

# › HMI Crouzet Touch

## Accessories for Millenium3, Millenium EVO & em4 Performance

- › TFT-LCD resistive touch screen
- › Fan less cooling system
- › 32 bit 600 Mhz or 1 Ghz Cortex-A8 processor
- › Built-in RTC
- › Direct communication with M3 programming port
- › Modbus RS485 protocol (drivers for M3, MEVO & em4)
- › Modbus TCP/IP protocol (drivers for M3, MEVO & em4)
- › Integrated VNC server
- › Additional functions provided by Crouzet Touch programming software (e-mails, recipe database, enhanced security...)
- › CE mark, cULus listed



CTP104-E



CTP107-E



CTP110-E

Specific characteristics			
Part number	88 970 554	88 970 564	88 970 574
Type	CTP104-E	CTP107-E	CTP110-E
Size	4.3"	7"	9.7"
Resolution	480 x 272	800 x 480	1024 x 768
Brightness	400 cd/m <sup>2</sup>		350 cd/m <sup>2</sup>
On front panel color	Pantone Process Black C, Blue Pantone 285C		
Power consumption	300 mA @ 24 V	450 mA @ 24 V	650 mA @ 24 V
Colors	16.7 M		262 K
LCD viewing angle (Top/Bottom/Left/Right)	30/50/50/50	70/50/70/70	60/70/70/70
Processor	32 bit RISC Cortex-A8, 600 MHz		32 bit RISC Cortex-A8, 1 GHz
Storage memory	128 MByte		512 MByte
RAM memory	128 MByte		256 MByte
USB	Host USB 2.0		
Ethernet	RJ45 type, 10/100 Mbit/s, MDI/MDIX		2 x RJ45 type, 10/100/1000 Mbit/s, MDI/MDIX
Port RS232	COM1 male		COM1 male, COM3 male. Only Tx & Rx (no RTS/CTS) may be used for COM1 when COM3 is also used
Port RS485	COM1 2/4 wires male, COM3 2 wires male		COM2 2/4 wires female, COM3 2 wires female
UL Certification	cULus Listed		N/A
Weight	Approximately 0.25 kg	Approximately 0.6 kg	Approximately 0.85 kg
Dimensions (W x H x D)	128 x 102 x 32 mm 5.04 x 4.02 x 1.26"	200.3 x 146.3 x 34 mm 7.89 x 5.77 x 1.34"	260.6 x 203.1 x 36.5 mm 10.26 x 8 x 1.44"
Vesa Mount	N/A		75 x 75 mm 2.95 x 2.95"
Panel cutout	119 x 93 mm 4.69 x 3.66"	192 x 138 mm 7.56 x 5.43"	250 x 192 mm 9.84 x 7.56"
PCB Coating	Yes		

