

IQView8 Touch Screen Display

IQView8



Description

The IQView8 is a touch screen display that provides an interactive user interface to the Trend system. It enables the user to view/adjust operating times, monitor alarms, make adjustments to controller parameters (e.g. temperature setpoints), and display graphs of logged data (e.g. energy usage).

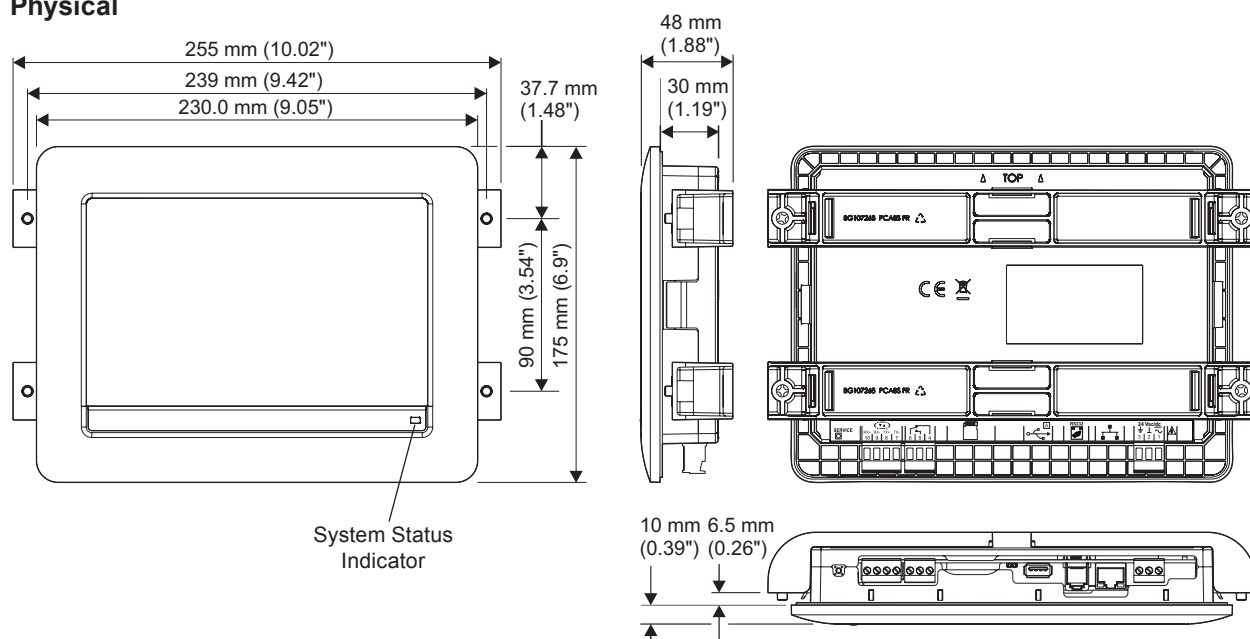
Schematic displays provide the ability to view, change and graph data using customised colour graphics pages. Alarms can be sent directly to the IQView8 where they can be logged, viewed and actioned. IQView8 can be configured give an audible or visual notification of received alarms.

