



VECTOR

 **VECTOR NET**
BUILDING MANAGEMENT SYSTEM



**BTB Electrical
Contracting Pty Ltd**

TRADE
PRODUCT & SERVICES
CATALOGUE
2024

CONFIGURE | CONTROL | CONNECT

nex
data management systems

 **insight**
control services

 **VECTOR**

 **ENVI** controls

 **BELIMO**

ABB



Great Solutions - Excellent Service "That's how we do it"

The aim for BTB Electrical is to provide our customers with solutions and service when it comes to all things Building Automation, Electrical, Control and Monitoring solutions. From a simple one zone control to full scale BMS and Energy Management System we can supply, install, commission and maintain. Whatever the application big or small the Insight Control Team will be happy to work alongside your team to help deliver our solutions and service on your next project.

Make the BTB Electrical product line up your preferred controls option today. Insight Control are proud to offer the wide range of control products featured in this catalogue, we offer a diverse range of tried and tested monitoring and control products to suit many applications.

We know and understand how important product knowledge is, to assist with your knowledge in our products we gladly provide product training, documentation, product support and service to your team and customers upon request. Just give us a call or visit our website www.insightcontrol.net.au to find out more about what we can offer you.

Products and Services:

- Vector Controls
- VectorNET BMS System
- Zoning Systems
- Variable Speed Drives VSD's
- BMS Project Delivery & Installation
- NEX Data Management Systems
- Energy Demand Control
- Integrated Air Conditioning Solutions
- System Calibration and Servicing
- Energy Monitoring Solutions
- Energy and Systems Audits
- Electrical Contracting Services



VECTOR

Controls and Sensors

Contents

Vector Controllers	
Vector TCX2 Controller.....	05
Vector Controller Communication Plugins	05
Vector Controller Memory Plugin	05
Vector X2 Controllers WIFI Or Ethernet.....	06
Vector TCI Controller's	06
Vector Easy Set Program	08
Vector TLR Kits	
Vector TLR Controller Kits	09
Vector Sensors	
Vector Indoor Temperature & Humidity Sensors	10
Vector Duct Temperature & Humidity Sensors	10
Vector Outdoor Temperature & Humidity Sensors	10
Vector Air Quality Sensors	11
Vector SDA Differential Pressure Transmitter	12
Vector SDE Differential Pressure Transmitter	12
Vector CO2 Sensors.....	12
Vector Accessories	
Vector Accessories.....	13
TA3 Thermostat	13
VectorNET BMS System	
VectorNET BMS	14
Energy Demand Control System	
Energy Demand Control System.....	18
NEX Data Management	
NEX Gateway Module.....	20
NEX Portable Monitoring.....	20
ENVI Central	
ENVI Central.....	21
NEX Energy Monitoring	
Energy Meters.....	22
Energy Meters Multi-Channel.....	22
Variable Speed Drive	
Variable Speed Drive.....	23
Climate Hub VAV	
Climate Hub VAV Zoning	24
Single Zone VAV Control	
Single Zone VAV Options.....	25
Damper Options	26
Cabling and Switches	
Cable Accessories	27
Switches	27
Belimo Dampers and Valves	28
Industrial Router & RS 485 to Wifi Converter.....	29
Power Supplies & Transformers.....	30
Project Quotes & MSSB Panels.....	31
Services We Provide.....	33
Terms and Conditions of Sale.....	35
Product Datasheets.....	36

Introducing Vector Controls - Optimal HVAC & Building controls for everyone.

Commencing in 2001 with the founding of Vector Controls by four experienced industry professionals quickly developed into a success story: The initial focus in ventilation controllers and thermostats led to further controller and measurement applications. The modular design of sensors, controllers and operating terminals laid the foundation for the universal, communicating controller solutions from Vector Controls as they are known today. Efficient, simple and inexpensive HVAC control solutions optimize your indoor climate and conserve resources.

Scalable projects from a single source.

Vector Controls provide solutions for projects ranging from standalone ventilation controllers to HVAC system solutions for entire buildings. The universal programmable controllers are the heart of all Vector applications. They are complemented by a wide range of sensors and application specific controls. The fieldbus connection of the controllers and the graphical representation of the data available with the VectorNET BEMS web server make it possible for every HVAC project to be optimally controlled and monitored using Vector Controls components.

Carefully selected, installed and adjusted control products save energy, reduce system lifecycle cost and increased comfort and air quality.

Reduce power consumption

- Password protected user and engineering parameters
- Limitations on all set points
- Different limitations for summer – winter mode
- Economy mode shifts set points and limits outputs when the room is not occupied
- Operation status may be controlled with motion detector, time schedules and external contacts
- Set point compensation: change the set point in correspondence to outside temperature
- Low limit and high limit alarms on all inputs to detect malfunction

EasySet: Technician software to configure and manage TCX2-series controls.

It is now simple to design, save, share, and commission your applications. And best of all: It is free.

- Live data trends with CSV export
- Template programs included
- Preset sensor options
- Save custom applications
- Sensor calibration feature



Vector TCX2 Controller

 Download TCX2 Datasheet



- Versatile controller for all your monitoring and operational needs
- 7 Day programmable schedule
- Easily reprogrammable settings
- Additional LCD terminal available
- Touchscreen LCD option available

Product Code	Description	List	Trade
V-TCX2-40863-OP	Vector controller with LCD	\$742.40	\$519.68
V-TCX2-14273-230-MOD	Vector Controller MOD	\$759.66	\$531.77
V-OPA2-VC	Wall Mounted LCD terminal	\$217.47	\$152.23
V-OPT1	Touchscreen LCD terminal	\$254.23	\$177.96



V-TCX2-40863-OP



V-OPA2-VC



V-OPT1

Vector Controller Communication Plugins

- Modbus or BACnet communications module plugins available
- Suitable for a large number of applications
- Supports interfacing with many devices on one network

Product Code	Description	List	Trade
V-AEX-MOD	Modbus communication plug-in	\$213.06	\$149.14
V-AEX-BAC	BACnet communication plug-in	\$303.31	\$212.32



V-AEX-MOD

Vector Controller Memory Plugin

- Memory plugin for the storage and quick transferal of program parameters
- Simple to use, can be used to install program parameters on many controllers quickly and easily
- Pre configured program options, includes USB drive with documentation.
- Custom Programs available on request.

Product Code	Description	List	Trade
V-AEC-PM1	Memory plug-in	\$39.55	\$27.69



V-AEC-PM1

Vector X2 Controllers WIFI Or Ethernet



- Wifi & Ethernet Connectivity options
- Inbuilt Web Server for access from Phone, Tablet or PC
- Versatile controller for all your monitoring and operational needs
- 7 Day programmable schedule
- Easily reprogrammable settings
- LCD terminal available
- Touchscreen LCD option available



V-TCX2-40863-ETM



V-TCX2-40863-WEM

Product Code	Description	List	Trade
V-TCX2-40863-WEM	TCX2 WiFi Modbus TCP+Webserver	\$919.53	\$643.67
V-TCX2-40863-ETM	TCX2 Ethernet Modbus TCP + Webserver	\$919.53	\$643.67
V-OPA2-VC	Wall Mounted LCD terminal	\$217.47	\$152.23
V-OPT1	Touchscreen LCD terminal	\$254.23	\$177.96

Vector TC12 Modbus/Bacnet Controller



Download TC12 Datasheet



- Compact, functional controller for all smaller monitoring and operational applications
- Various Input Output Options
- Wall mounted or Din rail cabinet mounted
- Easily reprogrammable settings
- 7 Day programmable schedule option
- Modbus / Bacnet Communication Enabled.

Product Code	Description	List	Trade
V-TC12-C24	Vector Dual Loop Modbus/Bacnet Controller	\$527.70	\$369.39



X2 Web Server Screenshots

Home

Domain name: 1
VectorAP-69

LP1	LP1	LP2	LP2
Input Value	0 °C	Input Value	2000 Pa
Setpoint	23 °C	Setpoint	800 Pa

LP3	LP3
Input Value	0 °C
Setpoint	21 °C

Controller State

Operating Mode: Occupied ☒ Unoccupied ☐

Unit: °C ☒ °F ☐

H / C mode: Heating ☒ Cooling ☐

connected

Home **VECTOR** Logout EN

Control Overview

- Control Loops
- Inputs
- Analog Outputs
- Digital Outputs

connected

Home **VECTOR** Logout EN

Advanced settings

Account Management

Logged in as: Admin [Change password](#)

Permissions: ☒ Allow User Account ☒ Allow Guest Account

Controller

Type: TCX2-40863 [Restart Controller](#)

Firmware Version: V14R5

Communication Module

Firmware Upgrade: [Browse...](#) No file selected [Upload](#) ready 0.00%

Webserver Files Upgrade: [Browse...](#) No file selected [Upload](#) ready 0.00%

Load new configuration file

Home **VECTOR** Logout EN

Wi-Fi

You are connected to the access point with SSID : "VectorAP-69" and your IP address is: 192.168.4.1
Domain name: VectorAP-69.local

Configuration

SSID: InsightControl2

SSID Password: •••••

Static / Dynamic IP: ☒ Static IP 10.1.0.69 ☐ DHCP

[Connect](#)











Product Code	Description	List	Trade
V-ES	Easy Set Software	Available to download for Free	
V-ES-CommsCable	Communication Cable	\$110.21	\$77.14

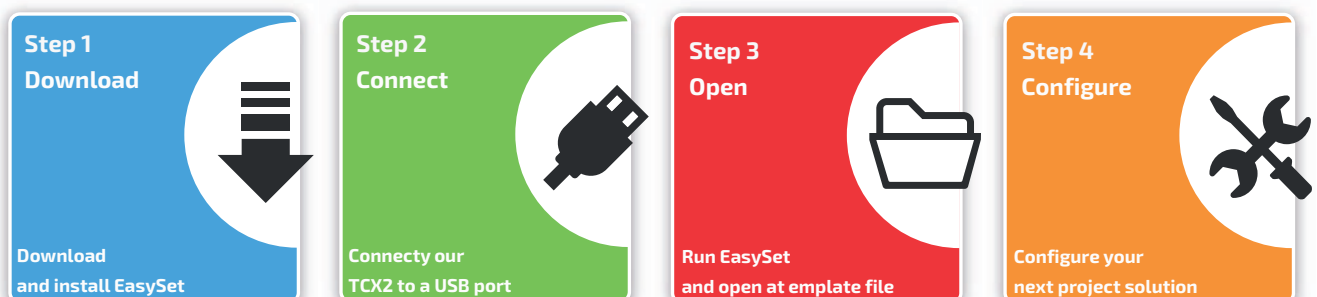


 Download Easyset Programming Software

EasySet is a fast, free, and user friendly way to access and configure Vector TCX2, TC12, and SDX2 controllers for any application.

FEATURES

-  Smart wizards for quick and easy programming.
-  Live data trends with CSV export.
-  Design, save, and share your program files.
-  Free software with online updates.
-  Windows 7, 8, and 10 compatible.
-  Sensor calibration feature.
-  Preset sensor options.
-  Complete turnkey solutions available including programming and installation.
-  Connect easily with a USB programming cable.
-  Service and support available. Contact us for options and pricing.



