

The iBOX Kit from GE Energy provides powerful, cost-effective substation and feeder control solutions combining multiple communication ports and protocols, IEC® 61131-3 automation, and local I/O, in a small footprint that is ideal for retrofit and upgrade projects. In addition to the flexibility of the standard iBOX*, this kit provides the added benefits of AC or DC analog inputs, Ethernet, and support for a wide range of power supply input voltages. The iBOX Kit is built on a 19" wall or rack mountable panel.

Digital Inputs

- 8 optically isolated status inputs. 24 VDC, 48 VDC, or 125 VDC, with 10% overload, wetting options available
- LED indications
- 4-5 mA typical current burden per input (up to 48 VDC)
- Maximum 0.5 W heat dissipation per input from current burden of inputs at 125 VDC

Control Outputs

- 4 Trip/Close pairs or 2 Trip/Close pairs and 2 Form A contacts
- Separate Master Trip and Master Close relays
- Security features: protection against erroneous operation due to single point of failure, select-before-operate (SBO) functionality
- 35 W breaking @ 125 VDC
- 180 W breaking @ 30 VDC
- 6A current carrying capability

DC Analog Inputs

- 8 DC analog inputs
- DC voltage options: +/- 1 VDC, +/-5 VDC, +/-10 VDC
- DC current options: +/-1 mA, +/-20 mA, 4-20 mA
- Accuracy: 0.2% of full scale @ 25C
- 14-bit resolution plus sign

AC Analog Inputs

- Single circuit monitoring (wye connected)
- V_{RMS} , I_{RMS} , Phase Angle, Frequency, Power Factor
- Real Power (W), Reactive Power (VAR), Apparent Power (VA)
- Watt-Hour, VAR-Hour
- Nominal PT input range: 0 to 150 VLN or 250 VLL
- Nominal CT input: 5A
- Frequency: 50/60 Hz
- Measurement range: 0 to 125% of nominal
- Accuracy: 0.3%
- Continuous overload withstand: 200% of nominal
- Short duration overload withstand: 100 A for 3 sec
- Surge withstand as per IEEE®C37.90.1, ANSIC62.41
- True RMS sampling at 64 samples per cycle
- Isolation: 2500 VAC/60 Hz
- Burden:
 - Voltage & Current: 0.1 VA max
 - Power Supply: 6 VA max

Communications

- Protocols: Modbus®, DNP3.0 and IEC-870-101 included (Many others available as options)
- Ethernet
 - 10/100 Base T
 - RJ-45 connector
 - Wireless IP Radio ready (via PPP serial port)
- RS-232/485
 - 300 to 38.4k Baud
 - LED Indicators: TX, RX, RTS, CTS, DCD
 - Connection: DB-9F, RS-232/RS-485 signals
 - Solid state, radio-keying relay driven by COM1 RTS signal; output capable of sinking 3A @ 36 VDC
- WESMAINT configuration / maintenance port

Power Supply

- Input options: 20-60 VDC, 88-264 VAC/88-360 VDC
- Output: 24 VDC
- 20 W max input supply draw



Physical

- Dimensions:
 - DC Kit: 8.75" x 19" footprint
 - 2" high without Ethernet
 - 4.9" high with Ethernet
 - AC Kit: 8.75" x 19" footprint
 - 4.7" high without Ethernet
 - 4.9" high with Ethernet
- Mounting: 4 mounting holes, 2 slotted for easy installation
- Terminations:
 - Digital Inputs: #14 quick disconnect compression terminal blocks
 - Controls: #14 quick disconnect compression terminal blocks
 - DC analogs: #14 quick disconnect compression terminal blocks
 - AC analog: barrier strip
 - Input power: barrier strip

Environmental

- Temperature:
 - iBOX: -40° to +80°C operating range
 - DC Analog Module: -10° to +70°C operating range
 - AC Analog Module: -20° to +70°C operating range
 - Ethernet Module: 0° to +60°C operating range
 - Power Supply: -40° to +80°C operating range

Firmware

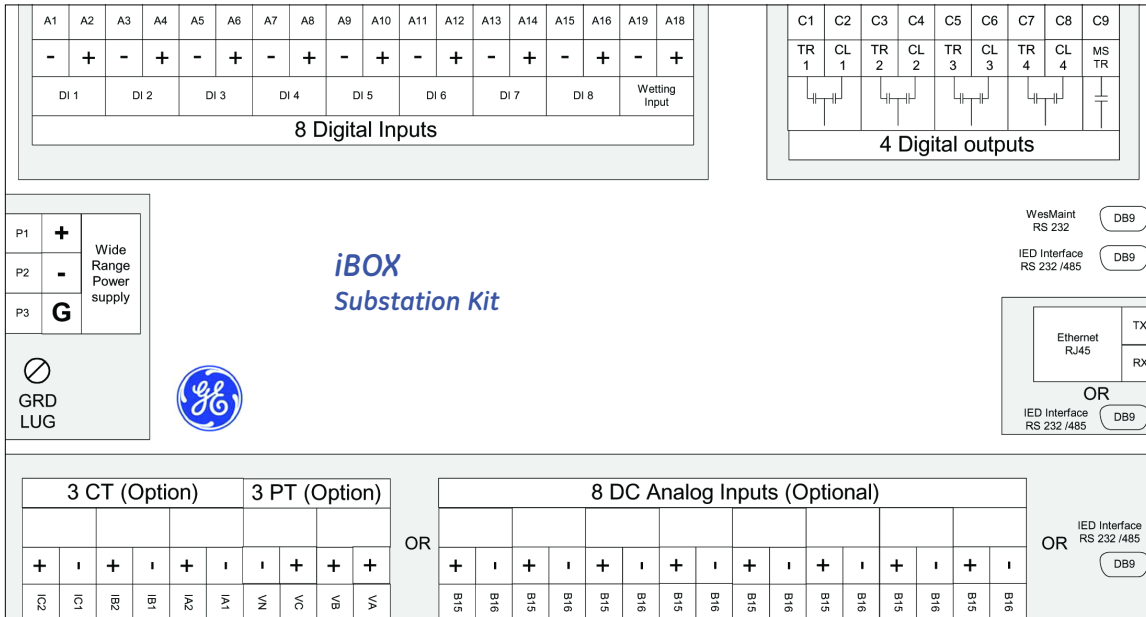
- Flexible, application dependent
- Working default configurations provided for all iBOX Kit options

Maintenance Software

- WESMAINT
- System requirements: IBM® PC or compatible computer, VT100 emulator

Configuration Software

- ConfigPro*
- LogicLinX* Editor (if using LogicLinX)



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