

5. Model numbers

5.1 Power Panel 100 with Automation Runtime

Model number	Description	Note
4PP120.0571-01	Power Panel 120 LCD B/W QVGA 5.7" T MH Power Panel PP120; 5.7" QVGA b/w LC display with touch screen (resistive), CompactFlash slot (type I), ETH 10/100, RS 232, 2x USB; 64 MB SDRAM; metal housing, IP 65 protection (front side); 24 VDC.	See page 54
4PP120.0571-21	Power Panel 120 LCD C QVGA 5.7" T MH Power Panel PP120; 5.7" QVGA color LC display with touch screen (resistive), CompactFlash slot (type I), ETH 10/100, RS 232, 2x USB; 64 MB SDRAM; metal housing, IP65 protection (front side); 24 VDC.	See page 60
4PP120.1043-31	Power Panel 120 TFT C VGA 10.4" T MH Power Panel PP120; 10.4" VGA color TFT display with touch screen (resistive), CompactFlash slot (type I), ETH 10/100, RS 232, 2x USB; 64 MB SDRAM; metal housing, IP65 protection (front side); 24 VDC.	See page 66
4PP120.1505-31	Power Panel 120 TFT C XGA 15" T MH Power Panel PP120; 15" XGA color TFT display with touch screen (resistive), CompactFlash slot (type I), ETH 10/100, RS 232, 2x USB; 64 MB SDRAM; metal housing, IP65 protection (front side); 24 VDC.	See page 72
4PP151.0571-01	Power Panel 151 LCD B/W QVGA 5.7" F MH Power Panel PP151; 5.7" QVGA b/w LC display; 6 soft keys; 16 function keys and 20 system keys; 64 MB SDRAM; CompactFlash slot (type I); ETH 10/100; RS 232; 2x USB; metal housing, IP65 protection (front side); 24 VDC.	See page 78
4PP151.0571-21	Power Panel 151 LCD C QVGA 5.7" F MH Power Panel PP151; 5.7" QVGA color LC display; 6 soft keys; 16 function keys and 20 system keys; 64 MB SDRAM; CompactFlash slot (type I); ETH 10/100; RS 232; 2x USB; metal housing, IP65 protection (front side); 24 VDC.	See page 84
4PP151.1043-31	Power Panel 151 TFT C VGA 10.4" F MH Power Panel PP151; 10.4" VGA color TFT display; 10 soft keys; 28 function keys and 20 system keys; 64 MB SDRAM; CompactFlash Slot (type I); ETH 10/100; RS 232; 2x USB; metal housing, IP65 protection (front side); 24 VDC.	See page 90
4PP151.1505-31	Power Panel 151 TFT C XGA 15" F MH Power Panel PP151; 15" XGA color TFT display; 12 soft keys; 20 function keys and 92 system keys; 64 MB SDRAM; CompactFlash slot (type I); ETH 10/100; RS 232; 2x USB; metal housing, IP65 protection (front side); 24 VDC.	See page 96
4PP152.0571-01	Power Panel 152 LCD B/W QVGA 5.7" F MH Power Panel PP152; 5.7" QVGA b/w LC display; 20 function keys and 20 system keys; 64 MB SDRAM; CompactFlash slot (type I); ETH 10/100; RS 232; 2x USB; metal housing, IP65 protection (front side); 24 VDC.	See page 102
4PP152.0571-21	Power Panel 152 LCD C QVGA 5.7" F MH Power Panel PP152; 5.7" QVGA color LC display; 20 function keys and 20 system keys; 64 MB SDRAM; CompactFlash slot (type I); ETH 10/100; RS 232; 2x USB; metal housing, IP65 protection (front side); 24 VDC.	See page 108
4PP152.1043-31	Power Panel 152 TFT VGA 10.4" F MH Power Panel PP152; 10.4" VGA color TFT display; 44 function keys and 20 system keys; 64 MB SDRAM; CompactFlash Slot (type I); ETH 10/100; RS 232; 2x USB; metal housing, IP65 protection (front side); 24 VDC.	See page 114

