

I/O systems

ET 200 systems for the control cabinet

ET 200S - I/O modules

Digital electronic modules

Technical specifications (continued)

Article number	6ES7132-4BB01-0AB0 ET200S, EL-MOD., 2DO HF,DC24V, 0.5A, 5PC	6ES7132-4BB01-0AA0 ET200S, EL-MOD., 2DO ST,DC24V, 0.5A, 5PC	6ES7132-4BB31-0AB0 ET200S, EL-MOD., 2DO HF, DC 24V, 2A, 5PC	6ES7132-4BB31-0AA0 ET200S, EL-MOD., 2DO ST, DC 24V, 2A, 5PC	6ES7132-4BD00-0AB0 ET200S, EL-MOD., 4DO HF,DC24V, 0.5A,5PCS	6ES7132-4BD02-0AA0 ET200S, EL-MOD., 4DO ST,DC24V, 0.5A,5PCS
Parameter						
Remark	3 byte	1 byte	3 byte	1 byte		1 byte
Diagnosis: wire break	Disable / enable		Disable / enable			
Diagnosis: short circuit	Disable / enable		Disable / enable			
Behavior on CPU/Master STOP, channel-wise	Substitute a value/keep last value		Substitute a value/keep last value			
Galvanic isolation						
Galvanic isolation digital outputs						
• between the channels	No	No	No	No	No	No
• between the channels and the backplane bus	Yes	Yes	Yes	Yes	Yes	Yes
Isolation						
Isolation checked with	500 V DC	500 V DC	500 V DC	500 V DC	500 V DC	500 V DC
Dimensions						
Width	15 mm	15 mm	15 mm	15 mm	15 mm	15 mm
Height	81 mm	81 mm	81 mm	81 mm	81 mm	81 mm
Depth	52 mm	52 mm	52 mm	52 mm	52 mm	52 mm
Weights						
Weight, approx.	40 g	40 g	40 g	40 g	40 g	40 g
Article number	6ES7132-4BF00-0AB0 ET200S, ELECTR.MODULE 8DO HF DC24V/0,5A			6ES7132-4BF00-0AA0 ET200S, ELEKTRONIC MODULE 8DO DC24V/0,5A		
Product type designation						
Supply voltage						
Reverse voltage protection	Yes; when using the same load voltage as on the power module			Yes		
Load voltage L+						
• Rated value (DC)	24 V; From power module			24 V		
• Reverse polarity protection	Yes; polarity reversal can lead to the digital outputs being connected through			Yes		
Input current						
from load voltage L+ (without load), max.	5 mA; Per channel			5 mA; Per channel		
from backplane bus 3.3 V DC, max.	10 mA			10 mA		
Power losses						
Power loss, typ.				1.5 W		
Address area						
Address space per module						
• with packing	Not relevant					
• without packing	1 byte			1 byte		

Technical specifications (continued)

Article number	6ES7132-4BF00-0AB0 ET200S, ELECTR.MODULE 8DO HF DC24V/0,5A	6ES7132-4BF00-0AA0 ET200S, ELEKTRONIC MODULE 8DO DC24V/0,5A
Digital outputs		
Number of digital outputs	8	8
short-circuit protection	Yes	Yes
• Response threshold, typ.	0.7 to 1.9 A	o.k.
Limitation of inductive shutdown voltage to	L+ -(47 to 60 V)	o.k.
Controlling a digital input	Yes	Yes
Switching capacity of the outputs		
• on lamp load, max.	5 W	5 W
Load resistance range		
• lower limit	48 Ω	48 Ω
• upper limit	3 400 Ω	3 400 Ω
Output voltage		
• for signal "1", min.	L+ (-1.0 V)	o.k.
Output current		
• for signal "1" rated value	0.5 A	0.5 A
• for signal "1" permissible range for 0 to 60 °C, min.	7 mA	7 mA
• for signal "1" permissible range for 0 to 60 °C, max.	600 mA	600 mA
• for signal "0" residual current, max.	0.3 mA	0.3 mA
Output delay with resistive load		
• "0" to "1", max.	300 µs	300 µs
• "1" to "0", max.	600 µs	600 µs
Parallel switching of 2 outputs		
• for increased power	No	No
• for redundant control of a load	Yes; per module	Yes
Switching frequency		
• with resistive load, max.	100 Hz	100 Hz
• with inductive load, max.	2 Hz	2 Hz
• on lamp load, max.	10 Hz	10 Hz
Aggregate current of outputs (per group)		
all mounting positions		4 A
- up to 60 °C, max.		
horizontal installation		
- up to 60 °C, max.	4 A	
vertical installation		
- up to 40 °C, max.	4 A; At 55 °C and 24 V DC	
Cable length		
• shielded, max.	1 000 m	1 000 m
• Unshielded, max.	600 m	600 m
Isochronous mode		
Isochronous operation (application synchronized up to terminal)	Yes	Yes; jitter incumbered < 100us
Interrupts/diagnostics/status information		
Diagnostic messages		
• Diagnostic functions	Yes	No
• Short circuit	Yes; Module-wise	
Diagnostics indication LED		
• Group error SF (red)	Yes; SF-LED (red)	
• Status indicator digital output (green)	Yes; Per channel	Yes

I/O systems

ET 200 systems for the control cabinet

ET 200S - I/O modules

Digital electronic modules

Technical specifications (continued)

