

# Human Machine Interface



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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 main-board, adapts various strict environment. Abodon snaps, easier 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

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

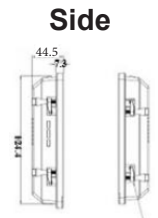
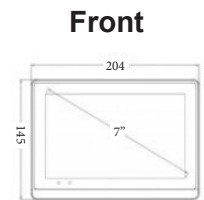
\* Stocked Item

# Human Machine Interface

## Technical Specifications

### 7" MC-H070S Resistive HMI

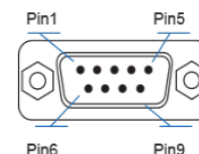
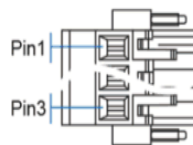
<b>Basic Specification</b>	<b>Type</b>	4 Wire resistive touch screen
	<b>Display</b>	7" 16:9 TFT LCD
	<b>Resolution</b>	1024x600
	<b>Colours</b>	24 bit-colours
	<b>Brightness</b>	450 cd/m <sup>2</sup>
	<b>Backlight</b>	LED
	<b>Backlight Life</b>	5000 hours
	<b>Touch Panel</b>	4 Wire resistive touch screen
	<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>	U-Disk/ USB device/ethernet
	<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>Working Environment</b>	<b>Input Power</b>	DC24V, Input range; DC9V ~ 28V
	<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>Others</b>	<b>Working Temperature</b>	0~50°C
	<b>Storage Temperature</b>	-20~60°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>Others</b>	<b>Material</b>	ABS+PC
	<b>Panel Cutout (WxH)</b>	192mmx138mm
	<b>Dimension</b>	204mmx145mmx44.5mm
	<b>Net Weight</b>	Approx 650g



Embedded snap-in installation



## 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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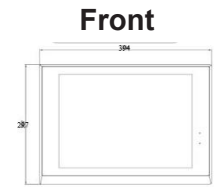
**E: power@nepean.com**

# Human Machine Interface

## Technical Specifications

### 15" MC4150X - Metal Resistive HMI

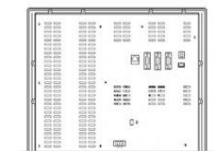
<b>Basic Specification</b>	<b>Type</b>	Industrial metal resistive HMI
	<b>Display</b>	15" 4:3 TFT LCD
	<b>Resolution</b>	1024x768
	<b>Colours</b>	24 bit-colours
	<b>Brightness</b>	400 cd/m <sup>2</sup>
	<b>Backlight</b>	LED
	<b>Backlight Life</b>	5000 hours
	<b>Touch Panel</b>	4 Wire resistive touch 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>Download Project</b>	U-Disk/ USB device/ethernet/SD card
<b>Power Specification</b>	<b>Power Consumption</b>	<15W
	<b>Input Power</b>	DC24V, Input range; DC18V ~ 28V
	<b>Power Protection</b>	Isolated power supply, protect from thunderstrike and surging
	<b>Response</b>	<5ms
<b>Working Environment</b>	<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>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>Others</b>	<b>Protection Level</b>	Front Panel IP65, Back Panel IP20
	<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

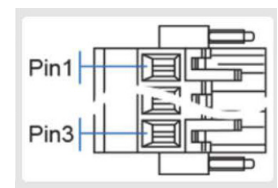
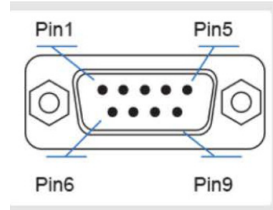
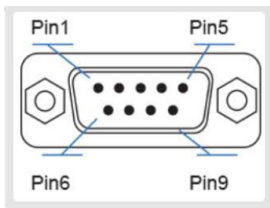


Side



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



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