

I/O systems

SIMATIC ET 200 systems for the control cabinet
SIMATIC ET 200SP

I/O modules > Digital input modules

Overview



- 4, 8 and 16-channel digital input (DI) modules
- Apart from the standard type of delivery in an individual package, selected I/O modules and BaseUnits are also available in a pack of 10 units. The pack of 10 units enables the amount of waste to be reduced considerably, as well as saving the time of unpacking individual modules.

For different requirements, the digital input modules offer:

- Function classes Basic, Standard, High Feature and High Speed as well as fail-safe DI (see "Fail-safe I/O modules")
- BaseUnits for single or multiple-conductor connection with automatic slot coding
- Potential distribution modules for system-integrated expansion with additional potential terminals
- Individual system-integrated load group formation with self-assembling voltage distribution bars (a separate power module is no longer required for ET 200SP)

- Option of connecting sensors compliant with IEC 61131 type 1, 2 or 3 (module-dependent) for rated voltages of up to 24 V DC or 230 V AC
- PNP (sink input) and NPN (source input) versions
- Clear labeling on front of module
- LEDs for diagnostics, status, supply voltage and faults (e.g. wire break/short-circuit)
- Electronically readable and non-volatile writable rating plate (I&M data 0 to 3)
- Extended functions and additional operating modes in some cases
 - MSI operating mode (simultaneous reading of input data from as many as three other controllers)
 - Counting operating mode (multi-channel counter for pulse generators with 32-bit counting width and up to 10 kHz counting frequency)
 - Oversampling operating mode (n-fold equidistant acquisition of digital values within one PN cycle for increasing the time resolution for slow CPU cycles)
 - Parameterizable input delay time
 - Isochronous mode (simultaneous equidistant reading of all input channels)
 - Hardware interrupts
 - Pulse extension
 - Re-parameterization during operation
 - Firmware update
 - Diagnosis of wire break and short-circuit (on channel or module basis)
 - Value status (optional binary validity information of the input signal in the process image)
 - Supports the PROFlenergy profile
- Optional accessories
 - Labeling strips (film or card)
 - Equipment labeling plate
 - Color-coded label with module-specific CC code
 - Shielding terminal

A quick and clear comparison of the functions of the different DI modules is offered by the TIA Selection Tool.

Overview of digital input modules

Digital input	PU	Article No.	CC code	BU type
DI 16 x 24 V DC ST	1	6ES7131-6BH01-0BA0	CC00	A0
DI 16 x 24 V DC ST	10	6ES7131-6BH01-2BA0	CC00	A0
DI 8 x 24 V DC BA	1	6ES7131-6BF01-0AA0	CC01	A0
DI 8 x 24 V DC BA	10	6ES7131-6BF01-2AA0	CC01	A0
DI 8 x 24 V DC SRC BA	1	6ES7131-6BF61-0AA0	CC02	A0
DI 8 x 24 V DC ST	1	6ES7131-6BF01-0BA0	CC01	A0
DI 8 x 24 V DC ST	10	6ES7131-6BF01-2BA0	CC01	A0
DI 8 x 24 V DC HF	1	6ES7131-6BF00-0CA0	CC01	A0
DI 8 x NAMUR HF	1	6ES7131-6TF00-0CA0	CC01	A0
DI 8 x 24 V DC HS	1	6ES7131-6BF00-0DA0	CC01	A0
With three operating modes:				
• High-speed isochronous DI				
• 4 pulse counters, 32-bit, 10 kHz				
• Oversampling				
DI 4 x 120 ... 230 V AC ST	1	6ES7131-6FD01-0BB1	CC41	B1

I/O systems

SIMATIC ET 200 systems for the control cabinet
SIMATIC ET 200SP

I/O modules > Digital input modules

Ordering data

Article No.

Article No.

Digital input modules

Delivery options:
Apart from the standard type of delivery in an individual package, selected I/O modules and BaseUnits are also available in a pack of 10 units.
The pack of 10 units enables the amount of waste to be reduced considerably, as well as saving the time of unpacking individual modules.

The number of modules required is the number of modules ordered.
The type of packaging is chosen by selecting the article number. Packs of 10 can therefore only be ordered in integer multiples of 10.

