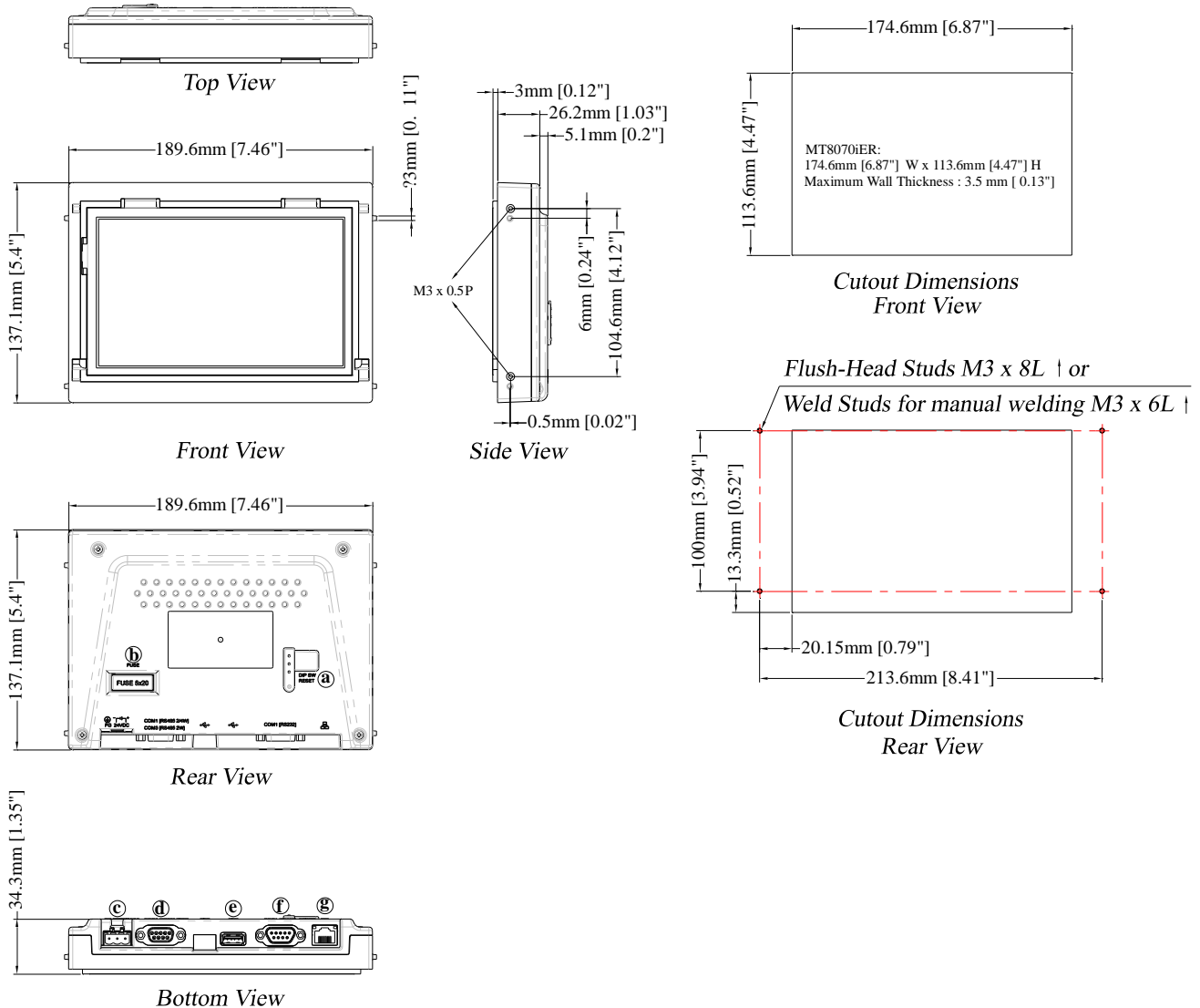# WE!NTEK

MT8070iER1

Rear-Mount HMI

Feature

- 7" 800 x 480 TFT LCD, LED Backlight
- Highly flexible customized exterior design
- Easy installation in embedded application, the mounting brackets can fit different wall thicknesses
- Perfectly flush with control plate at front, dust-proof and waterproof flat cabinet
- Fan-less Cooling System
- COM1 and COM3 RS-485 dual isolation design ensures reliable operation in complex grounding application.
- COM1 and COM3 RS-485 support MPI 187.5K, please use one at one time
- PCB coating process ensures high reliability to resist from corrosion in harsh environment.
- NEMA4 / IP65 (With Proper Overlay Installed)

