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Data sheet 6ES7655-5PX11-1AX0

SIMATIC CFU PA with aluminum enclosure, bundle consisting of: 1x SIMATIC CFU PA (6ES7655-5PX11-1XX0), 1x aluminum enclosure with cable glands, shield busbar shield terminals, preassembled and checked



Figure similar

General information	
Product type designation	PA Bundle
Firmware version	V2.0
● FW update possible	Yes
Vendor identification (VendorID)	002AH
Device identifier (DeviceID)	060DH
Number of channels	16
Product function	
● I&M data	Yes; I&M0 to I&M4
● Isochronous mode	No
● The user can configure digital channels as input/output as required	Yes
● Digital channels can be parameterized	Yes
Engineering with	
● STEP 7 TIA Portal configurable/integrated from version	V19 Update 2
● STEP 7 configurable/integrated from version	STEP 7 V5.7.1.4
● PCS 7 configurable/integrated from version	V9.1 SP2 UC7
● PROFIBUS from GSD version/GSD revision	- / -
● PROFINET from GSD version/GSD revision	GSDML V2.43 2024.03.08
Operating mode	
● Counter	Yes
Installation type/mounting	
Mounting position	Horizontal, vertical
Recommended mounting position	horizontal set up
Supply voltage	
Type of supply voltage	24 V DC
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
Short-circuit protection	Yes
Redundant power supply	Yes
Mains buffering	
● Mains/voltage failure stored energy time	5 ms; Bridging for field devices and communication
Input current	
Current consumption (rated value)	2.5 A
Current consumption, max.	2.55 A
Inrush current, max.	8 A
I^2t	0.3 $A^2 \cdot s$

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Encoder supply	
Number of outputs	8
Output voltage, min.	18.2 V
Short-circuit protection	Yes; Electronic
Output current	
● up to 60 °C, max.	2 A
● up to 70 °C, max.	1 A
Power loss	
Power loss, typ.	8.2 W; Depending on the type of BusAdapter used (typ. RJ45)
Address area	
Address space per station	
● Address space per station, max.	1 440 byte; Dependent on configuration
Digital inputs	
Number of digital inputs	8
Source/sink input	Yes; P-reading
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
Number of simultaneously controllable inputs	
horizontal installation	
— up to 60 °C, max.	8; Total current must be observed, see DQ
— up to 70 °C, max.	8; Total current must be observed, see DQ
vertical installation	
— up to 60 °C, max.	8; Total current must be observed, see DQ
Digital input functions, parameterizable	
● Counter	Yes
— Number, max.	1
— Counting frequency, max.	1 kHz
— Counting width	32 bit
— Counting direction up/down	Yes; Up
Input voltage	
● Rated value (DC)	24 V
● for signal "0"	-30 to +5 V
● for signal "1"	+11 to +30V
Input current	
● for signal "1", typ.	2.5 mA; Typical
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	No
— at "0" to "1", max.	3.2 ms; for counter function 0,1 ms
— at "1" to "0", max.	3.2 ms; for counter function 0,1 ms
Cable length	
● shielded, max.	1 000 m
● unshielded, max.	600 m
Digital outputs	
Type of digital output	Transistor
Number of digital outputs	8
Current-sinking	No
Current-sourcing	Yes
Short-circuit protection	Yes
● Response threshold, typ.	0.7 to 1.3 A
Limitation of inductive shutdown voltage to	Typ. L+ (-50 V)
Controlling a digital input	Yes
Switching capacity of the outputs	
● on lamp load, max.	5 W
Load resistance range	
● lower limit	48 Ω
● upper limit	12 kΩ
Output voltage	