Vector TLR D5P-122 Controller Kit



V-TLR-D5P-122



V-OPU-D5P-122



V-SDB-TN10-20

Product Code	Description	List	Trade
V-TLR-D5P-122	Vector TLR Controller 122	\$324.48	\$227.14
V-OPU-D5P-122	LCD Touchpad 122	\$229.22	\$160.45
V-SDB-TN10-20	Duct sensor 200mm width 10k	\$66.50	\$46.55
Vector TLR D5P- 122 Controller Kit		\$277.55	

Vector TLR D5-311R Controller Kit



V-TLR-D5-311R



V-OPU-D5-311R



V-SDB-TN10-20

Product Code	Description	List	Trade
V-TLR-D5P-311R	Vector TLR Controller 311R	\$324.48	\$227.14
V-OPU-D5P-311R	LCD Touchpad 311R	\$229.22	\$160.45
V-SDB-TN10-20	Duct sensor 200mm width 10k	\$66.50	\$46.55
Vector TLR D5-311R Controller Kit		\$277.55	

Vector TLR D42-311A Controller Kit



V-TLR-D42-311A



V-OPU-D42-311A



V-SDB-TN10-20

Product Code	Description	List	Trade
V-TLR-D5P-311A	Vector TLR Controller 311A	\$324.48	\$227.14
V-OPU-D5P-311A	LCD Touchpad 311A	\$229.22	\$160.45
V-SDB-TN10-20	Duct sensor 200mm width 10k	\$66.50	\$46.55
Vector TLR D5-311R Controller Kit		\$277.55	

 Download TLR Datasheet

Vector Indoor Temperature & Humidity Sensors

- Suitable for various control systems
- 10k Thermistor
- Transmitter selectable 0-10 or 4-20ma

Product Code	Description	List	Trade
V-SRA-TN10	Wall mounted room sensor 10k	\$41.63	\$29.14
V-SRC-T1-W0	Wall mounted temperature transmitter	\$160.17	\$112.12
V-SRC-H1-A3	Wall mounted humidity transmitter	\$252.25	\$176.57
V-SRC-H1T1	Wall mounted humidity & temperature transmitter	\$272.69	\$190.89



V-SRA-TN10

Vector Duct Temperature Sensor

- 10k Thermistor
- Suitable for various control systems
- Transmitter selectable 0-10 or 4-20ma

Product Code	Description	List	Trade
V-SD-Tn10-12	Probe Lead duct Sensor 12cm 10k	\$35.63	\$24.94
V-SDB-TN10-12	Duct sensor 120mm width 10k	\$64.54	\$45.18
V-SDB-TN10-20	Duct sensor 200mm width 10k	\$66.50	\$46.55
V-SDC-T1	Duct temperature Transmitter	\$244.53	\$171.17
V-SDC-H1	Duct Humidity Transmitter	\$318.74	\$223.12
V-SDC-H1T1	Temperature and humidity transmitter	\$347.64	\$243.35



V-SDB-TN10-12

Vector Outdoor Temperature Sensors

- 10k Thermistor
- Suitable for various control systems
- Transmitter selectable 0-10 or 4-20ma

Product Code	Description	List	Trade
V-SOD-Tn10	Temperature sensor 10k	\$47.15	\$33.00
V-SOC-T1-1-W0	Temperature Transmitter	\$236.70	\$165.69
V-SOC-H1Tn10-A3	Temperature and Humidity Sensor	\$341.39	\$238.97
V-SOC-H1T1-A3-1-W0	Temperature and humidity transmitter -40~ +60 degrees	\$342.86	\$240.00



V-SOD-Tn10



V-SOC-T1

 Download Sensor Datasheet

Indoor Air Quality Sensors

Indoor Air Quality & Temperature Transmitter/Monitor



V-SRC-Q1T1

- Indoor Temperature Monitoring
- Indoor Humidity Monitoring
- Indoor CO2 Monitoring
- Onboard Display Option Available
- VOC & Dust Particles Option Available
- Automatic Speed Control Of Fresh Air Fan
- Automatic Modulation Of Fresh Air Damper
- Adjustable CO2 Setpoint



Product Code	Description	List	Trade
V-SRD2-THC	Wall Mount TH, CO2 no display	\$543.00	\$380.10
V-SRD2-THC OPIR	Wall Mount TH, CO2 Sensor OPIR	\$598.25	\$418.78
V-SRD2-THC MOD (no display)	Wall Mount TH, CO2 Sensor w MOD	\$598.25	\$418.78
V-SRD2-THC OPIR-MOD	Wall Mount TH, CO2, OPIR, MOD	\$676.50	\$473.55
V-SRD2-THC OPIR-BAC	Wall Mount TH, CO2, OPIR, BAC	\$731.37	\$511.96
V-SRD2-THC OPIR-WIM	Wall Mount TH, CO2, OPIR, MOD, Wifi	\$709.37	\$496.56
V-SRD2-THC OPIR-WIB	Wall Mount TH, CO2, OPIR, BAC, Wifi	\$763.75	\$534.63

Indoor CO2 & Temperature Transmitter



V-SRC-C1T1

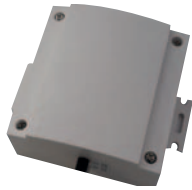
- Indoor CO2 Monitoring and temperature measurement
- CO2 level indication with three separate color LED's
- Direct Outside air control

Product Code	Description	List	Trade
V-SRC-C1T1	Indoor CO2 0 ~ 2000 ppm and temperature transmitter -40...60 °C	\$586.28	\$410.40

CO2 Fan Control Kit



- Indoor CO2 Monitoring
- Automatic Speed Control of Fresh Air Fan
- Automatic Modulation of Fresh Air Damper
- Adjustable CO2 Setpoint
- CO2 Led Indication on Sensor
- High Quality Product
- Install Option Available



V-SDA-P*

Vector SDA Differential Pressure Transmitter

- Suitable for various control systems
- Transmitter selectable 0-10 or 4-20ma

Product Code	Description	List	Trade
V-SDA-P1	Diff Pressure transmitter	\$562.29	\$393.60
V-SDA-P2	Diff Pressure transmitter 0-500Pa	\$562.29	\$393.60
V-SDA-P3	Diff Pressure transmitter 0-1kPa	\$562.29	\$393.60



V-SDE-P*

Vector SDE Differential Pressure Transmitter

- Suitable for various control systems
- Transmitter selectable 0-10 or 4-20ma

Product Code	Description	List	Trade
V-SDE-P1	Diff Pressure transmitter 0-25Pa	\$497.63	\$348.34
V-SDE-P2	Diff Pressure transmitter 0-500Pa	\$441.79	\$309.26



V-SRC-C1

Vector CO2 Sensors

- Air Quality applications
- Outside air control

Product Code	Description	List	Trade
V-SRC-C1	Wall Mounted CO2 transmitter: 0-2000 ppm	\$603.67	\$422.57
V-SDC-C1	Duct CO2 transmitter 160mm probe: 0-2000ppm	\$678.95	\$475.26



C-GAS-CO-150

Air Quality Sensors

- Range adjustable at time of installation
- Durable plastic housing
- Air quality applications
- Car park monitoring

Product Code	Description	List	Trade
C-GAS-CO-150	Carbon monoxide sensor 0-150ppm	\$397.67	\$278.37
C-HRW-SEN-CO	Carbon monoxide sensor	\$397.67	\$278.37

 Download Sensor Datasheet

Vector Accessories

- 10k thermistor temperature sensor
- For use with TCX2-OP controllers

Product Code	Description	List	Trade
V-AMC-2	Conduit Connector:NPT thread	\$6.99	\$4.89
V-AMB-005	Connection Box Surface Mounting	\$10.91	\$7.63
V-OPR-1	Infrared remote controller	\$40.78	\$28.55
V-OPC-S	Integrated display & programing unit	\$138.25	\$96.77
V-OPA-S	Remote display & prog interface	\$154.87	\$108.41



V-OPC-S

TA3 Thermostat

- Mechanical thermostat
- Allows for temperature setting between 5 and 30 degrees celsius
- Minimalist design with clean white finish to suit any room

Product Code	Description	List	Trade
C-HRW-TA3	Mechanical room thermostat	\$78.54	\$54.98



C-HRW-TA3



VECTOR NET

BUILDING MANAGEMENT SYSTEM

Training Session

Call us about our next training session dates.

1300 665 831 or email
training@insightcontrol.net.au

- Vector Products Overview
- Programming Basics
- Vector Net BMS Preview
- Tech Install Tips



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Lunch Provided

Vector Knowledge Base

- Product Range Information
- Easyset Program Library
- How-to articles
- Troubleshooting



Introducing VectorNET Building Management System

The perfect building control solution bringing Vector Controls hardware and all other building controls and systems together in one compact, powerful and intuitive package.

The VectorNET BMS is a stand-alone, embedded, web-based graphical interface for building automation, process control and access control systems. Multiple simultaneous protocols supported Modbus, BACnet and more. The VectorNET is totally self-contained so no PC is required on site, only access for a web browser, locally or via the internet. All set up and user interactions are performed via a web browser. No dedicated PC or external software applications are required. The user interface utilises HTML5 to allow for advanced graphical features. The VMS is designed to automatically adjust to any screen size and orientation. This allows it to be used in browsers on a PC, tablet or mobile phone with no changes or special software configuration necessary.

VectorNET BMS & Control System Engineering with a difference

VectorNET Engineering options are tailored to suit your particular needs, giving you the ability to be in control of your controls projects. Fully engineered systems to suit your building applications big or small or self engineered solutions available with pre-loaded template packages ready to deploy onsite with minimal engineering. System Integrator Training programs are available, no expensive engineering software required to get started with dedicated remote service and support provided by Insight Control.



[Download Vector NET BMS Datasheet](#)

VectorNET BMS Feature Summary

- Modern Animated building graphics included
- Dedicated Mobile or Desktop Viewing options
- Energy Monitoring with automated Demand / Load-shed control
- Internally maintained time schedules with sunrise/sunset and stagger offsets
- Trend data collection, display and export to CSV or NEX Cloud
- Runtime accumulation with Email and SMS notifications
- Alarm condition monitoring with Email and SMS notifications
- Calculated point values (average, min, max, etc)
- Simple line programming for controlling equipment
- Database of up to 100 users and 100 user groups
- Multiple simultaneous users
- Activity logging for tracking user actions
- Template system for quickly cloning points, graphics, devices or entire networks
- QR code point mapping for simple user monitoring and control.
- Live Weather station data feeds
- Support for up to 2,000 nodes which can be any combination of points, graphics, trends, etc. - no hard limits on individual nodes.
- Supported VPN Remote Access Options available
- Dedicated BMS 4G network router options available

Industry Standard Protocols Supported

- BACnet IP
- BACnet MS/TP
- ModBus RTU/485
- ModBus/TCP (IP)
- XML/HTTP (read only)
- LonWorks



Software Requirements

No software is required other than an HTML5 compatible web browser.

Recommended browsers are as follows:

- Windows: Chrome
- Android: Chrome
- iPhone/iPad: Safari
- Linux: Chrome



Vector NET Building Management System

- Extremely compact, standalone, embedded web-based interface.
- For use with building automation and process/access control systems.
- Can be supplied programmed and engineered to meet your particular needs.
- BACnet IP, BACnet MS/TP, Modbus/TCP, Modbus RTU/485, LonWorks.



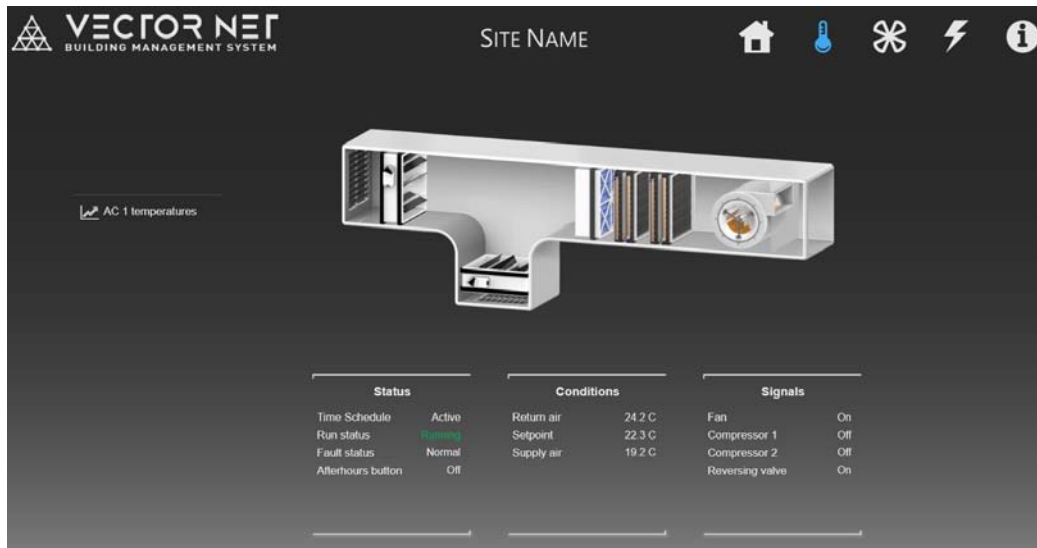
VN-VectorNET Web HMI

Product Code	Description	List	Trade
VN-VectorNET Web HMI	VectorNET BMS/EMS HMI	\$4,273.62	\$2,991.53
VN-VectorNET Web HMI MR	VectorNET BMS/EMS HMI Modbus RTU	\$2,880.00	\$2,016.00
VN-VectorNET Config < 5	VectorNET Config < 5 Devices	\$1,585.00	\$1,109.50
VN-VectorNET Config < 10	VectorNET Config < 10 Devices	\$2,210.00	\$1,547.00
VN-VectorNET Config < 25	VectorNET Config < 25 Devices	\$3,880.00	\$2,716.00
VN-VectorNET Config 25+	VectorNET Config 20+ POA	POA	POA
VN-VectorNET Config HLI	VectorNET Config Misc HLI	\$1,680.00	\$1,176.00
VN-VectorNET AIO 13.3" TS	VectorNET Touchscreen PC13.3"	\$2,180.00	\$1,526.00
VN-VectorNET AIO 22" TS	VectorNET Touchscreen PC22"	\$2,685.00	\$1,879.50