Category	Item	Value
Display	Display	7" TFT
	Resolution	800 x 480
	Brightness (cd/m^2)	400
	Contrast Ratio	800:1
	Backlight Type	LED
	Backlight Life Time	>30,000 hrs.
	Colors	16.7M
	LCD Viewing Angle (T/B/L/R)	80/60/80/80
Touch Panel	Type	4-wire Resistive Type
	Accuracy	Active Area Length(X)±2%, Width(Y)±2%
Memory	Flash	128 MB
	RAM	128 MB
Processor		32-bit RISC 600MHz
I/O Port	SD Card Slot	N/A
	USB Host	USB 2.0 x 1
	USB Client	N/A
	Ethernet	10/100 Base-T x 1
	COM Port	COM1: RS-232/RS-485 2W/4W, COM3: RS-485 2W
	RS-485 Dual Isolation	Yes
	CAN Bus	N/A
	HDMI	N/A
	Audio Output	N/A
RTC		Built-in
Power	Input Power	24±20% VDC
	Power Isolation	N/A
	Power Consumption	350mA@24VDC
	Voltage Resistance	500VAC (1 min.)
	Isolation Resistance	Exceed 50MΩ at 500VDC
	Vibration Endurance	10 to 25Hz (X, Y, Z direction 2G 30 minutes)
Specification	PCB Coating	Yes
	Enclosure	Plastic
	Dimensions WxHxD	189.6 x 137.1 x 34.3 mm
	Panel Cutout	174.6 mm x 113.6 mm
	Panel Thickness	1.5 mm [0.06"] ~ 3.5 mm [0.13"]
	Weight	Approx. 520 g
	Mount	Rear mount
Environment	Protection Structure	NEMA4 / IP65*
	Storage Temperature	-20° ~ 60°C (-4° ~ 140°F)
	Operating Temperature	0° ~ 50°C (32° ~ 122°F)
	Relative Humidity	10% ~ 90% (non-condensing)
Certificate	CE	CE marked
Software		EasyBuilder Pro V3.00.01 or later versions

*Note: Protection Structure IP65 can be expected if you affix the Overlay (user-prepared) on the screen of the unit and the surroundings. Weintek does not guarantee the protective structure.
IP65: Dust tight, protected against water jets.

Dimensions

Top View

189.6mm [7.46"]

137.1mm [5.4"]

Front View

23mm [0. 11"]

M3 x 0.5P

3mm [0.12"]
26.2mm [1.03"]
5.1mm [0.2"]

6mm [0.24"]
104.6mm [4.12"]

0.5mm [0.02"]

Side View

174.6mm [6.87"]

113.6mm [4.47"]

MT8070iER:
174.6mm [6.87"] W x 113.6mm [4.47"] H
Maximum Wall Thickness : 3.5 mm [0.13"]

Cutout Dimensions
Front View

189.6mm [7.46"]

137.1mm [5.4"]

FUSE 5x20

DIP SW
RESET a

FG 24VDC   COM1 [RS485 2W/4W]   COM1 [RS232]
COM3 [RS485 2W]

Rear View

34.3mm [1.35"]

c   d   e   f   g

Bottom View

Flush-Head Studs M3 x 8L ↑ or
Weld Studs for manual welding M3 x 6L ↑

100mm [3.94"]
13.3mm [0.52"]

20.15mm [0.79"]
213.6mm [8.41"]

Cutout Dimensions
Rear View

a	DIP SW	**e**	USB Host Port
b	Fuse	**f**	COM1 RS232
c	Power Connector	**g**	Ethernet Port
d	COM1 RS-485 2W/4W, COM3 RS-485 2W	**h**	

