› HMI Crouzet Touch - Performance
Accessories for Millenium EVO & em4

› **TFT-LCD resistive touch screen**

› **Ultra-slim format**

› **Built-in isolated RS-485**

› **PCB Coating Protection**

› **Direct communication with M3 programming port**

› **Modbus RS485 protocol (drivers for M3 and em4)**

› **Modbus TCP/IP protocol (drivers for M3 and em4)**

› **Integrated VNC server**

› **Additional functions provided by Crouzet Touch programming software (e-mails,recipe database, enhanced security…)**

CTP104-E Performance *CTP107-E Performance* *CTP110-E Performance*

Selection guide		
Type	**Size**	**Part number**
CTP104-E	4.3"	**88 970 554**
CTP107-E	7"	**88 970 564**
CTP110-E	9.7"	**88 970 574**

Accessories	
Description	**Part number**
Modbus RTU RS485 interface to CTP104-E	**88 980 171**
Modbus RTU RS485 interface to CTP107-E and CTP110-E	**88 980 172**
Modbus RTU RS485 Millenium 3 expansion to CTP104-E	**88 970 503**
Modbus RTU RS485 Millenium 3 expansion to CTP107-E and CTP110-E	**88 970 503**
Crouzet Touch Soft + programmation cables	**88 970 591**

	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/m²		350 cd/m²
On front panel color	Pantone Process Black C, Blue Pantone 285C		
Power consumption	300 mA @ 24 V, 88 mA @ 24V (backlight OFF)	450 mA @ 24 V, 92 mA @ 24V (backlight OFF)	650 mA @ 24 V, 162 mA @ 24V (backlight OFF)
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	32Bit RISC Cortex-A8, 600 MHz		32Bit 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

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|	CTP104-E	CTP107-E	CTP110-E
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
CAN bus	N/A		CANopen Protocol
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 V⎓ (-20% / +20%)		
Operating limits	19.2 - 28.8 V⎓		
Power isolation	Yes		
Power supply earthing	Yes		
Voltage resistance	500 V∿ (1 minute)		
Isolation resistance	> 50 Mohms at 500 V⎓		
Vibration endurance	10 to 25 Hz (X,Y,Z direction 2G 30 minutes)		
Conducted and radiated emissions	EN 55022: 2010 +AC: 2011 class A CISPR 22: 2008	EN 55022: 2010 +AC: 2011 class B CISPR 22: 2008	EN 55022: 2010 +AC: 2011 class A 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	Class II equipment		
Mount	Built-in, fixing by screw clamps (supplied) for 1 to 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 24 V⎓, XN05, XN06		

	CTP104-E	CTP107-E	CTP110-E
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

CPT104-E
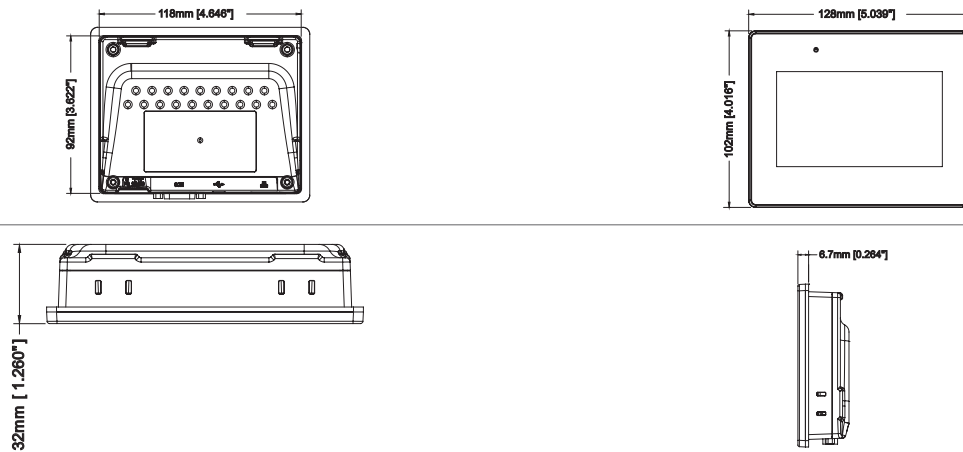
Panel cutout
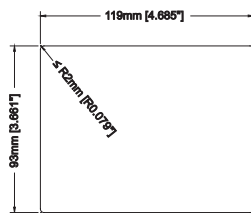
Connexion
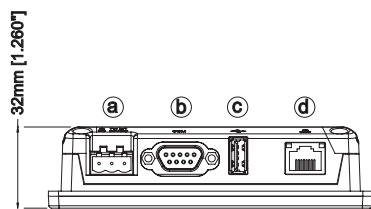
a	Power Connector
b	COM1 RS232, RS485. COM3 RS485
c	USB Host
d	Ethernet

