

SIEMENS



Product overview for SIMATIC ET 200eco PN

TIA Selection Tool Web



SIMATIC ET 200eco PN

Maximum ruggedness for extremely challenging ambient conditions

SIMATIC ET 200eco PN is a compact block I/O with PROFINET connection with IP65/67 degree of protection for cabinet-free configuration directly at the machine – for example in machine manufacturing or in the automotive industry.

<https://www.siemens.com/et200ecopn>

Highlights

Flexible installation

- Easy to install in any position, vertical as well as horizontal installation.
- Can be mounted frontally or transversely directly on site in a machine or assembly line.
- Installation is possible on a level base, a mounting rail as well as on aluminum support beams using slot stones.

Fieldbus connection

- Harmonized range of modules for applications and integration into PROFINET applications.
- PROFINET is connected to the ET 200eco PN with an M12 connector and can be looped through to an additional PROFINET device.
- With ET 200eco PN, you can process digital, fail-safe digital, analog and IO-Link signals with PROFINET.

Power supply

Two power supplies are available. They are used by the I/O device and can also be looped through to an additional I/O device (line topology). 2x 12 A can be supplied or forwarded to I/O devices with an M12-L coded power plug and 2x 4 A can be supplied or forwarded to I/O devices with an M12-A coded power plug.

For I/O devices with M12-A coded power plug, the power supplies can be alternatively supplied and forwarded with up to 10 A via an additional terminal block.

I/O devices with M12-L coded power plug

- Greater current carrying capacity.
- Longer cable distances in the field without additional supply cables.

High robustness fulfils degree of protection IP65/67

- Very rugged die-cast zinc housing.
- Resistant to vibrations, dust, oil or humidity.
- Suitable for use in temperatures from -40 to +60 °C.

Integrated 2-port switch

Thanks to the integrated 2-port switch, the SIMATIC ET 200ecoPN configuration is flexible and can be extended via PROFINET and integrated into line topologies within a plant.

Isochronous mode

In PROFINET IRT networks, the I/O devices of the SIMATIC ET 200eco PN of the new generation can be operated in isochronous mode. This results in improved deterministics and thus better machine performance.

MSI – MSO

Thanks to Module-internal-Shared-Input (MSI) and Module-internal-Shared-Output (MSO), multiple controllers can simultaneously and independently read the current switching status of the inputs and outputs of a SIMATIC ET 200eco PN I/O device without additional programming.

Shared Device

The "Shared Device" function enables distribution of channels of an I/O device between two IO controllers. This distribution opens up flexible automation concepts.

IO-Link connection enables easy integration of sensors and actuators

The IO-Link master according to IO-Link specification V1.1 offers automatic restoration of the device parameters, master backup, configuration changes to the devices during operation and extensive diagnostic options. The IO-Link configuration can be performed via GSD file or S7-PCT.

