

SIMATIC DP, ELECT. SUBMODULE FOR ET200IS, 2 AI HART, 2DMU, FOR CONNECTION OF HART 2-WIRE TRANSDUCER



Input current	
From load voltage L+ (no load), typ.	280 mA
Output voltage	
Power supply to the transmitters	
• present	Yes
• short-circuit proof	Yes
• Supply current, max.	23 mA
Power loss	
Power loss, typ.	3.36 W
Analog inputs	
Number of analog inputs	2
permissible input current for current input (destruction limit), max.	90 mA
Cycle time (all channels) max.	Number of active channels per module x basic conversion time
Input ranges	
• Current	Yes
Input ranges (rated values), currents	
• 0 to 20 mA	Yes

• 4 mA to 20 mA	Yes
Cable length	
• shielded, max.	200 m
Analog value generation for the inputs	
Measurement principle	integrating
Integration and conversion time/resolution per channel	
• Resolution with overrange (bit including sign), max.	12 bit
• Integration time, parameterizable	No
• Basic conversion time, including integration time (ms)	30 ms
— additional conversion time for wire-break monitoring	5 ms
• Interference voltage suppression for interference frequency f1 in Hz	50 / 60 Hz
Smoothing of measured values	
• parameterizable	Yes
• Step: None	Yes; 1 x cycle time
• Step: low	Yes; 4 x cycle time
• Step: Medium	Yes; 32 x cycle time
• Step: High	Yes; 64 x cycle time
Encoder	
Connection of signal encoders	
• for current measurement as 2-wire transducer	Yes
— Burden of 2-wire transmitter, max.	750 Ω
Errors/accuracies	
Linearity error (relative to input range), (+/-)	0.0015 %
Temperature error (relative to input range), (+/-)	0.03 %/K
Crosstalk between the inputs, min.	-50 dB
Repeat accuracy in steady state at 25 °C (relative to input range), (+/-)	0.01 %
Operational error limit in overall temperature range	
• Current, relative to input range, (+/-)	0.15 %
Basic error limit (operational limit at 25 °C)	
• Current, relative to input range, (+/-)	0.1 %
Interference voltage suppression for $f = n \times (f1 \pm 1 \%)$, f1 = interference frequency	
• Series mode interference (peak value of interference < rated value of input range), min.	70 dB
Interrupts/diagnostics/status information	
Diagnostic functions	Yes; Diagnostic information readable
Alarms	

• Diagnostic alarm	Yes; Parameterizable
• Limit value alarm	Yes; Parameterizable
Diagnostics indication LED	
• Group error SF (red)	Yes

Parameter

Diagnostics wire break	I < 3,6 mA
Diagnostics short-circuit	I < 23,8 mA

Potential separation

Potential separation analog inputs	
• between the channels	No
• between the channels and backplane bus	Yes
• Between the channels and load voltage L+	Yes; Galvanic isolation between load voltage (power bus) and backplane bus

Permissible potential difference

between the inputs (UCM)	60 V DC/30 V AC
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Isolation

Isolation tested with	500 V AC
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Standards, approvals, certificates

Use in hazardous areas	
• Type of protection acc. to EN 50020 (CENELEC)	II2(1)G EEx ib[ia] IIC T4; Tu = -20 °C to +60 °C (module); II2 G EEx ia IIC (input; (Tu = +60°C for horizontal mounting)
• Type of protection acc. to FM	Available soon: FM 3611: Class I, Division 2, Group A-D, Class I, Zone 2 or FM 3610: Class I, Zone 1, Tu = -20 °C to +60 °C

Dimensions

Width	30 mm
Height	81 mm
Depth	76 mm

Weights

Weight, approx.	120 g
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last modified: 03/07/2017