

## Index

### Series 30

	<b>Description</b>	<b>Page 579</b>
	<b>Interlocking Systems Options</b>	<b>Page 580</b>
	<b>Interlocking Systems / Options, Actuators</b>	<b>Page 581</b>
	<b>Indicator Adapters and Switching Elements</b>	<b>Page 582</b>
	<b>Order Form / Interlocking Switch Assemblies</b>	<b>Page 583</b>
	<b>Technical Drawing / Dimension / Layout</b>	<b>Page 587</b>

The interlocking switch assembly is a combination of indicators, push-buttons and switches in an optional sequence of up to 12 "places" in a row. It is also possible to construct interlocking switch assemblies with only one kind of signalling and control units.

The mutual interaction (●), (Δ) or non-interaction (○) is determined by the choice of the selection of the **interlocking system**.

Each "place" is made up of an **actuator** (plus lens) and a **switching element**.

Within one interlocking switch assembly, individual places can, by choice, be excluded from the mutual interaction. For this, the same actuators are used as in systems without interlocking (No. 30-500, see page 580).

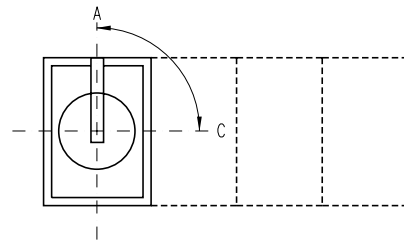
For three interlocking systems there are some other variants. In these, with the aid of an additional "place", the mutual interaction can be centrally released and/or blocked. For better differentiation, this function has been called **interlocking system option**. Basically, it only needs to consist of the actuator (plus lens or keylock actuator), but can be coupled with any desired switching element. For this "place" therefore, the number should be specified of the interlocking system, the interlocking system option and the actuator element, with the exception of any possible switching element.

#### **Procedure when selecting functions amongst indicators, push-buttons and switches for a interlocking switch assembly:**

1. Selection of the **interlocking system**
2. Establishing the number of "places"
3. Selection of the **actuator** for the functions "indicating", "pressing", "switching"
4. As required: selection of interlocking system option
5. Selection of the switching elements for the "places"


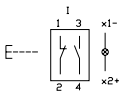
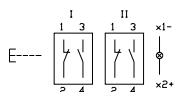
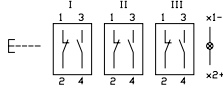
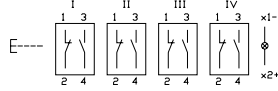
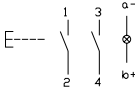
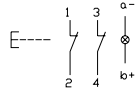
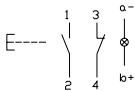

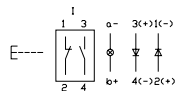
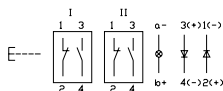
Interlocking systems		Type No.
<b>No interlocking</b> The actuators work independently of one another		30-500
<b>Mutual blocking (pushbutton)</b> Only one actuator can be operated		30-510
<b>Mutual release</b> Only one actuator on its own can be operated or optionally many actuators simultaneously. The release of a pressed-in actuator is done by actuating another actuator or by the over-stroke release of a pressed-in actuator.		30-520
<b>Mutual release and blocking</b> Only one actuator can be operated. The release of an engaged actuator is done by actuating another actuator.		30-530
<b>Single operation with master release</b> All actuators can be operated in any order. They engage in the pressed-in position. By operating the master release actuator, all engaged actuators jump back into their original positions. The master release actuator can be placed anywhere.		30-540
<b>Sequential operation</b> The actuators can only be operated in the sequence of 1st, 2nd, 3rd .... 12th button, the activated buttons remaining in the pressed position. Release of the operated buttons is done by pressing the master release button which is always placed at the end of the interlocking system. The given sequence of operation of the buttons can be interrupted by operating the master release button. The procedure for operating the buttons then begins from the beginning again (1st, 2nd, 3rd button).		30-550
Interlocking system options		Type No.
<b>Master switching-status blocking</b> The current switching status can be blocked by a button being engaged or a keylock actuator. The blocking actuator can only be placed at the beginning or end of the interlocking system.		30-520 30-530
<b>Master release</b> A button which is pressed (or buttons in interlocking system 30-520) can be released by means of a master release button which can be placed anywhere.		30-520 30-530
<b>Master release and blocking (by pushbutton)</b> A button which is pressed can be released by a release actuator being engaged while, at the same time, the whole interlocking system is blocked. The block is lifted by its own over-stroke release. The release-block actuator can be placed anywhere.		30-530
<b>Master release and blocking (by keylock actuator)</b> A pressed button can be released by a keylock actuator and at the same time the entire interlocking system can be blocked. The block is lifted by the operation of the keylock actuator again. The keylock actuator can only be placed at the beginning or end of the interlocking system.		30-530
<b>Start operation block</b> The start button and thus the entire interlocking system can be blocked by means of a button being engaged or by means of a keylock actuator. The blocking actuator can only be placed in front of the start button.		30-550

