

Terminal box 4x limit indicator, type 6789-73

- Component of cross over prevention system (SAFE) for loading and unloading of tank trucks with automatic appointed AS to the delivery.
- Interface between different sensors and appropriate evaluation electronics.
- Transmission of signals sent by the limit indicators, the hose guards for product hose and gas displacement hose, the tank identification



Description/function

The circuits for feed-through wiring are directly connected to each other and serve to transmit signals.

A signal supply circuit connects (Wired-Or) the respective digital inputs of limit indicator x: IN_y (x, y = 1, 2, 3, 4) of the signal circuits with the appropriate digital outputs of quality assurance system: IN_y (x = 1, 2, 3, 4). The control signals of quality assurance system: OUT_x (x = 1, 2, 3, 4) select the respective digital inputs of limit indicator x: IN_y (x, y = 1, 2, 3, 4).

The shields of the intrinsically safe cables and conductors can be connected potential-free to terminals "S".

Application

The terminal box 4x limit indicator serves to wire intrinsically safe circuits between the following devices:

- Sensor Interface EEx type 6728-10
- Overfill prevention device type 6728-6x
- Interface SAFE Ex type 6728-51 (according to EN 14116)

Norms

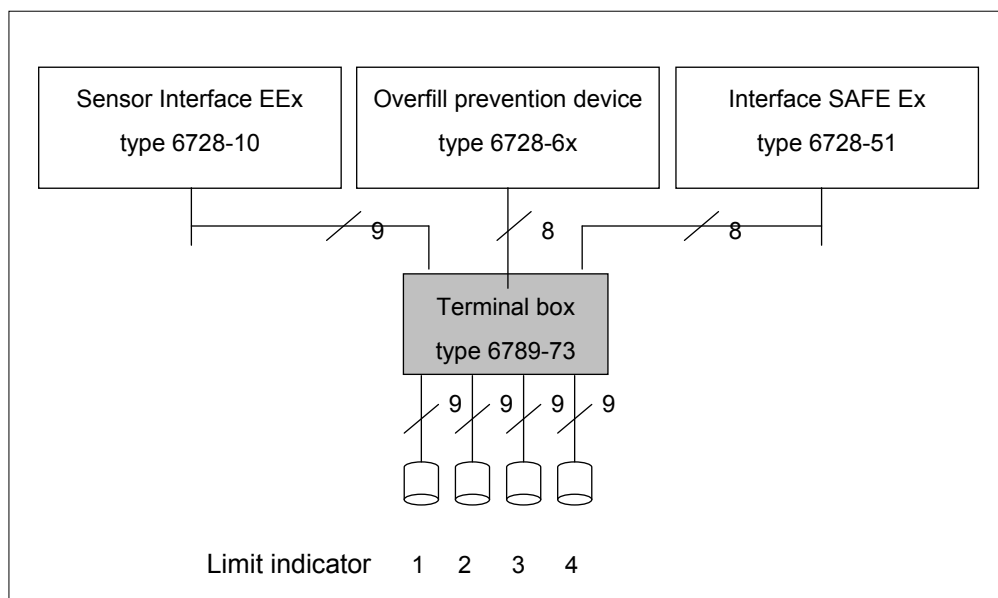
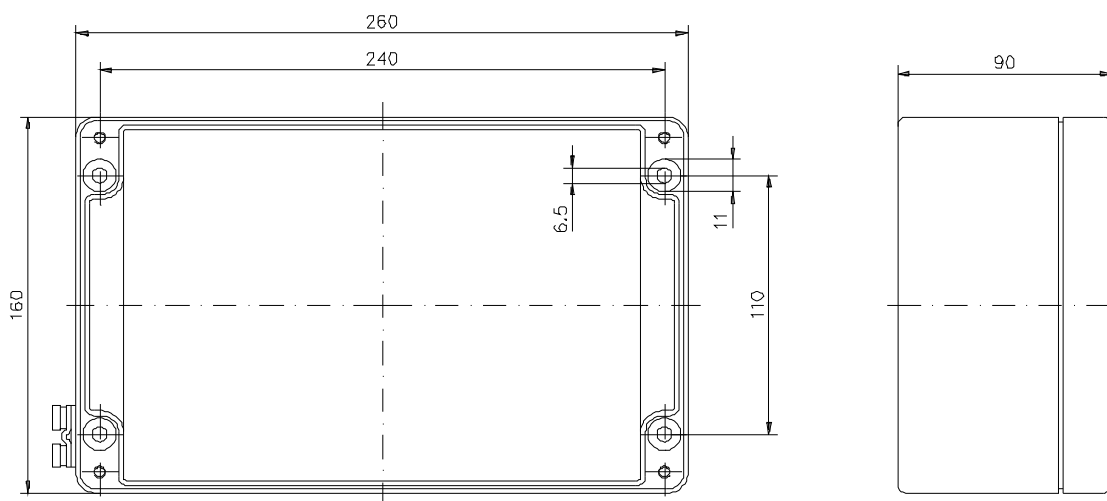
EN 60079-0
EN 60079-11
EN 60079-26
EN 14116

