› HMI Crouzet Touch - Essential
Accessories for Millenium 3, Millenium EVO and em4

› TF T-LCD resistive touch screen

› 16.7 M colors display

› New processor for faster data processing & displaying

› Built-in RTC

› Direct communication with Millenium 3 programming port (dedicated driver for SLin/SLout)

› Modbus RS485 protocol (dedicated drivers for M3, MEVO and em4 controllers)

› CE, UKCA marks

CT104
Essential

CT107
Essential

Product selection

Type	Size	Part number
CT104	4.3"	**88 970 524**
CT107	7"	**88 970 534**

Accessories

Interface and Expansions	Part number
Modbus RTU RS485 Interface with Polarization Inside	**88 980 122**
Modbus RTU RS485 Interface without Polarization Inside	**89 980 123**
Modbus RTU RS485 Millenium 3 expansion	**88 970 250**
Ethernet Millenium 3 expansion	**88 970 270**

Cables	Part number
Modbus RTU RS485 cable to Interface	**88 980 171**
Modbus RTU RS485 cable to Millenium 3 expansion	**88 970 503**
Ethernet cable for em4 / Millenium EVO/ Millenium 3	**89 970 508**
Crouzet Touch Soft + programmation cables	**88 970 591**

Specific characteristics

	CT104	CT107
Part number	88 970 524	88 970 534
Type	CT104	CT107
Size	4.3"	7"
Resolution	480 x 272	800 x 480
Brightness	400 cd/m²	300 cd/m²
On front panel color	Pantone Process Black C	
Power consumption max / min	400 mA @ 24 V, 85 mA @ 24V (backlight OFF)	500 mA @ 24 V, 94 mA @ 24V (backlight OFF)
Colors	16.7 M	16 M
LCD viewing angle (Top/Bottom/Left/Right)	50/70/70/70	70/50/70/70
Processor	32 Bit RISC Cortex-A8, 600 MHz	
Storage memory	128 MByte	
RAM memory	128 MByte	
USB	New version: USB 2.0 "HOST" (from Serial No. 1808101955) Previous version: Micro USB 2.0 "CLIENT"	New version: USB 2.0 "HOST" (from Serial No. 2101281237) Previous version: Micro USB 2.0 "CLIENT" and USB 2.0 "HOST"

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	CT104	CT107
Ethernet	New version: RJ45 type, 10/100 Mbit/s, MDI/MDIX 0 (from serial No.1808101955 A) Previous version: N/A	New version: RJ45 type, 10/100 Mbit/s, MDI/MDIX 0 (from serial No. 2101281237) Previous version: N/A
Port RS232	COM1 male	
Port RS485	COM1 2/4 Wires male, COM3 2 Wires male	COM2 2/4 Wires male
CAN bus	N/A	
UL certification	N/A	
Weight	Approximately 0.25 kg	Approximately 0.52 kg
Dimensions (W x H x D)	128 x 102 x 32 mm / 5.04 x 4.02 x 1.26"	200.4 x 146.5 x 34 mm / 7.89 x 5.77 x 1.34"
Vesa Mount	N/A	
Panel cutout	119 x 93 mm / 4.69 x 3.66"	192 x 138 mm / 7.56 x 5.43"
PCB Coating	N/A	

General characteristics

Enclosure	Plastic
Products certification	CE, UKCA
Nominal voltage	12/24 V⎓
Operating limits	10.5 - 28 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
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 I 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

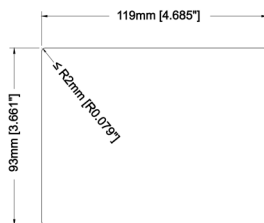|	
Type	TFT LCD
Contrast ratio	500: 1
Backlight type	Led
Backlight life time	> 30.000 Hours
Touch panel: type	4 wires resistive, with user-definable layout
Touch panel: key life	1 million operations minimum
Accuracy	Active Area Length(X)±2%, Width(Y)±2%
Driver Millenium 3	SLIN/SLOUT 24 V⎓, XN06
Driver em4	Modbus RS485

	CT104	CT107
Driver Modbus IDA	ASCII, RTU	
RTC	Use Millenium 3, em4 or build-in clock	
RTC battery	CR2032	
RTC time life battery	> 5 years, not rechargeable	

Schemes

Dimensions

CT104

118mm [4.646"]
92mm [3.622"]
32mm [1.260"]

128mm [5.039"]
102mm [4.016"]
6.7mm [0.264"]

