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Data sheet 6ES7135-7TD00-0AB0



Figure similar

SIMATIC, electronic module for ET200iSP, 4 AO HART, 4 - 20 mA, for connecting HART field devices, 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	4AQ I HART
HW functional status	17
Firmware version	V3.0.4
Installation type/mounting	
Rack mounting	No
Front mounting	Yes
Rail mounting	Yes
Wall mounting/direct mounting	No
Supply voltage	
Type of supply voltage	DC
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
Input current	
Current consumption, typ.	295 mA
from load voltage (power bus), max.	330 mA
Power loss	
Power loss, typ.	2.7 W
Hardware configuration	
Fieldbus connection via separate transceiver	Yes
Analog outputs	
Number of analog outputs	4
Cycle time (all channels) max.	3.6 ms
Voltage signal at analog output	No
Current signal at analog output	Yes
Output ranges, current	
● 0 to 20 mA	Yes
● 4 mA to 20 mA	Yes
Connection of actuators	
● for current output two-wire connection	Yes
Load impedance (in rated range of output)	
● with current outputs, max.	750 Ω
Cable length	
● shielded, max.	500 m
Analog value generation for the outputs	
Integration and conversion time/resolution per channel	
● Resolution with overrange (bit including sign), max.	14 bit
Settling time	

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● for resistive load	4 ms
● for capacitive load	40 ms
● for inductive load	40 ms
Errors/accuracies	
Linearity error (relative to output range), (+/-)	0.015 %
Temperature error (relative to output range), (+/-)	0.005 %/K
Crosstalk between the outputs, min.	-50 dB
Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)	0.01 %
Operational error limit in overall temperature range	
● Current, relative to output range, (+/-)	0.15 %
Basic error limit (operational limit at 25 °C)	
● Current, relative to output range, (+/-)	0.1 %
Interfaces	
Number of PROFINET interfaces	0
Protocols	
PROFINET IO	No
PROFIsafe	No
PROFIBUS	No
Further protocols	
● other bus systems	No
Interrupts/diagnostics/status information	
Substitute values connectable	Yes
Alarms	
● Diagnostic alarm	Yes
Diagnoses	
● Diagnostic information readable	Yes
● Wire break	Yes; I load > 1 mA
● Short-circuit	Yes; I load > 1 mA
Diagnostics indication LED	
● Group error SF (red)	Yes
Ex(i) characteristics	
Module for Ex(i) protection	Yes; for more Co/Lo combinations, see certificate IECEx KEM 05.0012
maximum values for connecting terminals for gas group IIC	
● Uo (no-load voltage), max.	27.6 V
● Io (short-circuit current), max.	88.2 mA
● Po (power output), max.	0.61 mW
● Co (permissible external capacity), max.	83 nF
● Lo (permissible external inductivity), max.	3 mH
Potential separation	
between channels and powerbus	Yes
Potential separation analog outputs	
● between the channels	No
● between the channels and backplane bus	Yes
Degree and class of protection	
IP degree of protection	IP30
Standards, approvals, certificates	
CE mark	CE 0344
UKCA mark	DEKRA 21UKEX0091 Importer UK: Siemens plc Manchester M20 2UR
cULus	LISTED E334384
FM approval	CLASSIFIED 3025852
Suitable for safety functions	No
INMETRO certificate	UL-BR 12.0070
reference designation according to IEC 81346-2 (2009)	K
Use in hazardous areas	
● ATEX marking	II 2 G (1) G Ex ib [ia Ga] IIC T4 Gb II 2 G (1) D Ex ib [ia IIIC Da] IIC T4 Gb I M2 Ex ib [ia] I Mb
● ATEX certificate	KEMA 04 ATEX 1250
● IECEx	IECEx KEM 05.0012

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● CCC Ex	2020322316002946
● EAC Ex	PB Ex ib [ia] I Mb 1Ex ib [ia Ga] IIC T4 Gb [Ex ia Da] IIIC
● FM marking	Class I, Zone 1 AEx ib [ia] IIC T4 Ex ib IIC T4 NI, Class I, DIV.2, GP. A,B,C,D T4 AIS, Class I, DIV.1, GP. A,B,C,D T4 DIP Class II, III, GP. E,F,G
● Explosion protection category for gas	ATEX gas explosion protection, Zone 1
● Explosion protection category for dust	ATEX dust explosion protection, Zone 21 always install in corresponding enclosure
● associated equipment (Ex ia)	Yes
● associated equipment (Ex ib)	Yes
Connection method	
Design of electrical connection	Screw/spring-type terminal
Dimensions	
Width	30 mm
Height	129 mm
Depth	136.5 mm
Weights	
Weight, approx.	265 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 | China RoHS

General Product Approval	For use in hazardous locations			
Manufacturer Declaration			FM	Miscellaneous

For use in hazardous locations					Maritime application
	CCC-Ex			Miscellaneous	

Maritime application

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Maritime application		Environment
CCS (China Classification Society)	KR (Korean Register of Shipping)	

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