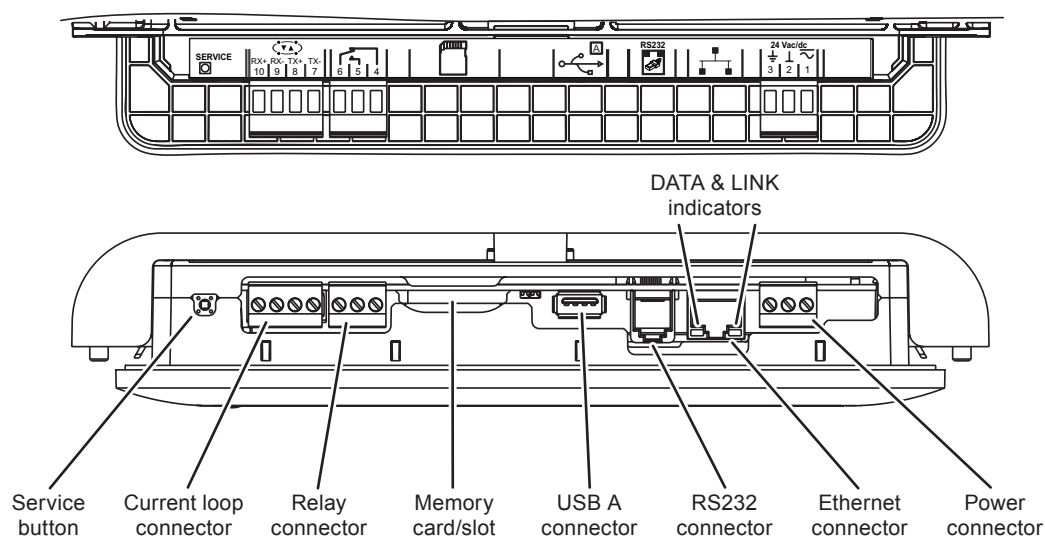
IQView8 is designed for panel mounting, with surface and in-wall mounting options available.

Features

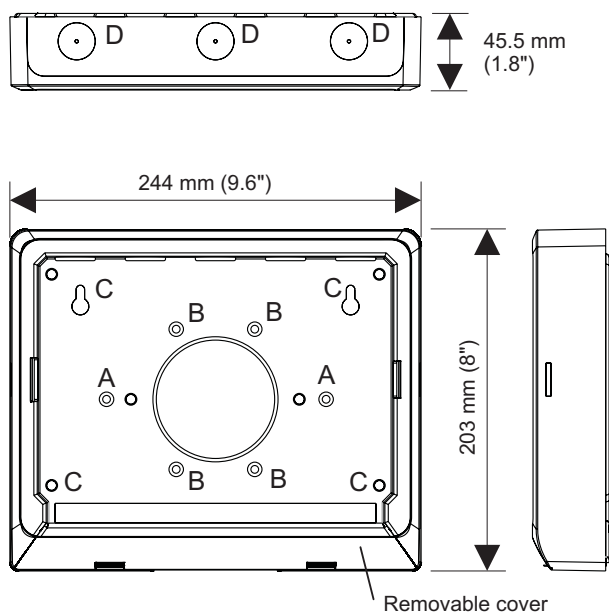
- Colour graphics pages (schematics)
- Viewing of inputs, outputs, directories, alarms, and plots
- Adjustment of knobs, switches, and time zones.
- Graphing of logged data
- Configurable users to ensure system security
- Communicates with all controllers on network (not autodialled networks)
- Ethernet, current loop LAN, or RS232 network connection
- DHCP enabled
- Panel, surface, or embedded mounting options
- 8" 16:9 colour touch screen LCD display
- 24 Vac/dc input power supply
- Relay output (for use with an external alarm sounder)
- IP40 (when panel mounted).

Physical



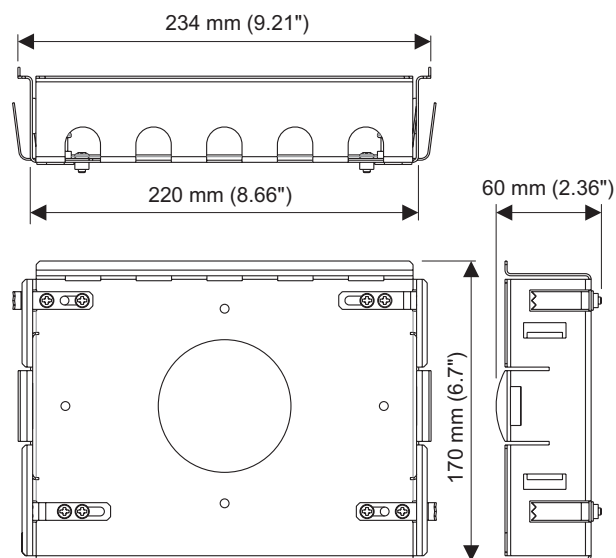
Physical (continued)