[Download Vector NET BMS Datasheet](#)





Energy Demand Control

- Automatic Load Shed Control
- Energy Monitoring
- Temperature Monitoring (Store & Cold / Freezer Rooms)
- Time Schedule Equipment Shutdown after hours
- Fail Safe Control, High Temp override
- Battery & Solar integration possible
- New build or retro fit installation
- NEX Cloud connection for system trend reporting and email alerts



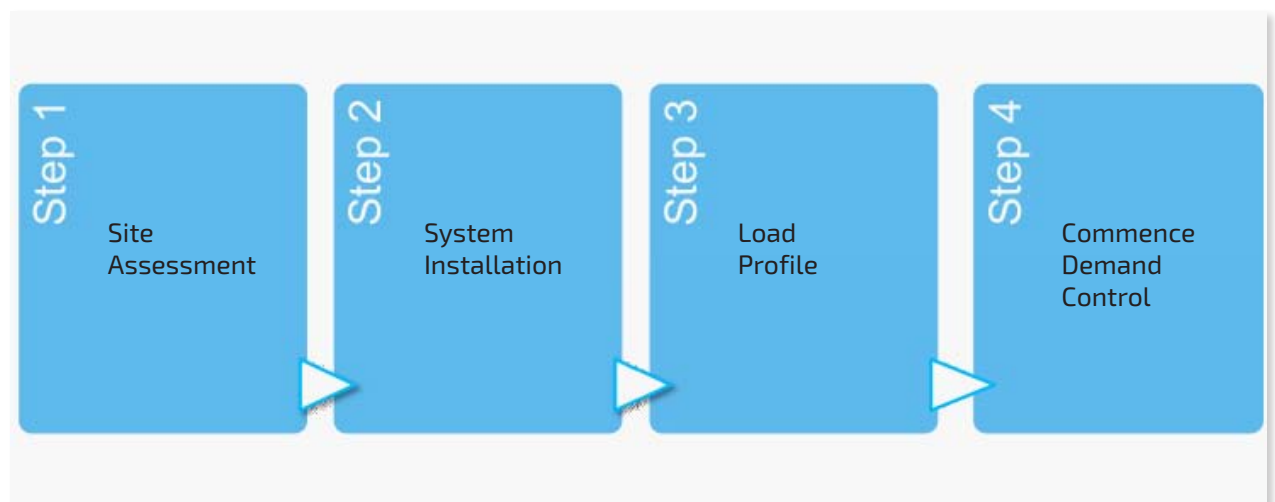
Typical EDC System will require the following, this can change depending on the project.

Product Code	Description
VN-VectorNET Web HMI	VectorNET BMS/EMS HMI
V-TCX2-40863-OP	Vector controller with LCD
M-SPM93	Electrical meter, kWh, 3 Phase 60A C1
M-SCT36-200/5	CT Split Core 200/5amp
M-NEX	12Months NEX Cloud Subscription
P-Engineering	Programmed to your particular needs
Total System Price: POA	

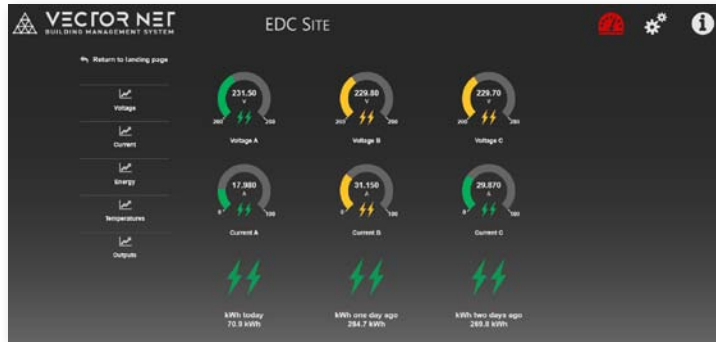


VN-VectorNET Web HMI

EDC System Implementation Process



 Download EDC Datasheet



EDC Dashboard



NEX Data





NEX Gateway Module

- Download Nex Cloud Datasheet
- Data management system for building meters, sensors and devices
 - Subscription free software
 - Automatic email alerts
 - Single or multiple sites handled
 - Access data anywhere on the web



M-DMS3

Product Code	Description	List	Trade
M-NEX-DMS3	NEX Gateway Module	914.28	\$640.00

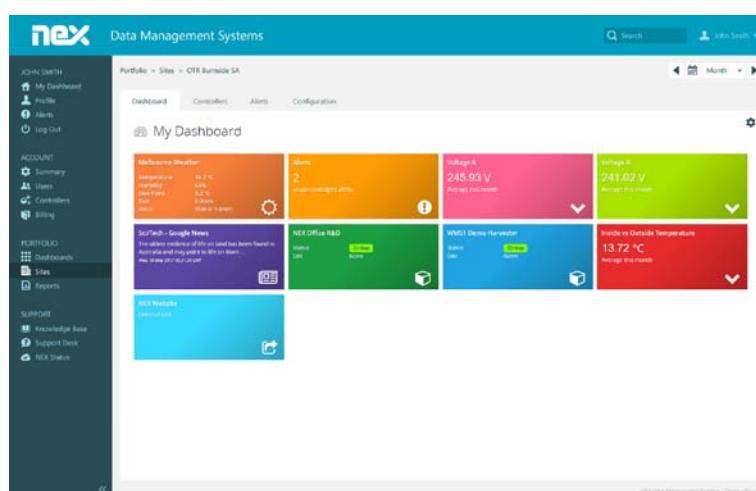
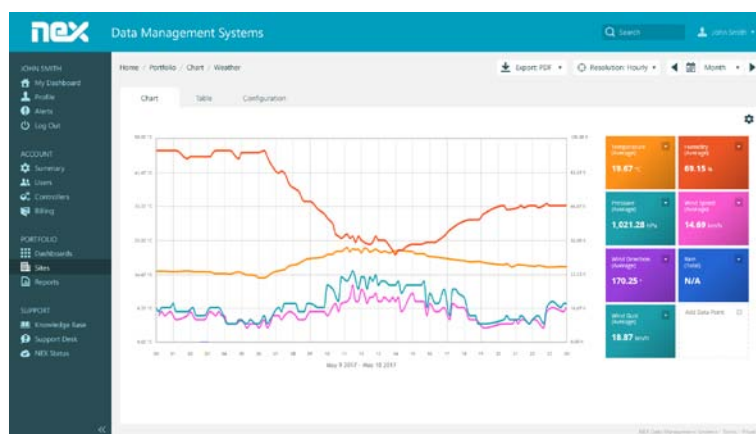
NEX Portable Monitoring

- Download Nex Portable Datasheet
- ROI Calculations
 - Energy Service and Upgrade Assessments
 - Temperature Profiling
 - Compliance Testing
 - Building Performance reporting
 - Before and After Reporting



M-DMS3

Product Code	Description	List	Trade
M-PM	NEX Portable Monitoring Box	POA	POA



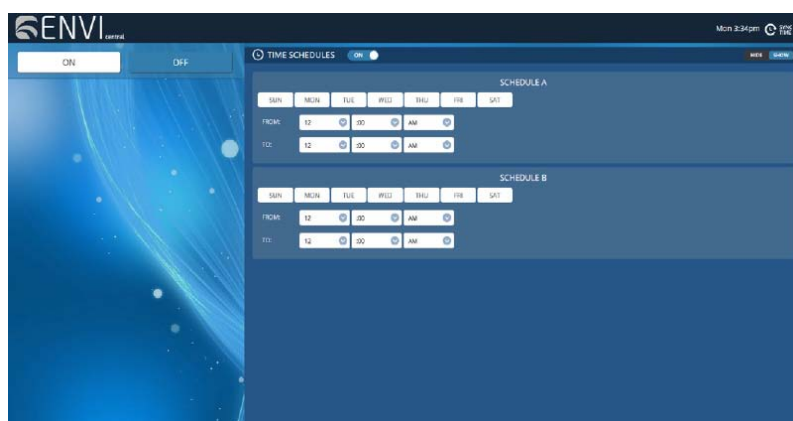
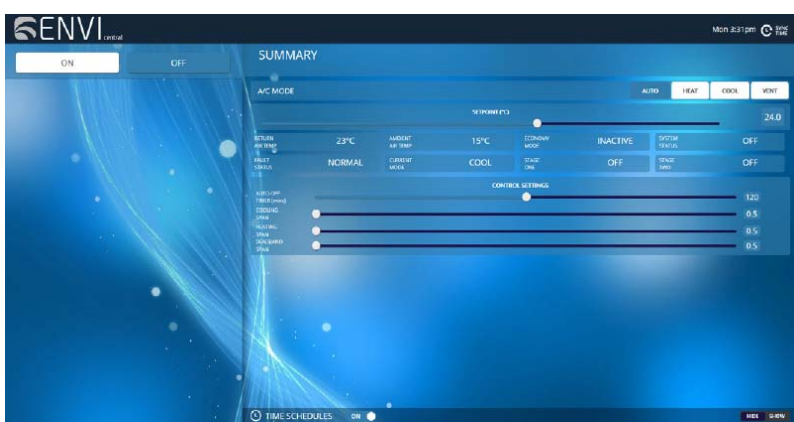
Universal HVAC Central Control Interface

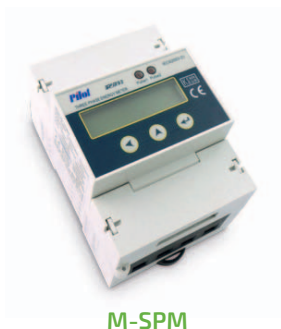
- Intuitive easy to use Web Interface.
- Compatible with most Commercial AC systems
- Manage single or multiple AC systems from one interface
- System Fault Reporting
- System Time Scheduling
- Low cost remote management solution for unlimited sites
- Easy new or retro fit installation
- Future NEX Cloud connection for system trend reporting and email alerts



V-TCX2-40863-WEM

Product Code	Description	List	Trade
CH-ENVI	ENVI Web Ctrl Module	\$963.60	\$674.52
CH-SZ-NAV-WW	Climate Hub Navigator White	POA	POA
V-TCX2-40863-OP-WEM	TCX2 WiFi Modbus TCP+Web+OP	\$919.53	\$643.67
CH-ENVI Central	ENVI Central 10" Touch Screen	\$1,220.00	\$854.00





M-SPM

Energy Meters

- Low cost solutions
- Class value denoted as C#
- Modbus Comms

Product Code	Description	List	Trade
M-SPM93-5	Electrical meter, kWh, 3 Phase 5A C0.5	\$410.21	\$287.14
M-SPM93 -63	Electrical meter, kWh, 3 Phase 60A C1	\$410.21	\$287.14



M-CT1/60



M-SCT

Compatible Current Transformers:

Product Code	Description	List	Trade
M-CT1/60	Current Transformer 5/60-150A C1	\$38.10	\$26.67
M-CT2/200	Current Transformer 5/200-500A C1	\$65.31	\$45.71
M-CTD-55	Split Core Current Transformer C1	\$390.67	\$273.47
M-SCT24-100/5	CT Split Core 100/5amp	\$94.92	\$66.45
M-SCT36-200/5	CT Split Core 200/5amp	\$103.56	\$72.49
M-SCT36-300/5	CT Split Core 300/5amp	\$112.19	\$78.53
M-SCT36-400/5	CT Split Core 400/5amp	\$122.68	\$85.87



