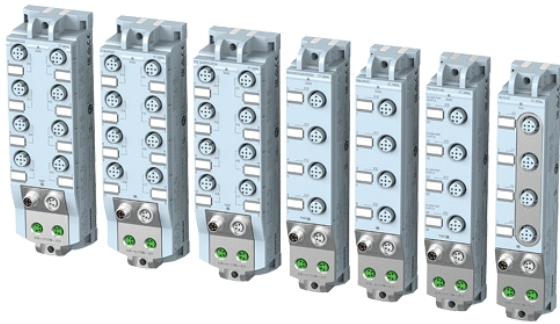


SIEMENS



Product overview for SIMATIC ET 200AL

TIA Selection Tool Web



SIMATIC ET 200AL

The robust IO system for easiest installation everywhere

SIMATIC ET 200AL is a modular, distributed I/O system with compact I/O modules in IP65/67.

SIMATIC ET 200AL is designed especially for distributed control electronics in confined spaces and in motion through compact design, low space requirement and weight.

<http://www.siemens.com/et200al>

Highlights

Flexible installation reduces the installation work

- Whether installed vertically or horizontally, whether screwed on onto front or laterally - easy to install in every position.
- Can be mounted directly at the machine or assembly line.
- Low space requirement through 30 mm module width and very light module weight of 145 g.
- Integration of sensors and actuators by means of M8 or M12 connection technology.

Identification system and color coding ensure simple wiring

- Assignment by color of the cables to the interfaces.
- Exact assignment IO socket/LED/labeling clip.
- Clips for channel, slot and module identification.
- Modules can be connected to PROFINET or PROFIBUS.

IO-Link interfacing allows automatic transfer of all current (Device and Master) parameters to the IO-Link device during a device change

- IO-Link Master has adjustable parameters and diagnostic functions and can be adapted flexibly.

High reliability through housing material made of plastic

- Module is designed for motion applications with permanently 5 g and a maximum of 10 g.
- Modules have electronic short-circuit protection and start up automatically again after mains interruption or module replacement.
- Reduction of the cabling minimizes the danger of wire breaks.

High robustness fulfils degree of protection IP65/67

- Modules are suitable for usage from -25 °C to +55 °C.
- Enclosure is splash-water protected, oil-proof and dust-proof.
- Plastic housing is robust and does not burn.

Safe switching off of actuators through the outputs

- Safety-oriented switching off of actuators in accordance with SIL2 / Performance Level d via group shutdown of the ET 200SP or safety relay.
- Determination or assignment of the required Performance Level in the context of the risk assessment to EN ISO 13849-1.
- Uniform display concept.

Consistency in system diagnostics through uniform engineering

- Channel status LEDs for analog modules.
- Exact assignment IO socket / LED / labeling clip.

Interface modules

[Compare technical specifications online](#)

Article number



ET 200AL, IM 157-1 PN
ET 200AL, IM 157-1 DP

6ES7157-1AB00-0AB0
6ES7157-1AA00-0AB0

Digital inputs

[Compare technical specifications online](#)

Article number



ET 200AL, DI 8x24VDC, 4xM12
ET 200AL, DI 16x24VDC, 8xM12
ET 200AL, DI 8x24VDC, 8xM8

6ES7141-5AF00-0BA0
6ES7141-5AH00-0BA0
6ES7141-5BF00-0BA0

Digital outputs

[Compare technical specifications online](#)

Article number



ET 200AL, DQ 8x24VDC/2A, 8xM12

6ES7142-5AF00-0BA0

Digital inputs/outputs

[Compare technical specifications online](#)

Article number



ET 200AL, DIQ 4+DQ 4x24VDC/0,5A, 4xM12
ET 200AL, DIQ 4+DQ 4x24VDC/0,5A, 8xM8
ET 200AL, DIQ 16x24VDC/0,5A, 8xM12
ET 200AL, F-DI 4+F-DQ 2x24VDC/2A, 4xM12

6ES7143-5AF00-0BA0
6ES7143-5BF00-0BA0
6ES7143-5AH00-0BA0
6ES7146-5FF00-0BA0

 : Safety-related component

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

Analog inputs [Compare technical specifications online](#)

Article number		
	ET 200AL, AI 4xU/I/RTD, 4xM12	6ES7144-5KD00-0BA0
	ET 200AL, AI 4xRTD/TC, 4xM12	6ES7144-5KD50-0BA0

Analog outputs [Compare technical specifications online](#)

