



SIMATIC ET 200BL, digital input module, DI 16x24 V DC, input type 1 (IEC 61131) sink input, (PNP, sinking input), packing unit: 1 unit, color code CC00, input delay 0.05..20 ms

General information	
Product type designation	DI 16x24VDC
HW functional status	from FS01
Firmware version	
• FW update possible	No
Color code for module-specific color identification plate	CC00
Product function	
• I&M data	Yes; I&M0 to I&M3
• Isochronous mode	No
Engineering with	
• STEP 7 TIA Portal configurable/integrated from version	STEP 7 V18 or higher; MicroWin V3.0 or higher; Configuration in ES via GSDML;
• PROFINET from GSD version/GSD revision	GSDML V2.45
Operating mode	
• DI	Yes
• Counter	No
• Oversampling	No
• MSI	No
Redundancy	
• Redundancy capability	No
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
external protection for power supply lines	Yes; 24 V DC/10 A miniature circuit breaker with type B or C tripping characteristic
Input current	
Current consumption (rated value)	54 mA
Current carrying capacity	
For P1 and P2 bus, max.	10 A
Power loss	
Power loss, typ.	1.3 W; 24 V, 25 °C, 16 inputs supplied via L+
Address area	
Address space per module	
• Address space per module, max.	2 byte
• Inputs	2 byte
Hardware configuration	
Automatic encoding	No
• Mechanical coding element	No

Formation of potential groups	
• support of potential groups	Yes
Digital inputs	
Number of digital inputs	16
Digital inputs, parameterizable	Yes
Source/sink input	Yes; P-reading
Input characteristic curve in accordance with IEC 61131, type 1	Yes; Type 1
Input voltage	
• Rated value (DC)	24 V
• for signal "0"	-30 V DC to +5 V DC
• for signal "1"	15 V DC to 30 V DC
Input current	
• for signal "1", typ.	3.2 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	Yes; 0.05 / 0.1 / 0.4 / 0.8 / 1.6 / 3.2 / 12.8 / 20 ms (in each case + delay of 30 to 500 µs, depending on line length)
— at "0" to "1", min.	0.05 ms
— at "0" to "1", max.	20 ms
— at "1" to "0", min.	0.05 ms
— at "1" to "0", max.	20 ms
Cable length	
• shielded, max.	1 000 m
• unshielded, max.	600 m
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
• Diagnostic alarm	Yes
Diagnoses	
• Diagnostic information readable	Yes
• Monitoring the supply voltage	No
• Wire-break	No
• Short-circuit	No
• Group error	No
Diagnostics indication LED	
• Monitoring of the supply voltage (PWR-LED)	No
• Channel status display	Yes; green LED
• for channel diagnostics	No
• for module diagnostics	Yes; green/red DIAG LED
Potential separation	
between backplane bus and supply voltage	Yes
Potential separation digital inputs	
• between the channels	No
• between the channels and backplane bus	Yes
• between the channels and the power supply of the electronics	No
Isolation	
Isolation tested with	500 V AC/707 V DC, type test
Standards, approvals, certificates	
Suitable for safety functions	No
Ecological footprint	
• environmental product declaration	Yes
Global warming potential	
— global warming potential, (total) [CO2 eq]	5.07 kg
— global warming potential, (during production) [CO2 eq]	5.07 kg
— global warming potential, (during operation) [CO2 eq]	1.06 kg
— global warming potential, (after end of life cycle) [CO2 eq]	-1.09 kg

Use in hazardous areas	
• EAC Ex	No
Ambient conditions	
Ambient temperature during operation	
• horizontal installation, min.	-30 °C
• horizontal installation, max.	60 °C
• vertical installation, min.	-30 °C
• vertical installation, max.	50 °C
Altitude during operation relating to sea level	
• Installation altitude above sea level, max.	5 000 m; restrictions for installation altitudes > 2 000 m, see ET 200BL system manual
Connection method	
Terminals	
• Conductor cross-section, min.	0.14 mm ² ; follow detailed information in System manual of ET 200BL
• Conductor cross-section, max.	2.5 mm ² ; follow detailed information in System manual of ET 200BL
• Number of process terminals to I/O module	16
• Number of terminals with connection to P1 and P2 bus	2
Dimensions	
Width	15 mm
Height	117 mm
Depth	74 mm
Weights	
Weight, approx.	81 g
Classifications	

	Version	Classification
eClass	14	27-24-26-04
eClass	12	27-24-26-04
eClass	9.1	27-24-26-04
eClass	9	27-24-26-04
eClass	8	27-24-26-04
eClass	7.1	27-24-26-04
eClass	6	27-24-26-04
ETIM	10	EC001599
ETIM	9	EC001599
ETIM	8	EC001599
ETIM	7	EC001599

Approvals / Certificates

General Product Approval



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