M-NEM30

Energy Meters Multi-Channel

- Meters for measuring up to 30 single phase circuits or 10 three phase circuits
- Small and compact DIN rail mount design
- Clip-on split or solid core current transducers
- Power supply of 220v
- Modbus Comms



Product Code	Description	List	Trade
M-SPM20	10x3Phase /30x1Phase multi circuit	\$332.37	\$232.66
M-SPM20-C CT	SPM20 CT 63A solid core	\$90.96	\$63.67
M-SPM20-O CT	SPM20 CT 50A clip on	\$122.45	\$85.72

Download Energy Meters Datasheet



ABB ACH580

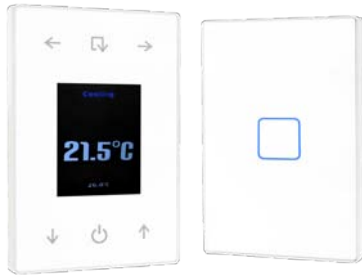
ABB VSD

Download ABB VSD Datasheet

- Wide range of applications
- Removable LED keyboard included
- Automatic voltage regulation
- Modbus communication and IP54 as standard

Product Code	Description	List	Trade
VSD-ABB-0.75KW	ABB ACH580-0.75KW IP55	\$657.84	\$592.06
VSD-ABB-1.1KW	ABB ACH580-1.1KW IP55	\$690.95	\$621.86
VSD-ABB-1.5KW	ABB ACH580-1.5KW IP55	\$805.75	\$725.18
VSD-ABB-2.2KW	ABB ACH580-2.2KW IP55	\$852.11	\$766.90
VSD-ABB-3KW	ABB ACH580-3KW IP55	\$931.57	\$838.41
VSD-ABB-4KW	ABB ACH580-4KW IP55	\$1061.82	\$955.63
VSD-ABB-5.5KW	ABB ACH580-5.5KW IP55	\$1,247.42	\$1,122.68
VSD-ABB-7.5KW	ABB ACH580-7.5KW IP55	\$1,532.74	\$1,379.47
VSD-ABB-11KW	ABB ACH580-11KW IP55	\$1,759.30	\$1,583.37
VSD-ABB-15KW	ABB ACH580-15KW IP55	\$2,109.67	\$1,898.70
VSD-ABB-18.5KW	ABB ACH580-18.5KW IP55	\$2,552.70	\$2,297.43
VSD-ABB-22KW	ABB ACH580-22KW IP55	\$3,070.11	\$2,763.10
VSD-ABB-30KW	ABB ACH580-30KW IP55	\$3,554.41	\$3,198.97
VSD-ABB-37KW	ABB ACH580-37KW IP55	\$4,295.84	\$3,866.25
VSD-ABB-45KW	ABB ACH580-45KW IP55	\$5,408.42	\$4,867.58
VSD-ABB-55KW	ABB ACH580-55KW IP55	\$7,230.16	\$6,507.14
VSD-ABB-75KW	ABB ACH580-75KW IP55	\$8,659.99	\$7,793.99





Climate Hub Zoning Components

- Variable Air Volume (VAV) zoning system
- Up to 12 zones
- Amazing Looking Capacitive Touchpads available in White or Black
- Intuitive Easy to Use Web Interface
- Compatible with the Vector TCX2 range of HVAC controllers
- Intuitive Easy to Use Web Interface
- Access Zoning Control from PC/Tablet/Mobile Phone
- Manage Multiple Systems

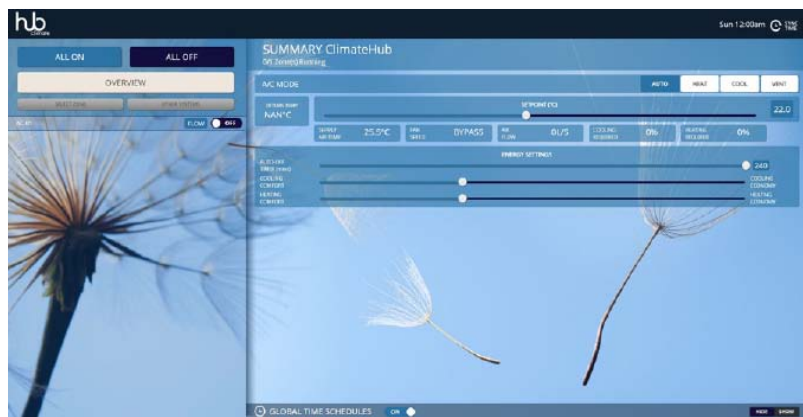


CH-SZ-NAV

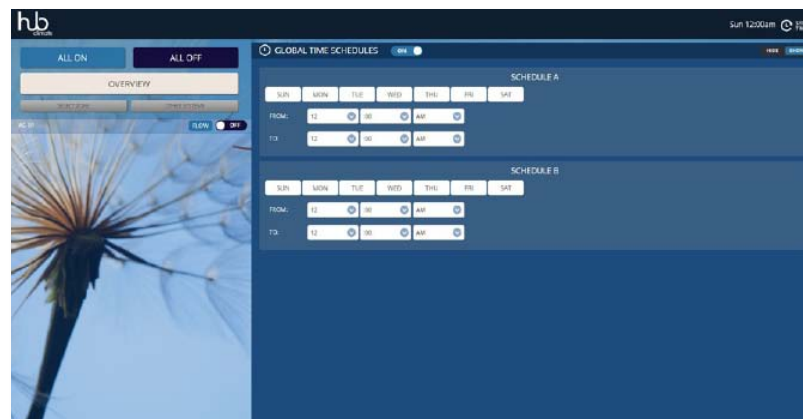


CH-SZ-RC

Product Code	Description	List	Trade
CH-SZB-4-RAIL	4 Zone ClimateHub with MPM 1-4 Zone & Chatter Box	POA	POA
CH-SZB-8-RAIL	8 Zone ClimateHub with MPM 1-8 Zone & Chatter Box	POA	POA
CH-SZB-12-RAIL	12 Zone ClimateHub with MPM 1-12 Zone & Chatter Box	POA	POA
CH-SZ-NAV-WW	Climate Hub Navigator White	POA	POA
CH-SZ-RC	Climate Hub Smart Room Sensor	POA	POA
C-DS-47K-TL	Duct Temperature Sensor	POA	POA
CH-ENVI Central	ENVI Central 10" Touch Screen	POA	POA



Download Climate Hub Datasheet



Zone-It Single Zone VAV Control



C-Zonelt



C-LS-47K-TL



E-TFORM-4

Single zone 24VAC VAV control system suitable for any application with a central source for cooling and heating such as reverse cycle systems. Not for use in applications utilising zone reheat. Features LED zone status indication and InnoCab plug-in connection to damper motor.

Suitable for duct-mounted VCDs or inline dampers.

Kit includes:

- 1 x Wall mounted control panel with room sensor and supply air sensor
- 1 x 47k supply lead sensor
- 1 x 240V/24V transformer

Download Zone It Datasheet

Product Code	Description	List	Trade
C-Zonelt	Zone It VAV Wall Controller	\$265.89	\$186.12
C-LS-47K	Bead on a lead sensor 1m 47k	\$61.02	\$42.72

Vector TRI2 Touchscreen Single Zone VAV



V-TRI2



C-LS-47K-TL



C-Zonelt E-TFORM-4

Product Code	Description	List	Trade
V-TRI2	TRI2 Wall Controller	\$533.78	\$373.64
C-LS-10K	Bead on a lead sensor 3m 10k	\$52.76	\$36.93
E-Tform-4	24VAC 24V AC Transformer 44VA	\$61.02	\$42.72

- Big LCD Display.
- Easy to Setup and Install.
- Digital Input signal for Presence Sensor.
- Integrated Sensor for accurate room Temperature sensing.
- CO2 sensor Input.
- Boost Function to allow maximum conditioning.
- Minimum Ventilation Functionality.
- BMS Integration possible via Modbus communication.
- ECO mode for Energy Saving.

Download TRI2 Datasheet



D-MDB

Belimo Motorised Damper Barrels

- 24V drive-open, drive-close damper actuators
- Size is given as a diameter width
- Heavier load damper actuators available - contact us for details

Product Code	Description	List	Trade
D-MDB-150-IC	150mm 5Nm 24V motorised damper	\$233.45	\$163.41
D-MDB-200-IC	200mm 5Nm 24V motorised damper	\$240.42	\$168.30
D-MDB-250-IC	250mm 5Nm 24V motorised damper	\$247.32	\$173.13
D-MDB-300-IC	300mm 5Nm 24V motorised damper	\$259.16	\$181.41
D-MDB-350-IC	350mm 5Nm 24V motorised damper	\$266.36	\$186.45
D-MDB-400-IC	400mm 5Nm 24V motorised damper	\$270.38	\$189.27

Zone It



Vector TRI2



Cable Accessories

Product Code	Description	List	Trade
E-CAB-5-200	IC cable 5 cores + 1 shield 200m (grey)	\$293.88	\$205.71
E-CAB12	IC cable 6 core flat 12m (blue)	\$39.31	\$27.52
E-PLUG-20	6P6C Inno-cab plugs - bag QTY 20	\$16.66	\$11.66
E-TOOL	Innocab crimping tool	\$86.15	\$60.30
E-CAB-2CS-GREY	2 core screened 7020 data cable 100m	\$70.05	\$49.03
E-CAB-4CS-GREY	4 core screened 7020 data cable 100m	\$121.70	\$85.19
E-Cab-Modbus485-RW	Modbus485 Roadworx Cable	POA	POA



E-CAB-12



E-CAB-4CS-GREY

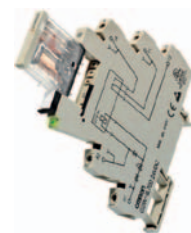
Switches

- Applications in MSSB, control and monitoring solutions
- High quality products from trusted brands
- Adjustable to suit your application
- Call us for a wider range of switches to suit your project

Product Code	Description	List	Trade
C-HRW-APS-LEF00	Air press switch 30-300pa	\$100.29	\$70.20
C-HPT 55 DUCTMOUNT	Heater protection thermostat main	\$105.33	\$73.73
C-REL-24V SL	Slim line relay 24V	\$33.00	\$23.10
C-REL-240V SL	Slim line relay 240V	\$33.00	\$23.10
C-CS	Current Switch 1-200A ac	\$81.87	\$57.31



C-HRW-APS-LEF00



C-CS



D-MDB

Belimo Motorised Damper Barrels

- 24V drive-open, drive-close damper actuators
- Size is given as a diameter width
- Heavier load damper actuators available - contact us for details

Product Code	Description	List	Trade
D-MDB-150-IC	150mm 5Nm 24V motorised damper	\$233.45	\$163.41
D-MDB-200-IC	200mm 5Nm 24V motorised damper	\$240.42	\$168.30
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D-MDB-300-IC	300mm 5Nm 24V motorised damper	\$259.16	\$181.41
D-MDB-350-IC	350mm 5Nm 24V motorised damper	\$266.36	\$186.45
D-MDB-400-IC	400mm 5Nm 24V motorised damper	\$270.38	\$189.27



D-ACT-LMS-24

Belimo Motors

- Built to last products from a renowned name in the industry
- Available standalone or attached to damper barrels
- Auxiliary connections and different drive types available

Product Code	Description	List	Trade
D-ACT-LMS-24	5nm 24V drive open/drive close 150s	\$282.02	\$197.42
D-ACT-LMA-230	5nm 240V drive open/drive close 150s	\$255.80	\$179.06
D-ACT-LMA24SR	5nm 24V Modulating 2-10V	\$305.41	\$213.79



P-MISC ELEC

Belimo Water Valves

- Built to last products from a renowned name in the industry
- For use in water control and modulation
- Ask us for price and availability on a wide range of project specific water valves

Product Code	Description	List	Trade
P-MISC CTRL	Project specific water valves	POA	POA

Industrial 4G Router

Product Code	Description	List	Trade
M-USR 4G Router	4G Industrial Router /Aerial	\$668.22	\$467.76

- 4G LTE Industrial Routers, secure wireless routing for industrial remote access
- Din Rail Mount
- Providing reliable, seamless connectivity for M2M & IoT applications
- Support PPTP L2TP IPSEC OPENVPN GRE
- Support 2 10/100Base-T(X) self-adaptive Ethernet interface
- Hardware watchdog, rugged metal casing and Din-Rail mounting
- Support 802.11 b/g/n WLAN



M-USR 4G Router



RS 485 to Wifi Converter

Product Code	Description	List	Trade
M-USR DR4040 485-IO	Modbus RTU-TCP WiFi/ Ethernet	\$254.23	\$177.96

- Din Rail Mount
- 1-port RS485 to 802.11 a/b/g/n WLAN Serial Device Server
- Links serial and Ethernet devices to an IEEE 802.11a/b/g/n network
- Supports TCP server/client, UDP server/client, https client, Virtual COM
- Supports Modbus RTU to Modbus TCP
- Supports multiple networking mode with 1 RJ45 ethernet port



M2M One Managed Sim

Product Code	Description	List	Trade
M-M2MOne-Sim	M2M One Sim Card	POA	POA

Includes 12Months Data for typical BMS Access Applications.