Article number		
	ET 200AL, AQ 4xU/I, 4xM12	6ES7145-5ND00-0BA0

Technology modules [Compare technical specifications online](#)

Article number		
	Counting	Compare technical specifications online
	ET 200AL, DIQ 16x24VDC/0,5A, 8xM12	6ES7143-5AH00-0BA0

Communication modules [Compare technical specifications online](#)

Article number		
	ET 200AL, cm 4x IO-Link, 4xM12	6ES7147-5JD00-0BA0

 : Safety-related component

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

SIMATIC IO Module



	Article number
ET 200AL, IO-Link, DI 8x24VDC, 8xM8	6ES7141-5BF00-0BL0
ET 200AL, IO-Link, DI 16x24VDC, 8xM12	6ES7141-5AH00-0BL0
ET 200AL, IO-Link, DQ 8x24VDC/2A, 8xM12	6ES7142-5AF00-0BL0
ET 200AL, IO-Link, DIQ 4+DQ 4x24VDC/0,5A	6ES7143-5BF00-0BL0
ET 200AL, IO-Link, DIQ 16x24VDC/0,5A	6ES7143-5AH00-0BL0

Accessories



	Article number
Plugs and cables for M8 power supply Compare technical specifications online	
Power Cable M8, 0,19m	6ES7194-2LH02-1AA0
Power Cable M8, 0,3m	6ES7194-2LH03-1AA0
Power Cable M8, 1,0M	6ES7194-2LH10-1AA0
Power Cable M8, 2,0M	6ES7194-2LH20-1AA0
Power Cable M8, 5,0M	6ES7194-2LH50-1AA0
Power Cable M8, 10m	6ES7194-2LN10-1AA0
Power Cable M8, 15m	6ES7194-2LN15-1AA0
Power Cable M8, angled, 0,3m	6ES7194-2LH03-1AB0
Power Cable M8, angled, 1,0M	6ES7194-2LH10-1AB0
Power Cable M8, angled, 2,0M	6ES7194-2LH20-1AB0
Power Cable M8, angled, 5,0M	6ES7194-2LH50-1AB0
Power Cable M8, angled, 10m	6ES7194-2LN10-1AB0
Power Cable M8, angled, 15m	6ES7194-2LN15-1AB0
Power Cable M8, 2,0M	6ES7194-2LH20-1AC0
Power Cable M8, 5,0M	6ES7194-2LH50-1AC0
Power Cable M8, 10m	6ES7194-2LN10-1AC0
Power Cable M8, 15m	6ES7194-2LN15-1AC0
Power Cable M8 0,19m	6ES7194-2MH02-1AA0
Power Cable M8, 0,3m	6ES7194-2MH03-1AA0
Power Cable M8, 1,0M	6ES7194-2MH10-1AA0
Power Cable M8, 2,0M	6ES7194-2MH20-1AA0
Power Cable M8, 5,0M	6ES7194-2MH50-1AA0
Power Cable M8, 10m	6ES7194-2MN10-1AA0
Power Cable M8, 15m	6ES7194-2MN15-1AA0
Power Cable M8, angled, 0,3m	6ES7194-2MH03-1AB0
Power Cable M8, angled, 1,0M	6ES7194-2MH10-1AB0
Power Cable M8, angled, 2,0M	6ES7194-2MH20-1AB0
Power Cable M8, angled, 5,0M	6ES7194-2MH50-1AB0
Power Cable M8, angled, 10m	6ES7194-2MN10-1AB0
Power Cable M8, angled, 15m	6ES7194-2MN15-1AB0
Power Cable M8, 2,0M	6ES7194-2MH20-1AC0
Power Cable M8, 5,0M	6ES7194-2MH50-1AC0
Power Cable M8, 10m	6ES7194-2MN10-1AC0
Power Cable M8, 15m	6ES7194-2MN15-1AC0
M8 Power Connector	6ES7194-2AA00-0AA0
M8 Power Connector, Socket	6ES7194-2AC00-0AA0
PROFINET connectors and cables	
IE M12 Plug PRO (1 piece)	6GK1901-0DB10-6AA0
IE M12 Plug PRO (8 piece)	6GK1901-0DB10-6AA8