A combination of several different interlocking systems in one interlocking switch assembly is possible within limitations.



30-550	30-540	30-530	30-520	30-510	30-500	<b>1. Interlocking systems</b>	
						30-500	no interlocking
						30-510	mutual blocking
						30-520	mutual release
						30-530	mutual release and blocking
						30-540	single operation with master release, special master release place, can be placed anywhere
						30-550	sequential operation with master release
						<b>2. Interlocking system options</b>	
						30-599	<b>master switching-status blocking</b> in combination with Δ designated actuator or keylock actuator. May only be placed at the beginning or end of the key strip.
						30-598	<b>master release</b> in combination with actuator 30-383.0 (pushbutton). May be placed anywhere.
						30-597	<b>master release and blocking</b> in combination with actuator 30-384.0 (pushbutton maintained action). May be placed anywhere.
						30-596	<b>master release and blocking</b> in combination with keylock actuator. It may only be placed at the end of the interlocking system.
						30-595	<b>start operation block</b> in combination with the Δ designated actuator or keylock actuator. Always place blocking actuator in front of the start button.
						<b>3. Actuators</b>	
○	○	○	○	○	○	30-380.0	Indicator
○	○	○	○	○	○	30-381.0	Momentary action
○	○	○	○	○	○	30-382.0	Maintained action
●	●	●	●	●		30-383.0	Actuator
Δ	Δ	Δ	Δ	●		30-384.0	Actuator maintained action
○	○	○	○	○	○	30-360.0	Keylock actuator maintained action      Key removable in (C) position and (A) position
○	○	○	○	○	○	30-361.0	Keylock actuator maintained action      Key removable in (A) position (normally open contact open)
○	○	○	○	○	○	30-362.0	Keylock actuator maintained action      Key removable in (C) position (normally open contact closed)
Δ		Δ	Δ			30-366.0	Keylock actuator maintained action      Key removable in (C) and (A) position
Δ		Δ	Δ			30-367.0	Keylock actuator maintained action      Key removable in (A) position (normally open contact open)
Δ		Δ	Δ			30-368.0	Keylock actuator maintained action      Key removable in (C) position (normally open contact closed)

- with mutual interaction
- without mutual interaction
- Δ only for interlocking system option

				Type No.
Depth adapter for indicators, flat plug connection 2.8 x 0.5 mm				30-769.802
Extended indicator depth adapter (same depth as low-level switching element)				30-770.806
Snap-action switching element	1 NO + 1 NC	soldering terminal plug-in connection 2.8 x 0.5 mm		30-760.825 30-768.822
Snap-action switching element	2 NO + 2 NC			30-761.825
Snap-action switching element	3 NO + 3 NC			30-762.825
Snap-action switching element	4 NO + 4 NC			30-763.825
Low-level switching element	2 NO			30-750.836
Low-level switching element	2 NC			30-751.836
Low-level switching element	1 NO + 1 NC			30-752.836
Indicator with 2 blocking diodes	1 N 4007			30-772.806
snap action switching element 1 NO + 1 NC and 2 blocking diodes	1 N 4007			30-774.829
snap action switching element 2 NO + 2 NC and 2 blocking diodes	1 N 4007			30-776.829

further switching elements on request

Important:

Proper functioning of the interlocking switch assemblies is only guaranteed with the lenses fitted.

