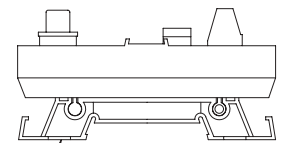
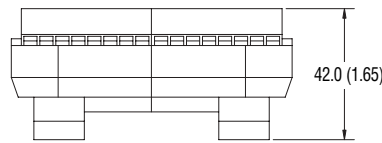
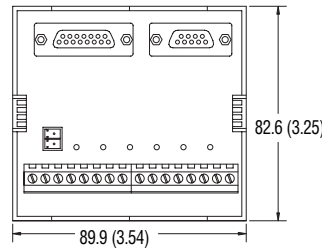


IN-SIGHT I/O SPECIFICATIONS

IN-SIGHT BREAKOUT MODULE (FOR USE WITH IN-SIGHT 5000 SERIES VISION SENSORS AND ID READERS)

Note: All measurements are provided in millimeters (first number) and inches (number in parenthesis).



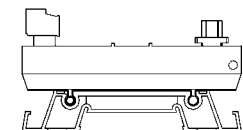
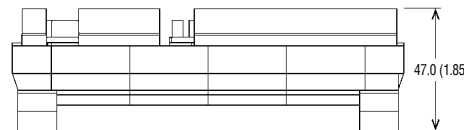
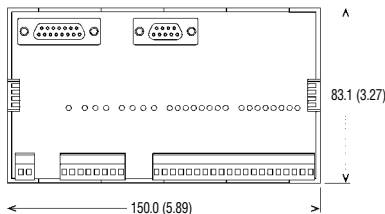
#3 DIN RAIL (35 MM)

CIO-1350-XX

| I/O | |
|-----------------------------|--|
| Acquisition trigger | 1 independent discrete input, optically isolated |
| Outputs | 2 discrete outputs |
| Input delay | |
| Trigger input | ON: 30 μ Sec @ 3.5 mA; 8 μ Sec @ 15 mA OFF: 45 μ Sec @ 3.5 mA; 80 μ Sec @ 15 mA |
| Output delay | ON: 6 μ Sec OFF: 130 μ Sec @ 5 μ A; 95 μ Sec @ 10 mA; 85 μ Sec @ 15 mA |
| Trigger input resistance | ~ 1000 Ohms |
| Trigger input state current | ON: 3.5 to 15 mA OFF: 500 μ A |
| Maximum output current | 200 mA (sink) |
| ON state voltage drop | 0.8VDC @ 10 mA; 2.6VDC @ 15 mA |
| OFF state leakage current | 100 μ A; maximum @ 15VDC |

| Mechanical | |
|--------------------------------|--|
| Terminal block torque | 7 in-lb (0.8 N-M) Maximum |
| Cable | 4.6m (15ft) supplied; 12.3m (40ft) and 15.2m (50ft) optional |
| Power | |
| Operating voltage (field side) | 5VDC to 24VDC |
| Power consumption | 24VDC +/-10%, 50mA plus camera load |
| Status LEDs | 1 each for power, acquisition trigger, and outputs |
| Field wiring size | 26 to 12 AWG |
| Environmental | |
| Operating temperature | 0°C to 50°C (32°F to 122°F) |
| Operating humidity | 5 to 95% non-condensing |
| Storage temperature | -20°C to 85°C (-4°F to 185°F) |
| Storage humidity | 5 to 95% non-condensing |

IN-SIGHT EXPANSION MODULE (FOR USE WITH ALL IN-SIGHT VISION SENSORS AND ID READERS)



#3 DIN RAIL (35 MM)

