall/en/en/Catalog/Products/10221505)						
White	2	2	0	3SU1150-2BL60-xLA0	3SU1150-2BM60-xLA0		
	2	2	0	3SU1150-2BL60-xNA0	3SU1150-2BM60-xNA0		

x: 1 = screw terminals

x: 3 = spring-loaded terminals

Note

Not all combinations listed in the tables are available. In the case of special versions, please consult Technical Assistance, or initiate a P1000 request.

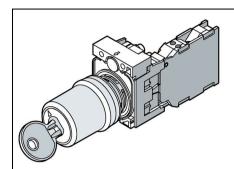
5.2.7 Key-operated switches

Key-operated switches are equipped with a lock for safety reasons. Only an authorized group of persons who have access to the relevant key can perform a switching operation (in this case, actuation of contact modules). Up to 3 switch positions can be temporarily or permanently selected using a key-operated switch.

Key-operated switches are available in different variants according to the following features:

- Key-operated switch manufacturer
- Key removal positions
- Switch positions
- Collar and front ring material
- · Color of actuators
- Quantity and type of modules included in the scope of supply

With Ronis SB30 lock, 2 switch positions; key removal in any position



Typical diagram

Collar / Front ring mate-	Number of mod-	Number of	Number of	Article number
				Altiole Humber
rial	ules	NO con-	NC con-	
		tacts	tacts	

Latching, 90° (10:30/1:30 o'clock)



Plastic / Plastic

Siemens Industry Mall (http://mall.industry.siemens.com/mall/en/en/Catalog/Products/10221510)

· · · · · · · · · · · · · · · · ·					
Black	1	0	1	3SU1100-4BF11-xBA0	
	1	1	1	3SU1100-4BF11-xFA0	

Plastic / Metal, matte

Siemens Industry Mall (http://mall.industry.siemens.com/mall/en/en/Catalog/Products/10226615)

	1	1	1	3SU1130-4BF11-xFA0
 Black 	1	0	1	3SU1130-4BF11-xBA0

Metal / Metal

Siemens Industry Mall (http://mall.industry.siemens.com/mall/en/en/Catalog/Products/10221511)

Black	1	0	1	3SU1150-4BF11-xBA0
	1	1	1	3SU1150-4BF11-xFA0

x: 1 = screw terminals

x: 3 = spring-loaded terminals

With CES SSG10 lock, 2 switch positions; key removal in any position

Collar / Front ring mate- rial	Number of mod- ules	Number of NO con- tacts	Number of NC con-tacts	Article number		
Latching, 90°(10:30/1:30 o'clock)						
Plastic / Plastic						
Siemens Industry Mall (http://mall.industry.siemens.com/mall/en/en/Catalog/Products/10221510)						
Black	1	0	1	3SU1100-5BF11-3FA0 ¹⁾		

¹⁾ Spring-loaded terminal

With Ronis SB30 lock, 3 switch positions; key removal in any position

Collar / Front ring mate- rial	Number of mod- ules	Number of NO con- tacts	Number of NC con-tacts	Article number		
Latching, 2x45°(10:30/12/1:30 o'clock)						
Plastic / Plastic						
Siemens Industry Mall (http://mall.industry.siemens.com/mall/en/en/Catalog/Products/10221510)						
Black	1	2	0	3SU1100-4BL11-1NA0 ²⁾		
Plastic / Metal, matte						
Siemens Industry Mall (http://mall.industry.siemens.com/mall/en/en/Catalog/Products/10226615)						
Black	1	2	0	3SU1130-4BL11-1NA0 ²⁾		

²⁾ Screw terminal

5.3 3SU11 devices for use on 4-slot holder

5.3.1 Coordinate switches

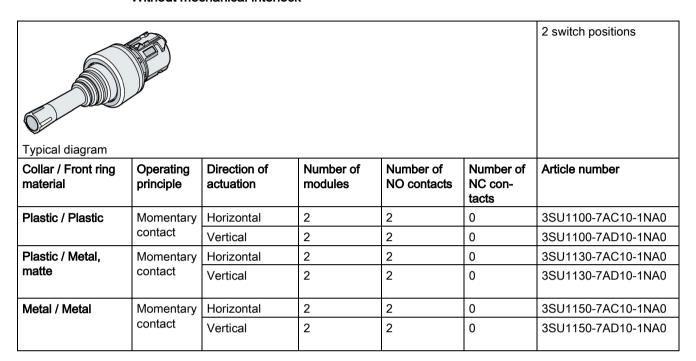
Coordinate switches are used to temporarily or permanently select up to 4 positions. They are operated by a vertical and horizontal movement using several fingers. Only one position on the holder is actuated in each case. The coordinate switch is suitable for simple navigation tasks thanks to its 4 selectable directions.