Electronic modules

	Article number
	Digital inputs Compare technical specifications online ET200eco PN, 8DI, DC24V, 4xM12 6ES7141-6BF00-0AB0 ET200eco PN, 8DI, DC24V, 8xM12 6ES7141-6BG00-0AB0 ET 200eco PN, DI 8x24VDC, M12-L 6ES7141-6BG00-0BB0 ET200eco PN, 16DI, DC24V, 8xM12 6ES7141-6BH00-0AB0 ET 200eco PN, DI 16x24VDC, M12-L 6ES7141-6BH00-0BB0
	Digital outputs Compare technical specifications online ET200eco PN, 8DO, DC24V/1,3A, 4xM12 6ES7142-6BF00-0AB0 ET200eco PN, 8DO, DC24V/0,5A, 4xM12 6ES7142-6BF50-0AB0 ET 200eco PN, DQ 8x24VDC/0,5A, M12-L 6ES7142-6BG00-0BB0 ET200eco PN, 8DO, DC24V/1,3A, 8xM12 6ES7142-6BG00-0AB0 ET200eco PN, 16DO DC24V/1,3A, 8xM12 6ES7142-6BH00-0AB0 ET200eco PN, 8 DO, DC24V/2A, 8xM12 6ES7142-6BR00-0AB0 ET 200eco PN, DQ 8x24VDC/2A, M12-L 6ES7142-6BR00-0BB0
	Digital inputs/outputs Compare technical specifications online ET200eco PN, 8 DIO, DC24V/1,3A, 8xM12 6ES7147-6BG00-0AB0 ET 200eco PN, DIQ 16x24VDC/2A, M12-L 6ES7143-6BH00-0BB0 ET 200eco PN, F-DI 8x24V /F-DQ 3x24V 2A 6ES7146-6FF00-0AB0
	Analog inputs Compare technical specifications online ET200eco PN, 8AI; 4 U/I; 4 RTD/TC 8xM12 6ES7144-6KD00-0AB0 ET200eco PN, 8AI RTD/TC 8xM12 6ES7144-6KD50-0AB0 ET 200eco PN, AI 8xRTD/TC, M12-L 6ES7144-6JF00-0BB0
	Analog outputs Compare technical specifications online ET200eco PN, 4AO U/I 4xM12 6ES7145-6HD00-0AB0
	Analog inputs/outputs Compare technical specifications online ET 200eco PN, AI 6xU/I + AIQ 2xU/I, M12-L 6ES7146-6HF00-0BB0
	IO-Link master Compare technical specifications online ET 200eco PN, 4xIO-Link + 8DI/4DO, 8xM12 6ES7148-6JA00-0AB0 ET 200eco PN, 4xIO-Link 4xM12 6ES7148-6JD00-0AB0 ET 200eco PN, CM 8x IO-Link, M12-L 6ES7148-6JG00-0BB0 ET 200eco PN, CM 4x IO-Link, M12-L 6ES7148-6JE00-0BB0 ET 200eco PN, CM 8x IO-Link, M12-L 6ES7148-6JJ00-0BB0

Accessories

	Article number
	Terminal block Terminal Block for ET200eco PN 6ES7194-6CA00-0AA0 Replacement Fuse Terminal Block 6ES7194-6HB00-0AA0
	Energy distribution and measurement Compare technical specifications online ET200eco PN, Power Distributor DC24V 6ES7148-6CB00-0AA0
	Connectors and cables for power supply M12-A Power Connecting Cable 0,3m 6XV1801-5DE30 Power Connecting Cable 0,5m 6XV1801-5DE50 Power Connecting Cable 1,0m 6XV1801-5DH10 Power Connecting Cable 1,5m 6XV1801-5DH15 Power Connecting Cable 2,0m 6XV1801-5DH20 Power Connecting Cable 3,0m 6XV1801-5DH30 Power Connecting Cable 5,0m 6XV1801-5DH50 Power Connecting Cable 10m 6XV1801-5DN10 Power Connecting Cable 15m 6XV1801-5DN15 IE Power M12 Plug PRO 6GK1907-0DB10-6AA3 M12 PROFIBUS SOCKET ANGLED 3RK1902-4DA00-5AA0

 : Safety-related component

* By clicking on the article number, you will be taken to the product in the TIA Selection Tool cloud.