For lenses and accessories, see under Series 31 from page 41

Company: \_\_\_\_\_

Street: \_\_\_\_\_

Town: ( ) \_\_\_\_\_

Order No.: \_\_\_\_\_

Originator: \_\_\_\_\_ Telephone: \_\_\_\_\_

Dispatch address: \_\_\_\_\_

Please leave free for internal notes

Order No.: \_\_\_\_\_

Date: \_\_\_\_\_

Delivery date: \_\_\_\_\_

**Sample order for a interlocking switch assemblies of 6 places mechanism 530 and snap-action switching 2 NO + 2 NC**

Number of interlocking switch assemblies								1	Pieces											
30-550	30-540	30-530	30-520	30-510	30-500	Interlocking systems		1	2	3	4	5	6	7	8	9	10	11	12	
					■	30-500	No interlocking													
				■		30-510	Mutual blocking													
			■			30-520	Mutual release													
		■				30-530	Mutual release and blocking	x	x	x	x	x	x							
	■					30-540	Single operation with master release, release position can be placed anywhere													
■						30-550	Sequential operation with master release													
							* release button at position ...													
						Interlocking system options (VZ)														
		■	■			30-599	Pushbutton or keylock actuator with VZ for master switching-status blocking													
		■	■			30-598	Pushbutton with VZ for master release													
		■				30-597	Pushbutton with VZ for master release and blocking													
		■				30-596	Keylock actuator with VZ for master release and blocking													
■						30-595	Pushbutton or keyswitch with VZ for start operation block													
						Actuators														
○	○	○	○	○	○	30-360.0	Keylock actuator, maintained action (A/C)	○												
○	○	○	○	○	○	30-361.0	Keylock actuator, maintained action (A)	○												
○	○	○	○	○	○	30-362.0	Keylock actuator, maintained action (C)	○												
Δ		Δ	Δ			30-366.0	Keylock actuator, maintained action (A/C)	●												
Δ		Δ	Δ			30-367.0	Keylock actuator, maintained action (A)	●												
Δ		Δ	Δ			30-368.0	Keylock actuator, maintained action (C)	●												
○	○	○	○	○	○	30-381.0	Pushbutton actuator, momentary action	○												
○	○	○	○	○	○	30-382.0	Pushbutton actuator, maintained action	○												
●	●	●	●	●		30-383.0	Pushbutton actuator	●	x	x	x	x	x	x						
Δ		Δ	Δ	●		30-384.0	Pushbutton actuator maintained action	●												
○	○	○	○	○	○	30-380.0	Indicator													

- with mechanical interlocking function
- no mechanical interlocking function
- Δ only for interlocking system options

Please order accessories such as lenses, incandescent lamps, etc. separately. (see Series 31).