Table 4: Power Panel 100 with Automation Runtime

2.4 Device 4PP120.0571-21



Figure 18: Front view - 4PP120.0571-21

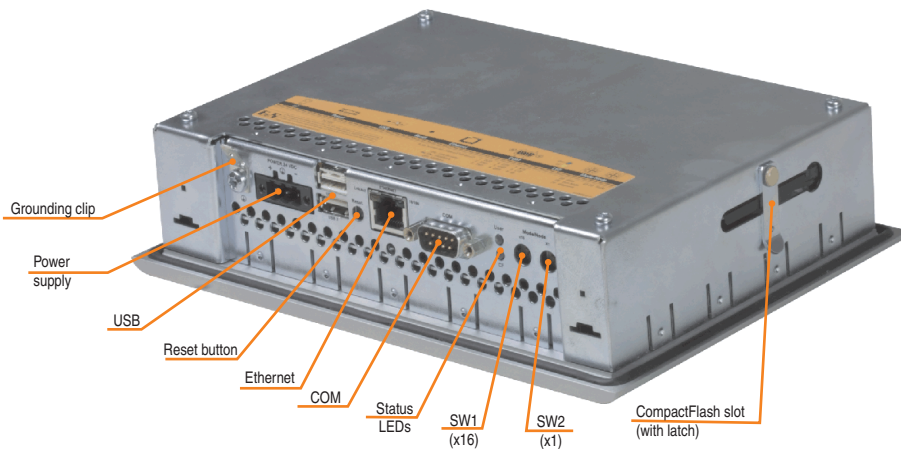


Figure 19: Rear view - 4PP120.0571-21

2.4.1 Technical data

Features	4PP120.0571-21
Boot loader / Operating system	Automation Runtime
Processor Type Expanded command set L1 cache L2 cache Floating point unit (FPU) Cooling Method	Geode SC2200 266MHz, 32-bit x86 MMX technology, streaming SIMD extension 16 KB - Yes Passive (heat sink)
Flash	2 MB (for firmware)
Memory Type Quantity Socket	DRAM 64 MB (Rev. < H0: 16 MB) SO-DIMM 144-pin
Graphics Controller Memory Screen rotation	Geode SC2200 2 MB shared memory (reserved from the main memory) Yes (See also Section "Screen rotation" on page 448)
SRAM Quantity Battery-buffered	-
Watchdog Controller	-
Power failure logic Controller Buffer time	-
Real-time clock Battery-buffered Accuracy	- At 25°C: Typically 10 ppm (1 seconds) per day ¹⁾
Battery Type Removable Lifespan Backup capacitor (for changing battery) Buffer time	-
Ethernet Controller Transfer rate Connection Cables NE2000-compatible	MacPhyter DP83816 (Rev. < D0 DP83615) 10/100 Mbps RJ45 twisted pair (10 Base T / 100 Base T) S/STP (category 5) -
CompactFlash Type Amount Connection	Type I 1 slot Primary IDE device

Table 18: Technical data - 4PP120.0571-21

Technical data • Power Panel 100 with Automation Runtime

Features	4PP120.0571-21
Serial interface COM Type UART Transfer rate Connection	RS232, modem-capable, not electrically isolated 16550-compatible, 16-byte FIFO Max. 115 kBaud 9-pin DSUB
USB interface Type Amount Transfer rate Connection Current load	USB 1.1 2 1.5 Mbit/s (low speed), 12 Mbit/s (full speed) Type A Max. 500 mA per connection
Reset button	Yes, accessible from the outside
LEDs	1x user (green), 1x CF (yellow)
Mode/Node switch	2, 16 digits each
aPCI slots Holding torque for aPCI module	-
Display Type Diagonal Colors Resolution Contrast Viewing angle (see page 600) Horizontal Vertical Background lighting Brightness Half-brightness time ²⁾	Color LCD 5.7 in (144 mm) 256 colors QVGA, 320 x 240 pixels 40:1 Direction R / direction L = 40° Direction U = 40° / direction D = 50° 150 cd/m ² 50,000 hours
Touch screen Touch screen type Technology Controller Degree of transmission	Gunze Analog, resistive Hampshire, serial, 12-bit 84%
Filter glass Degree of transmission Coating	-
Keys Key lifespan Function keys Soft keys Cursor keys Number block Other keys	-
Electrical characteristics	
Power supply Rated voltage Starting current Power consumption Electrical isolation	24 VDC ±25% Max. 20 A for < 1 ms 10 W typical, 15 W max. -
Bleeder resistance	0 Ohm

Table 18: Technical data - 4PP120.0571-21 (Forts.)