CIO-1450-XX

| I/O | |
|---------------------------|---|
| Acquisition trigger | 1 independent discrete input, optically isolated |
| General purpose inputs | 8 discrete inputs |
| General purpose outputs | 10 discrete (2 high-speed, 8 general purpose) |
| Serial | 1 RS-232C port (1200 to 115,200 baud rates), Rx/D, Tx/D, and Flow control (RTS/CTS) |
| Input delay | |
| Trigger input | 250 μ Sec |
| 8 general-purpose inputs | 600 μ Sec maximum delay |
| Output delay | |
| 2 high-speed outputs | ON: 6 μ Sec OFF: 130 μ Sec @ 5 μ A; 95 μ Sec @ 10mA, 85 μ Sec @ 15mA |
| 8 general-purpose outputs | Pulse mode 375 μ Sec max Set/Reset mode 550 μ Sec max |
| Trigger input resistance | ~2K Ohms |
| Input state current | |
| Trigger | ON: 10 to 14.4mA OFF: <300 μ A |
| General purpose inputs | 1.3mA |
| Maximum output current | |
| High-speed outputs | 200mA (Sink) |
| General purpose outputs | 150mA (Sink) |
| ON state voltage drop | Depends on output load configuration |

| I/O (cont.) | |
|--------------------------------|--|
| OFF state leakage current | |
| General purpose inputs | <50 μ A |
| High-speed outputs | 200 μ A |
| General purpose outputs | 200 μ A |
| Mechanical | |
| Terminal block torque | 0.3 N-m (2.7 in-lb) Maximum |
| Cable | 4.6m (15ft) supplied; 12.3m (40ft) and 15.2m (50ft) optional |
| Power | |
| Operating voltage (field side) | 5VDC to 24VDC |
| Power consumption | 24VDC \pm 10%, 1.25 Amps, 30W supply* |
| Status LEDs | 1 each for power, acquisition trigger, inputs, and outputs 2 each for camera and remote RS232 |
| Field wiring size | 26 to 16 AWG |
| Environmental | |
| Operating temperature | 0°C to 50°C (32°F to 122°F) |
| Operating humidity | 10 to 90%, non-condensing |
| Storage temperature | -10°C to 65°C (14°F to 149°F) |
| Storage humidity | 10 to 90%, non-condensing |

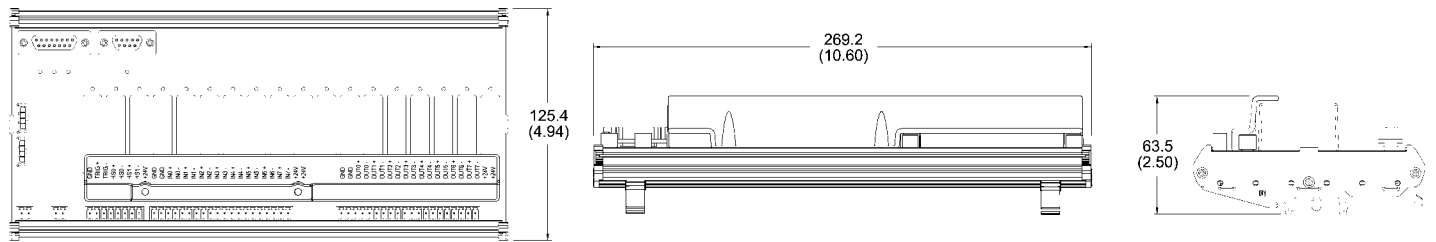
* Maximum draw when I/O Expansion Module supplies power to an In-Sight 4100 sensor, and when all inputs, outputs, and LED indicators are in use. Draw will be less than 30W under typical usage.

IN-SIGHT I/O

IN-SIGHT EXPANSION MODULE (FOR USE WITH IN-SIGHT 5000 SERIES VISION SENSORS AND ID READERS, AND 3400 VISION SENSORS)

Note: All measurements are provided in millimeters (first number) and inches (number in parenthesis).

