

SIMATIC DP, Electronics module for ET 200S, 4 F-DO PROFIsafe, 24 V DC/2 A, 30 mm overall width, up to PL E (ISO 13849), up to SIL 3 (IEC 61508), 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 3.3 V DC, max.	28 mA
Power loss	
Power loss, typ.	3.5 W
Digital outputs	
Number of digital outputs	4
Short-circuit protection	Yes
Limitation of inductive shutdown voltage to	Typ. (2L+) -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 k $\Omega$
<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, min.	20 mA
• for signal "1" permissible range, max.	2.4 A
• for signal "0" residual current, max.	0.5 mA; Current-sourcing and current-sinking switches
<b>Parallel switching of two outputs</b>	
• for uprating	No
• for redundant control of a load	No
<b>Switching frequency</b>	
• with resistive load, max.	30 Hz; Symmetrical
• with inductive load, max.	0.1 Hz; Symmetrical
• on lamp load, max.	10 Hz; Symmetrical
<b>Total current of the outputs</b>	
• Current per module, max.	6 A
<b>Total current of the outputs (per group)</b>	
horizontal installation	
— up to 40 °C, max.	6 A
— up to 55 °C, max.	5 A
— up to 60 °C, max.	4 A
vertical installation	
— up to 40 °C, max.	4 A
<b>Cable length</b>	
• shielded, max.	500 m
• unshielded, max.	500 m
<b>Interrupts/diagnostics/status information</b>	
Diagnostics function	Yes
<b>Diagnostic messages</b>	
• Wire-break	Yes
• Short-circuit	Yes
<b>Diagnostics indication LED</b>	
• Group error SF (red)	Yes
• Status indicator digital output (green)	Yes
<b>Potential separation</b>	
Potential separation digital outputs	
• between the channels	No
• between the channels and backplane bus	Yes
• Between the channels and load voltage L+	No

## Isolation

### tested with

- Load voltage L+ against backplane bus 2 545 V DC

## Standards, approvals, certificates

### Highest safety class achievable in safety mode

- Performance level according to ISO 13849-1 PLe
- SIL acc. to IEC 61508 SIL 3

## Dimensions

Width	30 mm
Height	81 mm
Depth	52 mm

## Weights

Weight, approx.	85 g
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**last modified:** 02/11/2019