

# Human Machine Interface



AVAILABLE FROM  
NEPEAN ELECTRONICS

NEPEAN Power is a proven leader in the supply and manufacture of quality engineered solutions, products and technologies. Established in 1994, through the commitment of our dedicated team we have become a supplier of choice.

Projected capacitive multi-touch and zoom HMI with nimble touch and high light transmittance, tech data's size and shape are per user's need. High-speed 600/800MHz ARM Cortex A8 CPU, fast communication speed, support dynamic image presenting fine complicated flash, multi pages switch smoothly. Support Modbus communication protocol.

Built-in isolated protective power terminal. PCB coating protection mainboard, adapts various strict environment. Abodon snaps, eaiser installation. High smart, high precise, high reliable panel with at least 50,000 working hours. Electric Isolation RS232/RS485/RS422/Ethernet communication interface. Available sizes: 7", 15"

- Features**
- Capacitive Tempering Glass Protective Touch Panel**
    - High hardness, anti-scratch, no drafting
    - Extraordinary thermostability, stand higher tempering difference
  - Anti-Disengaging Devices**
    - Abodon traditional snaps, use disengaging screw
    - Easier Installation
  - Multi-touch and zoom**
    - Capacitive multi-touch glass+glass HMI with nimble touch and high light transmittance multi-zoom gesture makes picture and tech data control freely per users needs
  - PCB Coating Protection**
    - Enhance the strength of damp proof, dust proof, corrosion resistance in any harsh environment
  - Built-In Isolated Protected Plug-In Power and COM terminal**
    - Easier operation and longer working life
    - Isolated power supply, protected from thunderstrike and surging
  - IP65 Front (with NEMA panel) and IP20 Back Panel**
    - High protection level, more suitable for stricter environments
  - 30mm Min thickness**
    - 7" 30mm capacitive HMI meet customers high-end needs
  - Innovative Package Design**
    - Enhance the strength of damp proof, dust proof and corrosion resistance in any harsh environment

## Ordering Information

Part Number	Description
MC-H070S *	HMI,7" 16:9TFT LCD,4 wire resistive. Ethernet, SD Card
MC4150X *	HMI,15" 4:3TFT LCD,4 wire resistive, metal Shell, Ethernet, SD Card

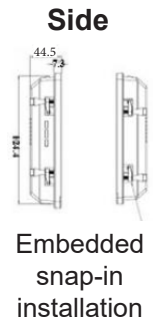
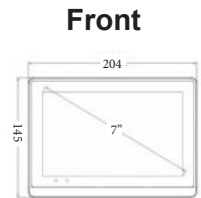
\* Stocked Item

# Human Machine Interface

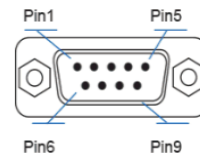
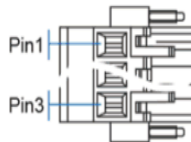
## Technical Specifications

### 7" MC-H070S Resistive HMI

<b>Basic Specification</b>	<b>Type</b>	4 Wire resistive touch screen
	<b>Display</b>	7" 16:9 TFT LCD
	<b>Resolution</b>	1024x600
	<b>Colours</b>	24 bit-colours
	<b>Brightness</b>	450 cd/m <sup>2</sup>
	<b>Backlight</b>	LED
	<b>Backlight Life</b>	5000 hours
	<b>Touch Panel</b>	4 Wire resistive touch screen
	<b>CPU</b>	600MHz ARM cortex-A8
	<b>Memory</b>	128M Flash + 128M DDR3
	<b>RTC</b>	Built-in real-time clock
	<b>Ethernet</b>	1x10/100M self adaptation
	<b>SD Card</b>	Support
	<b>USB Port</b>	1 USB host 2.0, 1 USB Device 2.0
	<b>Power Specification</b>	<b>Download Project</b>
<b>Serial Communication Terminal</b>		COM1/COM3: RS232/RS485/RS422; COM2:RS485
<b>T/B/L/R</b>		85'/85'/85'/85'
<b>Power Consumption</b>		<10W
<b>Input Power</b>		DC24V, Input range; DC9V ~ 28V
<b>Working Environment</b>	<b>Power Protection</b>	Isolated power supply, protect from thunderstrike and surging
	<b>Response</b>	<5ms
	<b>CE&amp;ROHs</b>	Complied with EN61000-6-2:2005, EN61000-6-4:2007 RoHs
	<b>Working Temperature</b>	0~50°C
	<b>Storage Temperature</b>	-20~60°C
<b>Others</b>	<b>Humidity</b>	10~90%RH (No condensation)
	<b>Aseismicity</b>	10~25Hz (X, Y, Z 2G/30MIN)
	<b>Cooling Method</b>	Natural air cooling
	<b>Protection Level</b>	Front Panel IP65, Back Panel IP20
	<b>Material</b>	ABS+PC
	<b>Panel Cutout (WxH)</b>	192mmx138mm
	<b>Dimension</b>	204mmx145mmx44.5mm
	<b>Net Weight</b>	Approx 650g