CIO-1460-XX



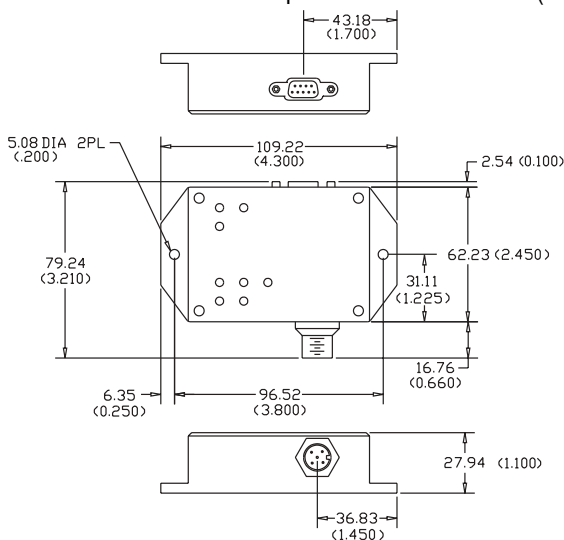
| I/O | |
|--------------------------|--|
| Acquisition trigger | 1 independent discrete input, optically isolated |
| General purpose inputs | 8 opto-isolated discrete |
| General purpose outputs | 10 opto-isolated discrete (2 high-speed, 8 general-purpose) |
| Serial | 1 RS-232C port (1200 to 115,200 baud rates), Rx/D, Tx/D, and Flow control (RTS/CTS) |
| Input voltage | |
| Trigger input | ON 20 to 28V (24V nominal) OFF 0 to 3V (12V nominal threshold) |
| 8 general-purpose inputs | ON 3 to 32V (24V nominal) OFF 0 to 1.5V (10V nominal threshold) |
| Input current | |
| Trigger input | ON 10 to 14.4mA; OFF <300µA Resistance ~2K Ohms |
| 8 general-purpose inputs | ON >50mA; OFF <50mA |
| Delay | |
| Trigger input | 250 µSec latency between leading edge of trigger and start of acquisition. Input pulse should be a minimum of 1 ms wide. |
| 8 general-purpose inputs | 600 µSec max. between change of input state and completion of serial transmission to the In-Sight sensor. |
| Outputs | |
| Voltage | 60V maximum through external load |
| Current | ON >50mA, 2.5A max, Fuse protected; OFF <50mA |

| Mechanical | |
|--------------------------------|--|
| Housing | Black plastic |
| Mounting | #3 DIN-rail (35mm) |
| Terminal block torque | 0.3 N-m (2.7 in-lb) Maximum |
| Cable | 4.6m (15ft) supplied; 12.3m (40ft) and 15.2m (50ft) optional |
| Weight | 691.8 g (24.4 oz) |
| Power | |
| Operating voltage (field side) | |
| Power consumption | 24VDC ± 10%, ~ 250mA with camera ^a |
| Status LEDs | 1 each for power, external lights, acquisition trigger, inputs and outputs 1 each for Camera and Remote RS232 |
| Light input/output | 12VDC to 24VDC |
| Field wiring size | 26 to 16 AWG |
| Environmental | |
| Operating temperature | 0°C to 50°C (32°F to 122°F) |
| Operating humidity | 10 to 90%, non-condensing |
| Storage temperature | -10°C to 65°C (14°F to 149°F) |
| Storage humidity | 10 to 90%, non-condensing |
| Shock | 30Gs per IEC 68-2-27 (Pending) |
| Vibration | 2Gs per IEC 68-2-6 (Pending) |
| Certifications | |
| Pending | CE, UL, FCC |

^a Maximum draw when the 1460 I/O Expansion Module supplies power to an In-Sight sensor, and when all inputs, outputs, and LED indicators are in use. Draw will be less than 30W under typical usage.

DEVICENET INTERFACE MODULE (OPTIONAL FOR ALL IN-SIGHT VISION SENSORS AND ID READERS) CIO-2550-00

Note: All measurements are provided in millimeters (first number) and inches (number in parenthesis).