Accessories

	Article number
IE Power M12 Cable Connector PRO	6GK1907-0DC10-6AA3
M12 PROFIBUS SOCKET ANGLED	3RK1902-4CA00-4AA0
ROBUST POWER CONNECTING CABLE 1.0 M	6XV1801-5AH10
ROBUST POWER CONNECTING CABLE 2.0 M	6XV1801-5AH20
ROBUST POWER CONNECTING CABLE 3.0 M	6XV1801-5AH30
ROBUST POWER CONNECTING CABLE IP69 5M	6XV1801-5AH50
Power Connecting Cable 0.3 m	6XV1801-5GE30
Power Connecting Cable 0.5 m	6XV1801-5GE50
Power Connecting Cable 1 m	6XV1801-5GH10
Power Connecting Cable 1.5 m	6XV1801-5GH15
Power Connecting Cable 2 m	6XV1801-5GH20
Power Connecting Cable 3 m	6XV1801-5GH30
Power Connecting Cable 5 m	6XV1801-5GH50
Power Connecting Cable 10 m	6XV1801-5GN10
Power Connecting Cable 15 m	6XV1801-5GN15
Connectors and cables for power supply M12-L	
Power M12 Plug Pro (L-coded)	6GK1906-0EA00
Power M12 Cable Connector Pro (L-coded)	6GK1906-0EB00
Energy Cable 4-wired by meter	6XV1801-2B
Power Connecting Cable 0,5 m, L-Coded	6XV1801-6DE50
Power Connecting Cable 1,0 m, L-Coded	6XV1801-6DH10
Power Connecting Cable 1,5 m, L-Coded	6XV1801-6DH15
Power Connecting Cable 2,0 m, L-Coded	6XV1801-6DH20
Power Connecting Cable 3,0 m, L-Coded	6XV1801-6DH30
Power Connecting Cable 5,0 m, L-Coded	6XV1801-6DH50
Power Connecting Cable 10,0 m, L-Coded	6XV1801-6DN10
Power Connecting Cable 15,0 m, L-Coded	6XV1801-6DN15
Power Connecting Cable, 0,5 M, L-coded	6XV1801-6GE50
Power Connecting Cable, 1,0 M, L-coded	6XV1801-6GH10
Power Connecting Cable, 1,5 M, L-coded	6XV1801-6GH15
Power Connecting Cable, 2,0 M, L-coded	6XV1801-6GH20
Power Connecting Cable, 3,0 M, L-coded	6XV1801-6GH30
Power Connecting Cable, 5,0 M, L-coded	6XV1801-6GH50
Power Connecting Cable, 10,0 M, L-coded	6XV1801-6GN10
Power Connecting Cable, 15,0 M, L-coded	6XV1801-6GN15
Connectors and cables for power supply 7/8"	
7/8 Connector	6GK1905-0FB00
7/8 SOCKET FOR 24 VOLT ANGLED	3RK1902-3DA00
Energy Cable 5 core, by meter	6XV1830-8AH10
7/8 Connecting cable 1.5 m	6XV1822-5BH15
7/8" CONNECTING CABLE 2.0 M	6XV1822-5BH20
7/8" CONNECTING CABLE 3 M	6XV1822-5BH30
7/8 Connecting cable 5 m	6XV1822-5BH50
7/8 Connecting cable 10 m	6XV1822-5BN10
7/8 Connecting cable 15 m	6XV1822-5BN15
ENERGY CABLE 24V 3 M BOTH SIDES	3RK1902-3NB30
ENERGY CABLE 24V - 5 M - BOTH SIDES	3RK1902-3NB50
ENERGY CABLE 24V - 10 M	3RK1902-3NC10
ENERGY CABLE 24V 3 M ONE SIDED	3RK1902-3GB30
BUS CABLE 24V 5 M ONE SIDED	3RK1902-3GB50
ENERGYCABLE 24VOLT 10 M	3RK1902-3GC10
PROFINET connectors and cables	
IE FC M12 Plug PRO 2x2	6GK1901-0DB20-6AA0
IE FC M12 Plug PRO 2x2	6GK1901-0DB20-6AA8