 : 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 FC M12 Plug PRO 2x2	6GK1901-0DB20-6AA0
IE FC M12 Plug PRO 2x2	6GK1901-0DB20-6AA8
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 FC TP Flexible Cable GP 2x2 sold by m	6XV1870-2B
FC TP FRNC Cable GP, by meter	6XV1871-2F
IE FC TP Food Cable GP 2x2 by meter	6XV1871-2L
IE FC TP Festoon Cable 2x2 sold by the m	6XV1871-2S
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 10 M BOTH SIDES	3RK1902-2NC10
BUS CABLE PROFINET 3 M	3RK1902-2HB30
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 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
PROFIBUS DP connectors and cables	
M12-Terminating connector	6GK1905-0EC00
M12-Connector	6GK1905-0EB00
M12 PROFIBUS SOCKET ANGLED	3RK1902-1DA00
M12-Connector	6GK1905-0EA00
PB FC M12 Plug PRO	6GK1905-0EA10
M12 PROFIBUS PLUG ANGLED	3RK1902-1BA00
M12-TERMINATING CONNECTOR	6GK1905-0ED00
PB FC Standard Cable GP by meter	6XV1830-0EH10
PB FC Trailing Cable, by meter	6XV1830-3EH10
PB FC Food bus Cable by meter	6XV1830-0GH10
PB FC Robust bus Cable sold by the m	6XV1830-0JH10
PB FC FRNC Cable GP by meter	6XV1830-0LH10

 : 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
PB FC Underground Cable by meter	6XV1830-3FH10
PB Festoon Cable GP by meter	6XV1830-3GH10
PB FC Flexible Cable GP by meter	6XV1831-2K
PROFIBUS M12 CONNECTING CABLE 0.3 M	6XV1830-3DE30
PROFIBUS M12 CONNECTING CABLE 0.5 M	6XV1830-3DE50
PROFIBUS M12 CONNECTING CABLE 1.0 M	6XV1830-3DH10
PROFIBUS M12 CONNECTING CABLE 1.5 M	6XV1830-3DH15
PROFIBUS M12 CONNECTING CABLE 2.0 M	6XV1830-3DH20
PROFIBUS M12 CONNECTING CABLE 3 M	6XV1830-3DH30
PROFIBUS M12 CONNECTING CABLE 5 M	6XV1830-3DH50
PROFIBUS M12 CONNECTING CABLE 10 M	6XV1830-3DN10
PROFIBUS M12 CONNECTING CABLE 15 M	6XV1830-3DN15
BUS CABLE PROFIBUS 3M BOTH SIDES	3RK1902-1NB30
BUS CABLE PROFIBUS 5M BOTH SIDES	3RK1902-1NB50
BUS CABLE PROFIBUS 10M BOTH SIDES	3RK1902-1NC10
BUS CABLE PROFIBUS 3 M ONESIDED	3RK1902-1GB30
BUS CABLE PROFIBUS 5M ONE SIDED	3RK1902-1GB50
BUS CABLE PROFIBUS 10 M ONE SIDED	3RK1902-1GC10
ET connection plugs and cables	Compare technical specifications online
Connecting Cable ET-Connection, 0,19m	6ES7194-2LH02-0AA0
Connecting Cable ET-Connection, 0,3m	6ES7194-2LH03-0AA0
Connecting Cable ET-Connection, 1,0M	6ES7194-2LH10-0AA0
Connecting Cable ET-Connection, 2,0M	6ES7194-2LH20-0AA0
Connecting Cable ET-Connection, 5,0M	6ES7194-2LH50-0AA0
Bus Cable ET-Connection, 10m	6ES7194-2LN10-0AA0
Bus Cable ET-Connection, 15m	6ES7194-2LN15-0AA0
Connecting Cable ET-Con., angled, 0,3m	6ES7194-2LH03-0AB0
Connecting Cable ET-Con., angled, 1,0M	6ES7194-2LH10-0AB0
Connecting Cable ET-Con., angled, 2,0M	6ES7194-2LH20-0AB0
Connecting Cable ET-Con., angled, 5,0M	6ES7194-2LH50-0AB0
Bus Cable ET-Connection, angled, 10m	6ES7194-2LN10-0AB0
Bus Cable ET-Connection, angled, 15m	6ES7194-2LN15-0AB0
Connecting Cable ET-Connection, 2,0M	6ES7194-2LH20-0AC0
Connecting Cable ET-Connection, 5,0M	6ES7194-2LH50-0AC0
Bus Cable ET-Connection, 10m	6ES7194-2LN10-0AC0
Bus Cable ET-Connection, 15m	6ES7194-2LN15-0AC0
Connecting Cable ET-Connection, 0,19m	6ES7194-2MH02-0AA0
Connecting Cable ET-Connection, 0,3m	6ES7194-2MH03-0AA0
Connecting Cable ET-Connection, 1,0M	6ES7194-2MH10-0AA0
Connecting Cable ET-Connection, 2,0M	6ES7194-2MH20-0AA0
Connecting Cable ET-Connection, 5,0M	6ES7194-2MH50-0AA0
Bus Cable ET-Connection, 10m	6ES7194-2MN10-0AA0
Bus Cable ET-Connection, 15m	6ES7194-2MN15-0AA0
Connecting Cable ET-Con., angled, 0,3m	6ES7194-2MH03-0AB0
Connecting Cable ET-Con., angled, 1,0M	6ES7194-2MH10-0AB0
Connecting Cable ET-Con., angled, 2,0M	6ES7194-2MH20-0AB0
Connecting Cable ET-Con., angled, 5,0M	6ES7194-2MH50-0AB0
Bus Cable ET-Connection, angled, 10m	6ES7194-2MN10-0AB0
Bus Cable ET-Connection, angled, 15m	6ES7194-2MN15-0AB0
Connecting Cable ET-Connection, 2,0M	6ES7194-2MH20-0AC0
Connecting Cable ET-Connection, 5,0M	6ES7194-2MH50-0AC0
Bus Cable ET-Connection, 10m	6ES7194-2MN10-0AC0
Bus Cable ET-Connection, 15m	6ES7194-2MN15-0AC0
M8 Connector ET-Connection	6ES7194-2AB00-0AA0