IQVIEW8 SURFACE MOUNTING BOX (Surface Mounting)



A = UK patress box
B = USA patress box
C = Alternative mounting points
D = Cable gland drill outs
22 mm Ø (0.86")

IQVIEW8 DRY PARTITION WALL BOX (In-Wall Mounting)



FUNCTIONALITY

The functionality of the IQView8 can be split into System Control, User Interface, Trend Network Connection, Ethernet Addressing, and Hardware sections.

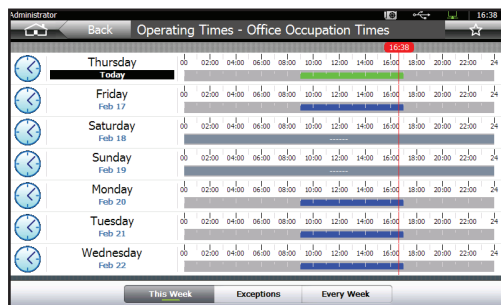
SYSTEM CONTROL

The IQView8's touchscreen interface allows authorised users to view and adjust parameters for the connected Trend system.

Available functionality depends on the user's access rights and what features they have access to.

Operating Times

IQView8 enables the operating times in controllers to be viewed and adjusted. Adjustments can be made for every week (standard operating times) and the current week (today and next six days). You can create exceptions; these are used to override standard operating times for specific days (e.g. public holidays).

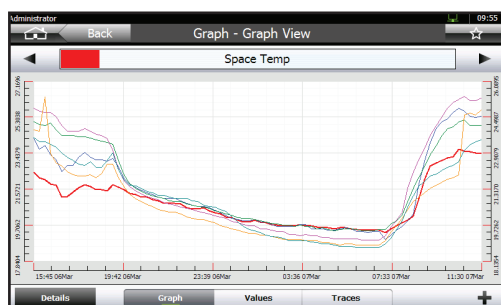


The system date, time and daylight saving dates can also be configured using IQView8.

Graphs

IQView8 is able to display logged data from controllers in multi-trace graphs. A single graph can contain up to six individual traces from different controllers enabling easy comparison of data. A graph can be displayed for any point that is logged in a controller.

The configuration of a graph can be saved as a graph view. Graph views allow quick access to regularly used graphs; each graph view can have multiple traces, and can be set up to look as required.

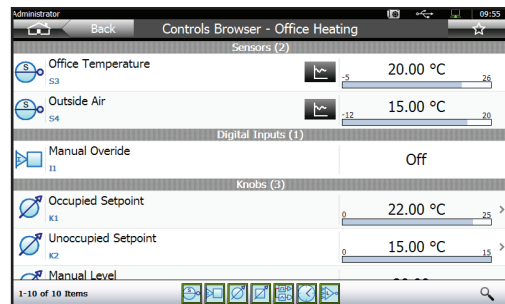


It is possible to zoom in on selected parts of the graph so that it can be seen in more detail, display spot values or to view the underlying data from the graph.

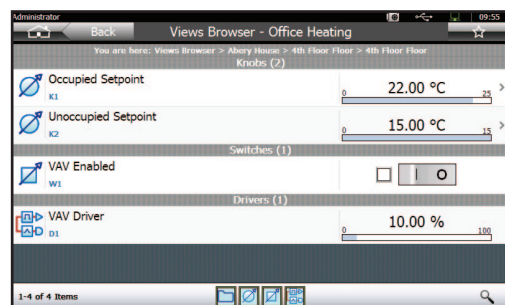
Device Parameters

IQView8 can be used to view and adjust values of parameters from presentation modules (i.e. sensors, digital inputs, critical alarms (IQ1 and IQ2 only), knobs, switches, time schedules, loops, and drivers) from devices on the system. IQView8 has two browsers – the Controls Browser and Views Browser – which allow navigation to any device by LAN and Device name.

