



## 12 EXPANDING THE SYSTEM

### 12.1 Safety instructions for expanding the system

 <b>Warning</b>	<p><b>ENDANGERING OF EXPLOSION PROTECTION!</b></p> <p>The explosion protection is endangered if the systems is expanded on your own responsibility.</p> <ul style="list-style-type: none"> <li>➤ Expansions may only be implemented with permission from the department or company that designed or produced the system.</li> </ul>
 <b>Warning</b>	<p><b>ENDANGERING OF EXPLOSION PROTECTION!</b></p> <p>The explosion protection is endangered during separation from circuits which are non intrinsically safe.</p> <ul style="list-style-type: none"> <li>➤ During operation, never loosen the terminations, power supply or connection cables.</li> </ul>

#### 12.1.1 Separating the terminations – zone-specific measures

Zone 1	Zone 2	Safe area
<p>Every expansion must be implemented in compliance with the regulations for engineering and assembly specified in these operating instructions.            Theoretically: Expansion and separation of the BusRail is only permitted without load.</p>		
<p>The following measures are permitted:</p> <ul style="list-style-type: none"> <li>• Replacing "end" terminations with "end-Sub-D" terminations</li> <li>• Removing the termination, extending the BusRail <b>without I/O module</b> and reattaching the termination</li> <li>• Connecting the pre-mounted BusRail with terminations <b>without inserted I/O module</b> with the connection cable of the BusRail being expanded              The I/O modules necessary for the expansion can then be inserted.</li> </ul>	<p>If there is no danger of explosion, the following measures are permitted:</p> <ul style="list-style-type: none"> <li>• Extend ends of BusRail</li> <li>• Fit terminations</li> </ul>	<p>The following measures are permitted:</p> <ul style="list-style-type: none"> <li>• Extend ends of BusRail</li> <li>• Fit terminations</li> </ul>
<p>The following measures are permitted:</p> <ul style="list-style-type: none"> <li>• Insert additional modules in empty slots and connect to the field devices</li> <li>• Insert additional field devices to free channels of an I/O module</li> </ul>		

Tab. 12-1 Zone-specific measures for expanding the system

## 12.2 Working steps for system expansion

After the overall start of the I.S. 1 system, all modules are detected by the automation equipment and can be triggered at any time during cyclical operation. However, when new components are added, they cannot be automatically integrated into the existing information flow. The following describes the working steps required to integrate new components during operation.

**Hardware** • In preparation

**Software** • In preparation