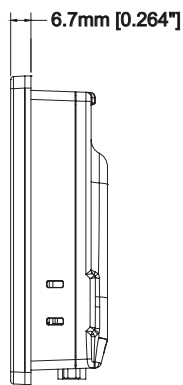
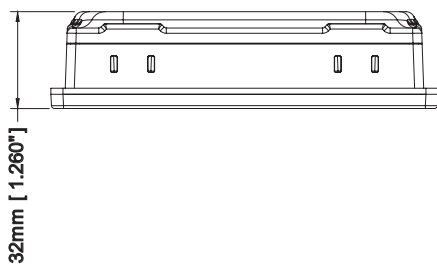
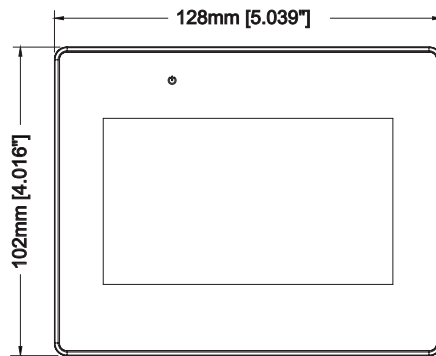
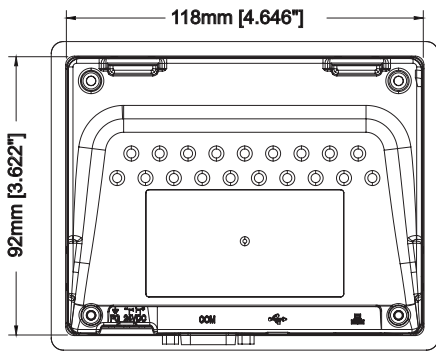
General characteristics	
Enclosure	Plastic
Products certification	CE
Nominal voltage	24 VDC (-20 % / +20 %)
Operating limits	19.2 - 28.8 VDC
Power isolation	Yes
Power supply earthing	Yes
Voltage resistance	500 VAC (1 minute)
Isolation resistance	> 50 Mohms at 500 VDC
Vibration endurance	10 → 25 Hz (direction X,Y,Z 2G 30 minutes)
Conducted and radiated emissions	EN 55022: 2010 +AC: 2011 classe A (88 970 554 & 88 970 574) EN 55022: 2010 +AC: 2011 classe B (88 970 564) CISPR 22: 2008
Electro-Magnetic Interference, harmonic current	EN 61000-3-2: 2014
Electro-Magnetic Interference, voltage flicker	EN 61000-3-3: 2013
Resistance to electrostatic discharge	Immunity to ESD IEC/EN 61000-4-2: 2008
Resistance to HF interference (Immunity) (EN55024: 2010)	Immunity to radiated electrostatic fields IEC/EN 61000-4-3: 2010 Immunity to fast transients (burst immunity) IEC/EN 61000-4-4: 2012 Immunity to shock waves IEC/EN 61000-4-5: 2014 Radio frequency in common mode IEC/EN 61000-4-6: 2013 Immunity to magnetic field IEC/EN 61000-4-8: 2009
Voltage dip, interruption	IEC/EN 61000-4-11: 2004
Protection against electric shock	Classe II equipment
Mount	Built-in, fixing by screw clamps (supplied) for 1 → 6 mm panel
Connection	Removable 3-pin screw terminal block (supplied)
Protection rating	NEMA4 / IP 65 Compliant front panel
Operation temperature	0 (32 °F) → +50 °C (122 °F)
Storage temperature	-20 (-4 °F) → +60 °C (140 °F)
Relative humidity	10 → 90 % max. (no condensation or dripping water)

Display	
Type	TFT LCD
Contrast ratio	500:1
Backlight type	Led
Backlight life time	> 30.000 Hours
Touch panel: type	4 wires resistive, with user-definable layout
Touch panel: key life	1 million operations minimum
Accuracy	Active Area Length (X) ± 2 %, Width (Y) ± 2 %
Driver Millenium 3	SLIN/SLOUT 24VDC, XN05, XN06
Driver em4	Modbus RS485 & TCP/IP
Driver Modbus IDA	ASCII, RTU & TCP/IP
RTC	Use Millenium 3, em4 or build-in clock
RTC battery	CR2032
RTC time life battery	> 5 years, not rechargeable

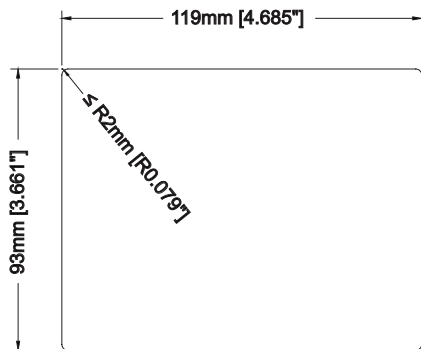
Schemes

Dimensions

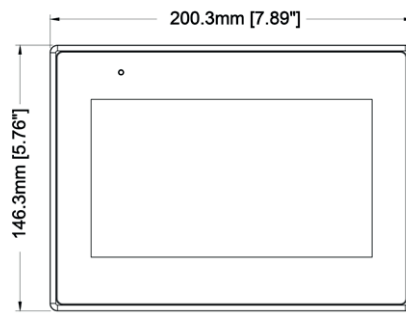
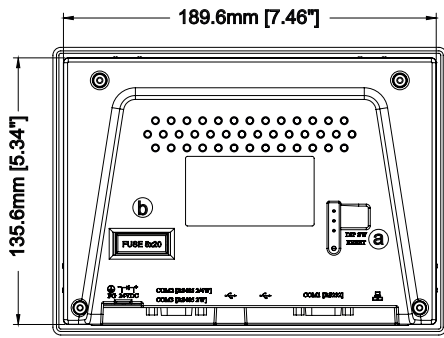
CTP104-E