The Controls Browser displays a list of sensors, digital inputs, critical alarms, knobs, switches, loops, time schedules and drivers for any chosen device.



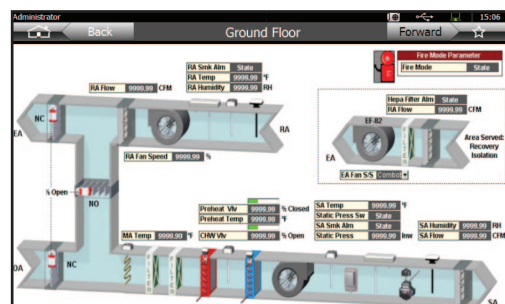
The Views Browser provides access to the display and directory modules in the selected device enabling you to access information defined using the display and directory module structure (GraphIQs).



Schematics

IQView8 can be operated using one or more specially designed screens, called Schematics. Schematics have the benefit of being fully customizable, using a variety of text and graphical controls, to suit both the system design and end user needs. They can be engineered to display information from the Trend system and enable parameters to be adjusted and graphed.

The pages may contain a backdrop, graphic images, animations, multi state graphics (ON, OFF, waiting, error, alarm, overridden ON, and overridden OFF), and static text.



Schematic pages are typically displayed full screen, i.e. without any navigational features of the standard interface being visible; navigation between Schematic pages can be provided by buttons/controls built-in to the pages. Schematics are created using Trend's 963 Supervisor and exported for use with IQView8 using the 963 Schematic Export Utility. See the 963 Schematic Export Utility Manual (TE201242) for details.

Schematics are used in the creation of Kiosk Mode operation (see page 5).

Alarm Handling

IQView8 is able to receive alarms sent by other devices on the Trend system.

Alarm Notification

When an alarm is received by IQView8 it is categorised according to its type (e.g. Communication Failure). The user interface displays an icon indicating that an alarm has been received. The number of unacknowledged alarms is also shown.

In addition, for each type of alarm, IQView8 can be configured to perform one or more of the following actions:

- Record receipt in the IQView8 alarm log,
- Sound a 'beep',
- Flash the front panel LED,
- Flash the screen,
- Activate the internal relay (see page 9).

IQView8 provides a rolling alarm log of 200 entries. The alarm log is not maintained through a power cycle.

In addition, an alarm icon in the Title Bar indicates that an alarm has been received, and the alarm icon on the Task Launcher Screen indicates the number of unacknowledged alarms.

An alarm notification will continue until all the alarms have been actioned by the user. The user can snooze the alarms which will temporarily stop all alarm notifications.

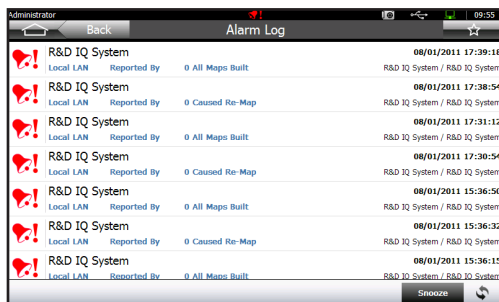
Alarm Viewing/Actioning

IQView8 offers a variety of ways of viewing alarms in the alarm log (and actioning them if required) and also has the ability to view the alarm logs of individual controllers on the Trend network.

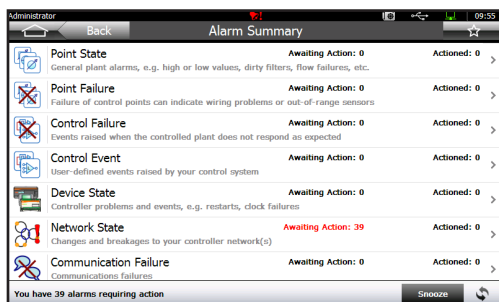
The received alarms can be viewed in two different ways:

- as a list (Alarm Log Screen),
- grouped by category (Alarms Summary Screen).