Company: \_\_\_\_\_

Street: \_\_\_\_\_

Town: (        ) \_\_\_\_\_

Order No.: \_\_\_\_\_

Originator: \_\_\_\_\_ Telephone: \_\_\_\_\_

Dispatch address: \_\_\_\_\_

Please leave free for internal notes

Order No: \_\_\_\_\_ Date: \_\_\_\_\_

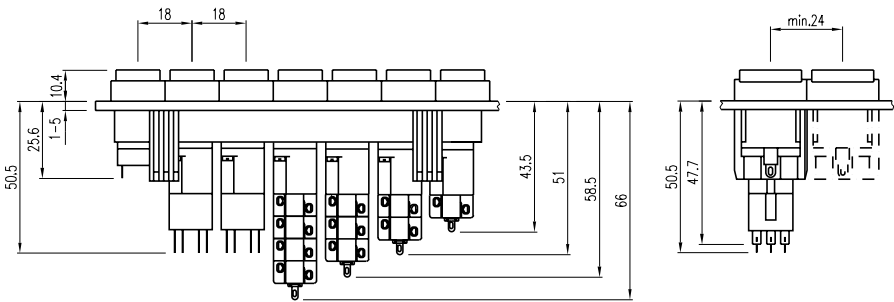
Delivery date: \_\_\_\_\_

								Number of interlocking switch assemblies												1	Pieces
30-550	30-540	30-530	30-520	30-510	30-500	Interlocking systems		1	2	3	4	5	6	7	8	9	10	11	12		
					■	30-500	No interlocking														
				■		30-510	Mutual blocking														
			■			30-520	Mutual release														
		■				30-530	Mutual release and blocking														
	■					30-540	Single operation with master release, release position can be placed anywhere														
■						30-550	Sequential operation with master release														
							* release button at position ...														
						Interlocking system options (VZ)															
		■	■			30-599	Pushbutton or keylock actuator with VZ for master switching-status blocking														
		■	■			30-598	Pushbutton with VZ for master release														
		■				30-597	Pushbutton with VZ for master release and blocking														
		■				30-596	Keylock actuator with VZ for master release and blocking														
■						30-595	Pushbutton or keylock actuator with VZ for start operation block														
						Actuators															
○	○	○	○	○	○	30-360.0	Keylock actuator, maintained action (A/C)	○													
○	○	○	○	○	○	30-361.0	Keylock actuator, maintained action (A)	○													
○	○	○	○	○	○	30-362.0	Keylock actuator, maintained action (C)	○													
Δ		Δ	Δ			30-366.0	Keylock actuator, maintained action (A/C)	●													
Δ		Δ	Δ			30-367.0	Keylock actuator, maintained action (A)	●													
Δ		Δ	Δ			30-368.0	Keylock actuator, maintained action (C)	●													
○	○	○	○	○	○	30-381.0	Pushbutton actuator, momentary action	○													
○	○	○	○	○	○	30-382.0	Pushbutton actuator, maintained action	○													
●	●	●	●	●		30-383.0	Pushbutton actuator	●													
Δ		Δ	Δ	●		30-384.0	Pushbutton actuator, maintained action	●													
○	○	○	○	○	○	30-380.0	Indicator														

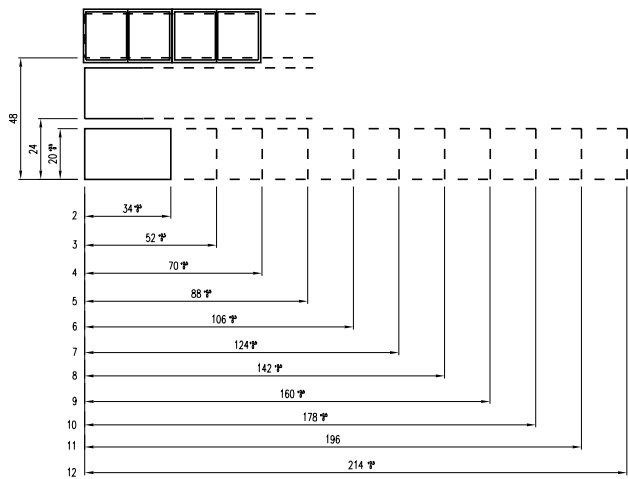
- with mechanical interlocking function
- no mechanical interlocking function
- Δ only for interlocking system option

Please order accessories such as lenses, incandescent lamps, etc. separately (see Series 31).

Interlocking switch assemblies, dimensioned drawing for page 581



Mounting Dimension



Perfect functioning is guaranteed only with the lenses fitted.

Fitting

The complete interlocking switch assembly with the indicator and switching elements mounted can be pushed in from the front and fastened at the rear.

The interlocking switch assemblies can also be fitted in several rows one next to the other (or one below the other) (block assembly).