Panel cutout

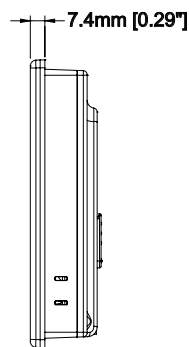
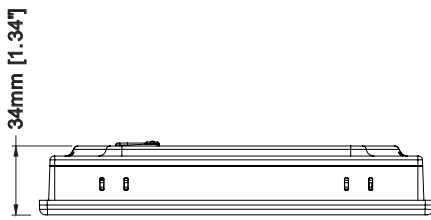


CTP107-E

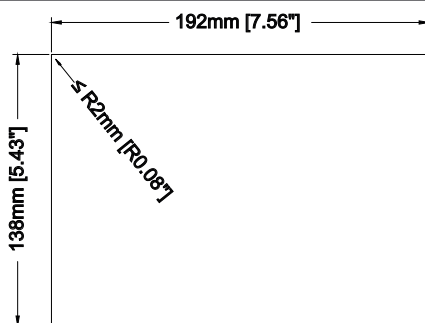


a DIP SW

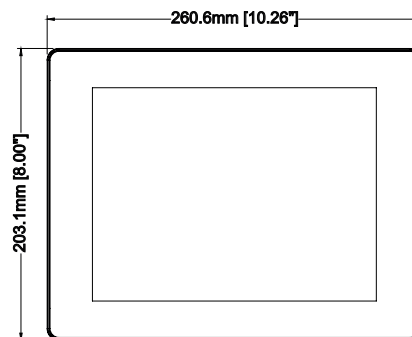
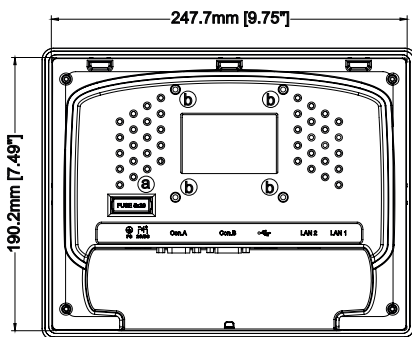
b Fuse