Alarm Log Screen

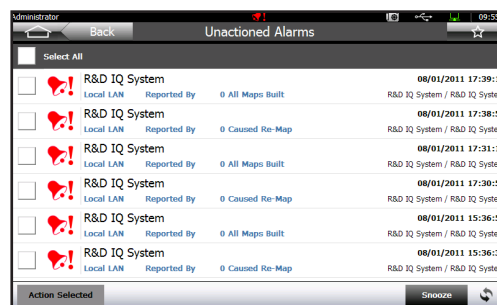


Alarms Summary Screen



Unactioned alarms can be viewed, and actioned, or snoozed from the Unactioned Alarms Screen.

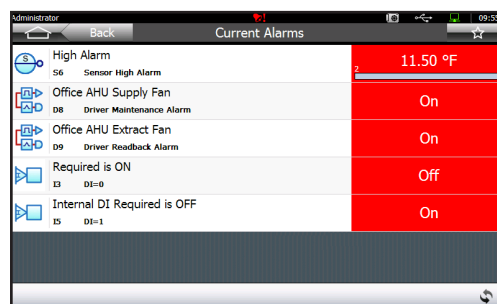
Unactioned Alarms Screen



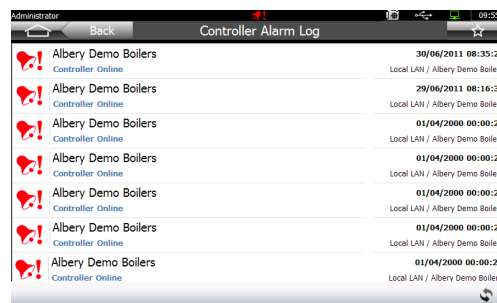
Alarm Browsing

Alarm browsing enables the user to view the current alarms, or the alarm log in a controller on the network.

Controller Current Alarms Screen



Controller Alarm Log Screen



System Maintenance & Diagnostics

Various tools and diagnostic features are included in the IQView8.

Backup and Restore

The IQView8's configuration can be saved to a USB memory stick. The memory stick may be removed and stored in a safe location as a back up, or used to configure another IQView8.

Software Upgrade

The IQView8 includes an upgrade feature allowing the software to be upgraded from a USB memory stick.

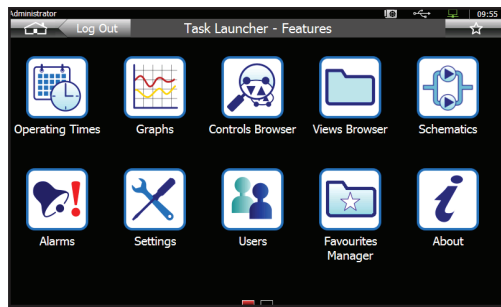
Diagnostics

Various diagnostic screens are included in the IQView8 interface which can be used to examine different aspects of the IQView8 and its interaction with the wider Trend system.

In addition, it is possible to take a screen shot of the current screen and save it as a '.PNG' file to a USB memory stick. This may be useful for capturing system information, e.g. if requested by technical support.

USER INTERFACE

When the IQView8 is first installed (or following a factory reset) it displays a default user interface which provides unrestricted access to all features and functions.



The IQView8 user interface can, **and should**, be configured to present end users with only the functionality they need, with any irrelevant features or information hidden from view.

Users

IQView8 has the facility to define different users. Each user has a user name and an optional password. Users can be added manually using the IQView8, or imported from another IQView8.

Requiring users to log-in provides security by only allowing access to authorised personnel and also enables the user interface to be customised to suit the needs of each user, e.g. by hiding any unnecessary or irrelevant information. Each user can have their own designated 'home' page.

There are two user types:

User Type	Level of Authority
Administrator	Able to access to all key IQView8 features and screens. Able to add or delete other users (of any type) and modify the access rights of standard users.
Standard	Able to access a pre-defined set of IQView8 features and screens suitable to their job function or responsibility. Not able to add, amend or delete other users.

