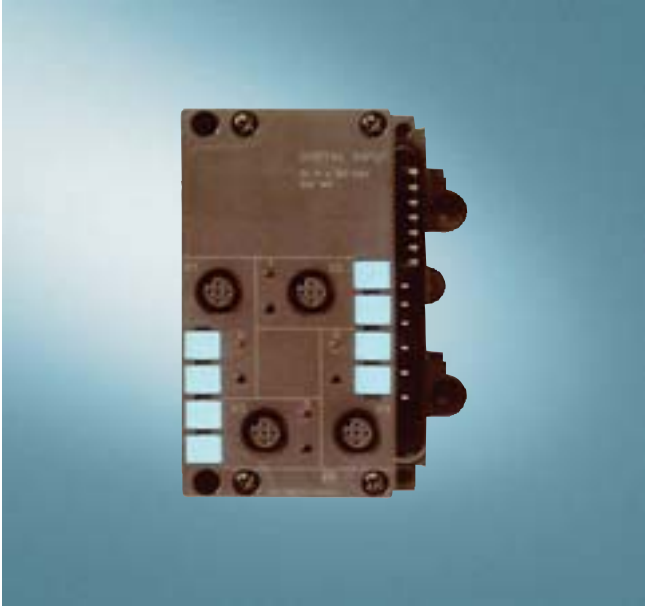


# ET 200 distributed I/Os

## ET 200X

### EM 141, EM 142 digital expansion modules

#### Overview



- Expansion modules with digital inputs/ outputs for connection of actuators/ sensors
- Optionally with diagnostic functions (single-channel diagnostics)
  - Parameterizable input delay
  - Process alarms (available soon)
  - Short and long designs
  - Double or single assignment for each M12
- Optional additional auxiliary voltage supply (load supply)

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#### Technical specifications

Expansion module EM 141	DI 4 x 24 V DC
Dimensions W x H x D (in mm)	
• Individual device	87 x 110 x 55
• Hole pitch	60 x 110 x 55
Number of inputs	4
Cable length, unshielded, max.	30 m
Power loss of the module, typ.	1.5 W
Current consumption from back-plane bus (1L+), max.	16 mA

Expansion module EM 141	DI 4 x 24 V DC
Input voltage	
• Rated value	24 V DC
• For "1" signal	13 to 30 V
• For signal "0"	-3 to 5 V
Input delay	1.2 to 4.8 ms
Input characteristic	To IEC 61131, type 1
Connection of two-wire BEROs	Possible
• Permissible quiescent current, max.	1.5 mA

Expansion module EM 141	DI 8 x 24 V DC with diagnostics double assignment	DI 8 x 24 V DC with diagnostics single assignment
Dimensions W x H x D (in mm)		
• Individual device	87 x 110 x 55	87 x 180 x 55
• Hole pitch	60 x 110 x 55	60 x 180 x 55
Number of inputs	8	
Cable length, unshielded, max.	30 m	
Power loss of the module, typ.	1.5 W	
Current consumption from back-plane bus (1L+), max.	16 mA	10 mA
Input voltage		
• Rated value	24 V DC	
• For "1" signal	13 to 30 V	
• For signal "0"	-3 to 5 V	
Input delay	1.2 to 4.8 ms 0.5; 3; 15; 20 parameterizable	
Input characteristic	To IEC 61131, type 2	
Connection of two-wire BEROs	Possible	
• Permissible quiescent current, max.	1.5 mA	2 mA
Diagnostics	Each channel: Short-circuit, wire break	

# ET 200 distributed I/Os

## ET 200X

### EM 141, EM 142 digital expansion modules

#### Ordering data

##### EM 141 expansion modules

- 8 DI × 24 V DC, dual assignment
- 8 DI × 24 V DC, dual assignment with single-channel diagnostics
- 4 DI × 24 V DC
- 8 DI × 24 V DC, single assignment
- 8 DI × 24 V DC, single assignment with single-channel diagnostics

#### Order No.

**6ES7 141-1BF31-0XA0**

**6ES7 141-1BF30-0XB0**

**6ES7 141-1BD31-0XA0**

**6ES7 141-1BF41-0XA0**

**6ES7 141-1BF40-0XB0**

##### EM 142 expansion modules

- 4 DO × 24 V DC, 2 A without diagnosis
- 4 DO × 24 V DC, 2 A with diagnosis
- 4 DO × 24 V DC; 0.5 A
- 8 DO × 24 V DC/1.2 A single assignment

**6ES7 142-1BD40-0XA0**

**6ES7 142-1BD40-0XB0**

**6ES7 142-1BD30-0XA0**

**6ES7 142-1BF30-0XA0**

#### Order No.

#### Accessories

##### Manual for ET 200X distributed I/O station

- German
- English
- French

**6ES7 198-8FA01-8AA0**

**6ES7 198-8FA01-8BA0**

**6ES7 198-8FA01-8CA0**

##### M12 connector

For connecting actuators or sensors, 5-pin

**3RX1 667**

##### M12 angular circular connector

For connecting actuators or sensors, 5-pin

**3RX1 668**

##### M12 Y circular connector

For the double connection of sensors by means of single cable, 5-pin

**6ES7 194-1KA01-0XA0**

##### Prepared Y cable

For actuators/sensors

Available from:  
Franz Binder GmbH & Co.  
PO Box 1152  
74148 Neckarsulm, Germany  
Connector Catalog

##### M12 sealing caps

For sealing unused input or output sockets

**3RX9 802-0AA00**

##### S7 Manual Collection

Electronic manuals on CD, multi-language:  
S7-200, TD 200, S7-300, M7-300, C7, S7-400, M7-400, STEP 7, Engineering Tools, Runtime Software, SIMATIC DP (Distributed I/O), SIMATIC HMI (Human Machine Interface), SIMATIC NET (Industrial Communication)

**6ES7 998-8XC01-8YE0**

##### S7 Manual Collection update service for 1 year

Scope of supply: Up-to-date CD S7 Manual Collection as well as the three subsequent updates

**6ES7 998-8XC01-8YE2**