Product data sheet
Characteristics

TM4PDPS1
module network TM4 1 Profibus DP slave



Main

Commercial Status	Commercialised
Product or component type	Profibus DP communication module

Complementary

Range compatibility	Modicon M241 Modicon M251
Product compatibility	Modicon M251 logic controller Modicon M241 logic controller
Current consumption	290 mA at 5 V DC for communication bus
Power dissipation in W	1.5 W
Integrated connection type	Female SUB-D 9 Profibus DP
Transmission rate	3...12 Mbit/s for bus length of 100 m 9.6...93.75 kbit/s for bus length of 1200 m 187.5 kbit/s for bus length of 1000 m 500 kbit/s for bus length of 400 m 1.5 Mbit/s for bus length of 200 m
Communication port protocol	Profibus DP V1 Profibus DP V0
Insulation	Between bus and internal logic at 1000 V DC
Local signalling	1 LED green/red for communication 1 LED green/yellow for power supply
Electrical connection	SUB-D 9 - 1 female connector for connecting Profibus Screw connector - terminal for connecting the functional ground
Marking	CE
Surge withstand	0.5 kV (I/O) with differential mode protection conforming to EN/IEC 61000-4-5 1 kV (relay output) with differential mode protection conforming to EN/IEC 61000-4-5 1 kV (power lines (AC)) with differential mode protection conforming to EN/IEC 61000-4-5 0.5 kV (power lines (DC)) with differential mode protection conforming to EN/IEC 61000-4-5 1 kV (shielded cable) with common mode protection conforming to EN/IEC 61000-4-5 1 kV (I/O) with common mode protection conforming to EN/IEC 61000-4-5 2 kV (relay output) with common mode protection conforming to EN/IEC 61000-4-5 2 kV (power lines (AC)) with common mode protection conforming to EN/IEC 61000-4-5 1 kV (power lines (DC)) with common mode protection conforming to EN/IEC 61000-4-5
Mounting support	Plate or panel with fixing kit Top hat type TH35-7.5 rail conforming to IEC 60715 Top hat type TH35-15 rail conforming to IEC 60715
Width	0.98 in (25 mm)
Height	3.54 in (90 mm)

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Depth	3.54 in (90 mm)
Product weight	0.22 lb(US) (0.1 kg)

Environment

Standards	EN/IEC 61131-2 UL 508 EIA-485
Product certifications	C-Tick CULus
Resistance to electrostatic discharge	6 kV (on contact) conforming to Marine specification (LR, ABS, DNV, GL) 8 kV (in air) conforming to Marine specification (LR, ABS, DNV, GL) 4 kV (on contact) conforming to EN/IEC 61000-4-2 8 kV (in air) conforming to EN/IEC 61000-4-2
Resistance to electromagnetic fields	0.91 V/yd (1 V/m) (2...2.7 GHz) conforming to EN/IEC 61000-4-3 3 V/m (1.4 GHz...2 GHz) conforming to EN/IEC 61000-4-3 10 V/m (80 MHz...1 GHz) conforming to EN/IEC 61000-4-3
Resistance to fast transients	1 kV (serial link) conforming to EN/IEC 61000-4-4 1 kV (Ethernet line) conforming to EN/IEC 61000-4-4 1.5 kV (I/O) conforming to EN/IEC 61000-4-4 2 kV (relay output) conforming to EN/IEC 61000-4-4 2 kV (power lines) conforming to EN/IEC 61000-4-4
Resistance to conducted disturbances, induced by radio frequency fields	10 V (spot frequency (2, 3, 4, 6.2, 8.2, 12.6, 16.5, 18.8, 22, 25 MHz)) conforming to Marine specification (LR, ABS, DNV, GL) 3 V (0.1...80 MHz) conforming to Marine specification (LR, ABS, DNV, GL) 10 V (0.15...80 MHz) conforming to EN/IEC 61000-4-6
Electromagnetic emission	Radiated emissions - test level: 24 dBµV/m QP at 156...165 MHz conforming to Marine specification (LR, ABS, DNV, GL) Radiated emissions - test level: 54 dBµV/m QP at 100 MHz...2 GHz conforming to Marine specification (LR, ABS, DNV, GL) Radiated emissions - test level: 60...54 dBµV/m QP at 30...100 MHz conforming to Marine specification (LR, ABS, DNV, GL) Radiated emissions - test level: 80...50 dµV/m QP at 150 kHz...30 MHz conforming to Marine specification (LR, ABS, DNV, GL) Radiated emissions - test level: 47 dBµV/m QP class A at 230 MHz...1 GHz conforming to EN/IEC 55011 Radiated emissions - test level: 40 dBµV/m QP class A at 30...230 MHz conforming to EN/IEC 55011 Conducted emissions - test level: 63 dBµV/m QP (power lines) at 1.5...30 MHz conforming to EN/IEC 55011 Conducted emissions - test level: 79...63 dBµV/m QP (power lines) at 150 kHz...1.5 MHz conforming to EN/IEC 55011 Conducted emissions - test level: 120...69 dBµV/m QP (power lines) at 10...150 kHz conforming to EN/IEC 55011 Conducted emissions - test level: 73 dBµV/m QP/60 dBµV/m AV (power lines (AC)) at 0.5...300 MHz conforming to EN/IEC 55011 Conducted emissions - test level: 79 dBµV/m QP/66 dBµV/m AV (power lines (AC)) at 0.15...0.5 MHz conforming to EN/IEC 55011
Ambient air temperature for operation	14...122 °F (-10...50 °C) vertical installation -10...55 °C horizontal installation
Ambient air temperature for storage	-13...158 °F (-25...70 °C)
Relative humidity	10...95 % without condensation in storage 10...95 % without condensation in operation
IP degree of protection	IP20 with protective cover in place
Pollution degree	2
Operating altitude	0...6561.68 ft (0...2000 m)
Storage altitude	0...9842.52 ft (0...3000 m)
Vibration resistance	0.7 gn at 13.2...100 Hz on panel mounting 1 mm at 5...13.2 Hz on panel mounting 3 gn at 8.7...150 Hz on symmetrical rail 1 mm at 5...13.2 Hz on symmetrical rail
Shock resistance	15 gn during 11 ms