IQView8 includes two factory default users

User Name	User Type	Access Rights
System Administrator	Administrator	By default is able to access to all key IQView8 features and screens. Some access rights and display settings can, however, be modified.
Guest	Standard	Only has access to the About screen, giving basic information such as the firmware version.

These default users cannot be deleted, but the user names can be modified if required. The Guest user can also be hidden from login screens.

The requirement for users to log-in can be enabled or disabled. When enabled there is also an option to allow IQView8 to automatically log-in using a particular user following a power interruption.

Security

IQView8 offers various features that can be used to keep the Trend system secure from unwanted or accidental changes.

The key security feature is through the use of controlled access by user name and password (see 'Users').

The Trend system uses PIN codes to ensure that only authorised sources can make changes to certain devices or modules. IQView8 can be programmed to send a single PIN code for an entire site, and/or separate codes for individual LANs and devices.

The idle timeout feature can be used to automatically return the IQView8 to its log-in screen after a specified period of inactivity.

Screen Dim/Saver Options

The IQView8 has a number of options for changing the displayed content after a period of inactivity. These include dimming the display backlight, which reduces power consumption, and displaying a screen saver, which can prevent the LCD screen from being impaired by 'memory effects' or 'burn-in' that can occur as a result of displaying the same static image for a long period of time.

Favourites

Most screens or views in IQView8 can be saved as a favourite (or shortcut). This enables a user to display a particular screen (e.g. a graph view) quickly without having to navigate to it through the interface menu system. This speeds up access to commonly required features and information.

Up to 10 favourites can be saved for each user and can be copied between different users if required.

Language

By default the standard user interface displays all text and information in English. IQView8 has a library of alternative languages that can be selected if required.

The language can be set globally (all users) and can be set on a per user basis.

Kiosk Mode Operation

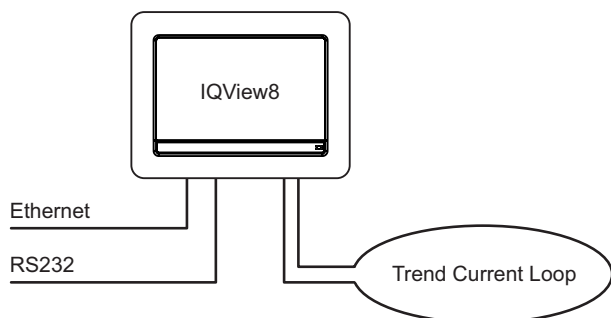
IQView8 can be configured to operate in Kiosk Mode, which 'locks-down' the display interface such that it will only show a subset of Trend system information relevant to the end user. This also prevents accidental or unauthorised access to system configuration and engineering functions.

Specially created schematic pages are typically used to create the views that are accessible while in Kiosk Mode. The standard IQView8 navigation buttons and caption bars are hidden, presenting an uncluttered full screen interface, with all navigation between pages being designed into the schematics.

The IQView8 can be configured to automatically resume Kiosk Mode operation following a power interruption and display a specific home page without the need for a user to login.

TREND NETWORK CONNECTION

The IQView8 can connect to a Trend network in one of three ways – Ethernet, RS232 or Trend current loop.

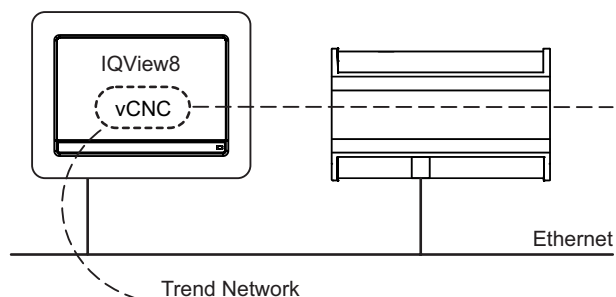


The IQView8 is not designed for multi-site operation, although more than one IQView8 can be connected to the same site. It cannot access autodialed sites (e.g. using a TMN), and it cannot receive alarms from sites using autodialing or TCP/IP dial up.

