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Data sheet 6ES7650-8AK70-0AA0

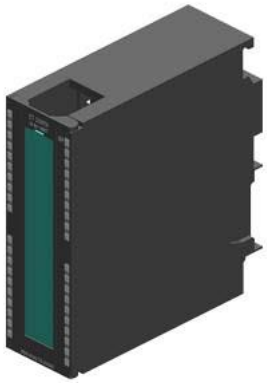


Figure similar

ET 200PA SMART, analog input 0/4 - 20 mA isolated, 16 AI, diagnostics; resolution 15/16 bit, 40-pole, removing and inserting possible IM 650-8PH required

General information	
Product function	
● Isochronous mode	No
Supply voltage	
Load voltage L+	
● Rated value (DC)	24 V
● Reverse polarity protection	Yes
Input current	
from load voltage L+ (without load), max.	70 mA
from backplane bus 5 V DC, max.	100 mA
Output voltage	
Power supply to the transmitters	
● present	Yes
● Rated value (DC)	24 V
● short-circuit proof	Yes
● No-load voltage (DC)	22 V
● Supply current, max.	70 mA
Power loss	
Power loss, typ.	3.3 W
Analog inputs	
Number of analog inputs	16
permissible input current for current input (destruction limit), max.	70 mA; 40 mA continuous
Cable length	
● shielded, max.	800 m
Analog value generation for the inputs	
Measurement principle	Sigma Delta
Integration and conversion time/resolution per channel	
● Resolution with overrange (bit including sign), max.	24 bit
● Integration time, parameterizable	Yes
● Integration time (ms)	16.6 / 20 / 100 ms
● Basic conversion time, including integration time (ms)	19.8 / 23.8 / 119 ms
● Interference voltage suppression for interference frequency f1 in Hz	10 / 50 / 60 Hz
Smoothing of measured values	
● parameterizable	Yes
● Step: None	Yes
● Step: low	Yes

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● Step: Medium	Yes
● Step: High	Yes
Encoder	
Connection of signal encoders	
● for current measurement as 2-wire transducer	Yes
— Burden of 2-wire transmitter, max.	750 Ω
● for current measurement as 4-wire transducer	Yes
Errors/accuracies	
Linearity error (relative to input range), (+/-)	0.01 %
Temperature error (relative to input range), (+/-)	0.001 %/K
Crosstalk between the inputs, min.	70 dB
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 x (f1 +/- 1 %), f1 = interference frequency	
● Series mode interference (peak value of interference < rated value of input range), min.	40 dB
● Common mode interference, min.	100 dB
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
● Diagnostic alarm	Yes
Diagnoses	
● Diagnostic information readable	Yes
● Group error	Yes
Diagnostics indication LED	
● Group error SF (red)	Yes
● Channel fault indicator F (red)	No
Potential separation	
Potential separation analog inputs	
● between the channels	No
● between the channels, in groups of	16
● between the channels and backplane bus	Yes
● between the channels and the power supply of the electronics	No
Permissible potential difference	
between the inputs (UCM)	20 V AC/30 V DC
between M internally and the inputs	75 V DC/60 V AC
between MANA and M internally (UISO)	75 V DC/60 V AC
Isolation	
Isolation tested with	500 V
Ambient conditions	
Ambient temperature during operation	
● min.	0 °C
● max.	60 °C
Connection method	
required front connector	1x 40-pin
Dimensions	
Width	40 mm
Height	125 mm
Depth	117 mm
Weights	
Weight, approx.	280 g
Classifications	

	Version	Classification
eClass	16	27-24-26-01
eClass	14	27-24-26-01

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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			For use in hazardous locations		
EG-Konf.	China RoHS	Manufacturer Declara-tion	ATEX	IECEx	CCC

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