E-TForm-HDR-15-24

MeanWell HDR 24VDC Power Supply

DIN Rail Power Supply 15.2W 24V 0.63A Class II DIN Rail

Product Code	Description	List	Trade
E-TForm-HDR-15-24	Din Rail Power Supply 24VDC	\$55.49	\$38.84



E-TForm-HDR-30-24

MeanWell HDR 24VDC Power Supply

DIN Rail Power Supplies 36W 24V 1.5A Class II DIN Rail

Product Code	Description	List	Trade
E-TForm-HDR-30-24	Din Rail Power Supply 24VDC	\$68.50	\$47.95



E-TForm-S8VK-C06024

Omron S8VK-C06024 24VDC Power Supply

Single Phase 60W , Input 100 to 240 VAC / 90 to 350 VDC , Output 24V2.5A

Product Code	Description	List	Trade
E-TForm-S8VK-C06024	Omron Din Rail Power Supply 24VDC	\$111.32	\$77.93



E-TFORM-4

Transformer 240V-24VAC

Product Code	Description	List	Trade
E-TForm-24VAC	240V-24VAC Transformer	\$61.02	\$42.72

PROJECT MSSB AND CONTROL PANELS



With a range of Controls and Sensors Options Insight can provide Projects Pricing on the following range of services:

- BMS Controls Supply and Installation
- Mechanical Electrical Installation
- D&C Control System Functional Design
- Carpark Co Control Systems Supply and Installation
- Co Sensor Calibration
- VSD's Supply and Commission
- Mechanical Services Switch Board and Control Board Building
- Controls Commissioning
- Scheduled BMS and Controls Maintenance

Phone: 1300 665 831 **Email:** sales@insightcontrol.net.au

Please Call us on your next project requirements

CONTROL PANELS & CAR PARK PANELS



With a fully functional and dedicated workshop Insight can build HVAC control panels and car park park control panels with exceptional quality. Each and Every panels goes through a strict QA and Testing process to ensure all safety standard are met, this also eliminates any potential issues for the onsite technicians.



CO Sensor / Essential Services Maintenance

Insight Control Services offer a test & calibration service for Carbon Monoxide (CO) sensors as part of the essential services maintenance. Once a building is constructed the owner is responsible for the upkeep and maintenance as part of the Australian Standards AS 1851-2012 (Routine services of fire protection systems and equipment).

The following tasks are carried out during a CO sensor control maintenance service.

- Test & calibrate CO sensors.
- Visual check of control panel wiring.
- Check controller operation.
- Visual inspection of field devices and sensors.
- Check VSD (if fitted).
- Check Time clock (if fitted) is operation.
- Label sensors with test date tag.
- Provide service report
- Provide onsite log book for records.



PRIMARY REQUIREMENTS

A CO control monitoring system installed to regulate mechanical ventilation serving a garage, parking station or other enclosure used for servicing or operation of motor vehicles shall require the following standards.

- Be provided with a digital display.
- Operate continuously and effectively whenever motor vehicles are present in the enclosure in accordance with Clause 7.13.3
- Under any fault condition automatically activate an alarm and operate the mechanical ventilation in the enclosure in accordance with Clause 7.13.6
- Be clearly marked to indicate servicing and calibration requirements in accordance with Clause 7.13.7
- The system must also provide at least 1 air change in every 24 h period.
- No point in the car park can be more than 25m away from a sensor.
- The systems must be serviced twice – yearly.

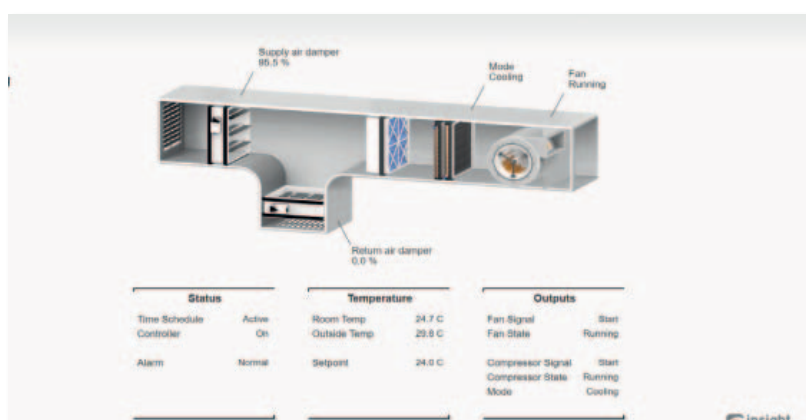
If you require a Car Park test & calibration service, Insight Control Services can help, please contact us

BMS & DDC Control Programmed Maintenance / Service

Insight Control Services also offers Programmed Maintenance and Services for your Building Management System & DDC controls to make sure that all aspects of your building are running to maximum efficiency. A detailed service report is also provided after each service highlighting all the key observations made by our technician.

The following work is completed during a standard Bi-Annual BMS & DDC system site visit service:

- Check digital control system points for correct operation
- Check Sensor calibration adjust as required
- Check Monitoring Reporting Software
- Check DDC Control Hardware
- Visual Check of control panel wiring
- Visual inspection of field devices and sensors
- Keep all areas clean and tidy
- Check damper actuator operation
- Program enhancements on request
- Carry out minor program changes on request
- Top up 4G pre paid data as required
- Complete service log book
- Provide service reports



1. GENERAL - These conditions of sale apply to any sale of items or equipment of the Company or, where a quotation is made, they shall form part of that quotation.

2. PRECEDENCE - In the event of conflict between these conditions and those which may be included in, or implied by, any document forming part of any inquiry, specification, order or contract then these conditions shall prevail except in so far as they are expressly varied by the Company in writing. If any condition is contrary to or excluded by law these conditions shall be modified but only to the extent of excluding that part of the conditions affected.

3. ACCEPTANCE - A quotation is not to be construed as an offer or obligation to sell and the Company reserves the right to accept or reject any order received.

4. PRICES a) All prices are subject to change without notice and orders are accepted by the Company on the condition that they will be invoiced at the prices ruling at the date of despatch. All prices are strictly net unless otherwise stated.

b) Every endeavour will be made to give 30 days notice of any increase.

c) All retail prices shown in published catalogues or price lists are recommended selling

prices only and there is no obligation on the part of the reseller to maintain such prices.

d) A quotation includes only such goods as are specified therein. The Company reserves the right to cancel any sale where goods offered ex stock have been previously sold or otherwise committed.

5. FREIGHT a) Unless otherwise stated goods are despatched on a Free on Transport (FOT) basis. The Purchaser shall nominate the preferred freight method and be responsible for all freight charges. Where the Purchaser requires freight to be prepaid, all expenses will be to his account at cost.

b) Freight cost on return of any goods which are not in accordance with the Purchaser's order will only be paid by the Company if returned by the Company's nominated transport.

6. SALES TAX - The prices quoted do not include sales tax unless specifically stated.

7. TERMS OF PAYMENT - Settlement is strictly 30 days from end of month of purchase. If the Purchaser's account exceeds the Company's terms the Purchaser's orders will be held pending payment, and once over 90 days, the Purchaser's account will be placed on a COD basis.

8. DELIVERY - The delivery period quoted commences from the date the Company receives sufficient information to proceed with supply or from the date the company receives the Purchaser's written order, whichever is the later date. Quoted delivery dates are subject to confirmation when placing the order. Unless otherwise agreed by the Company in writing, the Company shall not in any event be liable to the Purchaser for any delay in the delivery or any nondelivery of the goods or any part of them.

9. CREDITS - Goods will not be accepted for credit without prior approval of personnel at the Company's Sales Office. All goods approved for return shall be returned freight prepaid and subject to a 15% restocking charge.

10. CANCELLATION OR VARIATION - An order may, at the Company's option, be terminated in the event of insolvency of the Purchaser or of execution being levied against any of the goods of the Purchaser or of the Purchaser being placed in liquidation, whether voluntarily or otherwise or of a mortgagee entering into possession of any assets of the Purchaser. An order may be varied only if such variation is accepted by the Company in writing. A variation or cancellation by the Purchaser is subject to agreement by the Company and in any event is subject to the Company being indemnified by the Purchaser against any loss or damage.

11. PURCHASER'S SPECIFICATIONS - The Company shall not be deemed to have agreed to comply with any specifications and drawings referred to in any order unless such specifications and drawings have been produced to the Company prior to the delivery of goods and are signed by the Company.

12. VALIDITY - Unless otherwise stated quotations are open for acceptance for a period of 30 days from the date of quotation and thereafter are subject to confirmation acceptance. If on acceptance of a quotation the delivery date exceeds a period of 60 clear days then the Company may amend the quotation. Furthermore in the event of alterations to design or specifications all quotations given are subject to withdrawal or variation at any time prior to acceptance. Unless confirmed in writing by the Company any verbal agreement to vary undertakings, assurances or understandings relevant to the quotation shall not be binding.

13. INSPECTION - The Purchaser shall inspect the products delivered on their arrival. If the Purchaser considers that the products are not in accordance with the contract, written notice must be given to the Company within 7 clear days and if no notice is received by the Company within that time the products are deemed to be in all respects in accordance with the contract.

14. PACKING - Unless stated otherwise in the quotation the price quoted includes packing in accordance with the Company's standard practice. Any other packing requested by the Purchaser or deemed necessary by the Company will be charged in addition to the price quoted.

15. DAMAGE OR LOSS IN TRANSIT - Where carriage is the responsibility of the Company, the Company will repair or may replace free of charge contract goods lost or damaged in transit to the contractual point of delivery provided written notice of such loss or damage is given to the Company within 3 days of delivery or expected delivery, or within such times as will enable that Company to comply with the carrier's conditions of carriage affecting loss or damage in transit.

16. RISK - The goods shall be at the risk of the Purchaser from the time of delivery to the Purchaser's store (where carriage is the responsibility of the Company) or otherwise from the time of their delivery to the Purchaser or its carrier.

17. PRODUCT DESIGN - The Company engages in a policy of continuous development and improvement of its products. Therefore the Company reserves the right to alter the design and/or specifications of any product or equipment without notice and without incurring liability.

18. WARRANTY - All goods which are the Company's own are guaranteed against faulty workmanship, materials or design, for a period of 12 months from the date of despatch, after which all liability on the part of the Company ceases. The warranty is a Return to Base warranty that requires the Purchaser to return any goods to the place of purchase for any Warranty credit approval. The guarantee does not apply in the following cases:

a) defect arising from materials supplied by the Purchaser or from a design requested by the Purchaser;

b) replacements or repairs resulting from normal wear of units and machinery, corrosive atmosphere, damage or injury caused by lack of care, insufficient inspection or maintenance, or improper use of the goods;

c) failure attributable to fortuitous circumstances or "force majeure" The guarantee consists of repairing, modifying or replacing the parts or units recognised as defective within the shortest time

at the Company's premises and at the Company's expense, inclusive of parts and labour, but exclusive of transport and/or travelling expense. Subject to the above, the Company's liability and that of its resellers is wholly limited to the original cost of the product sold. Any unauthorised repairs or alterations to the equipment shall invalidate this warranty.