Digital input module
DI 8x24 V DC, Basic, BU type A0, color code CC01

- PU: 1 unit
- PU: 10 units

Digital input module
DI 8x24 V DC Source Input, Basic, BU type A0, color code CC02; PU: 1 unit

Digital input module
DI 8x24 V DC Standard, BU type A0, color code CC01

- PU: 1 unit
- PU: 10 units

Digital input module
DI 16 x 24 V DC Standard, BU type A0, color code CC00

- PU: 1 unit
- PU: 10 units

Digital input module
DI 8x24 V DC High Feature, BU type A0, color code CC01, channel-specific diagnostics, isochronous mode, shared input (MSI); PU: 1 unit

Digital input module
DI 8x24 V DC High Speed, BU type A0, color code CC01; 3 operating modes (fast isochronous DI, 4 pulse counters 32-bit 10 kHz, oversampling); PU: 1 unit

Digital input module
DI 8xNAMUR High Feature, BU type A0, color code CC01; PU: 1 unit

Digital input module
DI 4x120 V AC ... 230 V AC Standard, BU type B1, color code CC41; PU: 1 unit

Usable BaseUnits

BU15-P16+A10+2D

BU type A0; BaseUnit (light) with 16 process terminals (1 ... 16) to the module and an additional 10 internally jumpered AUX terminals (1 A to 10 A); for starting a new load group (max. 10 A)

- 1 unit
- 10 units

6ES7131-6BF01-0AA0

6ES7131-6BF01-2AA0

6ES7131-6BF61-0AA0

6ES7131-6BF01-0BA0

6ES7131-6BF01-2BA0

6ES7131-6BH01-0BA0

6ES7131-6BH01-2BA0

6ES7131-6BF00-0CA0

6ES7131-6BF00-0DA0

6ES7131-6TF00-0CA0

6ES7131-6FD01-0BB1

6ES7193-6BP20-0DA0

6ES7193-6BP20-2DA0

BU15-P16+A0+2D

BU type A0; BaseUnit (light) with 16 process terminals to the module; for starting a new load group (max. 10 A)

- 1 unit
- 10 units

6ES7193-6BP00-0DA0

6ES7193-6BP00-2DA0

BU15-P16+A10+2B

BU type A0; BaseUnit (dark) with 16 process terminals (1 ... 16) to the module and an additional 10 internally jumpered AUX terminals (1 A to 10 A); for continuing the load group

- 1 unit
- 10 units

6ES7193-6BP20-0BA0

6ES7193-6BP20-2BA0

BU15-P16+A0+2B

BU type A0; BaseUnit (dark) with 16 process terminals to the module; for continuing the load group

- 1 unit
- 10 units

6ES7193-6BP00-0BA0

6ES7193-6BP00-2BA0

BU20-P12+A0+4B

BU type B1; BaseUnit (dark) with 12 process terminals to the module; for continuing the load group; 1 unit

6ES7193-6BP20-0BB1

Potential distribution modules

PotDis BU

PotDis BU, type P1 (light), 17x P1 potential, 1x P2 potential, for beginning a new load group (max. 10 A)

6ES7193-6UP00-0DP1

PotDis BU, type P1 (dark), 17x P1 potential, 1x P2 potential, for continuing the load group

6ES7193-6UP00-0BP1

PotDis BU, type P2 (light), 1x P1 potential, 17x P2 potential, for beginning a new load group (max. 10 A)

6ES7193-6UP00-0DP2

PotDis BU, type P2 (dark), 1x P1 potential, 17x P2 potential, for continuing the load group

6ES7193-6UP00-0BP2

PotDis TB

PotDis TB, type BR-W, 18x internally jumpered terminals, without connection to P1, P2 or AUX, (total current max. 10 A)

6ES7193-6TP00-0TP0

PotDis TB, type P1-R, 18x P1 potential, (total current max. 10 A)

6ES7193-6TP00-0TP1

PotDis TB, type P2-B, 18x P2 potential, (total current max. 10 A)

6ES7193-6TP00-0TP2

PotDis TB, type n.c.-G, 18x n.c. (not connected) terminals, without reference to P1, P2 or AUX

6ES7193-6TP00-0TN0