

### Overview table:

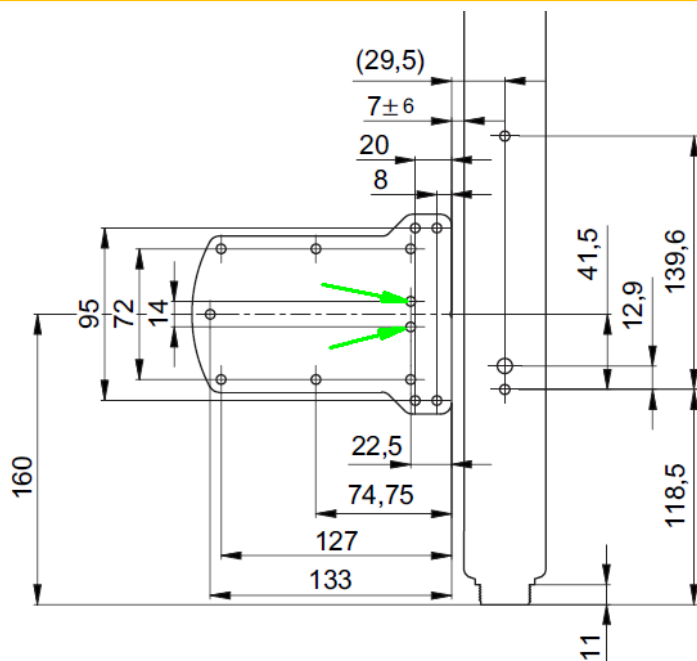
What must be considered when it's necessary to exchange the PSENsgate1 for the new improved PSENsgate2:

	Type of adjustment	What to do
1	Installation - Actuator	<ul style="list-style-type: none"> <li>- New drill holes for the actuator (Chapter 1)</li> <li>- Installation of actuator with &amp; without manipulation protection (Chapter 2)</li> </ul>
2	Installation – Sensor	<ul style="list-style-type: none"> <li>- <b>No adjustment required</b></li> </ul>
3	Conversion from left to right-hinged	<ul style="list-style-type: none"> <li>- Only the actuator requires adjustment (Chapter 3)</li> <li>➔ <b>Simplified</b></li> </ul>
4	Cable routing	<ul style="list-style-type: none"> <li>- Now with stable PG thread (Chapter 4)</li> </ul>
5	Wiring	<ul style="list-style-type: none"> <li>- New connector pin assignment due to new solenoid drive (Chapter 5)</li> <li>- New wiring on PNOZ units with relay outputs (Chapter 5.3.1)</li> <li>- New wiring on PNOZ units with semiconductor outputs (Chapter 5.3.2)</li> <li>- New wiring on 3rd party units with dual-pole semiconductor outputs (Chapter 5.3.3)</li> </ul>
6	Adjustment in tool configuration PNOZ / PNOZmulti	<ul style="list-style-type: none"> <li>- <b>No adjustment is required</b></li> </ul>
7	Diagnostics	<ul style="list-style-type: none"> <li>- Access request changed (LED instead of illuminated pushbutton) (Chapter 6)</li> <li>- Blink codes reduced and simplified</li> <li>➔ <b>Simplified</b></li> </ul>

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### 3. Required conversion from left to right-hinge on gate

Previously: necessary to convert actuator unit and sensor end stop

#### PSENsgate 2 - new:

Only the actuator unit needs to be converted (Chapter 6.3 of operating manual)

### 4. Cable routing

A PG thread cable gland is used on the PSENsgate2. This enables 2 cables to be introduced with a maximum 10mm external diameter. When delivered, one of the insertion openings is sealed with a plug. This can be removed if necessary.

If cables with a smaller or larger diameter are used, the PG thread can be swapped for standard compatible inserts.

**Note:** If all 16 pins per connector are used, only a max. cable cross section of 0.25mm<sup>2</sup> is possible. As a result, a max. 30 metre cable length is possible.

**Solution:** To achieve longer cable lengths, several cores can be wired in one terminal (may be relevant with solenoid drive). As a result, the cable cross sections are added together / the cable resistances are halved.