Approvals

Ex approval RL 94/9/EC
Device group / device category
II 2 (1) G Ex ia [ia] IIC/IIB T4
TÜV 98 ATEX 1376

Technical data																																					
Electrical data																																					
Wire cross-section	0.5 mm ² ... 1.5 mm ² (fine-wired)																																				
Intrinsically safe circuits for feed-through wiring Ex ia IIC/IIB oder Ex ib IIC/IIB	<p>Limit indicator * and overfill prevention device: ±limit indicator 1, ±limit indicator 2, ±limit indicator3, ±limit indicator4, limit indicator* or limit indicator* and ASS: L1, C1, L2, C2, L3, C3, L4, C4</p> <p>Limit indicator1 and overfill prevention device: terminals: KL4-3/KL26-3 (+limit indicator1), KL4-2/KL26-2 (-limit indicator1)</p> <p>Limit indicator2 and overfill prevention device: terminals: KL8-3/KL27-2 (+limit indicator2), KL8-2/KL27-1 (-limit indicator2)</p> <p>Limit indicator3 and AS: terminals: KL12-3/KL28-2 (+limit indicator3), KL12-2/KL28-1 (-GWS3)</p> <p>Limit indicator4 and overfill prevention device: terminals: KL16-3/KL29-2 (+limit indicator4), KL16-2/KL29-1 (-limit indicator4)</p> <p>Limit indicator1 and overfill prevention device guard: terminals: KL1-3/KL17-3 (L1), KL1-2/KL17-2 (C1)</p> <p>Limit indicator2 and overfill prevention device guard: terminals: KL5-3/KL18-2 (L2), KL5-2/KL18-1 (C2)</p> <p>Limit indicator3 and overfill prevention device guard: terminals: KL9-3/KL19-2 (L3), KL9-2/KL19-1 (C3)</p> <p>Limit indicator4 and overfill prevention device guard: terminals: KL13-3/KL20-2 (L4), KL13-2/KL20-1 (C4)</p> <p>each</p> <p>Ex ia IIC/IIB or Ex ib IIC/IIB</p> <table> <tr> <td>maximum input voltage U_i</td> <td>DC</td> <td>30</td> <td>V</td> </tr> <tr> <td>maximum input current I_i</td> <td></td> <td>2,9</td> <td>A</td> </tr> <tr> <td>maximum internal capacity C_i</td> <td></td> <td>≈ 0</td> <td>μF</td> </tr> <tr> <td>maximum internal capacity C_i towards casing / ground</td> <td></td> <td>6</td> <td>nF</td> </tr> <tr> <td>maximum internal inductivity L_i</td> <td></td> <td>≈ 0</td> <td>mH</td> </tr> </table>	maximum input voltage U _i	DC	30	V	maximum input current I _i		2,9	A	maximum internal capacity C _i		≈ 0	μF	maximum internal capacity C _i towards casing / ground		6	nF	maximum internal inductivity L _i		≈ 0	mH																
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Intrinsically safe signal supply circuit cross over prevention system Ex ia IIC/IIB or Ex ib IIC/IIB	<p>COP: OUT1, OUT2, OUT3, OUT4, IN1, IN2, IN3, IN4, COM</p> <p>Terminals: KL21-1 (OUT1), KL21-2 (OUT2), KL22-1 (OUT3), KL22-2 (OUT4), KL23-1 (IN1), KL23-2 (IN2), KL24-1 (IN3), KL24-2 (IN4), KL25-2 (COM)</p> <table> <tr> <td>maximum input voltage U_i Ex ia/ib IIB</td> <td>DC</td> <td>23,3</td> <td>V</td> </tr> <tr> <td>maximum input voltage U_i Ex ia/ib IIC</td> <td>DC</td> <td>13,0</td> <td>V</td> </tr> <tr> <td>maximum input power P_i</td> <td></td> <td>1,2</td> <td>W</td> </tr> <tr> <td>maximum internal capacity C_i</td> <td></td> <td>1</td> <td>μF</td> </tr> <tr> <td>maximum internal inductivity L_i</td> <td></td> <td>≈ 0</td> <td>mH</td> </tr> </table>	maximum input voltage U _i Ex ia/ib IIB	DC	23,3	V	maximum input voltage U _i Ex ia/ib IIC	DC	13,0	V	maximum input power P _i		1,2	W	maximum internal capacity C _i		1	μF	maximum internal inductivity L _i		≈ 0	mH																
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Mounting dimensions



Integration of terminal box 4x limit indicator into System 3002