

**Data sheet**

smartPanel TP310-SM (HA1-71A41-0)

## Technical data

<b>Order no.</b>	<b>HA1-71A41-0</b>
Type	smartPanel TP310-SM
<b>General information</b>	
Note	-
Features	Display: 10.1" Processor: Cortex-A8   1GHz Work memory [MB]: 512 User memory [GB]: 4 Interface onboard: 1x RS232/422/485   1x USB-A   1x RJ45 (Ethernet) Software: Windows Embedded Compact 7 Movicon CE Standard
<b>Display</b>	
Display size (diagonal)	10.1 "
Display size (width)	224 mm
Display size (height)	128 mm
Resolution	1024 x 600 / 600 x 1024
Aspect ratio	16:9
Type of display	TFT color (64K colors)
MTBF Backlights (25°C)	20000 h
<b>System properties</b>	
Processor	Cortex-A8 1000 MHz
Operating system	Windows embedded Compact 7
User software	Movicon 11 CE Standard
Work memory	512 MB
User memory	4 GB
Available memory (user data)	2 GB
SD/MMC Slot	-
CF Card Slot Typ II	-
CFast Slot	-
<b>Time</b>	
Real-time clock buffered	yes
Clock buffered period (min.)	2 w
Type of buffering	Goldcap
Load time for 50% buffering period	5 h
Load time for 100% buffering period	10 h
Accuracy (max. deviation per day)	8 s
<b>Operating controls</b>	
Touchscreen	resistive
Touch function	Single Touch
Keyboard	external via USB
Mouse	external via USB
<b>Interfaces</b>	
MPI, PROFIBUS-DP	-

MPI, PROFIBUS-DP connector	-
Serial, COM1	RS232 / RS422 / RS485
COM1 connector	Sub-D, 9-pin, male
Serial, COM2	-
COM2 connector	-
Number of USB-A interfaces	1
USB-A connector	USB-A (host)
Number of USB-B interfaces	-
USB-B connector	-
Number of ethernet interfaces	1
Ethernet	Ethernet 10/100 MBit
Ethernet connector	RJ45
Integrated ethernet switch	-
Video connectors	-
Audio connections	-

### Technical data power supply

Power supply (rated value)	DC 24 V
Power supply (permitted range)	18 - 32 VDC
Reverse polarity protection	yes
Current consumption (no-load operation)	0.1 A
Current consumption (rated value)	0.25 A
Inrush current	38 A
$I_{\Delta t}$	0.33 A²s
Power loss	6 W

### Status information, alarms, diagnostics

Supply voltage display	none
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### Mechanical data

#### Housing / Protection class

Material	PC + ABS
Mounting	mounting clips
Protection class IP front side	IP 66
Protection class IP back side	IP 20
Protection class NEMA front side	Type 2, 4X
Protection class NEMA back side	-

#### Dimensions

Front panel	282 mm x 197 mm x 6 mm
Rear panel	268 mm x 183 mm x 29 mm

#### Installation cut-out

Width	271 mm
Height	186 mm
Minimum	1.5 mm
Maximum front panel thickness	6 mm
Net weight	840 g
Weight including accessories	971 g
Gross weight	1434 g

#### Environmental conditions

Operating temperature	0 °C to 50 °C
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Storage temperature	-20 °C to 70 °C
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**Certifications**

UL certification	yes
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KC certification	-
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