In the case of goods not of the manufacture of the Company or its principals, the Company undertakes that it will, if requested in writing by the Purchaser, make all reasonable endeavours in assisting the Purchaser to obtain from the manufacturer the benefit of any guarantee or warranty which the manufacturer may have expressly given as to the quality or fitness for any purpose of the goods, except as may otherwise be provided for by law.

The fulfilment of this undertaking shall constitute the Company's sole liability in respect of any faulty goods not of the manufacture of the Company or its principals.

Neither the reseller nor the Company shall be liable for any injury, damages, expenses, or loss of profit, direct or consequential, arising out of the use or installation of products supplied by the Company all of which are supplied at the sole risk of the user.

This warranty is in addition to any statutory warranty which a Purchaser cannot waive but all other warranties are waived by the Purchaser.

19. DEFAULT OF PURCHASER - If the Purchaser defaults in the due observance or performance of any or all of his obligations under any contract arising out of this offer or being a company takes or shall have taken against it any action for the winding up of the Company or the placing of the Company under official management or receivership, or if a mortgagee of the Purchaser takes possession of any of the Purchaser's assets or being an individual the Purchaser petitions for his bankruptcy or seeks to assign his estate for the benefit of his creditors then the Company without prejudice to any other rights or remedies open to it may: a) determine the contract and/or suspend manufacture or delivery, installation, commissioning or testing of any goods then outstanding;

b) retain any security given or money paid by the Purchaser or available through enforcement of guarantee or security bonds lodged and apply this against the loss and damages incurred by it in the performance of the contract;

c) take such steps as it may deem necessary to mitigate the damage suffered including the putting to use, hiring out, sale or disposal of any goods supplied, or to be supplied under the contract and in its possession;

d) exercise its rights under Clause 20.

20. RETENTION OF TITLE a) The full legal and equitable title in the goods to be supplied to the Purchaser (whether such goods are transported by the Company to the Purchaser or are collected by the Purchaser from the Company's premises) is retained by the Company until payment is made in full for the goods. Until the moment of full payment of what the Purchaser owes the Company for the goods the Purchaser shall keep the goods for and on behalf of the Company in the Company's capacity as fiduciary owner.

b) In respect of goods not paid for in full the Company authorises the Purchaser to sell the goods as the Company's fiduciary agent for the account of the Company only. The proceeds of the sale are the property of the Company and the Purchaser shall hold such proceeds for and on behalf of the Company in a fiduciary capacity. The Purchaser shall pay such proceeds of sale into a separate account for the Company and keep separate records as to such goods sold and the amount received.

c) In respect of goods not paid for in full the Purchaser shall ensure that such goods are stored in such a way that they are clearly identifiable as property of the Company and are not intermingled with the property of the Purchaser or any other person. The Purchaser shall not in any way alter or treat such goods so as to change their quality or nature in any way.

d) The Purchaser shall notify the Company in writing of any intended sale of the Purchaser's business which includes or purports to include goods not paid for in full as part of the Purchaser's stock.

e) Payment of what the Purchaser owes the Company for goods shall be deemed to have been made when cheques for the price have been met and honoured in full and there is no possible recourse by any liquidator of the Purchaser in respect of such payment.

f) While the Company retains full and equitable title in the goods the Purchaser shall not bail, pledge, mortgage, charge, obtain or grant a lien over, lease or assign by any other way, any security in the goods. Only sales pursuant to sub-clause (b) hereof are allowed.

g) The Company agrees that for the time being the Purchaser may retain possession of goods which have not been paid for in full but should the specified period expire under normal trading terms before payment of the goods is completed by full honoured cheque(s) or cash or, should any event detailed in Clause 20 above occur, then the Company and its agents and employees have the right to enter any premises in which the goods are stored and take possession of any of the goods in addition to any deficiency in the sale price after paying the costs of recovery and crediting goods recovered by the Company.

21. EXPORT SALES a) Terms of payment:- All prices quoted are in Australian Dollars unless specified to the contrary. Payment is by cash prior to despatch, or at sight by irrevocable confirmed letter of credit. Confirmation costs to be borne by the opener.

b) Freight:- Prices are ex works Brisbane, Queensland. Transport costs are to international departure point, either sea or air, and are additional charges to export prices.

c) Insurance:- As a service, this can be arranged for the Purchaser but at its cost.

22. Any contract for the sale of goods by the Company to the Purchaser shall be governed by the law of the State of Queensland and the Purchaser submits to the nonexclusive jurisdiction of its courts.

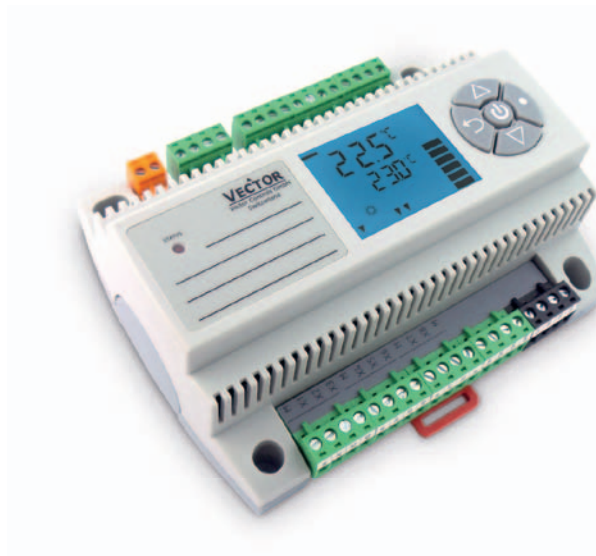
23. Any notice, consent or other communication hereunder may be by facsimile and will be deemed to have been received on the next business day after transmission. sponsible for the upkeep and maintenance as part of the Australian Standards AS 1851-2012 (Routine services of fire protection systems and equipment).

PRODUCT DATASHEETS











Visit our website for more information
www.insightcontrol.net.au

Insight Vector TCX2

The TCX2 is a programmable universal controller with high level communications capabilities. Each of the 4 control loops may use a P+I sequence, 6 binary stages, 8 universal inputs, and 3 analogue outputs.



FEATURES

-  Onboard interface with backlit LCD.
-  Optional remote wall mounted LCD touchpad.
-  BACnet and Modbus plugin communication options.
-  Economy mode based on enthalpy or temperature.
-  Free EasySet programming software.
-  CO2 control with economy damper override function.
-  CO control for car park applications.
-  Humidity control with set point shift function.
-  Complete turnkey solutions available including programming and installation.
-  Service and support available. Contact us for options and pricing.

SUPPORTED PROTOCOLS













EasySet

EasySet is a fast, free, and user friendly way to access and configure Vector TCX2, TCI2, and SDX2 controllers for any application.



FEATURES

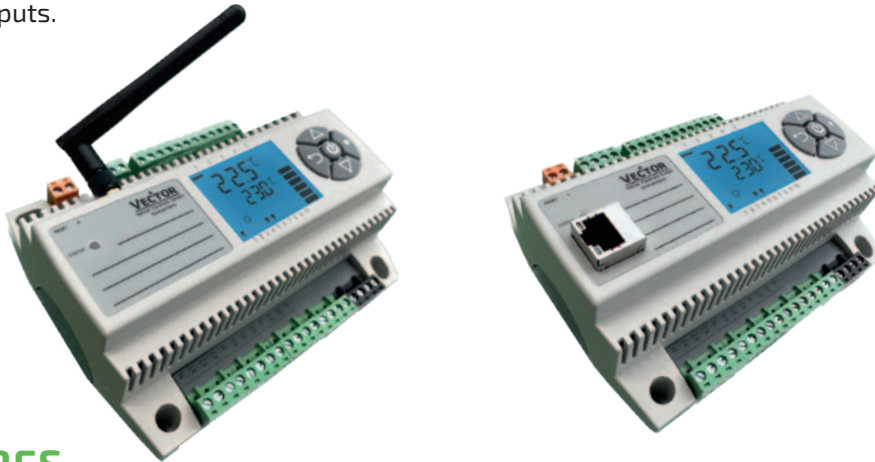
-  Smart wizards for quick and easy programming.
-  Design, save, and share your program files.
-  Windows 7, 8, and 10 compatible.
-  Preset sensor options.
-  Connect easily with a USB programming cable.
-  Live data trends with CSV export.
-  Free software with online updates.
-  Sensor calibration feature.
-  Complete turnkey solutions available including programming and installation.
-  Service and support available. Contact us for options and pricing.
















Insight Vector TCX2-WiFi / Ethernet

The TCX2-Wifi or Ethernet is a programmable universal controller with high level communications capabilities and wifi connectivity which allows the user to control the device via a graphical user interface. Each of the 4 control loops may use a P+I sequence, 6 binary stages, 8 universal inputs, and 3 analogue outputs.



FEATURES

-  User Friendly GUI for Control & Configuration.
-  Onboard interface with backlit LCD.
-  Optional remote wall mounted LCD touchpad.
-  BACnet and Modbus TCP/IP communication options.
-  Economy mode based on enthalpy or temperature.
-  Free EasySet programming software.
-  CO2 control with economy damper override function.
-  CO control for car park applications.
-  Humidity control with set point shift function.
-  Complete turnkey solutions available including programming and installation.
-  Service and support available. Contact us for options and pricing.

SUPPORTED PROTOCOLS





Vector TLR Series

The TLR series controllers are an out of the box solution suitable for use on HVAC systems, available in several configurations to suit your requirements. The TLR series are simple to install, and easily applicable to the following control strategies:



FEATURES

- Multiple configuration types available
- 7 day timeclock standard
- Energy saving features
- Cost saving option with economy functionality and set point limitation
- Designed in Switzerland
- Blackbox retrofit control option, like for like wiring
- Relay switching up to 10(6) A
- LCD Display Touchpad with backlight and inbuilt temperature sensor

APPLICATIONS

- DX plant with reverse cycle
- DX plant with electric heating
- Water cooled reverse cycle with pump call
- Water cooled electric heat with pump call

Vector TLR Series

TECHNICAL SPECIFICATION			Vector TLR
Power Supply	Operating Voltage	Voltage	230VAC \pm 10%
		Frequency	50/60 Hz
		Power Consumption	Max 5VA
		Electrical Connection	Terminal connectors, 0.34 to 2.5mm ² wire
Communication	Base	Type	Digital: peer to peer
		Cable type	Copper wire 0.8 to 2.5mm ² , shielded twist pair
Environment	Operation	Climatic Conditions	To IEC 721-3-3 class 3K5
		Temperature	0 - 50 °C
		Humidity	up to 95 %, RH non-condensing
	Transport	Climatic Conditions	To IEC 721-3-2 and 721-3-1, class 3K3 and 1K3
		Temperature	-25 - 70 °C
		Humidity	up to 95%, RH non-condensing
		Mechanical Conditions	Class 2M2
Standards	Conformity	EMC Directive	2004/108/EC
		Low voltage directive	2006/95/EC
		Automatic electrical control for households	EN 60730-1
		Special requirement on temperature dependant controls	EN 60730-2-9
General		Safety Class	II (IEC 60536)
		Degree of Protection	IP20 to EN 60529
		Material	PC + ABS Plastic (UL94 class V-0)
		Dimensions	57 x 147 x 115 mm

Blackbox to TLR Changeover Guide		
Existing Controller	Functionality	Replacement Solution
Blackbox 122	1 fan, 2 stage heating and cooling with reverse cycle or electric heat relay outputs	TLR-D5P-122
Blackbox 311	3 speed fan control with relay heating and cooling outputs (Relay)	TLR-D5-311R
Blackbox 311	3 speed fan control with analogue / ramped heating and cooling outputs (Analogue)	TLR-D42-311A

Visit our website for further information - www.insightcontrol.net.au

SRD2-THC sensors



22.0 °C 43.7 %RH 🏠 🌫	25.1 °C 38.6 %RH 763 ppm	25.1 °C 38.6 %RH 763 ppm 92.4 %AQI	🔄 1 22.0 °C 23.0 °C 🏠 🌫 😊	22.0 °C 38.6 %RH 763 ppm
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FEATURES

- Indoor Temperature Monitoring
- Indoor Humidity Monitoring
- Indoor CO2 Monitoring
- Onboard Display Option Available
- VOC & Dust Particles Option Available
- Automatic Speed Control Of Fresh Air Fan
- Automatic Modulation Of Fresh Air Damper
- Adjustable CO2 Setpoint
- High Quality Product
- Install Option Available