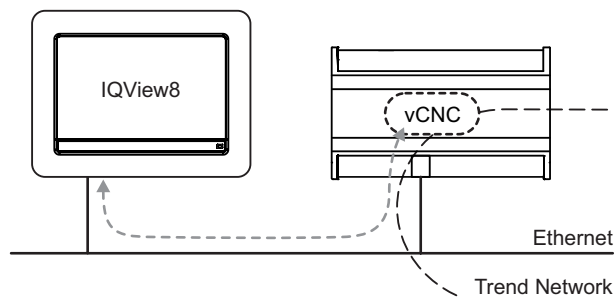
Ethernet

When connected via Ethernet the IQView8 can communicate using either its own vCNC or a vCNC in another device.

When connecting using its own vCNC IQView8 exists on the Trend network with its own device address and LAN number. It is able to build LANs and internetworks with other devices, and to receive alarms from other Trend devices sent to that address.



When connecting using a vCNC in another device IQView8 takes the network address of that vCNC. Alarms sent to the vCNC will be received by the IQView8.

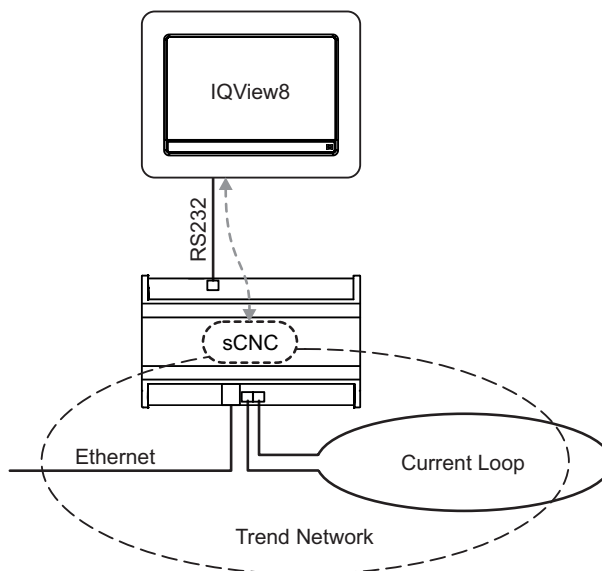


The IQView8 supports either static or dynamic (DHCP) IP addressing. DHCP is enabled by default.

RS232

The IQView8 can connect to the Trend network by connecting to the RS232 local supervisor port (sCNC) of an IQ controller or to a CNC (e.g. NBOX/CNC2).

IQView8 takes the network address of the sCNC or CNC to which it is connected, enabling it to receive alarms from Trend devices sent to that address.



The supervisor port (sCNC) must be configured to allow network access to the Trend network.

Note: The local supervisor port on IQ1xx and IQ21x controllers will only give access to that controller.

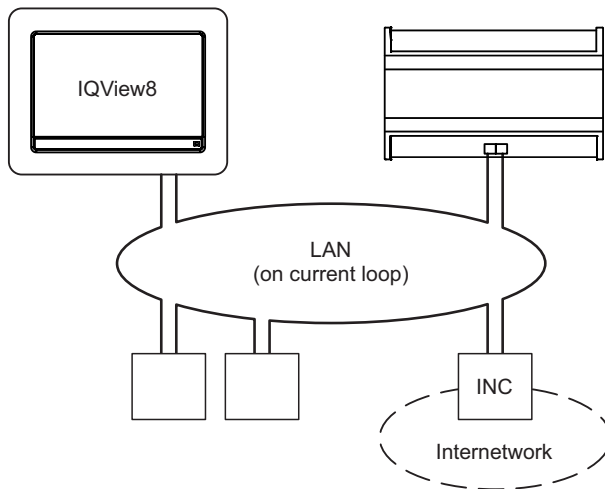
Physical connection

Connection of IQView8 via RS232 requires the use of an appropriate cable as shown below:

Connecting to	Cable(s) Required
IQ4 IQ3 IQ2xx IQ1xx with RJ11 connector	CABLE/EJ105046 (RJ11 to RJ11 adapter cable with a twist).
CNCs IQ1xx with 25 Way D type connector	CABLE/EJ105651 (RJ11 to 25 Way D type male adapter cable).
IQ1xx with 5 way in-line connector	CABLE/EJ105651 (RJ11 to 25 Way D type male adapter cable) in conjunction with CABLE/EJ105651 (25 way socket to 5 in-line socket adapter cable).