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Accessories

	Article number
IE M12 Plug PRO (1 piece)	6GK1901-0DB10-6AA0
IE M12 Plug PRO (8 piece)	6GK1901-0DB10-6AA8
M12 PROFINET PLUG ANGLED	3RK1902-2DA00
IE FC TP Standard Cable GP2x2 by meter	6XV1840-2AH10
IE FC TP Trailing Cable 2x2 by meter	6XV1840-3AH10
IE FC TP Trailing Cable 2x2 by meter	6XV1870-2D
IE FC TP Marine Cable sold by meter	6XV1840-4AH10
IE TP Torsion Cable 2x by meter	6XV1870-2F
IE Connecting Cable M12-180/M12-180 0,3m	6XV1870-8AE30
IE Connecting Cable M12-180/M12-180 0,5m	6XV1870-8AE50
IE Connecting Cable M12-180/M12-180 1 m	6XV1870-8AH10
IE Connecting Cable M12-180/M12-180 1,5m	6XV1870-8AH15
IE Connecting Cable M12-180/M12-180 2 m	6XV1870-8AH20
IE Connecting Cable M12-180/M12-180 3 m	6XV1870-8AH30
IE Connecting Cable M12-180/M12-180 5 m	6XV1870-8AH50
IE Connecting Cable M12-180/M12-180 10 m	6XV1870-8AN10
IE Connecting Cable M12-180/M12-180 15 m	6XV1870-8AN15
BUS CABLE PROFINET 3 M BOTH SIDES	3RK1902-2NB30
BUS CABLE PROFINET 5 M BOTH SIDES	3RK1902-2NB50
BUS CABLE PROFINET 3 M	3RK1902-2HB30
BUS CABLE PROFINET 10 M BOTH SIDES	3RK1902-2NC10
BUS CABLE PROFINET 5 M	3RK1902-2HB50
BUS CABLE PROFINET 10 M	3RK1902-2HC10
IE Connecting Cable M12-180/RJ45, 2 m	6XV1871-5TH20
IE Connecting Cable M12-180/RJ45, 3 m	6XV1871-5TH30
IE Connecting Cable M12-180/RJ45, 5 m	6XV1871-5TH50
IE Connecting Cable M12-180/RJ45, 10 m	6XV1871-5TN10
IE Connecting Cable M12-180/RJ45, 15 m	6XV1871-5TN15
IE Robust Connecting Cable M12 IP69, 1 m	6XV1881-5AH10
IE Robust Connecting Cable M12 IP69, 2 m	6XV1881-5AH20
IE Robust Connecting Cable M12 IP69, 3 m	6XV1881-5AH30
IE Robust Connecting Cable M12 IP69, 5 m	6XV1881-5AH50
IE Connecting Cable M12-90/M12-90, 0,3m	6XV1870-8GE30
IE Connecting Cable M12-90/M12-90, 0,5m	6XV1870-8GE50
IE Connecting Cable M12-90/M12-90, 1 m	6XV1870-8GH10
IE Connecting Cable M12-90/M12-90, 1,5m	6XV1870-8GH15
IE Connecting Cable M12-90/M12-90, 2 m	6XV1870-8GH20
IE Connecting Cable M12-90/M12-90, 3 m	6XV1870-8GH30
IE Connecting Cable M12-90/M12-90, 5 m	6XV1870-8GH50
IE Connecting Cable M12-90/M12-90, 10 m	6XV1870-8GN10
IE Connecting Cable M12-90/M12-90, 15 m	6XV1870-8GN15
Accessories M8, M12	
AS-I CAP PLUGS	3RX9802-0AA00
AS-INTERFACE, BLANK PLUG	3RK1901-1KA00
M12 CONNECTOR STRAIGHT	3RK1902-4BA00-5AA0
M12 PROFIBUS SOCKET ANGLED	3RK1902-4DA00-5AA0
M12 - M12 CABLE 1.5M 3 POLE	3RK1902-4PB15-3AA0
M12 PROFIBUS SOCKET ANGLED	3RK1902-4HB15-5AA0
M12 PROFIBUS SOCKET ANGLED	3RK1902-4HB50-5AA0
M12 PROFIBUS SOCKET ANGLED	3RK1902-4HC01-5AA0
ET200, Y Cable	6ES7194-6KA00-0XA0
ET200, Y cable	6ES7194-6KB00-0XA0
ET200, Y cable	6ES7194-6KC00-0XA0
ET200, Y Connector	6ES7194-1KA01-0XA0

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Accessories

	Article number
E coding plug, IP 65/67	6ES7194-6KB01-0AA0
ET200, Compensation Connector	6ES7194-4AB00-0AA0
Control Cable 5 core cable sold by meter	6XV1801-2C
Accessories M12	
Conn. Cable IO-Link, 2 X M12-4pin, 5m	6GT2891-4MH50
Conn. Cable IO-Link, 2 X M12-4pin, 10m	6GT2891-4MN10
Control Connecting Cable M12/M12, 0,5m	6XV1801-2CE50
Control Connecting Cable M12/M12, 1,0m	6XV1801-2CH10
Control Connecting Cable M12/M12, 1,0m	6XV1801-2CH15
Control Connecting Cable M12/M12, 2,0m	6XV1801-2CH20
Control Connecting Cable M12/M12, 3,0m	6XV1801-2CH30
Control Connecting Cable M12/M12, 5,0m	6XV1801-2CH50
Control Connecting Cable M12/M12, 10,0m	6XV1801-2CN10
Control Connecting Cable M12/M12, 15,0m	6XV1801-2CN15
ET200, Y Connector	6ES7194-1KA01-0XA0
Control M12 Cable Connector PRO	6GK1908-0DC10-6AA0
DIN rails	
Mounting BAR for ET200eco PN	6ES7194-6GA00-0AA0
Self-tapping Screw for ET200eco PN	6ES7194-6MA00-0AA0
Identification labels	
IDENTIFICATION LABELS 10X7 MM, RAL6034	3RT1900-1SB10
Identification Labels 10x5 mm, RAL9016	6ES7194-2BA00-0AA0

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