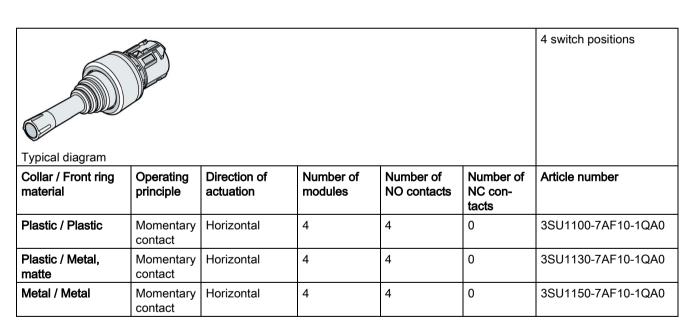
Coordinate switches are available in different variants according to the following features:

- Switch positions
- · Collar and front ring material
- Locking (in the middle position)

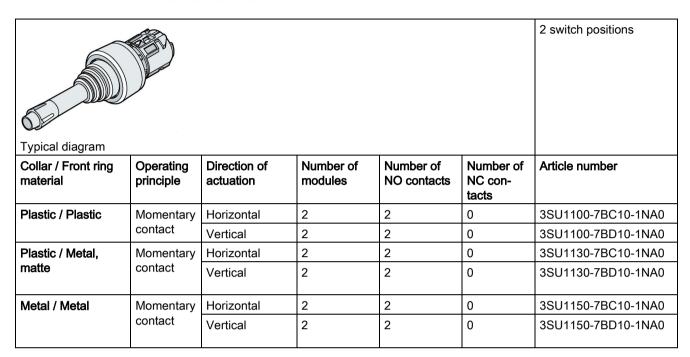
A holder for 4 modules (3SU15.0-0BA10-0AA0) is required to install any of the devices listed below (see also Chapter "Holders (Page 42)"). For further information refer to Chapter "Mounting (Page 145)"

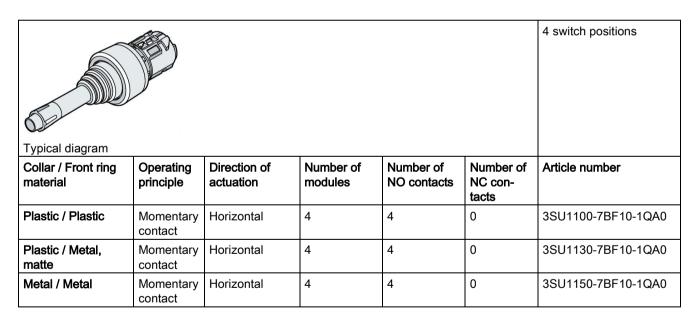
Without mechanical interlock





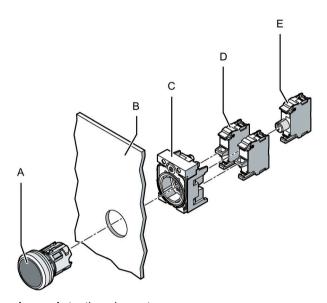
With mechanical interlock





5.4 Mounting

5.4.1 Front plate mounting



- A Actuating element
- B Front plate
- C Holder
- D Contact module
- E LED module

Procedure

- 1. Remove the components of the complete unit from the packaging
- 2. Insert the actuating or signaling element (A) from the front through the mounting opening of the front plate (B).
- 3. Fit the holder (C) from behind (wiring side) onto the actuating or signaling element and lock it into place.
- 4. The unit must be aligned before it is finally tightened and secured against twisting (see Chapter "Alignment").
- 5. Turn the screw at the holder until the actuating or signaling element is fixed securely and cannot vibrate or twist (tightening torque 1.0 ... 1.2 Nm).
- 6. Snap the contact module(s) (D) from behind onto the holder. To do this, hold the modules so that they are tilted downwards slightly and place them onto the holder from behind and then press them upwards until you feel the module latch in the holder.
- 7. Mount an LED module (E), if necessary. You can mount the LED module on the holder only in position 3/6 (center position).