SRD2-THC Sensors

Technical specifications			SRD2-THC
Power supply	Power requirements		24 VAC $\pm 10\%$, 50/60 Hz, 15...34 VDC SELV to HD 384, Class II, 48VA max
	Power consumption		Max. 5 VA
	Electrical connection		Screw terminal connectors for wire 0.52...1.3 mm ² (AWG 20...16)
Built-in sensors (Type)	-TH	Temperature sensor	Bandgap sensor
		Range	0...50 °C (32...122 °F)
		Measuring accuracy	See Figure 2 in section Sensors
		Repeatability	$\pm 0.1^{\circ}\text{C}$ ($\pm 0.2^{\circ}\text{F}$)
		Humidity sensor	Capacity sensor element
		Range	0...100% RH
		Measuring accuracy	See Figure 1 in section Sensors
		Hysteresis	$\pm 1\%$
		Repeatability	$\pm 0.1\%$
		Stability	< 0.5% / year
	-C	CO2 sensor	Photoacoustic sensor technology PASens® with automatic calibration in the background (ASC)
		Response time (63%)	1 minute
		Measuring range	0 - 2000 ppm vol.
		Repeatability	± 10 ppm typical
		Accuracy	± 50 ppm + 5% of measured value
	-IR	Pressure dependence	- 1.6% reading per kPa deviation from normal pressure (100 kPa)
		Passive infrared sensor PIR	Motion detection
		Detection angle	120° horizontal and vertical
		Detection range	5.0m max., horizontal and vertical
Signal Input	Passive input RT/DI		UI8, resistive temperature sensor NTC or DI open
	Passive temperature		contact NTC (Sxx-Tn10) 10k Ω @25°C
	Range		40...100 °C (-40...212 °F)
Signal outputs	Relay outputs SPDT):	AC Voltage	0...48 VAC, full-load current 1A
		DC Voltage	0...30 VDC, full-load current 1A
	Insulation strength between relays		
	contacts and system electronics:		500 VAC to EN 60 730-1
	between neighbouring contacts:		500 VAC to EN 60 730-1

SRD2 Range Available

V-SRD2-THC	Wall Mount Sensor with Temp, Humidity & CO2 no Display
V-SRD2-THC OPIR	Wall Mount Sensor with Temp, Humidity & CO2 with Display & PIR Sensor
V-SRD2-THC MOD (no display)	Wall Mount Sensor with Temp, Humidity & CO2, no Display + Modbus Comms
V-SRD2-THC OPIR-MOD	Wall Mount Sensor with Temp, Humidity & CO2 with Display, PIR + Modbus Comms
V-SRD2-THC OPIR-BAC	Wall Mount Sensor with Temp, Humidity & CO2 with Display, PIR + Bacnet Comms
V-SRD2-THC OPIR-WIM	Wall Mount Sensor with Temp, Humidity & CO2 with Display, PIR + Wifi Modbus
V-SRD2-THC OPIR-WIB	Wall Mount Sensor with Temp, Humidity & CO2 with Display, PIR + Wifi Bacnet

Vector NET Building Management System



The VectorNET BMS is a stand-alone, embedded, web-based graphical interface for building automation, process control and access control systems. Multiple simultaneous protocols supported Modbus, BACnet and more.

- Modern Animated building graphics included
- Dedicated Mobile or Desktop Viewing options
- Energy Monitoring with automated Demand / Load-shed control
- Internally maintained time schedules with sunrise/sunset and stagger offsets
- Trend data collection, display and export to CSV or NEX Cloud
- Runtime accumulation with Email and SMS notifications
- Alarm condition monitoring with Email and SMS notifications
- Calculated point values (average, min, max, etc)
- Simple line programming for controlling equipment
- Database of up to 100 users and 100 user groups
- Multiple simultaneous users
- Activity logging for tracking user actions
- Template system for quickly cloning points, graphics, devices or entire networks
- QR code point mapping for simple user monitoring and control.
- Live Weather station data feeds
- Support for up to 2,000 nodes which can be any combination of points, graphics, trends, etc. - no hard limits on individual nodes.
- Supported VPN Remote Access Options available
- Dedicated BMS 4G network router options available

SUPPORTED PROTOCOLS



Vector NET Building Management System

Product Code			VN-VectorNET Web HMI
Environmental	Operation	Temperature Range	-40 to +85 °C Fanless
Electrical	Power Supply	Supply Voltage	5VDC
		Current	1.5 A
		Connection Type	USB Micro B
Communications	Ports	Ethernet	1 x 10/100
		USB	4 x USB 2.0 compatible OHCI ports
	Protocols	Ethernet (included)	BACnet IP, Modbus/TCP
		USB (not included)	BACnet MS/TP, Modbus RTU/485, LonWorks
Timeclock			Battery backed real time clock
Hardware		Dimensions	105 (L) x 75 (W) x 38 (H)
		Compliance	RoHS, FCC, and CE

INDUSTRY STANDARD PROTOCOLS SUPPORTED

- BACnet IP
- BACnet MS/TP
- ModBus RTU/485
- ModBus/TCP (IP)
- XML/HTTP (read only)
- LonWorks



SOFTWARE REQUIREMENTS

No software is required other than an HTML5 compatible web browser.

Recommended browsers are as follows:

- Windows: Chrome
- Android: Chrome
- iPhone/iPad: Safari
- Linux: Chrome



REMOTE SUPPORT

Insight Control offer secure remote support options for VMS installations.

Contact us for options and pricing.

NEX CLOUD COMPATIBLE

Monitor and trend your site's data with the NEX Cloud. Unlimited historical data, powerful reporting, accessible all of your sites anywhere online.



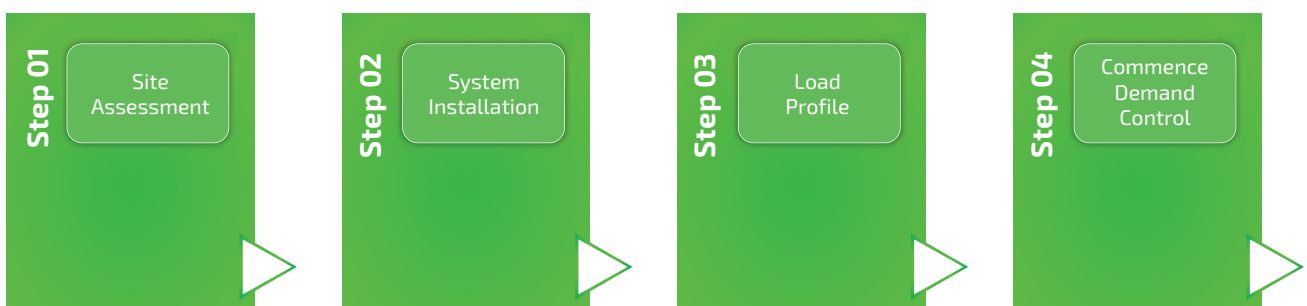
Energy Demand Control System



The Increasing energy prices impose a significant impact on running an efficient business where the energy demand required in peak times is extremely high. In these scenario it becomes important to keep the building load under check to avoid paying high tariffs on your electricity bills. Hence, Insight Control has developed the Energy Demand Control system specifically designed for QSR, Hotels, Clubs and Pubs.

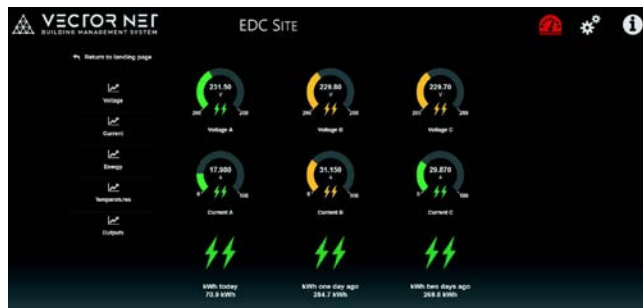
- Automatic Load Shed Control
- Energy Monitoring
- Temperature Monitoring (Store & Cold / Freezer Rooms)
- Time Schedule Equipment Shutdown after hours
- Fail Safe Control, High Temp override
- Battery & Solar integration possible
- New build or retro fit installation
- NEX Cloud connection for system trend reporting and email alerts

EDC System Implementation Process



Energy Demand Control System

EDC Dashboard



NEX Data



Wall Mount Touchscreen



The touch all-in-one machine is the most convenient, simple and practical human-computer interaction equipment. With excellent touch responsiveness, the wall mountable touch screens allow for accessing information quickly and easily. Available in a 13.3 inch and 21.5 inch sizing, they come preconfigured to suit project needs.

- Highly responsive touchscreen
- Bright LCD screen
- Slim frame
- Simple and easy installation

Technical Specifications			Touch screen
Screen	Display	Resolution	1920 x 1080
		Refresh rate	60Hz
	Touch	Response time	Under 5 ms
		Scanning rate	200 Hz
Software		Operating system	Android
		Graphics	Android HD
Physical		Operating temperature	0-38°C
		Mounting bracket	Standard wall rack, M4 screws
		Weight 13.3 inch	1.96 kg
		Weight 21.5 inch	6.25 kg



Universal HVAC Central Control Interface



ENVI Central is a truly universal commercial HVAC Central Control Interface. ENVI gives you the freedom to control single or multiple HVAC Systems from one central point of control making it easier to monitor and manage. You have the option to use either the user friendly web interface or use the amazing looking capacitive touchpads that would compliment any modern building design and come in black or white.

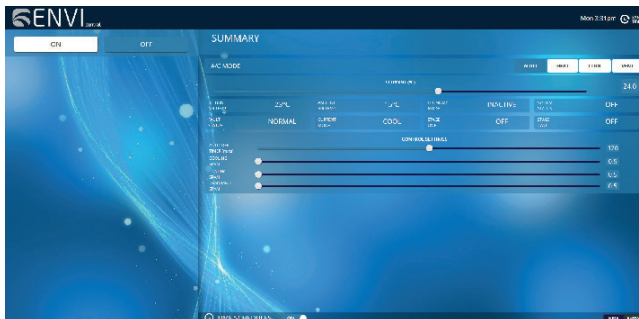
FEATURES

- Intuitive easy to use Web Interface.
- Compatible with most Commercial AC systems
- Manage single or multiple AC systems from one interface
- System Fault Reporting
- System Time Scheduling
- Low cost remote management solution for unlimited sites
- Easy new or retro fit installation
- Future NEX Cloud connection for system trend reporting and email alerts

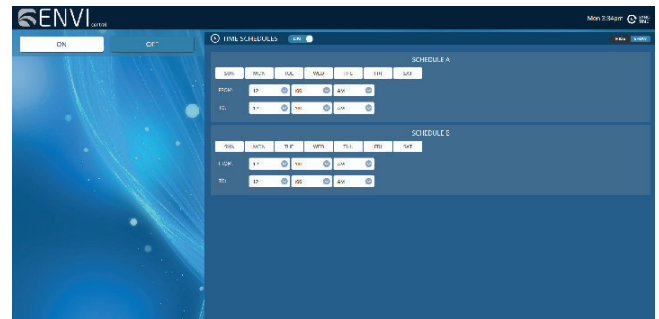
Universal HVAC Central Control Interface

Technical Specifications			ENVI Central
Power Supply	Operating Voltage	Voltage	24V AC \pm 10%
		Frequency	50/60 Hz
		Power Consumption	Max 5VA
		Electrical Connection	Terminal connectors, 0.34 to 2.5mm ² wire
Communication	Base	Interface	WiFi, Ethernet, DHCP, Modbus, RS-485
		Control	Modbus
General		Safety Class	II (IEC 60536)
		Degree of Protection	IP20 to EN 60529
		Material	PC + ABS Plastic (UL94 class V-0)
		Dimensions	57 x 147 x 115 mm

ENVI Central User Control Web Interface



Take Control of your A/C system from the ENVI Central Web Interface.



Create Individual Zone Time Schedules to Suit your Needs.