Article number	6ES7132-4BF00-0AB0		6ES7132-4BF00-0AA0		
	ET200S, ELECTR.MODULE 8DO HF DC24V/0,5A		ET200S, ELEKTRONIC MODULE 8DO DC24V/0,5A		
Parameter					
Remark	1 byte		3-byte parameter (not accessible for the user)		
Galvanic isolation					
Galvanic isolation digital outputs					
• between the channels	No		No		
• between the channels and the backplane bus	Yes		Yes		
Isolation					
Isolation checked with	500 V DC		500 V DC		
Dimensions					
Width	15 mm		15 mm		
Height	81 mm		81 mm		
Depth	52 mm		52 mm		
Weights					
Weight, approx.	40 g		40 g		

Article number	6ES7132-4BD30-0AB0	6ES7132-4BD32-0AA0	6ES7132-4FB01-0AB0	6ES7132-4HB01-0AB0	6ES7132-4HB12-0AB0
	ET200S, EL-MOD., 4DO HF, DC24V, 2A, 5PCS	ET200S, EL-MOD., 4DO ST, DC24V, 2A, 5PCS	ET200S, ELECT. MOD., 2DO, AC 230V, 5PCS	ET200S, EL-MOD., 2RO, DC24VAC230V, 5A,5PCS	ET200S, EL-MOD., 2RO,DC48V/AC230V, 5A,5PCS
Product type designation					
Supply voltage					
Reverse voltage protection	Yes; when using the same load voltage as on the power module	Yes; when using the same load voltage as on the power module	Yes; when using the same load voltage as on the power module		
Load voltage L+					
• Rated value (DC)	24 V; From power module	24 V; From power module		24 V; From power module	24 V; From power module
• Reverse polarity protection	Yes; polarity reversal can lead to the digital outputs being connected through	Yes		Yes	Yes
Load voltage L1					
• permissible range, lower limit (AC)			24 V; From power module		
• permissible range, upper limit (AC)			230 V		
Input current					
from load voltage L+ (without load), max.	5 mA; Per channel	10 mA; Per channel	30 mA	30 mA	30 mA
from backplane bus 3.3 V DC, max.	10 mA	10 mA	18 mA	10 mA	10 mA
Power losses					
Power loss, typ.	1.6 W	1.6 W	4 W	0.6 W	0.6 W
Address area					
Address space per module					
• with packing	4 bit	4 bit	2 bit	2 bit	2 bit
• without packing	1 byte	1 byte	1 byte	1 byte	1 byte

Ordering data	Article No.	Article No.
Digital input modules Ordering unit 5 items • 2 DI 24 V DC Standard • 2 DI 24 V DC High Feature • 4 DI 24 V DC Standard • 4 DI 24 V DC High Feature • 2 DI 120 V AC • 2 DI 230 V AC • 4 DI 24 to 48 V UC • 4 DI 24 V DC SOURCE INPUT Ordering unit 1 item • 4 DI 24 V DC NAMUR • 8 DI 24 V DC Standard • 8 DI, 24 V DC, Standard SOURCE INPUT Ordering unit 100 items • 8 DI 24 V DC Standard	6ES7131-4BB01-0AA0 6ES7131-4BB01-0AB0 6ES7131-4BD01-0AA0 6ES7131-4BD01-0AB0 6ES7131-4EB00-0AB0 6ES7131-4FB00-0AB0 6ES7131-4CD02-0AB0 6ES7131-4BD51-0AA0 6ES7131-4RD02-0AB0 6ES7131-4BF00-0AA0 6ES7131-4BF50-0AA0 6ES7131-4BF00-4AA0	Accessories Label sheets DIN A4 (10 pieces) Each sheet contains 60 labeling strips for I/O modules and 20 labeling strips for interface modules • petrol • red • yellow • light beige 6ES7193-4BH00-0AA0 6ES7193-4BD00-0AA0 6ES7193-4BB00-0AA0 6ES7193-4BA00-0AA0
Digital output modules Ordering unit 5 items • 2 DO 24 V DC/0.5 A Standard • 2 DO 24 V DC/0.5 A High Feature • 2 DO 24 V DC/2 A Standard • 2 DO 24 V DC/2 A High Feature • 4 DO 24 V DC/0.5 A Standard • 4 DO, 24 V DC/0.5 A, Standard SOURCE OUTPUT • 4 DO 24 V DC/0.5 A High Feature • 8 DO 24 V DC/0.5 A High Feature • 4 DO 24 V DC/2 A Standard • 4 DO 24 V DC/2 A High Feature • 2 DO 24 to 230 V AC/2 A • 2 DO 24 V DC to 230 V AC/5 A relay, NO contact • 2 DO 24...48 V DC/5 A, 24...230 V AC/5 A relay, changeover contact Ordering unit 1 item • 2 DO 24...48 V DC/5 A, 24...230 V AC/5 A relay, changeover contact, with manual operation • 8 DO 24 V DC/0.5 A Standard • 8 DO, 24 V DC/0.5 A, Standard SINK OUTPUT Ordering unit 100 items • 8 DO 24 V DC/0.5 A Standard	6ES7132-4BB01-0AA0 6ES7132-4BB01-0AB0 6ES7132-4BB31-0AA0 6ES7132-4BB31-0AB0 6ES7132-4BD02-0AA0 6ES7132-4BD50-0AA0 6ES7132-4BD00-0AB0 6ES7132-4BF00-0AB0 6ES7132-4BD32-0AA0 6ES7132-4BD30-0AB0 6ES7132-4FB01-0AB0 6ES7132-4HB01-0AB0 6ES7132-4HB12-0AB0 6ES7132-4HB50-0AB0 6ES7132-4BF00-0AA0 6ES7132-4BF50-0AA0 6ES7132-4BF00-4AA0	