SIEMENS

Data sheet 6DL1132-6EB00-0HX1

SIMATIC ET 200SP HA, ET 200SP, digital ex-i output module, Ex-DQ 2x23,1VDC/20mA suitable for BaseUnit type X1, channel diagnostics

General information	
Product type designation	Ex-DQ 2x23.1VDC/20mA
Firmware version	V1.0
● FW update possible	Yes
usable BaseUnits	BU type X1
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 V16 or higher with HSP
● STEP 7 configurable/integrated from version	STEP 7 V5.6 SP2 or higher
● PCS 7 configurable/integrated from version	V9.1
Operating mode	
● DQ	Yes
● MSO	Yes
Redundancy	
● Redundancy capability	No
Input current	
Current consumption (rated value)	80 mA; At 20 mA per channel
Current consumption, max.	80 mA; At 20 mA per channel
output voltage / header	
Rated value (DC)	23.1 V; See output characteristic in manual
Power loss	
Power loss, typ.	1.3 W
Address area	
Address space per module	
● Address space per module, max.	1 byte; + 1 byte for QI information
Hardware configuration	
Automatic encoding	
● Mechanical coding element	Yes
Selection of BaseUnit for connection variants	
● 2-wire connection	BU type X1
Digital outputs	
Number of digital outputs	2
Current-sinking	No
Current-sourcing	Yes
Digital outputs, parameterizable	Yes
Short-circuit protection	Yes
Open-circuit detection	Yes; capacitive loads can cause wire-break diagnostics when the channel is switched off

Overload protection	Yes
Limitation of inductive shutdown voltage to	DQ.n- (-1 V)
Switching capacity of the outputs	
● with resistive load, max.	20 mA; See output characteristic in manual
● with inductive load, max.	20 mA; See output characteristic in manual
Load resistance range	
● lower limit	872 Ω; See output characteristic in manual
● upper limit	10 kΩ; See output characteristic in manual
Output current	
● for signal "1" rated value	20 mA
● for signal "0" residual current, max.	100 µA; 250 µA test current for wire break diagnostics
Output delay with resistive load	
● "0" to "1", typ.	50 µs
● "1" to "0", typ.	100 µs
Parallel switching of two outputs	
● for uprating	No
Switching frequency	
● with resistive load, max.	500 Hz
● with inductive load, max.	500 Hz
Total current of the outputs	
● Current per channel, max.	20 mA
● Current per module, max.	40 mA
Total current of the outputs (per module)	
horizontal installation	
— up to 70 °C, max.	40 mA
vertical installation	
— up to 60 °C, max.	40 mA
Cable length	
● shielded, max.	500 m; Ex characteristic values must be observed
● unshielded, max.	500 m; Ex characteristic values must be observed
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Substitute values connectable	Yes
Alarms	
● Diagnostic alarm	Yes
● Maintenance interrupt	Yes
Diagnoses	
● Diagnostic information readable	Yes
● Monitoring the supply voltage	Yes
— parameterizable	Yes
● Wire-break	Yes; channel by channel
● Short-circuit	Yes; channel by channel
● Group error	Yes
Diagnostics indication LED	
● MAINT LED	Yes; Yellow LED
● Monitoring of the supply voltage (PWR-LED)	Yes; green PWR LED
● Channel status display	Yes; green LED
● for channel diagnostics	Yes; red LED
● for module diagnostics	Yes; green/red DIAG LED
Ex(i) characteristics	
maximum values for connecting terminals for gas group IIC	
● Uo (no-load voltage), max.	24.8 V
● Io (short-circuit current), max.	99 mA
● Po (power output), max.	614 mW
● Co (permissible external capacity), max.	100 nF
● Lo (permissible external inductivity), max.	3.5 mH
● Um (voltage at non-intrinsically safe connecting terminals), max.	60 V
Potential separation	
Potential separation channels	
● between the channels	No
● between the channels and backplane bus	Yes
● between the channels and the power supply of the electronics	Yes; Electrical isolation between the channels and input voltage PME

Isolation	
Isolation tested with	further information on insulation can be found in the "ET 200SP HA / ET 200SP modules for devices in hazardous areas" System Manual
insulation of the field circuits to local ground acc. to IEC/EN 60079-11 tested with	707 V DC (type test)
Ambient conditions	
Ambient temperature during operation	
● horizontal installation, min.	-40 °C
● horizontal installation, max.	70 °C
● vertical installation, min.	-40 °C
● vertical installation, max.	60 °C
Altitude during operation relating to sea level	
● Installation altitude above sea level, max.	2 000 m
Dimensions	
Width	20 mm
Height	73 mm
Depth	58 mm
Weights	
Weight, approx.	55 g

last modified: 7/1/2021