## Dimensions



Power Terminal	
<b>Pin 1</b>	FG
<b>Pin 2</b>	0V
<b>Pin 3</b>	DC24V

COM1/COM3 Communication Terminal	
<b>Pin 1</b>	Rx-(B)
<b>Pin 2</b>	RxD (COM1 RS232)
<b>Pin 3</b>	TxD (COM1 RS232)
<b>Pin 4</b>	Tx-
<b>Pin 5</b>	GND
<b>Pin 6</b>	Rx+(A)
<b>Pin 7</b>	RxD_PLC (COM3 RS232)
<b>Pin 8</b>	TxD_PLC (COM3 RS232)
<b>Pin 9</b>	Tx+



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For more information please contact:

**P: +61 2 4088 2790**

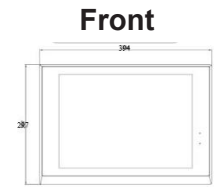
**E: power@nepean.com**

# Human Machine Interface

## Technical Specifications

### 15" MC4150X - Metal Resistive HMI

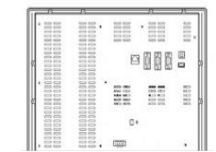
<b>Basic Specification</b>	<b>Type</b>	Industrial metal resistive HMI
	<b>Display</b>	15" 4:3 TFT LCD
	<b>Resolution</b>	1024x768
	<b>Colours</b>	24 bit-colours
	<b>Brightness</b>	400 cd/m <sup>2</sup>
	<b>Backlight</b>	LED
	<b>Backlight Life</b>	5000 hours
	<b>Touch Panel</b>	4 Wire resistive touch screen
	<b>CPU</b>	600MHz ARM cortex-A8
	<b>Memory</b>	128M Flash + 128M DDR3
	<b>RTC</b>	Built-in real-time clock
	<b>Ethernet</b>	10/100M Base
	<b>SD Card</b>	Supporting
	<b>USB Port</b>	1 USB host 2.0, 1 USB Device 2.0
<b>Power Specification</b>	<b>Download Project</b>	U-Disk/ USB device/ethernet/SD card
	<b>Serial Communication Terminal</b>	COM1/COM2: RS232/RS485/RS422; COM3:COM4: RS232
	<b>Power Consumption</b>	<15W
	<b>Input Power</b>	DC24V, Input range; DC18V ~ 28V
<b>Working Environment</b>	<b>Power Protection</b>	Isolated power supply, protect from thunderstrike and surging
	<b>Response</b>	<5ms
	<b>CE&amp;ROHs</b>	Complied with EN61000-6-2:2005, EN61000-6-4:2007 RoHs Surge Immunity±1KV, EFT ±2KV; ESD:4KV, Air:8KV
	<b>Working Temperature</b>	-20~70°C
<b>Others</b>	<b>Storage Temperature</b>	-30~80°C
	<b>Humidity</b>	10~90%RH (No condensation)
	<b>Aseismicity</b>	10~25Hz (X, Y, Z 2G/30MIN)
	<b>Cooling Method</b>	Natural air cooling
	<b>Protection Level</b>	Front Panel IP65, Back Panel IP20
<b>Material</b>	<b>Material</b>	Front cover made from aluminium, surface with hard oxide treatment, back cover made from steel and the surface with baking finish treatment
	<b>Panel Cutout (WxH)</b>	360mmx272mm
	<b>Dimension</b>	394mmx297mmx48.3mm
	<b>Net Weight</b>	Approx 10kg



Front



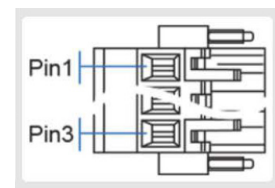
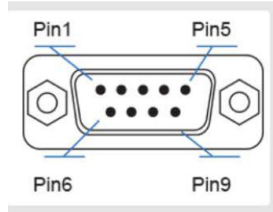
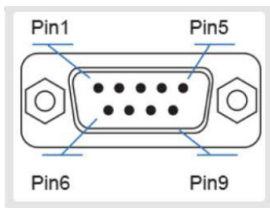
Side



Bottom



## Dimensions



### COM1/COM3

<b>Pin 1</b>	Rx-(B)
<b>Pin 2</b>	RxD PLC (COM1 RS232)
<b>Pin 3</b>	TxD PLC (COM1 RS232)
<b>Pin 4</b>	Tx-
<b>Pin 5</b>	GND
<b>Pin 6</b>	Rx+(A)
<b>Pin 7</b>	RxD PLC (COM3 RS232)
<b>Pin 8</b>	TxD PLC (COM3 RS232)
<b>Pin 9</b>	Tx+

### COM2/COM4

<b>Pin 1</b>	Rx-(B)
<b>Pin 2</b>	RxD PLC (COM2 RS232)
<b>Pin 3</b>	TxD PLC (COM2 RS232)
<b>Pin 4</b>	Tx-
<b>Pin 5</b>	GND
<b>Pin 6</b>	Rx+(A)
<b>Pin 7</b>	RxD PLC (COM4 RS232)
<b>Pin 8</b>	TxD PLC (COM4 RS232)
<b>Pin 9</b>	Tx+

### Power Terminal

<b>Pin 1</b>	FG
<b>Pin 2</b>	0V
<b>Pin 3</b>	DC24V