



Figure similar

SIMATIC DP, electronic module for ET200iSP, 4 AI HART, 4DMU, for connecting HART 4-wire transmitters, supported HART protocol Version 6.0, Ex ib (ia Ga) IIC T4 Gb, Ex ib [ia IIIC Da] IIC T4 Gb, Ex ib [ia] I Mb

General information	
Product type designation	4AI 4WIRE HART
Input current	
Current consumption, typ.	27 mA
from supply voltage L+, max.	30 mA
Power loss	
Power loss, typ.	0.4 W
Analog inputs	
Number of analog inputs	4
permissible input current for current input (destruction limit), max.	50 mA
Cycle time (all channels) max.	120 ms; 30 ms basic conversion time x4 channels with 60 Hz, 50 Hz interference frequency suppression
Technical unit for temperature measurement adjustable	Yes
Input ranges (rated values), currents	
<ul style="list-style-type: none"> 4 mA to 20 mA 	Yes
— Input resistance (4 mA to 20 mA)	295 Ω
Cable length	
<ul style="list-style-type: none"> shielded, max. 	500 m
Analog value generation for the inputs	
Measurement principle	integrating (Sigma-Delta)
Integration and conversion time/resolution per channel	
<ul style="list-style-type: none"> Resolution with overrange (bit including sign), max. 	12 bit; + sign
<ul style="list-style-type: none"> Integration time, parameterizable 	Yes
<ul style="list-style-type: none"> Basic conversion time, including integration time (ms) 	30 ms
<ul style="list-style-type: none"> Interference voltage suppression for interference frequency f1 in Hz 	50 / 60 Hz
Smoothing of measured values	
<ul style="list-style-type: none"> parameterizable 	Yes; in 4 stages
<ul style="list-style-type: none"> Step: None 	Yes; 1x cycle time
<ul style="list-style-type: none"> Step: low 	Yes; 4x cycle time
<ul style="list-style-type: none"> Step: Medium 	Yes; 32x cycle time
<ul style="list-style-type: none"> Step: High 	Yes; 64x cycle time
Encoder	
Connection of signal encoders	
<ul style="list-style-type: none"> for current measurement as 4-wire transducer 	Yes
Errors/accuracies	
Linearity error (relative to input range), (+/-)	0.015 %
Temperature error (relative to input range), (+/-)	0.005 %/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	
Alarms	
• Diagnostic alarm	Yes; Parameterizable
• Limit value alarm	Yes; Parameterizable
Diagnoses	
• Diagnostic information readable	Yes
• Wire-break	Yes
Diagnostics indication LED	
• Group error SF (red)	Yes
Potential separation	
Potential separation analog inputs	
• between the channels	No
• between the channels and backplane bus	Yes
Standards, approvals, certificates	
CE mark	Yes
Highest safety class achievable in safety mode	
• Performance level according to ISO 13849-1	none
• SIL acc. to IEC 61508	No
Dimensions	
Width	30 mm
Height	129 mm
Depth	136.5 mm
Weights	
Weight, approx.	230 g

last modified: 12/18/2020 