



Figure similar

SIMATIC DP, ET 200ECO PN, 16 DI 24 V DC; 8xM12, duplicate assignment;  
Degree of protection IP67

| General information                                             |                    |
|-----------------------------------------------------------------|--------------------|
| Vendor identification (VendorID)                                | 002AH              |
| Device identifier (DeviceID)                                    | 0306H              |
| Supply voltage                                                  |                    |
| Rated value (DC)                                                | 24 V               |
| Reverse polarity protection                                     | Yes                |
| power supply according to NEC Class 2 required                  | Yes                |
| Input current                                                   |                    |
| Current consumption, typ.                                       | 100 mA             |
| from supply voltage 1L+, max.                                   | 4 A                |
| Encoder supply                                                  |                    |
| Number of outputs                                               | 8                  |
| 24 V encoder supply                                             |                    |
| • Short-circuit protection                                      | Yes; Electronic    |
| • Output current, max.                                          | 100 mA; per output |
| Power loss                                                      |                    |
| Power loss, typ.                                                | 6.5 W              |
| Digital inputs                                                  |                    |
| Number of digital inputs                                        | 16                 |
| • in groups of                                                  | 2                  |
| Input characteristic curve in accordance with IEC 61131, type 3 | Yes                |
| Number of simultaneously controllable inputs                    |                    |
| all mounting positions                                          |                    |
| — up to 60 °C, max.                                             | 16                 |
| Input voltage                                                   |                    |
| • Rated value (DC)                                              | 24 V               |
| • for signal "0"                                                | -3 to +5V          |
| • for signal "1"                                                | +11 to +30V        |
| Input current                                                   |                    |
| • for signal "1", typ.                                          | 7 mA               |
| Input delay (for rated value of input voltage)                  |                    |
| for standard inputs                                             |                    |
| — at "0" to "1", max.                                           | typically 3 ms     |
| — at "1" to "0", max.                                           | typically 3 ms     |
| Cable length                                                    |                    |
| • unshielded, max.                                              | 30 m               |
| Encoder                                                         |                    |
| Connectable encoders                                            |                    |
| • 2-wire sensor                                                 | Yes                |

— permissible quiescent current (2-wire sensor), max. 1.5 mA

## Interfaces

|                               |            |
|-------------------------------|------------|
| Transmission procedure        | 100BASE-TX |
| Number of PROFINET interfaces | 1          |

## 1. Interface

### Interface types

- |                     |     |
|---------------------|-----|
| • M12 port          | Yes |
| • 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                                 |     |
| — IRT with the option "high flexibility" | Yes |
| — 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         |
| • Wire-break in signal transmitter cable | Yes                         |
| • Short-circuit encoder supply           | Yes; Per channel group      |
| • Group error                            | Yes; Red/yellow "SF/MT" LED |

## 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 |
|------------------------|----|

## 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

### Use in hazardous areas

- |                                          |                                |
|------------------------------------------|--------------------------------|
| • Explosion protection category for gas  | ATEX II 3G Ex nA II T4         |
| • Explosion protection category for dust | ATEX II 3D Ex tc IIIC T90°C Dc |

## connection method

- |                                 |                                 |
|---------------------------------|---------------------------------|
| Design of electrical connection | 4/5-pin M12 circular connectors |
|---------------------------------|---------------------------------|

## Dimensions

|                        |        |
|------------------------|--------|
| Width                  | 60 mm  |
| Height                 | 175 mm |
| Depth                  | 49 mm  |
| <b>Weights</b>         |        |
| Weight, approx.        | 910 g  |
| <b>Classifications</b> |        |

|  |        | Version | Classification |
|--|--------|---------|----------------|
|  | eClass | 14      | 27-24-26-04    |
|  | eClass | 12      | 27-24-26-04    |
|  | eClass | 9.1     | 27-24-26-04    |
|  | eClass | 9       | 27-24-26-04    |
|  | eClass | 8       | 27-24-26-04    |
|  | eClass | 7.1     | 27-24-26-04    |
|  | eClass | 6       | 27-24-26-04    |
|  | ETIM   | 9       | EC001599       |
|  | ETIM   | 8       | EC001599       |
|  | ETIM   | 7       | EC001599       |
|  | IDEA   | 4       | 3566           |
|  | UNSPSC | 15      | 32-15-17-05    |

|                                 |
|---------------------------------|
| <b>Approvals / Certificates</b> |
| General Product Approval        |

[Manufacturer Declaration](#)


  
EG-Konf.




  
UL

[KC](#)


  
RCM

EMV

For use in hazardous locations


  
RCM


  
ATEX


  
IECEX

[CCC-Ex](#)

[Miscellaneous](#)


  
ATEX

Marine / Shipping


  
ABS


  
BUREAU VERITAS


  
DNV


  
LRS

[NK / Nippon Kaiji Kyokai](#)


  
RINA

Marine / Shipping

Industrial Communication

[CCS \(China Classification Society\)](#)


  
KR

[PROFINET](#)