### 5. Electrical connection

#### 5.1 Overview of connector pin assignment

The connector pin assignment of the PSENsgate 2 has changed slightly. The table below shows exactly where the changes have been made. The connector pin assignment of the PSENsgate basic versions 1: E-STOP + 2 pushbuttons and 2: E-STOP + 4 pushbuttons are listed in the table. The following applies:

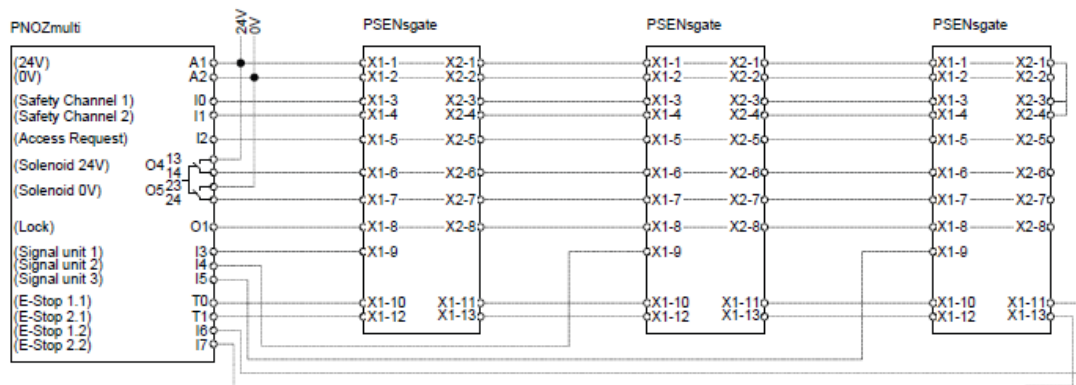
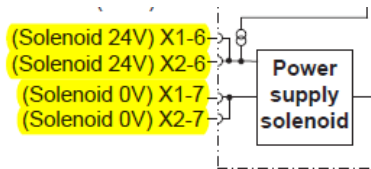
- Black text: No change
- Red text: Change from PSENsgate 1 to PSENsgate 2
- Blue text: Change from PSENsgate 1 to PSENsgate 2, which refers to the 4-pushbutton type

	PSENsgate 1 – Connector X1 (570701)	PSENsgate 1 – Connector X2 (570701)	PSENsgate 2 - X1 (570801)	PSENsgate 2 - X2 (570801)
1	24V	24V	24V	24V
2	GND	GND	GND	GND
3	OSSD 1	Input 1	OSSD 1	Input 1
4	OSSD 2	Input 2	OSSD 2	Input 2
5	Access Request	Access Request	Access Request	Access Request
6	Safe 24V range	Safe 24V range	Safe 24V range	Safe 24V range
7	Safe 0V range	Safe 0V range	Safe 24V range	Safe 24V range
8	Lock	Lock	Lock	Lock
9	Signal output Y32		Signal output Y32	
10	E-Stop 1.1		E-Stop 1.1	
11	E-Stop 2.1		E-Stop 2.1	
12	E-Stop 2.2		E-Stop 2.2	
13	E-Stop 1.2		E-Stop 1.2	Pushbutton 3 Ch. 2*
14	LED pushbutton 1	Pushbutton 1	LED pushbutton 3*	Pushbutton 3 Ch. 1*
15	LED pushbutton 2	Pushbutton 2	LED pushbutton 4*	Pushbutton 4 Ch. 1*
16	LED pushbutton 3	Pushbutton 3	Signal output E-Stop	Pushbutton 4 Ch. 2*

### 5.2 Driving the solenoid supply

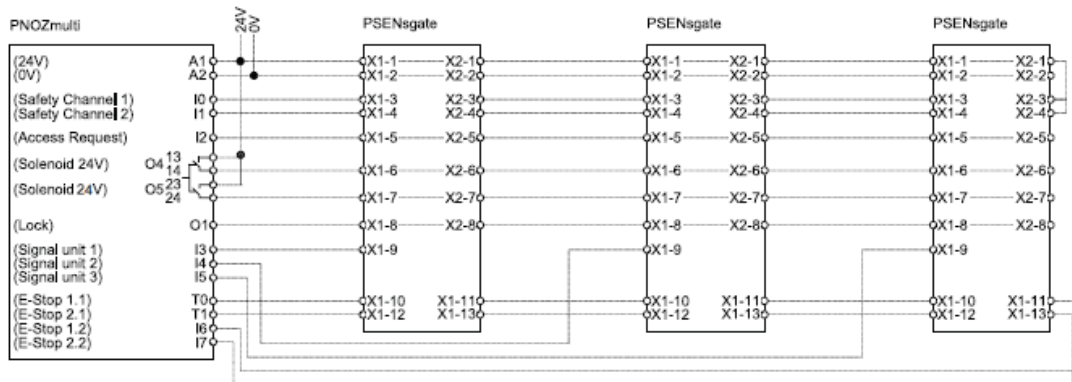
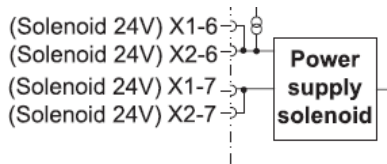
#### PSENsgate 1 – previously:

A dual-pole 24V and 0V drive was required for the solenoid supply.



