

# MN4000

## Panel Mounted Thermal Imager

Dual vision, thermal and visual cameras, **MN4000** captures fully radiometric data every second



## FEATURES

Measurement accuracy of +2%/2% from -10 to +120C

Easy to install and removable while live

Communication with MODBUS/TCP and is supplied with pre-written PLC function blocks for communications, alarms, measurement and analysis

Provided as standard with CorDEX MONITIR Software for large scale deployments and analysis

On-board web server for point-to-point communication

The **MN4000 Panel Mounted Thermal Imager** incorporates dual vision; thermal and visual cameras which captures fully radiometric data every second. Don't waste time traveling from location to location, log into your **MN4000** remotely and inspect your electrical assets from your office using it's onboard web server or using the dedicated **MONITIR** software. **MN4000** can also be incorporated into a **PLC or SCADA based network** with it's industrial **MODBUS/TCP** communications protocol, enabling greater control and integration into your existing plant control network.

### PROTECT YOUR ASSETS

Ensure you never miss a problem again, monitor your electrical assets 24x7x365 with the MN4000 Panel Mounted Thermal Imager from CorDEX. Permanently installed into your electrical equipment, MN4000 provides continuous thermal monitoring, accessible using anything from a PLC control system to its onboard webserver with an everyday web browser.

### SAFETY

Traditional IR Windows are "risk reduction" devices, they reduce the risk of an arc-flash being triggered by leaving the electrical equipment in its steady state, but, the risk still remains. What if an arc-flash occurs during an inspection? Even with an IR Window, the results could be fatal.

With MN4000, not only is your thermographer never exposed to live equipment, the inspection could be undertaken without ever leaving the office. Onboard alarms can be configured to alert your infrared professional of a potential problem which can be inspected and diagnosed in absolute safety.

### STANDARD PLC CODE PROVIDED

No need to write complex Modbus/TCP communications code or analysis functions, at CorDEX we have already done the heavy lifting for you!

Incorporating the industrial communication protocol Modbus/TCP, MN4000 is provided with prewritten PLC Function Blocks for major manufacturers to enable rapid integration with either an existing or new PLC network. Simply select the PLC manufacturer from the Support List, drop in the Function Block you require and you are ready to program.

### SIMPLE INSTALLATION

100% retro-fittable into CorDEX IW 4000 mounting pattern, MN4000 chassis is mounted into the panel; 24VDC and Ethernet are connected, slot in the camera package and you're in business. The camera package can then be removed and replaced without shutting down your equipment.

Adaptor plates for common IR Windows are available as custom options, please contact us for more information.

# PRODUCT OVERVIEW



Prewritten PLC Function Blocks are provided for major manufacturers.



Once installed, the camera package can be removed and replaced whilst live.



Dual mode imaging; thermal and visual, plus LED flash.

Imaging Performance (Thermal)	
IR Resolution	80x60 pixels (4800 measuring points)
Focus	Fixed
Field of View (FOV)	63° Diagonal
IR Operation	8-14um, <50mk (NETD)

Imaging Performance (Visual)	
Visible Resolution	640x480
Low Light Illumination	LED Flash (800 Lumens)
Field of View (FOV)	63° Diagonal
Sensitivity	1.0 LUX without illuminator

Measurement	
Range	-10C to 120C (14F to 248F)
Units	Celsius, Fahrenheit
Accuracy	+/-2c or +/-2%
Emissivity Correction	Fixed to 1.0

Image Access and Display	
Access	Web i/f or via MODBUS/TCP
LCD Display	QVGA(320x240), 2.4inch
Automatic update	Continuous (1Hz)
IR-Image format	BMP file and spot access
Visible-image format	JPEG

Power & Communications	
Power Supply	12/24VDC (2W, 3Wpeak)
Power input range	11VDC to 30VDC
Power Connector	3.81mm plug (3-pin) For: Vin, Vchassis, GND
Communications	Modbus over Ethernet
Ethernet Connector Type	RJ45
Ethernet	IEEE802.3, 10/100Mbps

## FEATURED PRODUCT

**MONITIR MN4100**  
CONTINUOUS MONITORING  
THERMAL IMAGER



### Authorised Distributor

CorDEX reserve the right to make changes to the instrument at anytime and without notice.

Ref.ID 4000