CPT107-E

34mm [1.34"]

7.4mm [0.29"]

Panel cutout

192mm [7.56"]

138mm [5.43"]

≤ R2mm [R0.08"]

Connexion

34mm [1.36"]

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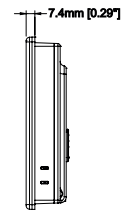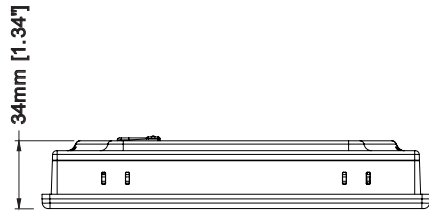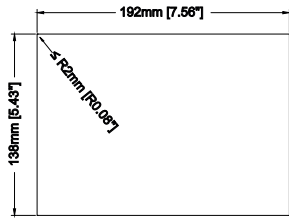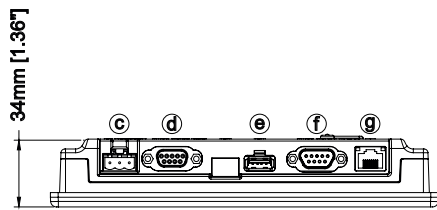
c	Power Connector
d	COM2 RS485. COM3 RS485
e	USB Host
f	COM1 RS232
g	Ethernet

CPT110-E

260.6mm [10.26"]

203.1mm [8.00"]

247.7mm [9.75"]

190.2mm [7.49"]

36.5mm [1.42"]

7.9mm [0.31"]
28.6mm [1.13"]

Panel cutout

250mm [9.84"]

192mm [7.56"]

≤ R4mm [R0.16"]

Connexion

36.5mm [1.44"]
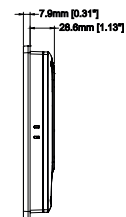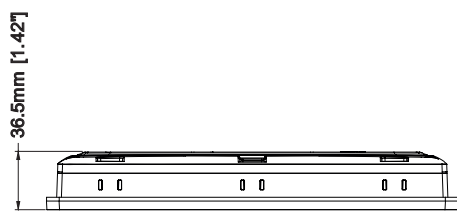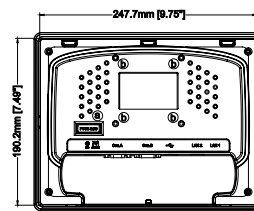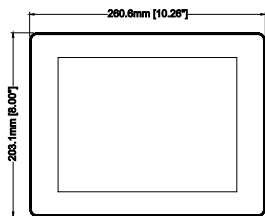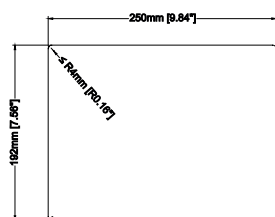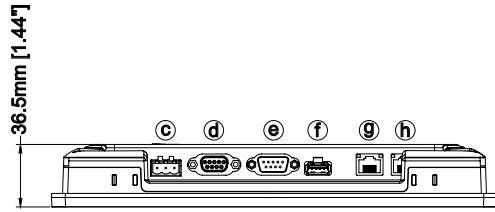
c	Power Connector
d	COM2 RS485. COM3 RS485
e	COM1 RS232. COM3 RS232
f	USB Host
g	Ethernet LAN 2
h	Ethernet LAN 1