#### PSENsgate 2 - new:

Solenoid drive now only requires 24V



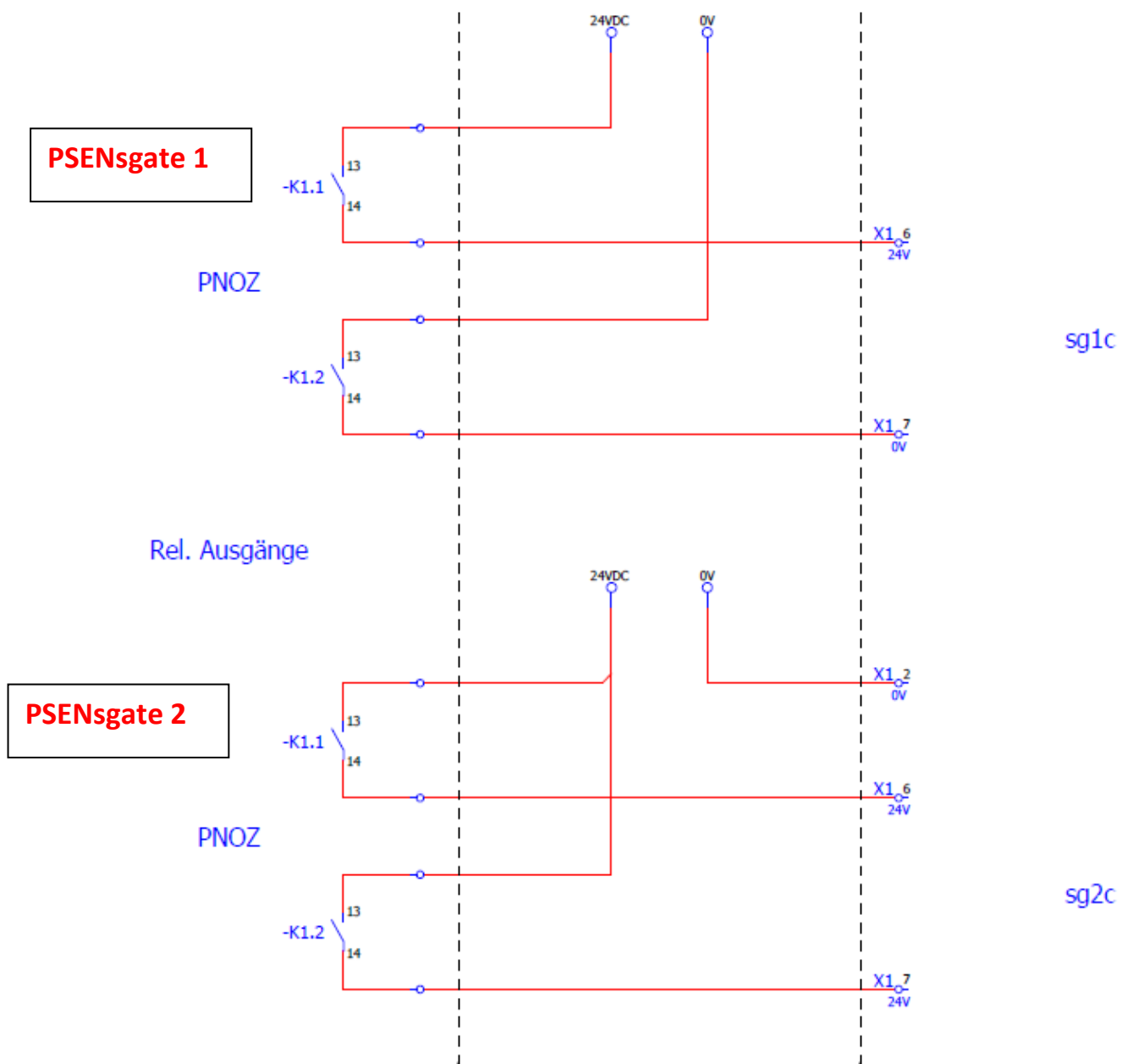
As relay contacts were previously recommended for the dual-pole drive, the supply to the relay contacts must be adapted if necessary.

