



SIMATIC DP,  
POWER MODULE PM-E F PROFISAFE,  
FOR ET 200S;  
24V DC USEABLE FOR INSTALLATIONS WITH  
UNGROUNDING REFERENCE POTENTIAL RELAYS FOR  
FAIL-SAFE SWITCHING OF VOLTAGE BUSES P1 AND P2  
UP TO CATEGORY 3 (EN954-1)/ SIL2 (IEC61508)/PLD  
(ISO13849),  
2 FAIL-SAFE DIGITAL OUTPUTS UP TO CATEGORY 4  
(EN954-1)/ SIL3 (IEC61508)/PLE (ISO13849),  
ALSO USEABLE IN PROFINET-NETWORKS W. IM151-3  
HF

<b>Supply voltage</b>	
Load voltage L+	
Rated value (DC)	24 V
Reverse polarity protection	No
<b>Input current</b>	
from load voltage L+ (without load), max.	typ. 100 mA
from backplane bus 24 V DC, max.	28 mA
<b>Current carrying capacity</b>	
Current carrying capacity up to 40 °C, max.	10 A
Current carrying capacity up to 60 °C, max.	6 A
<b>Power losses</b>	
Power loss, typ.	4 W
<b>Address area</b>	
Address space per module	
without packing	5 byte ; Input and output in each case
<b>Digital inputs</b>	
Cable length	
Cable length, shielded, max.	200 m

Cable length unshielded, max.	200 m
<b>Digital outputs</b>	
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
<b>Switching capacity of the outputs</b>	
Lamp load, max.	10 W
<b>Load resistance range</b>	
lower limit	12 Ω
upper limit	1 kΩ
<b>Output voltage</b>	
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
<b>Output current</b>	
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
<b>Parallel switching of 2 outputs</b>	
for increased power	No
for redundant control of a load	No
<b>Switching frequency</b>	
with resistive load, max.	30 Hz
with inductive load, max.	0.1 Hz
on lamp load, max.	10 Hz
<b>Aggregate current of outputs (per group)</b>	
<b>horizontal installation</b>	
up to 40 °C, max.	10 A
up to 55 °C, max.	7 A
up to 60 °C, max.	6 A
<b>vertical installation</b>	
up to 40 °C, max.	6 A
<b>Relay outputs</b>	
<b>Switching capacity of contacts</b>	
at ohmic load, up to 50 °C, max.	10 A

<b>Cable length</b>	
Cable length, shielded, max.	200 m
Cable length unshielded, max.	200 m
<b>Interrupts/diagnostics/status information</b>	
<b>Diagnostic messages</b>	
Diagnostic functions	Yes
Diagnostic information readable	Yes
Diagnostics	Yes
Wire break	Yes
Short circuit	Yes
Missing load voltage	Yes
<b>Diagnostics indication LED</b>	
Rated load voltage PWR (green)	Yes
Group error SF (red)	Yes
Status indicator digital output (green)	Yes
<b>Galvanic isolation</b>	
<b>Galvanic isolation digital outputs</b>	
between the channels	No
between the channels and the backplane bus	Yes
between the channels and the load voltage L+	No
<b>Isolation</b>	
Isolation checked with	500 V DC
<b>tested with</b>	
Channels against backplane bus and load voltage L+	500 V DC
<b>Standards, approvals, certificates</b>	
<b>Highest safety class achievable in safety mode</b>	
acc. to EN 954	4
acc. to IEC 61508	Up to SIL 3
<b>Dimensions</b>	
Width	30 mm
Height	81 mm
Depth	52 mm
<b>Weights</b>	
Weight, approx.	88 g
Status	Jan 23, 2014