



SIMATIC DP, ET 200ECO PN, 8 AI RTD/TC; 8XM12, DEGREE OF PROTECTION IP67

Figure similar

General information	
Vendor identification (VendorID)	002AH
Device identifier (DeviceID)	0306H
Supply voltage	
Rated value (DC)	
• 24 V DC	Yes
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes; against destruction
Input current	
Current consumption, typ.	110 mA
Power losses	
Power loss, typ.	2.8 W
Analog inputs	
Number of analog inputs	8
• For resistance/resistance thermometer measurement	8
Input ranges (rated values), voltages	
• -80 mV to +80 mV	Yes
Input ranges (rated values), thermoelements	
• Type E	Yes
• Type J	Yes
• Type K	Yes

• Type N	Yes
<b>Input ranges (rated values), resistance thermometer</b>	
• Ni 100	Yes
• Ni 1000	Yes
• Ni 120	Yes
• Ni 200	Yes
• Ni 500	Yes
• Pt 100	Yes
• Pt 1000	Yes
• Pt 200	Yes
• Pt 500	Yes
<b>Input ranges (rated values), resistors</b>	
• 0 to 150 ohms	Yes
• 0 to 300 ohms	Yes
• 0 to 600 ohms	Yes
• 0 to 3000 ohms	Yes
<b>Thermocouple (TC)</b>	
<b>Temperature compensation</b>	
— Parameterizable	Yes
— internal temperature compensation	Yes
— external temperature compensation with compensations socket	Yes
— external temperature compensation with Pt100	Yes
— dynamic reference temperature value	Yes
— for definable comparison point temperature	Yes
<b>Cable length</b>	
• shielded, max.	30 m
<b>Analog value creation</b>	
Analog value display	SIMATIC S7 format
Measurement principle	integrating
<b>Integration and conversion time/resolution per channel</b>	
• Resolution (incl. overrange)	15 bits + sign
• 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
<b>Smoothing of measured values</b>	
• Parameterizable	Yes
• Step: None	Yes; 1 x cycle time
• Step: low	Yes; 4 x cycle time

- Step: Medium
- Step: High

Yes; 16 x cycle time

Yes; 64 x 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 area), (+/-) 0.008 %

### Interference voltage suppression for $f = n \times (f_1 \pm 1 \%)$ , $f_1 =$ 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

Transmission rate, max. 100 Mbit/s

### PROFINET IO

- Number of PROFINET interfaces 1
- Autocrossing Yes
- Automatic detection of transmission speed Yes
- Integrated switch Yes

### PROFINET IO Device

- Prioritized startup Yes

## Protocols

PROFINET IO Yes

PROFINET CBA No

Supports protocol for PROFI-safe No

### Protocols (Ethernet)

- SNMP Yes
- DCP Yes
- LLDP Yes
- ping Yes
- ARP Yes

## Interrupts/diagnostics/status information

Alarms	
• Diagnostic alarm	Yes
Diagnostic messages	
• Diagnostic functions	Yes
• Diagnostic information readable	Yes
• Monitoring the supply voltage	Yes; Green "ON" LED
• Group error	Yes; Red/yellow "SF/MT" LED
• Overflow/underflow	Yes

## Galvanic isolation

between the load voltages	Yes
between load voltage and all other switching components	No
between Ethernet and electronics	Yes
Galvanic isolation analog inputs	
• between the channels	No

## Permissible potential difference

between inputs and MANA (UCM)	10 Vpp AC
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## Isolation

tested with	
• 24 V DC circuits	500 V
• Interface	1 500 V; According to IEEE 802.3

## Degree and class of protection

Degree of protection to EN 60529	
• IP65	Yes
• IP66	Yes
• IP67	Yes

## Connection method

M12	Yes
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## Dimensions

Width	60 mm
Height	175 mm
Depth	49 mm

## Weights

Weight (without packaging)	930 g
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**last modified:** 12.03.2015