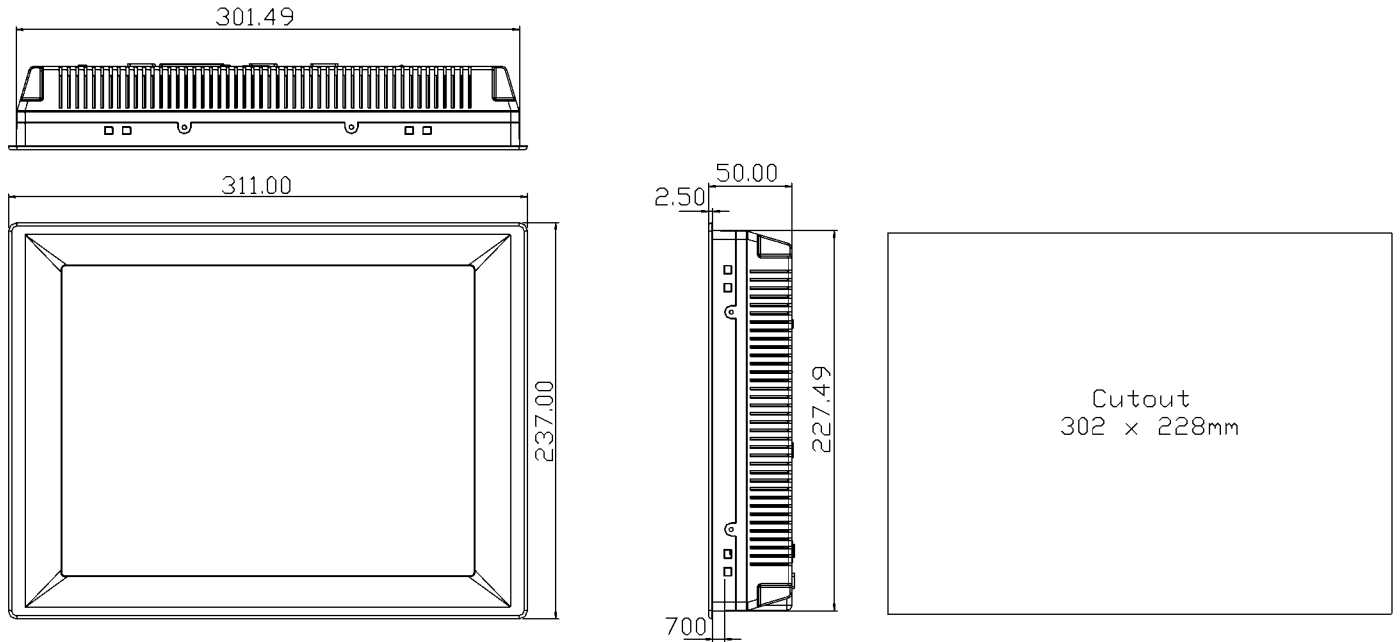


| Data | |
|-----------------------|---|
| Data size | 8/7 bits (software config.) |
| Parity | Even/odd/none |
| Stop bits | 1 (fixed) |
| Data rate (serial) | 300, 1220, 2400, 4800, 9600, 19.2 kbs (software selected) |
| (DeviceNet) | 125, 250, 500 kbs |
| Flow control | None. RTS/CTS, X-On/X-Off |
| Power | |
| Isolation | 500v |
| ESD protection | +/-10kv |
| Overload protection | +/-30kv |
| Short circuit | Indefinite |
| Output levels | +/-7.9v (typical) |
| Environmental | |
| Operating temperature | 0°C to 70°C (32°F to 158°F) |

COGNEX® IN-SIGHT® DISPLAY SPECIFICATIONS

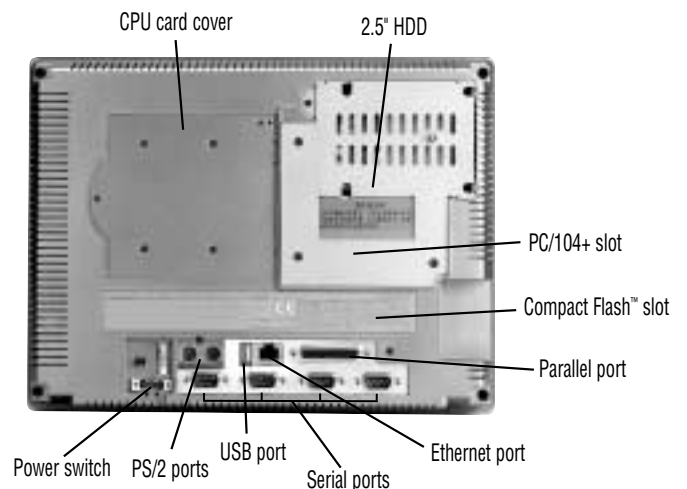
12.1-INCH ETHERNET WORKSTATION (OPTIONAL FOR ALL IN-SIGHT VISION SENSORS AND ID READERS) CIM-ENET-121