Safe semiconductor outputs can now also be used for drive in PL e.

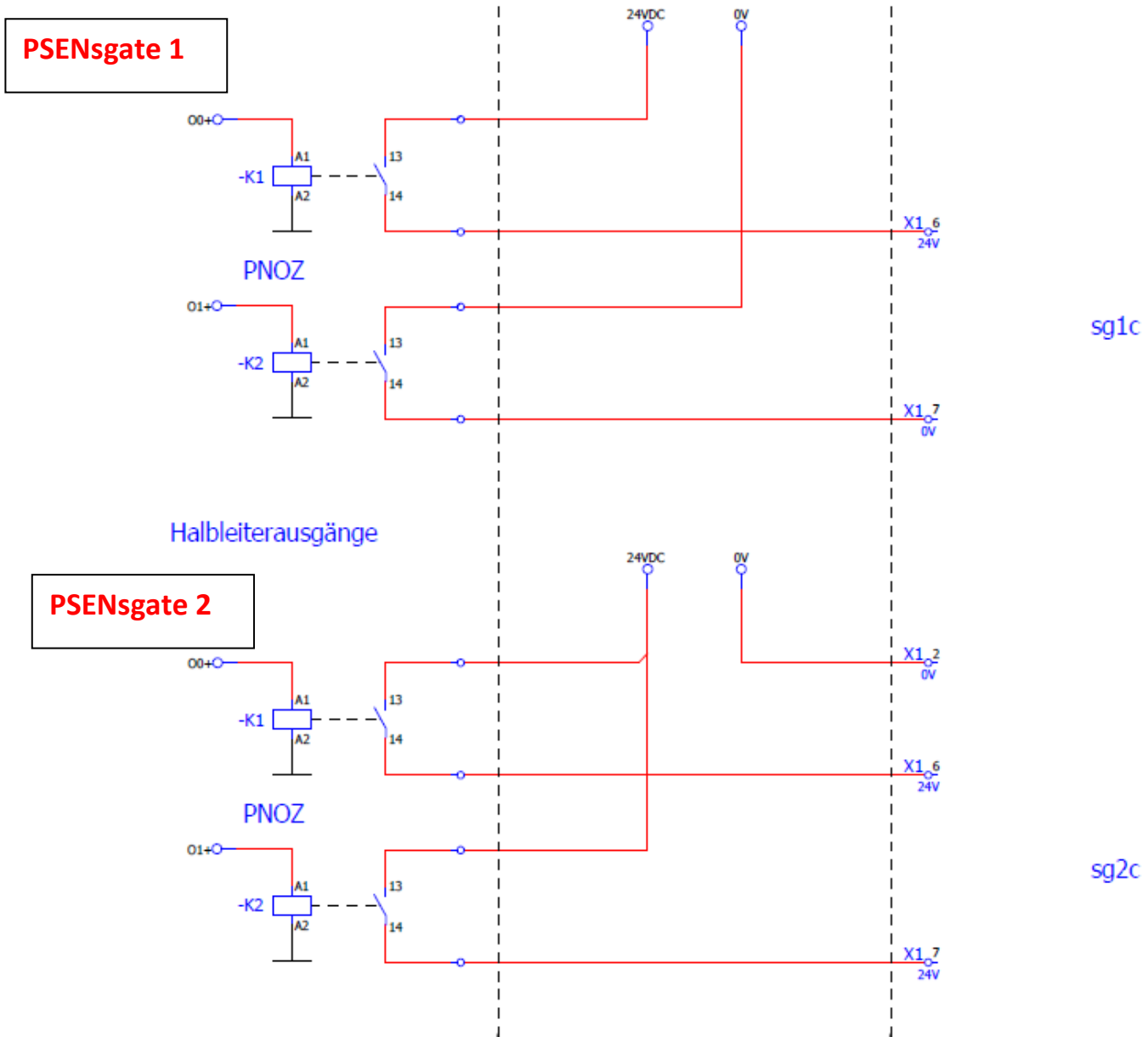
### 5.3 Wiring examples:

The following wiring examples show how the wiring has changed. It is also important to note that changing a PSENsgate 1 for a PSENsgate 2 **does not require any program changes in the PNOZmulti Configurator!**

