



SIMATIC DP, Power Module PM-E F PROFIsafe, f. ET200S; 24 V DC suitable for ungrounded setup relay for switching the voltage buses P1 and P2 up to Category 3 (EN 954-1)/ SIL2 (IEC61508)/PLD (ISO13849), 2 fail-safe dig. outputs up to Category 4 (EN 954-1)/ SIL3 (IEC61508)/PLE (ISO13849), can also be used in PROFINET configuration with IM 151-3 HF

Supply voltage	
Load voltage L+	
• Rated value (DC)	24 V
• Reverse polarity protection	No
Input current	
From load voltage L+ (no load), typ.	100 mA
from backplane bus 24 V DC, max.	28 mA
Power loss	
Power loss, typ.	4 W
Address area	
Address space per module	
• Inputs	5 byte
• Outputs	5 byte
Digital outputs	
Number of digital outputs	2
Short-circuit protection	Yes; Electronic
• Response threshold, typ.	Response threshold (short-circuit): 5 to 12 A; response threshold (external short-circuit to ground): 5 to 12 A; response threshold (external short-circuit to P potential): 25 to 45 A
Limitation of inductive shutdown voltage to	L+ (-2x 47 V)
Controlling a digital input	No
Switching capacity of the outputs	
• on lamp load, max.	10 W
Load resistance range	
• lower limit	12 Ω
• upper limit	1 kΩ
Output voltage	
• for signal "1", min.	L+ (-2,0 V), current sourcing switch: L+ (-1,5 V), voltage drop on current sinking switch: max. 0.5 V
Output current	
• for signal "1" rated value	2 A
• for signal "1" permissible range for 0 to 60 °C, min.	20 mA
• for signal "1" permissible range for 0 to 60 °C, max.	2.4 A
• for signal "0" residual current, max.	0.5 mA
Parallel switching of two outputs	
• for uprating	No
• for redundant control of a load	No
Switching frequency	

<ul style="list-style-type: none"> <li>• with resistive load, max.</li> </ul>	30 Hz
<ul style="list-style-type: none"> <li>• with inductive load, max.</li> </ul>	0.1 Hz
<ul style="list-style-type: none"> <li>• on lamp load, max.</li> </ul>	10 Hz
<b>Total current of the outputs (per group)</b>	
horizontal installation	
— up to 40 °C, max.	10 A
— up to 55 °C, max.	7 A
— up to 60 °C, max.	6 A
vertical installation	
— up to 40 °C, max.	6 A
<b>Relay outputs</b>	
Switching capacity of contacts	
— with resistive load, up to 50 °C, max.	10 A
<b>Cable length</b>	
<ul style="list-style-type: none"> <li>• shielded, max.</li> </ul>	200 m
<ul style="list-style-type: none"> <li>• unshielded, max.</li> </ul>	200 m
<b>Interrupts/diagnostics/status information</b>	
Diagnostics function	Yes
Diagnoses	
<ul style="list-style-type: none"> <li>• Diagnostic information readable</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Wire-break</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Short-circuit</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• missing load voltage</li> </ul>	Yes
Diagnostics indication LED	
<ul style="list-style-type: none"> <li>• Rated load voltage PWR (green)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Group error SF (red)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Status indicator digital output (green)</li> </ul>	Yes
<b>Potential separation</b>	
Potential separation digital outputs	
<ul style="list-style-type: none"> <li>• between the channels</li> </ul>	No
<ul style="list-style-type: none"> <li>• between the channels and backplane bus</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Between the channels and load voltage L+</li> </ul>	No
<b>Isolation</b>	
Isolation tested with	500 V DC
<b>Standards, approvals, certificates</b>	
Highest safety class achievable in safety mode	
<ul style="list-style-type: none"> <li>• acc. to EN 954</li> </ul>	4
<ul style="list-style-type: none"> <li>• Performance level according to ISO 13849-1</li> </ul>	e
<ul style="list-style-type: none"> <li>• SIL acc. to IEC 61508</li> </ul>	Up to SIL 3
<b>Dimensions</b>	
Width	30 mm
Height	81 mm
Depth	52 mm
<b>Weights</b>	
Weight, approx.	88 g
<b>last modified:</b>	7/28/2021 