Please Note: All measurements are provided in millimeters.
Kit includes sealing gasket.



| Touchscreen Display | |
|---------------------|---|
| Display | 12.1" SVGA TFT LCD; 256K colors (max.); 800 x 600 resolution; 0.31 x 0.31 pixel pitch (HxV, mm); 90-degree viewing angle |
| Touchscreen | 4-wire, analog resistive; continuous resolution; light transmission above 75%; 100 million activation (min.) life |
| CPU and Core Logic | |
| | Transmeta® Crusoe™ 5400 (500 MHz) |
| BIOS | |
| | Award® 256KB |
| VGA | |
| | SMI® 710/712 VGA controller |
| DRAM | |
| | 128MB on board, among which 112MB for users |
| Expansion | |
| | One 32-bit PC/104-Plus expansion slot |
| Watchdog Timer | |
| | 1.6 seconds interval |
| Storage | |
| | Internal 2.5" HDD (20GB or higher); CompactFlash™ memory slot available. |
| I/O | |
| | 4 serial ports (one configurable to RS-422/485) and RS-485 is auto flow controlled, 1 parallel port, 1 Ethernet port (10/100Base-T), 1 USB port, 2 PS/2 ports |
| Mechanical | |
| Construction | Al-Mg and plastic molding |
| Dimensions | 311 x 237 x 50 mm (WxHxD) (12.24" x 9.33" x 1.97") |
| Weight | 2.2kg (4.85 lbs) |

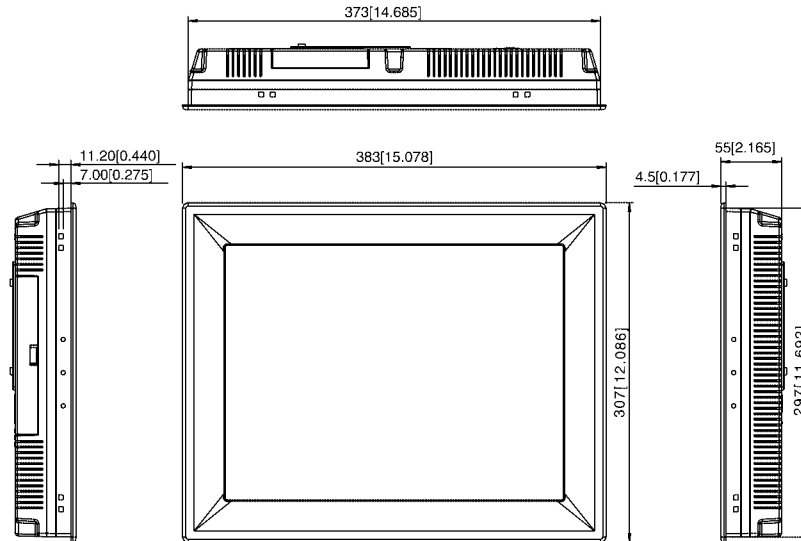
| Power | |
|-----------------------|-----------------------------------|
| Input | 24VDC, 0.8 A maximum |
| Environmental | |
| Operating temperature | 0°C to 50°C (32°F to 122°F) |
| Operating humidity | 10% to 95% @ 40°C, non-condensing |
| Storage temperature | -20°C to 60°C (-4°F to 140°F) |
| Storage humidity | Up to 95%, non-condensing |
| EMI | FCC Class A certified |
| | Front panel meets NEMA4 / IP65 |
| Certifications | |
| Approvals | CE |