Ordering Information

❑ **MT8070iER1:**
   7" 800 x 480 TFT LCD HMI, built-in 128 MB flash memory / 128 MB DDR2 RAM

Pin Assignment: COM1 [RS232] 9 Pin, Male, D-sub

PIN#	Symbol	COM1 [RS232]
1	Not used	
2	RxD	Received Data
3	TxD	Transmitted Data
4	Not used	
5	GND	Ground
6	Not used	
7	RTS	Ready to send output
8	CTS	Clear to send input
9	Not used	

COM1 / COM3 [RS485] 9 Pin, Female, D-sub

PIN#	Symbol	COM1 [RS485]		COM3 [RS485]
		2W	4W	
1	Rx-	Data-	Rx-	
2	Rx+	Data+	Rx+	
3	Tx-		Tx-	
4	Tx+		Tx+	
5	GND	GND(COM1)		
6	Not used			
7	Data-			Data-
8	Data+			Data+
9	GND			GND(COM3)

Installaiton

Install HMI

M3 x 0.5P x 8L
HEX NUTS M3 x 0.5 P
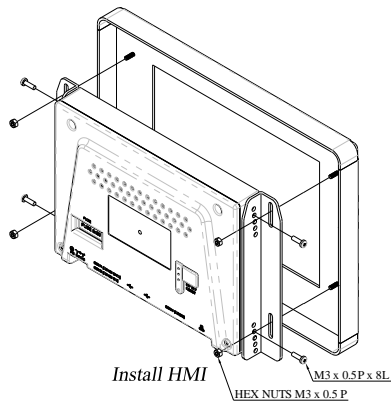
Choose the mounting holes that match your panel thickness .

1.5mm [0.06"]
1.9mm [0.07"]
2mm [0.08"]
2.4mm [0.09"]
2.5mm [0.1"]
2.9mm [0.11"]
3mm [0.12"]
3.5mm [0.13"]

Ø4mm [Ø0.16"]

Panel Thickness Range
1.5mm [0.06"]
3.5mm [0.13"]

Ø3.7mm [Ø0.15"]

8.1mm [0.32"]   *Cutout hole*   wall   (9.85mm [0.39"])

11.95mm [0.47"]

(13mm [0.51"])   138.55mm [5.45"]

Overlay

192.55mm [7.58"]

Install Overlay
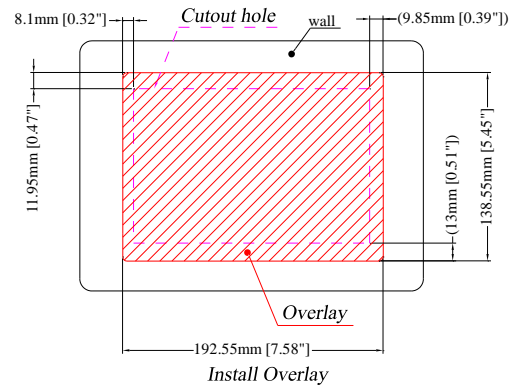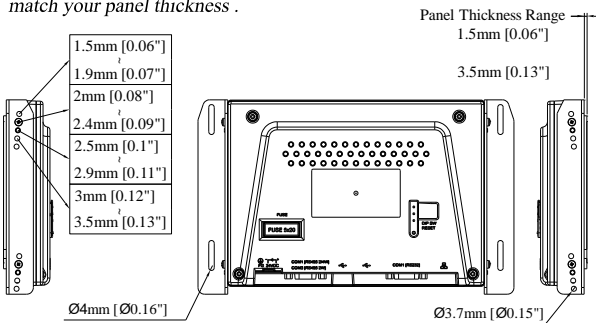
1. Around the cutout on the control cabinet, draw the reference lines for positioning the overlay.
2. Select the mounting holes according to the wall thickness of control cabinet and secure the mounting brackets onto both sides of the HMI unit.
3. Secure the HMI to the cabinet by four studs.
4. Affix the overlay (user-prepared) to the cabinet front surface.