Mechanical characteristics	4PP120.0571-21
Front	
Frame	Naturally anodized aluminum
Membrane	Polyester
Dark gray border around display	Similar to Pantone 432CV
Light background	Similar to Pantone 427CV
Design	Gray
Gasket	Flat gasket around display front
Housing	Metal
Outer dimensions	
Width	212 mm
Height	156 mm
Depth	55.5 mm
Weight	Approx. 1.4 kg
Environmental characteristics	
Ambient temperature ³⁾	
Operation	0 to +50°C
Storage	-20 to +60°C
Transport	-20 to +60°C
Relative humidity	See 2.4.2 "Temperature humidity diagram" on page 64
Vibration	
Operation (continuous)	2 - 9 Hz: 1.75 mm amplitude / 9 - 200 Hz: 0.5 g
Operation (occasional)	2 - 9 Hz: 3.5 mm amplitude / 9 - 200 Hz: 1 g
Storage	2 - 8 Hz: 7.5 mm amplitude / 8 - 200 Hz: 2 g / 200 - 500 Hz: 4 g
Transport	2 - 8 Hz: 7.5 mm amplitude / 8 - 200 Hz: 2 g / 200 - 500 Hz: 4 g
Shock	
Operation	15 g, 11 ms
Storage	30 g, 15 ms
Transport	30 g, 15 ms
Protection type	IP20 back side (only with installed CompactFlash card) IP65 / NEMA 250 type 4X, dust and sprayed water protection (front side)
Altitude	Max. 3000 m

Table 18: Technical data - 4PP120.0571-21 (Forts.)

- 1) At max. specified ambient temperature: typ. 25 ppm (2 seconds) - worst-case 60 ppm (5 seconds).
- 2) At 25°C ambient temperature. Reducing the brightness by 50% can result in an approximate 50% increase of the half-brightness time.
- 3) Temperature data is for operation at 500 meters. Derating the max. ambient temperature - typically 1°C per 1000 meters (from 500 meters above sea level).

