

\*\*\* SPARE PART\*\*\* SIMATIC DP, ELECTRONIC MODULE ET 200S: 2AI HIGH SPEED I-2WIRE 4 - 20mA; 14BIT, 15 MM WIDTH, FOR 2-WIRE TRANSDUCER, CYCLE TIME OF THE MODULE: 1MS, WITH LED SF (GROUP FAULT)



Supply voltage	
Load voltage L+	
<ul style="list-style-type: none"> <li>Rated value (DC)</li> <li>short-circuit protection</li> <li>Reverse polarity protection</li> </ul>	24 V; From power module Yes; Destruction limit 35 mA per channel Yes
Input current	
from load voltage L+ (without load), max.	35 mA; Without encoder supply voltage
from backplane bus 3.3 V DC, max.	10 mA
Encoder supply	
Number of outputs	2
Type of output voltage	L+ (-2.5 V), under load
Short-circuit protection	Yes; Electronic
Output current	
<ul style="list-style-type: none"> <li>Rated value</li> <li>permissible range</li> </ul>	90 mA; both channels 0 to 90 mA
Power loss	
Power loss, typ.	0.8 W

Address area	
Address space per module	
• Address space per module, max.	4 byte
Analog inputs	
Number of analog inputs	2
permissible input current for current input (destruction limit), max.	60 mA
Cycle time (all channels) max.	1 ms; Per module
Input ranges	
• Current	Yes
Input ranges (rated values), currents	
• Input resistance (0 to 20 mA)	0.05 k $\Omega$
• 4 mA to 20 mA	Yes; on 50 ohms
Cable length	
• shielded, max.	200 m
Analog value generation for the inputs	
Measurement principle	Actual value encryption
Integration and conversion time/resolution per channel	
• Resolution with overrange (bit including sign), max.	13 bit; 4 to 20 mA: 13 bits, 0 to 20 mA: 13 bits
• Conversion time (per channel)	0.1 ms
Smoothing of measured values	
• parameterizable	Yes; In four stages by means of digital filtering
• Step: None	Yes; 1 x cycle time
• Step: low	Yes; 64 x cycle time
• Step: Medium	Yes; 128 x cycle time
• Step: High	Yes; 512x cycle time
Encoder	
Connection of signal encoders	
• for current measurement as 2-wire transducer	Yes
— Burden of 2-wire transmitter, max.	670 $\Omega$
Errors/accuracies	
Linearity error (relative to input range), (+/-)	0.01 %
Temperature error (relative to input range), (+/-)	0.01 %/K
Crosstalk between the inputs, min.	50 dB
Repeat accuracy in steady state at 25 °C (relative to input area), (+/-)	0.05 %
Operational error limit in overall temperature range	
• Current, relative to input area, (+/-)	0.3 %
Basic error limit (operational limit at 25 °C)	
• Current, relative to input area, (+/-)	0.2 %

<b>Interference voltage suppression for <math>f = n \times (f_1 \pm 1 \%)</math>, <math>f_1 =</math> interference frequency</b>	
<ul style="list-style-type: none"> <li>Series mode interference (peak value of interference &lt; rated value of input range), min.</li> </ul>	70 dB
<b>Isochronous mode</b>	
Isochronous operation (application synchronized up to terminal)	Yes
<b>Interrupts/diagnostics/status information</b>	
<b>Alarms</b>	
<ul style="list-style-type: none"> <li>Hardware interrupt</li> </ul>	Yes; Parameterizable
<b>Diagnostic messages</b>	
<ul style="list-style-type: none"> <li>Wire-break</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Group error</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Overflow/underflow</li> </ul>	Yes
<b>Diagnostics indication LED</b>	
<ul style="list-style-type: none"> <li>Group error SF (red)</li> </ul>	Yes
<b>Parameter</b>	
Remark	12 byte
Diagnostics wire break	Disable / enable
Measurement type/range	Deactivated / 0 to 20 mA / 4 to 20 mA
Group diagnostics	Disable / enable
Overflow/underflow	Disable / enable
<b>Potential separation</b>	
<b>Potential separation analog inputs</b>	
<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>Permissible potential difference</b>	
between MANA and M internally (UISO)	75V DC/60V AC
<b>Isolation</b>	
Isolation tested with	500 V DC
<b>Dimensions</b>	
Width	15 mm
Height	81 mm
Depth	52 mm
<b>Weights</b>	
Weight, approx.	40 g
<b>last modified:</b>	27.10.2015