ENVI Central Remote Management Interface

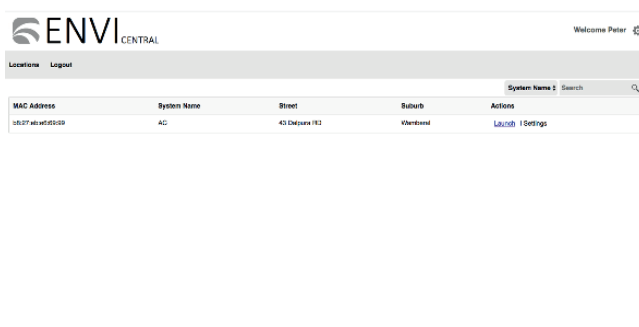
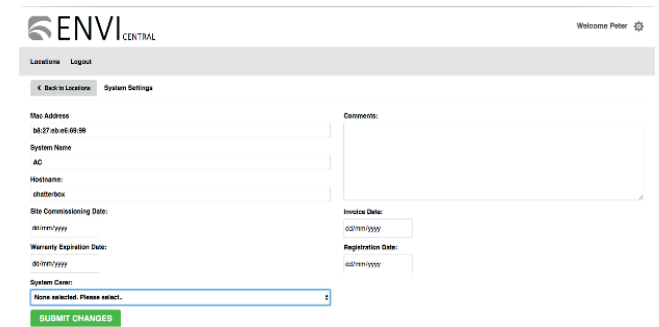


Table View of all Connected Sites.



Individual System Details to Assist Asset Tracking.

NEX Cloud



Data Monitoring & Reporting



NEX is a powerful data management system for building meters, sensors, and other devices.

Live data visualisation, reports, and alerts can be accessed anywhere, with any web-enabled device.

The NEX Data Management System is a complete hardware and software solution designed specifically for collecting data from your building. The web interface displays readings data in a series of live graphical dashboards, unlocking the full potential of data monitoring.

The DMS series hardware is designed in Australia, and is easy to install and configure. It's a reliable gateway device to connect your building to the NEX Cloud.

NEX will highlight energy performance, help reduce utility expenditure, and identify areas where efficiency can be implemented.

Real Data. Real Results.



Energy

Measure multiple circuits



Air Quality

CO2, temperature & humidity



Compliance

Measure and track efficiency



Temperature

Air conditioning, cold rooms, freezers

NEX Hardware

Developed for data acquisition

- Support for serial communications and web feeds.
- Gathers data even during internet outages.
- DMS series controllers feature temperature sensor inputs and digital outputs.
- Proudly designed and built in Brisbane Australia.













NEX Software

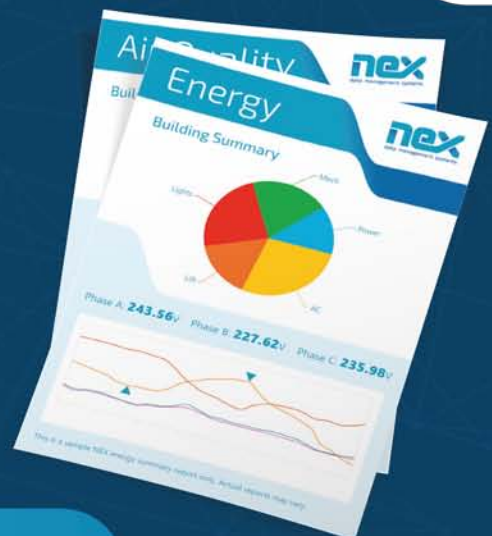
A powerful web interface for your sites

- Access live data through our web portal from any web-enabled device.
- Customisable dashboard and intuitive charts.
- Detailed charts with CSV data export and email alerts to keep you informed.



FEATURES

-  Access via the internet anywhere, anytime.
-  Manage energy targets.
-  Automatic email alerts.
-  Single or multiple sites.
-  Minute-by-minute circuit analysis.
-  Promote your corporate sustainability image.
-  Intuitive, easy to read graphical dashboards.
-  Reports customised to your requirements.
-  Monitor temperature, humidity, CO2, water and gas.
-  Full API for software integration.



NEX Data Management Systems Pty Ltd
Visit us at www.nexdata.net.au
Proudly designed and built in Brisbane Australia

NEX Cloud



Monitoring Solution



Introducing NEX Portable

NEX Data Management Systems has options to deliver a temporary portable solution, short or long term for your building.

NEX Portable can measure Energy usage, Air Quality and Temperature profiling to provide data and powerful reports to inform decision makers. Uncover effective ways to improve your building's efficiency, including:

- ROI Calculations
- Energy Service Assessments
- Temperature Profiling
- Compliance Testing
- Upgrade Assessments
- Building Performance Reporting
- Before and After Reporting

NEX Portable provides the information you need to make the right decisions.

Real Data. Real Results.



Energy

Measure multiple circuits



Air Quality

CO2, temperature & humidity



Car Park CO

2 x carbon-monoxide sensors



Temperature

Air conditioning, cold rooms, freezers

Powerful Reports

Intuitive reports highlighting building efficiency

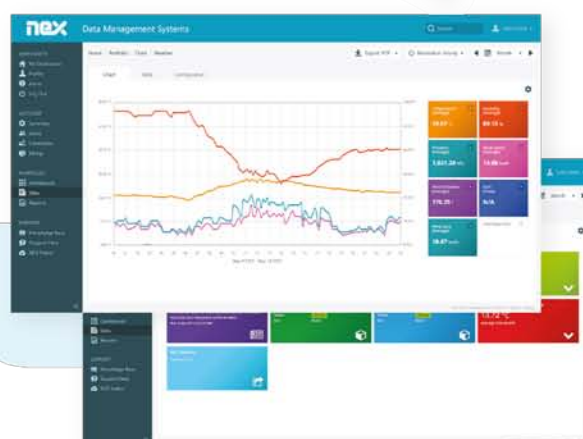
- Energy reports include complete power usage, sub-circuit usage, cost breakdown, and identified significant events.
- Reports show peak readings for air quality, temperature, and volatile gases, highlighting compliance considerations.
- Assess building upgrades and calculate ROI using insightful before and after reports. Proudly designed and built in Brisbane Australia.



NEX Cloud

The gateway to your building's potential

- Access live data through our web portal from any web-enabled device.
- Customisable dashboard and intuitive charts.
- Detailed charts with CSV data export and email alerts to keep you informed.



NEX Portable Options

Portable monitoring units are hired based on monitoring duration and the type of monitoring equipment required. Prices shown include portable equipment hire only. Installation and setup can be provided to complete the solution.

Complete our online contact form to receive a quote of our turnkey solution, including all hire and installation costs.
www.nexdata.net.au/portable

Also ask about our comprehensive Building Energy & Compliance Assessment, including all NEX Portable options for a complete look at your building's performance.

Real Data. Real Results.

NEX Portable Pricing

ENERGY rental

\$799 /wk

\$1199 /mo

AIR QUALITY rental

\$599 /wk

\$899 /mo

CAR PARK CO rental

\$599 /wk

\$899 /mo

TEMPERATURE rental

\$599 /wk

\$899 /mo

Excludes GST and installation.
POA for longer rental periods.
Terms and conditions apply.
Prices subject to change.



NEX Data Management Systems Pty Ltd
Visit us at www.nexdata.net.au
Proudly designed and built in Brisbane Australia

Metering



Power Meters



Introducing NEX Portable

NEX Data Management Systems has options to deliver temporary or permanent energy monitoring solutions for your building. With out of the box cloud connectivity available through the NEX Cloud hardware options.

Our NEM 30 meter features low profile clip on or solid core CTs allowing for quick and easy temporary or long term monitoring installations. It allows for up to 30 single phase or 10 three phase circuits to be monitored.

Our NEM 91 and 93 meters provides the ease and reliability of a traditional DIN rail mounted power meter, perfect for permanent switchboard installations.

NEX provides the information you need to make the right decisions.

Real Data. Real Results.



Reliable

Trusted industry brand



Accurate

Class 1.0 accuracy



Compliance




Measure and track efficiency



NEX Cloud

Compatible with NEX Cloud services

Techincal Specs

	NEM 91 Single Phase	NEM 93 Three Phase	NEM 30 Multi Channel
	 x 1	 x 3	 x 30
Input Voltage	AC 220V ph-n	AC 220V ph-n	AC 220V ph-n or AC 380V ph-n
Measurements	Volatage, current, power factor, active power, reactive power, appearent power, active energy, reactive energy, frequency		
CT Types	Direct connect: 63A CT: 5A secondary	Direct connect: 63A CT: 5A secondary	See CT's below Soild core CT: 63A Split CT: 50A
Accuracy	Class 1.0 direct Class 0.5S via CT	Class 1.0 direct Class 0.5S via CT	Class 1.0 solid core Class 0.5S split core
Communication	Modbus RTU, 2.4k, 4.8k, 9.6k baud	Modbus RTU, 2.4k, 4.8k, 9.6k baud	Modbus RTU, 4.8k, 9.6k, 19.2k baud
Environment	Temp: -20°C to 55°C Humidity: 5% to 95%	Temp: -20°C to 55°C Humidity: 5% to 95%	Temp: -20°C to 50°C Humidity: 0% to 95%
Dimensions	36 x 100 x 65 mm DIN rail mounted	72 x 100 x 65 mm DIN rail mounted	45 x 97.5 x 62 mm DIN rail mounted

NEM 30 CTS

The NEM 30 has specially designed CTs make installation quick and easy. Both solid core and split core types are available. To setup the circuits, simply daisy chain from one CT to the next using RJ12 cables.



Installation and meter validation



Panel design and building



Servicing and periodic validation



Energy reporting



NEX Data Management Systems Pty Ltd
Visit us at www.nexdata.net.au
Proudly designed and built in Brisbane Australia

Real Data. Real Results.

20170912 R002

Variable Speed Drive

VSD ACH580



The ABB ACH580 is a fully featured variable speed drive perfect for HVAC applications.

FEATURES

- Power range 0.75 ~ 400kW & IP55 rating for harsh environments. Input voltage range: 220V±15%, 380V±15%, 415V±15%
- With streamlined design the ABB580 can be mounted horizontally next to other drives which reduces the amount of mounting space
- RS485 communication supports standard Modbus-RTU protocol & other most commonly used protocols
- Effortless commissioning using Drivetune mobile application and usage with intuitive main menu to define essential settings without going into the parameter list

Energy Efficiency menu allows you to follow energy & monetary savings & has a built in kWh counter for hourly & daily consumption

APPLICATIONS

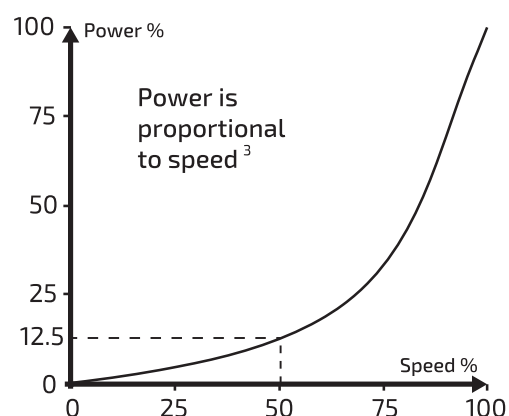
- Pumps
- Car Park Exhaust Fans
- Extruder
- Automatic production line
- Air conditioner
- Water supply
- Food machine

Variable Speed Drive

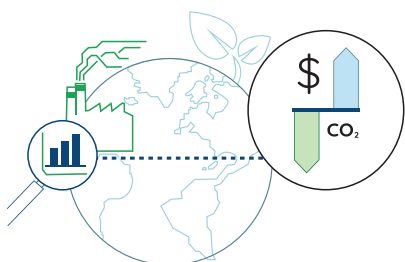
VSD ACH580

How much Energy could I save with a better motor control ?

Drives regulate the speed of a motor and can reduce energy consumption by 30 to 50 percent in many applications and extreme cases by a much as by 70 percent.



Benefits of using Variable Speed Drive's



Potential Savings

Realise the energy savings potential in your building by using ABB drives and motors with built in energy efficiency menu that allows you to follow energy and monetary savings done by your drive. ACH580 also has a kWh counter for hourly and daily consumption monitoring.



Energy Savings

ABB motors and drives promote energy savings and lowers the total cost of ownership.



Reduced CO2 Emissions

CO2 emission reductions to fulfill local environmental regulations.

Notes

[illegible]



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Mackay
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Email: brad@btbelec.com.au

CONFIGURE | CONTROL | CONNECT