IN-SIGHT DISPLAYS

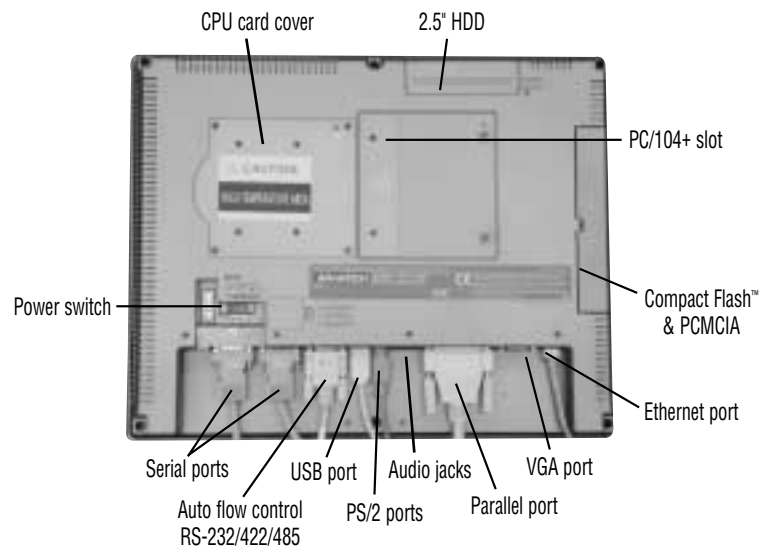
15-INCH ETHERNET WORKSTATION (OPTIONAL FOR ALL IN-SIGHT VISION SENSORS AND ID READERS) CIM-ENET-15

Please Note: All measurements are provided in millimeters.
Kit includes sealing gasket.



| Touchscreen Display | |
|---------------------|--|
| Display | 15" XGA TFT LCD; 16.77 million colors (max.); 1024 x 768 resolution; 0.297 x 0.297 pixel pitch (HxV, mm); 140-degree viewing angle |
| Touchscreen | 4-wire, analog resistive; continuous resolution; light transmission above 75%; 100 million activation (min.) life |
| CPU and Core Logic | |
| | Transmeta® Crusoe™ 5400 (500 MHz) |
| BIOS | |
| | Award® 256KB |
| VGA | |
| | SMI® 721 VGA controller |
| DRAM | |
| | 128MB on board, among which 112MB for users |
| Expansion | |
| | One 32-bit PC/104-Plus expansion slot |
| Watchdog Timer | |
| | 1.6 seconds interval |
| Storage | |
| | Internal 2.5" HDD (20GB or higher); CompactFlash™ memory slot available. |
| I/O | |
| | 3 serial ports (one configurable to RS-422/485) and RS-485 is auto flow controlled, 1 parallel port, 1 Ethernet port (10/100Base-T), 2 USB ports, 1 PS/2 ports |
| Mechanical | |
| Construction | Al-Mg and plastic molding |
| Dimensions | 383 x 307 x 55 mm (WxHxD) (15.08" x 12.09" x 2.17") |
| Weight | 3.8kg (8.37 lbs) |