Panel cutout

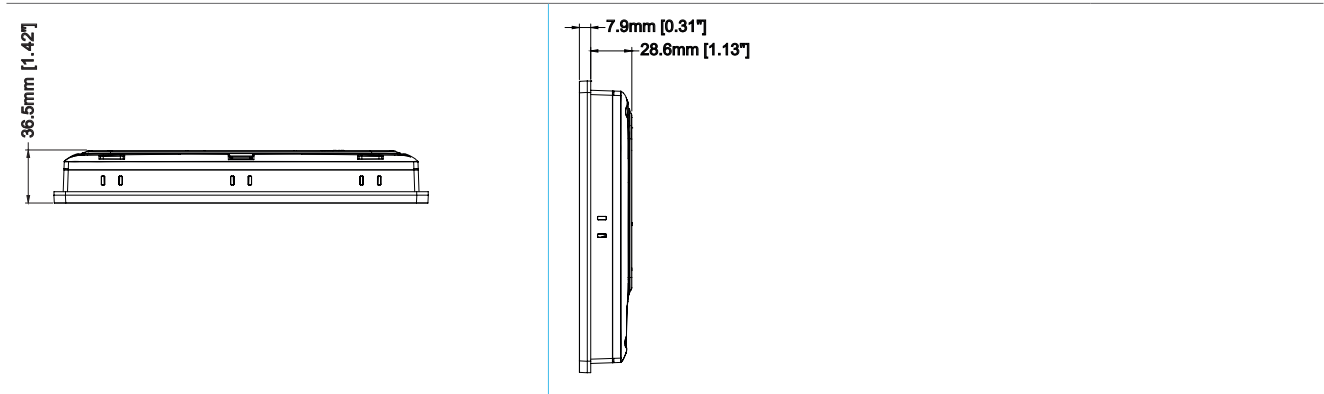


CTP110-E

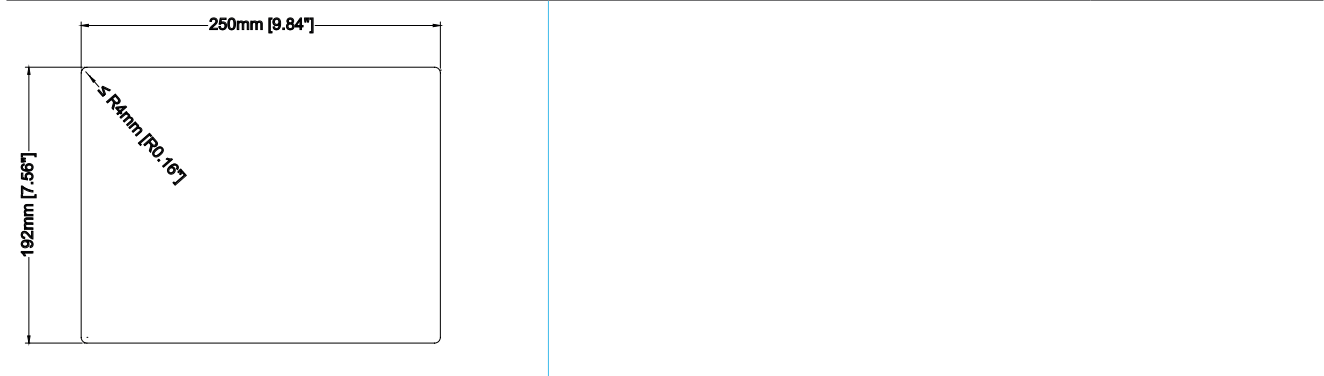


a Fuse

b Vesa 2.95 x 2.95"

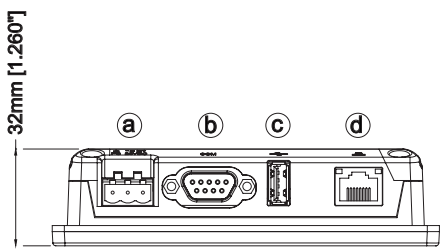


Panel cutout



Connections

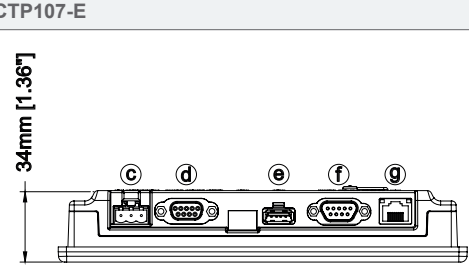
**CTP104-E**



32mm [1.260"]

- a Connecteur d'alimentation
- b COM1 RS232, RS485. COM3 RS485
- c USB Host
- d Ethernet

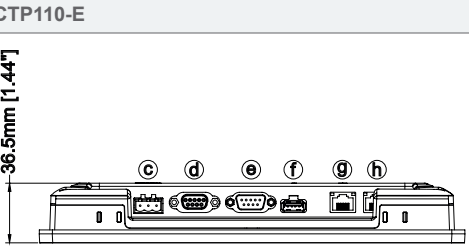
**CTP107-E**



34mm [1.36"]

- c Power Connector
- d COM2 RS485. COM3 RS485
- e USB Host
- f COM1 RS232
- g Ethernet

**CTP110-E**



36.5mm [1.44"]

- c Power Connector
- d COM2 RS485. COM3 RS485
- e COM1 RS232. COM3 RS232
- f USB Host
- g Ethernet LAN 2
- h Ethernet LAN 1