Panel cutout

119mm [4.685"]
93mm [3.661"]
≤ R2mm [R0.079"]

Connections

a b c

32mm [1.260"]

a	Power Connector
b	COM1 RS232, RS485. COM3 RS485
c	µUSB
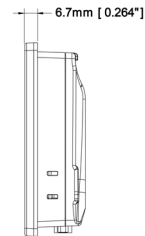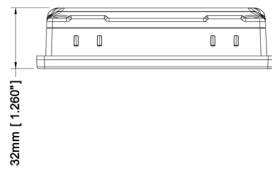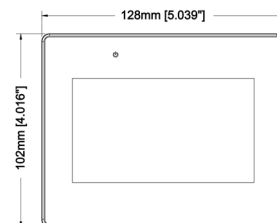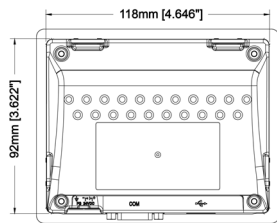
CT107
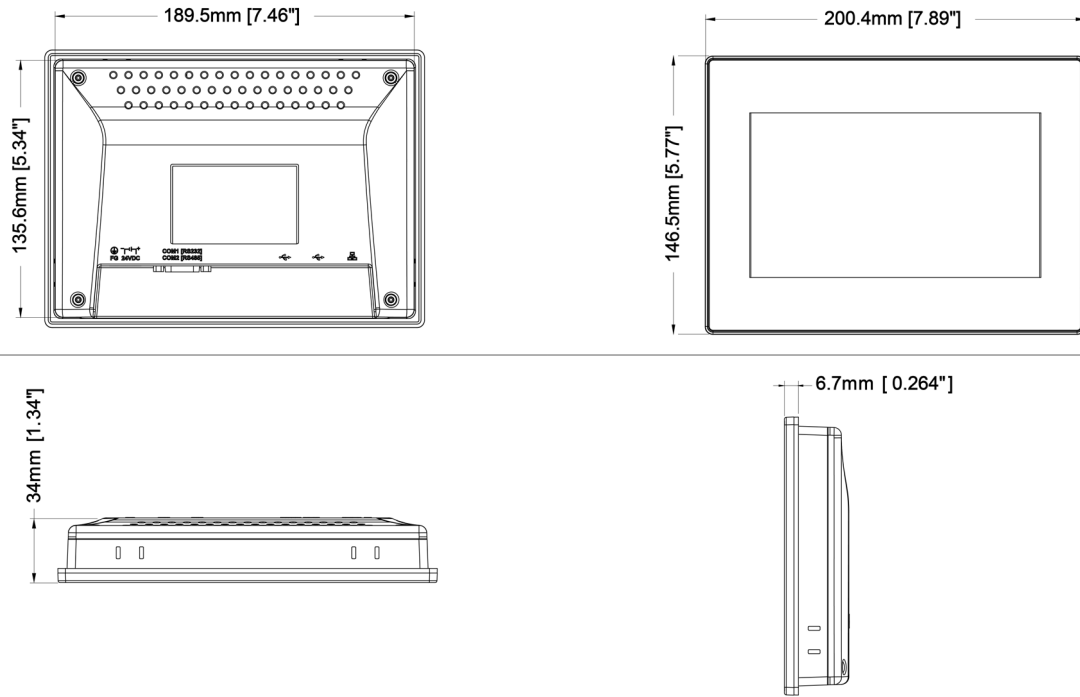
Panel cutout
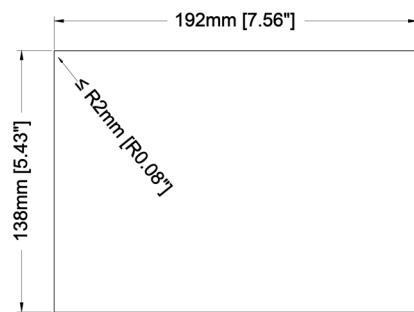
Connections
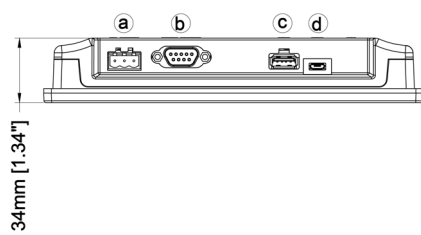
a	Power Connector
b	COM1 RS232, RS485. COM2 RS485
c	USB Host
d	µUSB