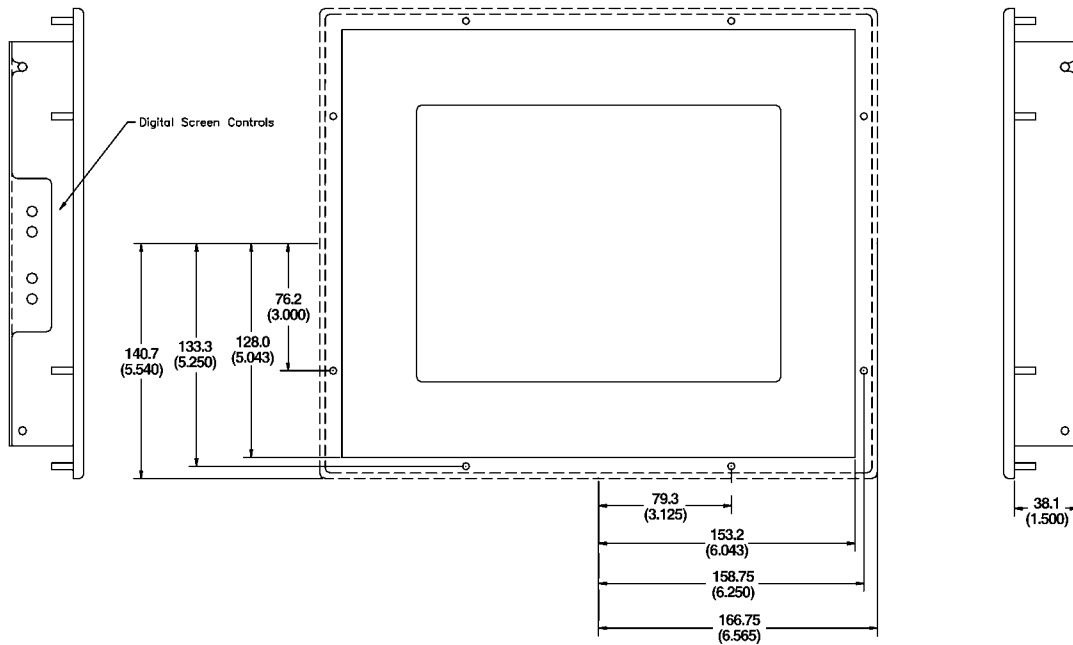
| Power | |
|-----------------------|-----------------------------------|
| Input | 24VDC, 1 A maximum |
| Environmental | |
| Operating temperature | 0°C to 50°C (32°F to 122°F) |
| Operating humidity | 10% to 95% @ 40°C, non-condensing |
| Storage temperature | -20°C to 60°C (-4°F to 140°F) |
| Storage humidity | Up to 95%, non-condensing |
| EMI | FCC Class A certified |
| | Front panel meets NEMA4 / IP65 |
| Certifications | |
| Approvals | CE |



IN-SIGHT DISPLAYS

FLAT PANEL MONITOR (OPTIONAL FOR IN-SIGHT 3400 VISION SENSOR) CIM-LCD-104

10.4" DIAGONAL/TFT ACTIVE MATRIX



| Liquid Crystal Display (LCD) | |
|------------------------------|---|
| Active area | 211mm (8.31")(h) x 158.75mm (6.25")(v) |
| Pixel format | 640(h) x 480(v) |
| Brightness | 400 Nits Typical |
| Contrast ratio | 300:1 Typical |
| Viewing angle | (Horizontal) 60° / 60° (Vertical) 45° / 55° |
| Back light life | 50,000 Hours (Half Life) |
| Colors supported | 256,000 |
| Impact Window | |
| Thickness | .118 Nominal |
| Finish | Anti Glare |
| Finish external | UV Hard Coat |
| Material | Polycarbonate |
| Mechanical | |
| Bezel outside dimension | 333.5mm (13.130")(h) x 281mm (11.080")(v) |
| Bezel material | 6.35mm (.250") 6061 Aluminum |
| Bezel finish | Black Powder Coating |

| Mechanical (cont.) | |
|------------------------|---|
| Front end construction | NEMA 4/12 |
| Chassis depth | (Behind Cabinet Door) 28.54mm (1.125") (add 63.5mm (2.5") for cables unless bottom exit cables specified) |
| Chassis construction | 18 Ga. Stainless Steel |
| Weight | 3.18kg (7lbs) |
| Power | |
| Input voltage | 24VDC nominal |
| Input wattage | 25 Watts typical |
| Environmental | |
| Operating temperature | 0°C to 50°C (32°F to 122°F) |
| Operating humidity | 10 to 95%, non-condensing |
| Storage temperature | 0°C to 60°C (32°F to 140°F) |
| Storage humidity | 10 to 95%, non-condensing |
| Certifications | |
| Approvals | UL |