#### 5.3.1 PNOZ with relay outputs



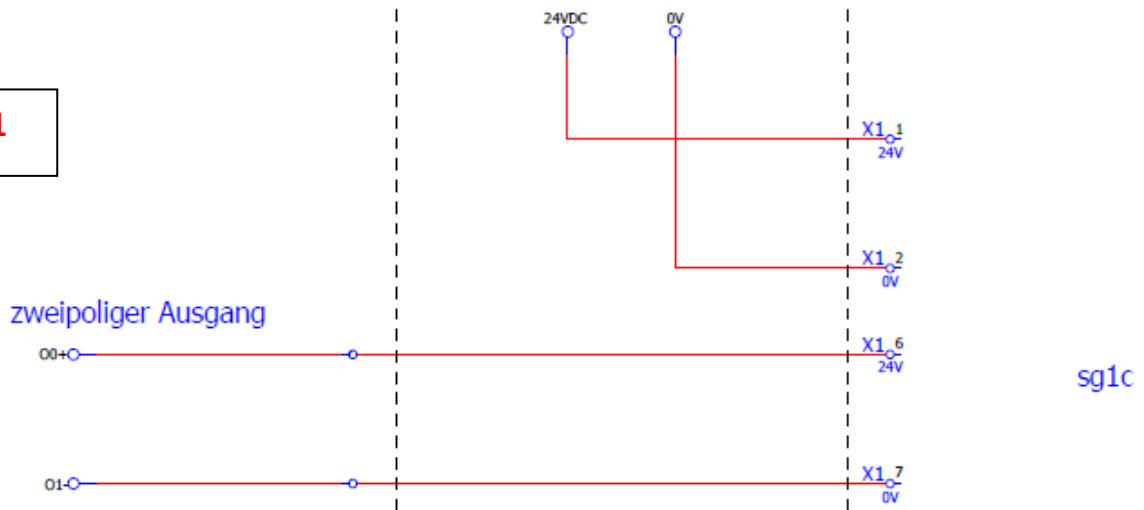
### 5.3.2 PNOZ with semiconductor outputs and downstream coupling relays:



