



SIMATIC DP, ET 200ECO PN, 8 AI RTD/TC; 8x M12, Degree of protection IP67

Figure similar

General information	
Vendor identification (VendorID)	002AH
Device identifier (DeviceID)	0306H
Supply voltage	
Rated value (DC)	24 V
Reverse polarity protection	Yes; against destruction
power supply according to NEC Class 2 required	Yes
Input current	
Current consumption, typ.	110 mA
Power loss	
Power loss, typ.	2.8 W
Analog inputs	
Number of analog inputs	8
<ul style="list-style-type: none"> For resistance/resistance thermometer measurement 	8
<ul style="list-style-type: none"> For thermocouple measurement 	8
Input ranges (rated values), voltages	
<ul style="list-style-type: none"> -80 mV to +80 mV 	Yes
Input ranges (rated values), thermocouples	
<ul style="list-style-type: none"> Type E Type J Type K Type N 	Yes Yes Yes Yes
Input ranges (rated values), resistance thermometer	
<ul style="list-style-type: none"> Ni 100 Ni 1000 Ni 120 Ni 200 Ni 500 Pt 100 Pt 1000 Pt 200 Pt 500 	Yes Yes Yes Yes Yes Yes Yes Yes Yes
Input ranges (rated values), resistors	
<ul style="list-style-type: none"> 0 to 150 ohms 0 to 300 ohms 0 to 600 ohms 0 to 3000 ohms 	Yes Yes Yes Yes

Thermocouple (TC)	
Temperature compensation	
— parameterizable	Yes
— internal temperature compensation	Yes
— external temperature compensation with Pt100	Yes
— external temperature compensation with compensations socket	Yes
— dynamic reference temperature value	Yes
— for definable comparison point temperature	Yes
Cable length	
• shielded, max.	30 m
Analog value generation for the inputs	
Analog value display	SIMATIC S7 format
Measurement principle	integrating
Integration and conversion time/resolution per channel	
• Resolution with overrange (bit including sign), max.	16 bit
• Integration time, parameterizable	Yes
• Integration time (ms)	2/16.67/20/100 ms
• Interference voltage suppression for interference frequency f1 in Hz	500 / 60 / 50 / 10 Hz
• Conversion time (per channel)	4 / 19 / 22 / 102 ms
Smoothing of measured values	
• parameterizable	Yes
• Step: None	Yes; 1x cycle time
• Step: low	Yes; 4x cycle time
• Step: Medium	Yes; 16x cycle time
• Step: High	Yes; 64x cycle time
Encoder	
Number of connectable encoders, max.	8
Connection of signal encoders	
• for resistance measurement with two-wire connection	Yes
• for resistance measurement with three-wire connection	Yes
• for resistance measurement with four-wire connection	Yes
Errors/accuracies	
Linearity error (relative to input range), (+/-)	0.01 %
Temperature error (relative to input range), (+/-)	RTD: 0.0005%/°C; TC: 0.0035%/°C
Crosstalk between the inputs, min.	-85 dB
Repeat accuracy in steady state at 25 °C (relative to input range), (+/-)	0.008 %
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.	46 dB
• Common mode interference, min.	70 dB
Interfaces	
Transmission procedure	100BASE-TX
Number of PROFINET interfaces	1
1. Interface	
Interface types	
• integrated switch	Yes
Interface types	
M12 port	
• Autonegotiation	Yes
• Autocrossing	Yes
• Transmission rate, max.	100 Mbit/s
Protocols	
Supports protocol for PROFINET IO	Yes
PROFINET CBA	No
PROFIsafe	No

PROFINET IO Device	
Services	
— Prioritized startup	Yes
Redundancy mode	
Media redundancy	
— MRP	Yes
Open IE communication	
• TCP/IP	No
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
• ping	Yes
• ARP	Yes
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
• Diagnostic alarm	Yes
Diagnoses	
• Diagnostic information readable	Yes
• Monitoring the supply voltage	Yes; green "ON" LED
• Group error	Yes; Red/yellow "SF/MT" LED
• Overflow/underflow	Yes
Potential separation	
between the load voltages	Yes
between load voltage and all other switching components	No
between Ethernet and electronics	Yes
Potential separation channels	
• between the channels	No
Permissible potential difference	
Between the inputs and MANA (UCM)	10 Vpp AC
Isolation	
tested with	
• 24 V DC circuits	707 V DC (type test)
• Test voltage for interface, rms value [Vrms]	1 500 V; According to IEEE 802.3
Degree and class of protection	
IP degree of protection	IP65/67
Standards, approvals, certificates	
Suitable for applications according to AMS 2750	Yes; Declaration of Conformity, see online support entry 109757262
Suitable for applications according to CQI-9	Yes; Based on AMS 2750 E
connection method / header	
Design of electrical connection	4/5-pin M12 circular connectors
Dimensions	
Width	60 mm
Height	175 mm
Depth	49 mm
Weights	
Weight, approx.	930 g
last modified:	9/27/2021 