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● Type of output voltage	DC
● for signal "1", min.	Ue minus 1 V
Output current	
● for signal "1" rated value	0.5 A
● for signal "0" residual current, max.	0.1 mA
Output delay with resistive load	
● "0" to "1", max.	50 µs
● "1" to "0", max.	100 µs
Parallel switching of two outputs	
● for uprating	No
● for redundant control of a load	No
Switching frequency	
● with resistive load, max.	100 Hz
● with inductive load, max.	2 Hz
● on lamp load, max.	10 Hz
Total current of the outputs	
● Current per channel, max.	0.5 A
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
Interfaces	
Number of PROFINET interfaces	1
Number of PROFIBUS interfaces	0
PROFIBUS PA	
● Transmission rate, max.	31.25 kbit/s
● Number of connectable PA field devices	8; electrically isolated from other interfaces, isolation tested at 2 500 V DC
● Current output to PA field devices, max.	320 mA
● permissible current per spur line	40 mA
● Automatic addressing	Yes
● System-supported integration of field devices via PA profiles	Yes
● Extended fieldbus diagnostics	Yes
1. Interface	
Interface type	PROFINET
Isolated	Yes
Interface types	
● Number of ports	2
● integrated switch	Yes
● BusAdapter (PROFINET)	Yes
Protocols	
● PROFINET IO Device	Yes
● PROFIBUS DP device	No
Interface types	
RJ 45 (Ethernet)	
● 100 Mbps	Yes
● Autonegotiation	Yes
● Autocrossing	Yes
Protocols	
Supports protocol for PROFINET IO	Yes
Redundancy mode	
● PROFINET system redundancy (S2)	Yes; Type S2
Media redundancy	
— MRP	Yes
Open IE communication	
● LLDP	Yes
Interrupts/diagnostics/status information	
Status indicator	Yes

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Alarms	Yes
Diagnostics function	Yes
Diagnoses	
● Monitoring of encoder power supply	Yes
● Wire-break	Yes
● Short-circuit	Yes
Diagnostics indication LED	
● RUN LED	Yes; green LED
● ERROR LED	Yes; red LED
● MAINT LED	Yes; Yellow LED
● Monitoring of the supply voltage (PWR-LED)	Yes
● Status indicator digital input (green)	Yes
● Status indicator digital output (green)	Yes
● Spur line status/fault	Yes
Potential separation	
between the channels and PROFINET	Yes
Potential separation digital inputs	
● between the channels	No
● between the channels and the power supply of the electronics	No
Potential separation digital outputs	
● between the channels	No
● between the channels and the power supply of the electronics	No
Isolation	
Isolation tested with	1 500 V AC between PROFINET and electronics
Degree and class of protection	
IP degree of protection	IP66
Ambient conditions	
Ambient temperature during operation	
● horizontal installation, min.	-40 °C
● horizontal installation, max.	60 °C; max. 1 A load current; 50 °C to max. 2 A load current
● vertical installation, min.	-40 °C
● vertical installation, max.	50 °C
Ambient temperature during storage/transportation	
● min.	-40 °C
● max.	70 °C
Relative humidity	
● Operation, max.	95 %
connection method	
Design of electrical connection	Connection plug
connection method / spur line / header	
● Number of spur lines	8
● Type of cable	Type A
● Cable diameter, min.	6 mm
● Cable diameter, max.	12 mm
● Conductor cross-section, min.	0.2 mm²
● Conductor cross-section, max.	2.5 mm²
● Cable length, max.	120 m
● total current output to field devices, max.	320 mA
● Number of connectable field devices	8
● Current limitation per field device, max.	40 mA
● No-load voltage, max.	15.3 V
● short-circuit proof	Yes
● Short-circuit current (test current); max.	8 mA
● intrinsically safe according to FISCO model	Yes
● Debounce logic	Yes
Dimensions	
Width	414 mm
Height	266 mm
Depth	111 mm

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Weights

Weight, approx.	5.5 kg

Classifications

	Version	Classification
eClass	14	27-24-26-90
eClass	12	27-24-26-90
eClass	9.1	27-24-26-90
eClass	9	27-24-26-90
eClass	8	27-24-92-90
eClass	7.1	27-24-92-90
eClass	6	27-24-92-90
ETIM	10	EC002584
ETIM	9	EC002584
ETIM	8	EC002584
ETIM	7	EC002584

Approvals / Certificates

General Product Approval

Miscellaneous

KC

For use in hazardous locations

Type Examination Certificate

CCC-Ex

Environment

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