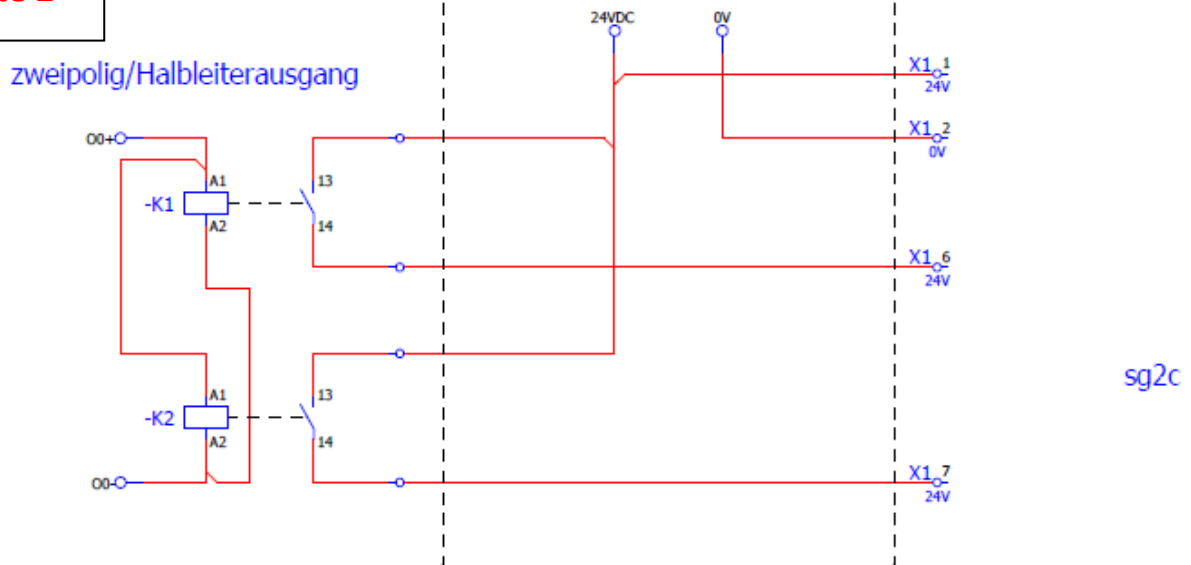


### 5.3.3 Dual-pole semiconductor outputs:

#### PSENsgate 1



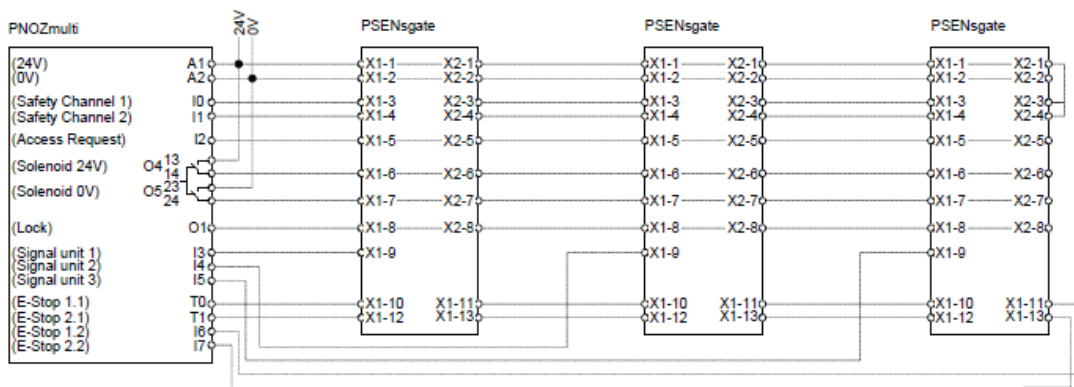
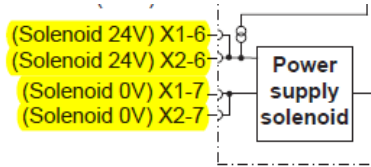
#### PSENsgate 2



### 5.4 Driving the solenoid supply

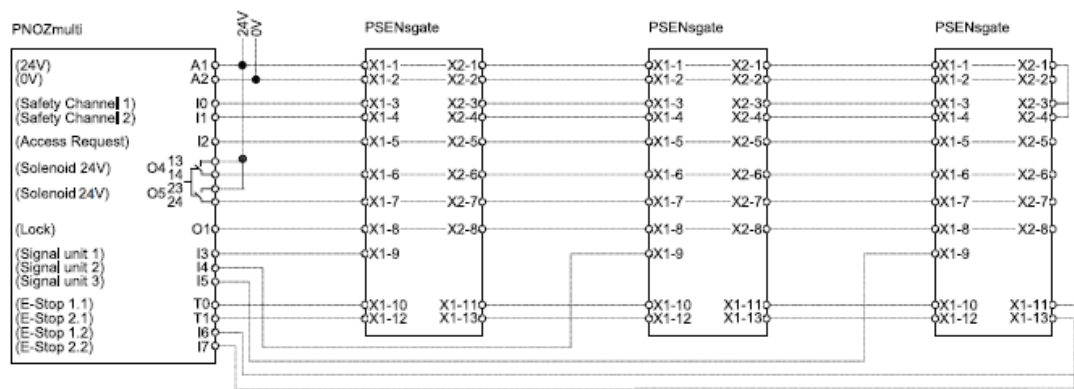
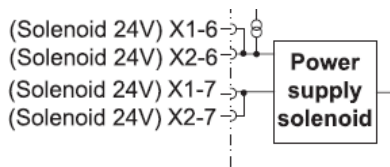
**PSEnsgate 2 - new:**

A dual-pole 24V and 0V drive was required for the solenoid supply.



**PSEnsgate 2 - new:**

Solenoid drive now only requires 24V



As relay contacts were previously recommended for the dual-pole drive, the supply to the relay contacts must be adapted if necessary.

Safe semiconductor outputs can now also be used for drive in PL e.

### 6. LED and pushbutton display

The status LED display on the PSENsgate2 has changed.

#### PSENsgate 1 - previously:

Power/Fault

Input

Safety Gate

Pushbutton 1 (LED)

Pushbutton 2 (LED)

#### PSENsgate 2 - new:

Device                      Same function as previous Power/Fault

Input                        Same function as previously

Lock / Area Safe        Display for bolt tongue and guard locking device unlocked / locked and  
**(new!)** access request (previously pushbutton 2 (LED))

Safety Gate                Same function as previously

Pushbutton 1 (LED)    Same function as previously



**Note:** The number and complexity of the flash codes has also been reduced. Further details will be available in the operating manual, which will be published in the next few days.

### 7. Connection terminals

**PSENsgate 1 - previously:**

Terminal X1-7/X2-7: 0V

**PSENsgate 2 - new:**

Terminal X1-7/X2-7: 24V