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Data sheet 6DL1131-6BH60-0PH1



SIMATIC ET 200SP HA, digital input module, DI 16x24 V DC NPN HA suitable for terminal block, H0, H1, P0, color code CC40, channel diagnostics

General information	
Product type designation	DI 16x24VDC NPN HA
Firmware version	V1.0
● FW update possible	Yes
Color code for module-specific color identification plate	CC02
Product function	
● I&M data	Yes; I&M0 to I&M3
Engineering with	
● STEP 7 configurable/integrated from version	STEP 7 V5.7 or higher
● PCS 7 configurable/integrated from version	V9.1 SP2 UC8
● PCS neo can be configured/integrated from version	V6.0
Operating mode	
● DI	Yes
● Counter	No
● Oversampling	No
● MSI	No
Redundancy	
● Redundancy capability	No
CiR - Configuration in RUN	
Reparameterization possible in RUN	Yes
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
Encoder supply	
Number of outputs	16
Output voltage (DC)	0 V
Short-circuit protection	No
24 V encoder supply	
● 24 V	No
Power loss	
Power loss, typ.	1.2 W
Address area	
Address space per module	
● Address space per module, max.	2 byte; + 2 bytes for QI information
Hardware configuration	
Automatic encoding	
● Mechanical coding element	Yes

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Digital inputs	
Number of digital inputs	16
Digital inputs, parameterizable	Yes
Source/sink input	Yes; Sourcing
Input characteristic curve in accordance with IEC 61131, type 1	Yes
Input characteristic curve in accordance with IEC 61131, type 2	No
Input characteristic curve in accordance with IEC 61131, type 3	Yes
Pulse extension	No
Time stamping	Yes; Resolution 10 ms
Edge evaluation	Yes; rising edge, falling edge, edge change
Number of simultaneously controllable inputs	
● Number of simultaneously controllable inputs	16
Input voltage	
● Rated value (DC)	24 V
● for signal "0"	30 V to -5 V (reference potential is L+)
● for signal "1"	-11 V to -30 V (reference potential is L+)
Input current	
● for signal "1", typ.	3 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	Yes; None / 0.05 / 0.1 / 0.4 / 0.8 / 1.6 / 3.2 / 12.8 / 20 ms (in each case + delay of 30 µs to 500 µs, depending on line length)
Cable length	
● shielded, max.	1 000 m
● unshielded, max.	600 m
Encoder	
Connectable encoders	
● 2-wire sensor	Yes
— permissible quiescent current (2-wire sensor), max.	1.5 mA
Interrupts/diagnostics/status information	
Alarms	
● Diagnostic alarm	Yes; channel by channel
● Hardware interrupt	Yes; channel by channel
Diagnoses	
● Diagnostic information readable	Yes
● Monitoring the supply voltage	Yes; Module-wise
— parameterizable	Yes
● Monitoring of encoder power supply	No
● Wire-break	Yes; channel by channel
● Short-circuit	No
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
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	No
Isolation	
Isolation tested with	1 500 V DC/1 min, type test
Ambient conditions	
Ambient temperature during operation	
● horizontal installation, min.	-40 °C
● horizontal installation, max.	70 °C
● vertical installation, min.	-40 °C

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● vertical installation, max.	60 °C

Dimensions	
Width	22.5 mm
Height	115 mm
Depth	138 mm

Weights	
Weight, approx.	150 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

EG-Konf. UKCA UL KC RCM

EMV

KC

For use in hazardous locations

Declaration of Conformity CCC UL ATEX IECEx

Miscellaneous

Environment

Siemens EcoTech EPD

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