

SIMATIC Compact Field Unit Bundle consisting of: 1x SIMATIC CFU PA (6ES7655-5PX11-0XX0) 1x SIMATIC CFU push-in terminals (6ES7655-5PX00-1XX0) pre-mounted and checked



Figure similar

General information	
Product type designation	PA Bundle
HW functional status	FS02
Firmware version	V1.2
<ul style="list-style-type: none"> <li>FW update possible</li> </ul>	Yes
Vendor identification (VendorID)	002AH
Device identifier (DeviceID)	060DH
Number of channels	16
Product function	
<ul style="list-style-type: none"> <li>I&amp;M data</li> </ul>	Yes; I&M0 to I&M4
<ul style="list-style-type: none"> <li>Isochronous mode</li> </ul>	No
<ul style="list-style-type: none"> <li>The user can configure digital channels as input/output as required</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Digital channels can be parameterized</li> </ul>	Yes
Engineering with	
<ul style="list-style-type: none"> <li>STEP 7 TIA Portal configurable/integrated from version</li> </ul>	V17
<ul style="list-style-type: none"> <li>STEP 7 configurable/integrated from version</li> </ul>	V5.6 HF2 and higher
<ul style="list-style-type: none"> <li>PCS 7 configurable/integrated from version</li> </ul>	V9.0 SP2 and higher
<ul style="list-style-type: none"> <li>PCS neo can be configured/integrated from version</li> </ul>	V3.0
<ul style="list-style-type: none"> <li>PROFIBUS from GSD version/GSD revision</li> </ul>	- / -
<ul style="list-style-type: none"> <li>PROFINET from GSD version/GSD revision</li> </ul>	GSDML V2.3
Operating mode	
<ul style="list-style-type: none"> <li>Counter</li> </ul>	Yes
Installation type/mounting	
Mounting	on 35 mm DIN rail, 2 spacing units wide
Mounting position	Horizontal, vertical
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	
<ul style="list-style-type: none"> <li>Mains/voltage failure stored energy time</li> </ul>	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 <sup>2</sup> ·s
<b>Encoder supply</b>	
Number of outputs	8
Output voltage, min.	18.2 V
Short-circuit protection	Yes; Electronic
<b>Output current</b>	
• up to 60 °C, max.	2 A
• up to 70 °C, max.	1 A
<b>Power loss</b>	
Power loss, typ.	8.2 W; Depending on the type of BusAdapter used (typ. RJ45)
<b>Address area</b>	
<b>Address space per station</b>	
• Address space per station, max.	1 440 byte; Dependent on configuration
<b>Digital inputs</b>	
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
<b>Number of simultaneously controllable inputs</b>	
<b>horizontal installation</b>	
— 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
<b>vertical installation</b>	
— up to 60 °C, max.	8; Total current must be observed, see DQ
<b>Digital input functions, parameterizable</b>	
• Counter	Yes
— Number, max.	1
— Counting frequency, max.	1 kHz
— Counting width	32 bit
— Counting direction up/down	Yes; Up
<b>Input voltage</b>	
• Rated value (DC)	24 V
• for signal "0"	-30 to +5 V
• for signal "1"	+11 to +30V
<b>Input current</b>	
• for signal "1", typ.	2.5 mA; Typical
<b>Input delay (for rated value of input voltage)</b>	
<b>for standard inputs</b>	
— 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
<b>Cable length</b>	
• shielded, max.	1 000 m
• unshielded, max.	600 m
<b>Digital outputs</b>	
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
<b>Switching capacity of the outputs</b>	
• on lamp load, max.	5 W
<b>Load resistance range</b>	
• lower limit	48 Ω

