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Data sheet 6ES7135-6TD00-0CA1



Figure similar

SIMATIC ET 200SP, analog HART output module, AQ 4xI HART High Feature, suitable for BU type A0, A1, Color code CC00, channel diagnostics, 16 bit, +/-0.3%

General information	
Product type designation	AQ 4xI HART HF
Firmware version	V1.0
● FW update possible	Yes
usable BaseUnits	BU type A0, A1
Color code for module-specific color-coded label	CC00
Product function	
● I&M data	Yes; I&M0 to I&M3
● Isochronous mode	Yes; 250 µs
Engineering with	
● STEP 7 TIA Portal configurable/integrated from version	V15 SP1
● STEP 7 configurable/integrated from version	V5.6 and higher
● PCS 7 configurable/integrated from version	V9.0 SP1
● PROFIBUS from GSD version/GSD revision	V04.02.14
● PROFINET from GSD version/GSD revision	GSDML V2.34
CiR - Configuration in RUN	
Reparameterization possible in RUN	Yes
Calibration possible in RUN	No
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
Input current	
Current consumption (rated value)	115 mA
Current consumption, max.	125 mA
Power loss	
Power loss, typ.	1.7 W
Address area	
Address space per module	
● Address space per module, max.	8 byte; + 1 byte for QI information
● Address space per module with HART, max.	28 byte; + 1 byte for QI information
Hardware configuration	
Automatic encoding	
● Mechanical coding element	Yes
● Type of mechanical coding element	Type A
Analog outputs	
Number of analog outputs	4

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Current output, no-load voltage, max.	28 V
Cycle time (all channels), min.	3 ms
Output ranges, current	
● 0 to 20 mA	Yes; 16 bit incl. sign
● -20 mA to +20 mA	No
● 4 mA to 20 mA	Yes; 16 bit incl. sign
Connection of actuators	
● for current output two-wire connection	Yes
Load impedance (in rated range of output)	
● with current outputs, max.	750 Ω
● with current outputs, inductive load, max.	10 mH
Destruction limits against externally applied voltages and currents	
● Voltages at the outputs	30 V
Cable length	
● shielded, max.	800 m
Analog value generation for the outputs	
Settling time	
● for resistive load	2 ms; 750 ohm
● for capacitive load	2 ms
● for inductive load	2 ms
Errors/accuracies	
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-)	0.02 %
Linearity error (relative to output range), (+/-)	0.03 %
Temperature error (relative to output range), (+/-)	0.003 %/K
Crosstalk between the outputs, min.	-50 dB
Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)	0.03 %
Operational error limit in overall temperature range	
● Current, relative to output range, (+/-)	0.3 %; 0 ... 60 °C: 0.2 %
Basic error limit (operational limit at 25 °C)	
● Current, relative to output range, (+/-)	0.1 %
Protocols	
HART protocol	Yes
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Substitute values connectable	Yes
Alarms	
● Diagnostic alarm	Yes
Diagnoses	
● Monitoring the supply voltage	Yes; module-wise
● Wire break	Yes; channel by channel
● Short-circuit	Yes
● Overflow/Underflow	Yes; channel by channel
Diagnostics indication LED	
● Monitoring of the supply voltage (PWR-LED)	Yes; green PWR LED
● Channel status display	Yes; green LED
● for channel diagnostics	Yes; red LED
● for module diagnostics	Yes; green/red DIAG LED
Potential separation	
Potential separation channels	
● between the channels	No
● between the channels and backplane bus	Yes
● Between the channels and load voltage L+	Yes
Permissible potential difference	
between different circuits	60 V DC/30 V AC
Isolation	
Isolation tested with	707 V DC (type test)
Ambient conditions	

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Ambient temperature during operation	
● horizontal installation, min.	-30 °C
● horizontal installation, max.	60 °C
● vertical installation, min.	-30 °C
● vertical installation, max.	50 °C
Altitude during operation relating to sea level	
● Installation altitude above sea level, max.	5 000 m; restrictions for installation altitudes > 2 000 m, see ET 200SP system manual
Dimensions	
Width	15 mm
Height	73 mm
Depth	58 mm
Weights	
Weight, approx.	31 g

Classifications

	Version	Classification
eClass	16	27-24-26-01
eClass	14	27-24-26-01
eClass	12	27-24-26-01
eClass	9.1	27-24-26-01
eClass	9	27-24-26-01
eClass	8	27-24-26-01
eClass	7.1	27-24-26-01
eClass	6	27-24-26-01
ETIM	10	EC001596
ETIM	9	EC001596
ETIM	8	EC001596
ETIM	7	EC001596
IDEA	4	3562
UNSPSC	15	32-15-17-05

Approvals / Certificates

General Product Approval

Miscellaneous

Manufacturer Declaration

General Product Approval

China RoHS

Manufacturer Declaration

EMV

For use in hazardous locations

Type Examination Certificate

FM

For use in hazardous locations

CCC-Ex

Maritime application

Maritime application

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LRS

NK / Nippon Kaiji Kyokai

RINA

RMRS

CCS (China Classification Society)

KR (Korean Register of Shipping)

Environment

EPD

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