



SIMATIC ET 200BL, digital output module, DQ 8x24 V DC/2 A output characteristic according to IEC 61131 source output (PNP,sourcing output) packing unit: 1 unit, color code CC02

General information	
Product type designation	DQ 8x24VDC/2A
HW functional status	from FS01
Firmware version	
• FW update possible	No
Color code for module-specific color-coded label	CC02
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	
• DQ	Yes
• DQ with energy-saving function	No
• PWM	No
• Cam control (switching at comparison values)	No
• Oversampling	No
• MSO	No
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
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)	12 mA
Current consumption, max.	10 A
Output voltage	
Rated value (DC)	24 V
Current carrying capacity	
For P1 and P2 bus, max.	10 A
Power loss	
Power loss, typ.	0.6 W; rated voltage, 50 % load, 50 % active channels
Address area	
Address space per module	
• Address space per module, max.	1 byte

• Outputs	1 byte
Hardware configuration	
Automatic encoding	No
• Mechanical coding element	No
Formation of potential groups	
• support of potential groups	No
Digital outputs	
Type of digital output	Source output (PNP, current-sourcing)
Number of digital outputs	8
Current-sinking	No
Current-sourcing	Yes
Digital outputs, parameterizable	Yes
output type acc. to IEC 61131, type 2	Yes
Short-circuit protection	Yes; per channel, electronic
• Response threshold, typ.	3.2 A; 2.5 A to 3.7 A
Limitation of inductive shutdown voltage to	Type. L+ (-42 V)
Controlling a digital input	Yes
Switching capacity of the outputs	
• with resistive load, max.	2 A
• with inductive load, max.	2 A
• on lamp load, max.	10 W
Load resistance range	
• lower limit	12 Ω
• upper limit	3 400 Ω
Output current	
• for signal "1" rated value	2 A
• for signal "1" permissible range, max.	2 A
• for signal "0" residual current, max.	20 µA
Output delay with resistive load	
• "0" to "1", typ.	55 µs
• "1" to "0", typ.	70 µs
Parallel switching of two outputs	
• for uprating	No
Switching frequency	
• with resistive load, max.	100 Hz
• with inductive load, max.	0.1 Hz; higher frequencies are possible, see Equipment Manual "Maximum permitted switching frequency of inductive loads"
• on lamp load, max.	10 Hz
Total current of the outputs	
• Current per channel, max.	2 A
• Current per module, max.	10 A
Cable length	
• shielded, max.	1 000 m
• unshielded, max.	600 m
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Substitute values connectable	Yes
Alarms	
• Diagnostic alarm	Yes
Diagnoses	
• Monitoring the supply voltage	Yes
• Wire break	No
• short-circuit	No
• Group error	No
Diagnostics indication LED	
• Monitoring of the supply voltage (PWR-LED)	Yes; green PWR LED
• 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 outputs	
• 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]	28.7 kg
— global warming potential, (during production) [CO2 eq]	4.87 kg
— global warming potential, (during operation) [CO2 eq]	24.5 kg
— global warming potential, (after end of life cycle) [CO2 eq]	-0.623 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 mm²; follow detailed information in System manual of ET 200BL
• Conductor cross-section, max.	2.5 mm²; 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	0
Dimensions	
Width	15 mm
Height	117 mm
Depth	74 mm
Weights	
Weight, approx.	82 g
Classifications	

	Version	Classification
eClass	16	27-24-26-04
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



[China RoHS](#)



General Product Ap-
proval

EMV

Environment



last modified:

4/28/2026 