 : 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
Connecting Cable ET-Connection, 0,2m	6ES7194-2LH02-0AD0
Connecting cable ET-Connection 0,2m	6ES7194-2MH02-0AD0
Stripping Tool ET-Connection	6ES7194-2KA00-0AA0
Accessories M8, M12	
AS-I CAP PLUGS	3RX9802-0AA00
AS-INTERFACE, BLANK PLUG	3RK1901-1KA00
AS-INTERFACE, BLANK PLUG	3RK1901-1PN00
M12 CONNECTOR STRAIGHT	3RK1902-4BA00-5AA0
M12 PROFIBUS SOCKET ANGLED	3RK1902-4DA00-5AA0
M12 PROFIBUS SOCKET ANGLED	3RK1902-4HB15-5AA0
M12 PROFIBUS SOCKET ANGLED	3RK1902-4HB50-5AA0
M12 PROFIBUS SOCKET ANGLED	3RK1902-4HC01-5AA0
M12 - M12 CABLE 1.5M 3 POLE	3RK1902-4PB15-3AA0
ET200, Y Cable	6ES7194-6KA00-0XA0
ET200, Y cable	6ES7194-6KB00-0XA0
ET200, Y cable	6ES7194-6KC00-0XA0
E coding plug, IP 65/67	6ES7194-6KB01-0AA0
Conn. Cable IO-Link, 2 X M12-4pin, 5m	6GT2891-4MH50
Conn. Cable IO-Link, 2 X M12-4pin, 10m	6GT2891-4MN10
Control Cable 5 core cable sold by meter	6XV1801-2C
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
Control M12 Cable Connector PRO	6GK1908-0DC10-6AA0
Identification labels	Compare technical specifications online
Identification Labels 10x5 mm, RAL9016	6ES7194-2BA00-0AA0

 : Safety-related component

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

Published by
Siemens AG

Digital Industries
Factory Automation
P.O. box 4848
90026 Nuremberg
Germany

For U.S. only:
Siemens Industry Inc.

100 Technology Drive
Alpharetta, GA 30005
United States

Copyright © Siemens 2012 - 2023

The TIA SELECTION TOOL and all its editions are made available to you at no charge. We therefore do not assume any warranty, in particular for the accuracy, correctness, completeness, availability or usability of this tool. Our liability for damages resulting from using the examples, help notes, programs, configuration and performance data, etc. described in this TIA SELECTION TOOL and all its editions regardless of the legal background is excluded unless required by law, e.g. in cases of willful misconduct, gross negligence, personal injury or death, failure to achieve guaranteed characteristics or fraudulent concealment of a defect or in case of breach of fundamental contractual obligations. Distribution or reproduction of this TIA SELECTION TOOL and all its editions or excerpts from it is prohibited unless expressly permitted by Siemens. The latest firmware and hardware versions are configured in the TIA Selection Tool.