2.4.2 Temperature humidity diagram

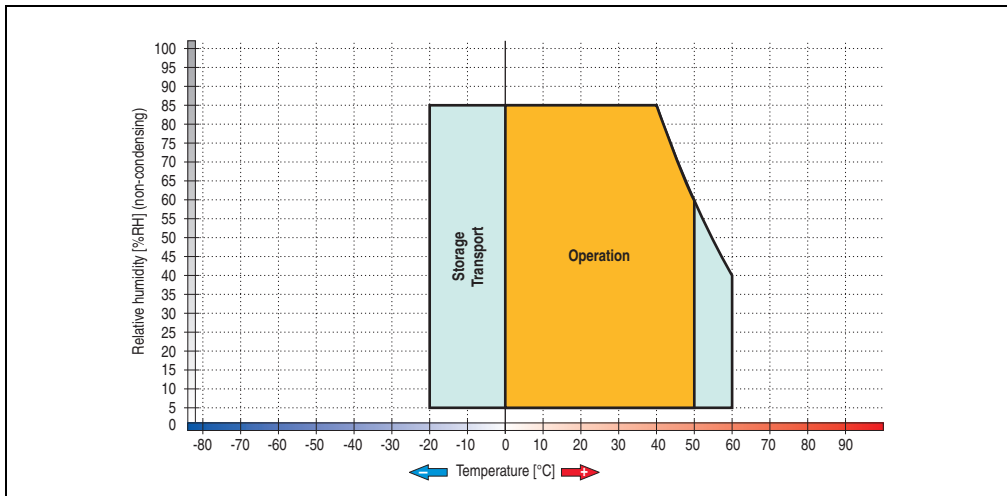


Figure 20: Temperature humidity diagram - 4PP120.0571-21

2.4.3 Dimensions

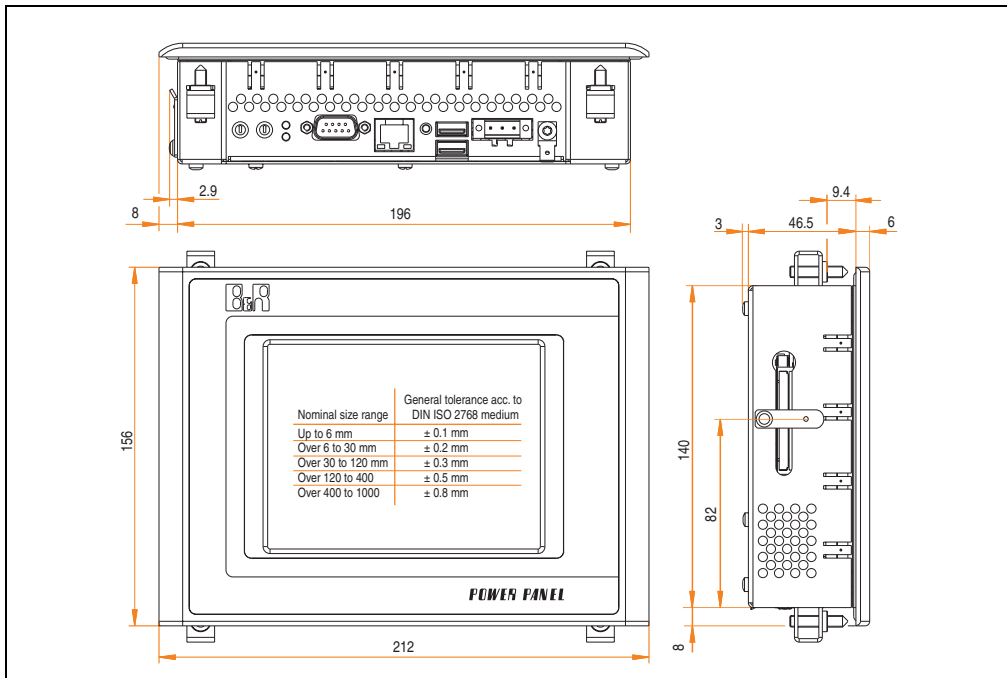


Figure 21: Dimensions - 4PP120.0571-21

2.4.4 Cutout installation

The cutout hole is to be made according to the following dimensions for cutout installation. The device must be mounted using the retaining clips included in delivery. The defined position for mounting the retaining clips can be seen in the dimension diagram (see figure 21 "Dimensions - 4PP120.0571-21" on page 64) For further information regarding mounting, see Chapter 3 "Commissioning" on page 435.

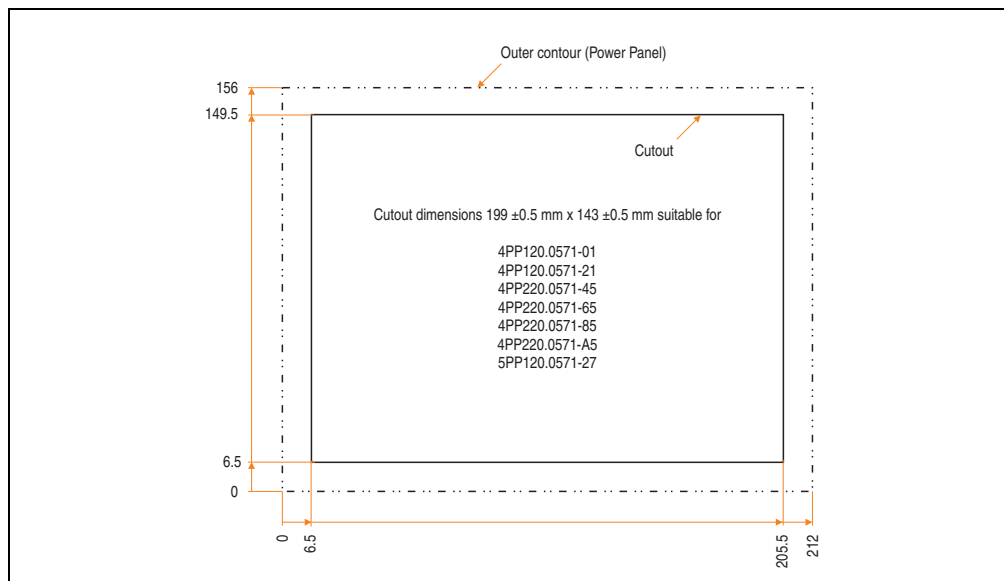


Figure 22: Cutout dimensions

2.4.5 Contents of delivery

The following components are included in the delivery of the Power Panel device:

Amount	Component
1	Power Panel 120 LCD C QVGA 5.7" T MH
4	Retaining clips included

Table 19: Contents of delivery - 4PP120.0571-21