• upper limit	12 kΩ
<b>Output voltage</b>	
• Type of output voltage	DC
• for signal "1", min.	Ue minus 1 V
<b>Output current</b>	
• for signal "1" rated value	0.5 A
• for signal "0" residual current, max.	0.1 mA
<b>Output delay with resistive load</b>	
• "0" to "1", max.	50 μs
• "1" to "0", max.	100 μs
<b>Parallel switching of two outputs</b>	
• for uprating	No
• for redundant control of a load	No
<b>Switching frequency</b>	
• with resistive load, max.	100 Hz
• with inductive load, max.	2 Hz
• on lamp load, max.	10 Hz
<b>Total current of the outputs</b>	
• Current per channel, max.	0.5 A
<b>horizontal installation</b>	
— up to 60 °C, max.	2 A
— up to 70 °C, max.	1 A
<b>vertical installation</b>	
— up to 60 °C, max.	2 A
<b>Cable length</b>	
• shielded, max.	1 000 m
• unshielded, max.	600 m
<b>Encoder</b>	
<b>Connectable encoders</b>	
• 2-wire sensor	Yes
— permissible quiescent current (2-wire sensor), max.	1.5 mA
<b>Interfaces</b>	
Number of PROFINET interfaces	1
Number of PROFIBUS interfaces	0
<b>PROFIBUS PA</b>	
• 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
<b>1. Interface</b>	
Interface type	PROFINET
Isolated	Yes
<b>Interface types</b>	
• Number of ports	2
• integrated switch	Yes
• BusAdapter (PROFINET)	Yes
<b>Protocols</b>	
• PROFINET IO Device	Yes
• PROFIBUS DP slave	No
<b>Interface types</b>	
<b>RJ 45 (Ethernet)</b>	
• 100 Mbps	Yes
• Autonegotiation	Yes
• Autocrossing	Yes
<b>Protocols</b>	
Supports protocol for PROFINET IO	Yes
<b>Redundancy mode</b>	

• PROFINET system redundancy (S2)	Yes; Type S2
<b>Media redundancy</b>	
— MRP	Yes
<b>Open IE communication</b>	
• LLDP	Yes
<b>Interrupts/diagnostics/status information</b>	
Status indicator	Yes
Alarms	Yes
Diagnostics function	Yes
<b>Diagnoses</b>	
• Monitoring of encoder power supply	Yes
• Wire-break	Yes
• Short-circuit	Yes
<b>Diagnostics indication LED</b>	
• 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
<b>Potential separation</b>	
between the channels and PROFINET	Yes
<b>Potential separation digital inputs</b>	
• between the channels	No
• between the channels and the power supply of the electronics	No
<b>Potential separation digital outputs</b>	
• between the channels	No
• between the channels and the power supply of the electronics	No
<b>Isolation</b>	
Isolation tested with	1 500 V AC between PROFINET and electronics
<b>Degree and class of protection</b>	
IP degree of protection	IP20
<b>Ambient conditions</b>	
<b>Ambient temperature during operation</b>	
• min.	-40 °C
• max.	70 °C
• horizontal installation, min.	-40 °C
• horizontal installation, max.	70 °C; Observe derating
• vertical installation, min.	-40 °C
• vertical installation, max.	60 °C; Observe derating
<b>Ambient temperature during storage/transportation</b>	
• min.	-40 °C
• max.	70 °C
<b>Relative humidity</b>	
• Operation, max.	95 %
<b>connection method</b>	
Design of electrical connection	Connection plug
<b>connection method / spur line / header</b>	
• number of connections / for PROFIBUS PA spur line	8
• design of the PROFIBUS PA spur line	Type A
• diameter / of the PROFIBUS PA spur line / connectable / minimum	6 mm
• diameter / of the PROFIBUS PA spur line / connectable / maximum	12 mm
• connectable conductor cross-section / of the PROFIBUS PA spur line / minimum	0.2 mm <sup>2</sup>
• connectable conductor cross-section / of the PROFIBUS PA spur line / maximum	2.5 mm <sup>2</sup>
• Cable length, max.	120 m

● output current / for PROFIBUS PA spur lines / total / maximum	320 mA
● number of PROFIBUS PA field devices / connectable	8
● output current / per PROFIBUS PA spur line / maximum	40 mA
● No-load voltage, max.	15.3 V
● product feature / of the PROFIBUS PA spur line / short-circuit proof	Yes
● short-circuit current / of the PROFIBUS PA spur line / as test current / maximum	8 mA
● product feature / of the connections for PROFIBUS PA spur line / intrinsically safe according to FISCO model	Yes
● product function / of the connections for PROFIBUS PA spur line / debounce logic	Yes

#### Dimensions

Width	329 mm
Height	123 mm
Depth	74 mm

#### Weights

Weight, approx.	650 g
-----------------	-------

**last modified:** 4/1/2022 