Current Loop

The IQView8 can connect to the Trend network by connecting directly to a Trend current loop. The IQView8 will form a Trend LAN with other devices on the current loop.



In order to join an internetwork, an INC type device (e.g. IQ4NC) will be required elsewhere on the current loop LAN.

The current loop may be wired in either a 2-wire or 4-wire configuration.

Network Bypass Relay: If the IQView8 loses power a set of bypass relays will close to maintain the integrity of the current loop network. If the relays close it will be recognised by a downstream device, and reported as a LAN Changed alarm.

Network Discovery

During the installation and setup process, IQView8 'discovers' information about the structure, devices and modules on the Trend network which it uses to enable the viewing and adjustment of system parameters. Two discovery options are possible - Full and Partial.

Full discovery collects all available details about the Trend network, including LANs, devices and strategy modules.

Partial discovery collects LAN and device labels only (i.e. no module data).

On small sites you may choose to perform a full discovery straight away. However, in larger systems, or systems which are split into a number of functionally separate areas (e.g. a multiple occupancy building), it is recommended to use partial discovery to quickly build the structure of the entire site.

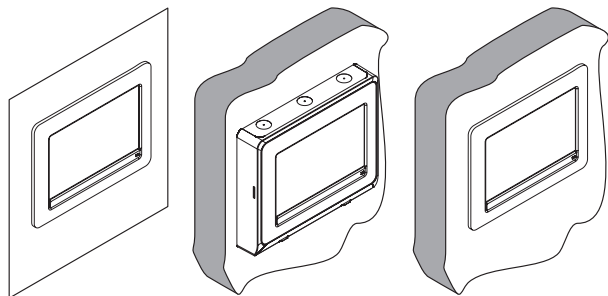
IQView8 then gives the option to perform a (full) rediscovery of selected LANs, or remove LANs or devices from its memory that the unit is not required to control.

HARDWARE

Mounting

The IQView8 can be installed in a panel or (with additional hardware), surface mounted or in-wall mounted (embedded).

Panel Mounting Surface Mounting In-wall Mounting



Panel Mounting

This method of mounting is suitable for panels up to 5 mm (0.2") thick. A rectangular cut-out is made in the panel, the IQView8 is then inserted from the front and secured from the rear by two mounting brackets (supplied). The unit has an IP40 rating from the front when the panel is closed.

Note: Integral clips allow the unit to be self-retaining on panels up to 2 mm (0.08") thick, enabling it to be easily installed by one person. For thicker panels it is not self-retaining and will require support while the mounting brackets are fitted.

Power and networking cables can be run into the panel and then directly to the IQView8.

Note: Access to the USB connector and memory card slot will require the panel to be opened.

Sufficient clearance must be allowed on the front of the panel to accommodate the display bezel, and also inside the panel to allow for the mounting brackets and cable connections. Refer to the IQView8 Installation Instructions (TG201232) for dimensions.

Surface Mounting

The optional IQVIEW8 SURFACE MOUNTING BOX enables the IQView8 to be mounted on any suitable flat surface such as a wall or on a panel (without the need to cut a mounting hole). The mounting box is secured to the wall and the IQView8 is then clipped in from the front. When mounted in this way the unit has an IP rating of IP30.

The mounting box has fixing centres that enable it to be mounted on a standard UK or USA double-gang back box. It also enables mounting on any suitable flat surface using a 4 hole fixing.

Cable entry can be made through the cut-out at the rear of the box (e.g. from a back box) or via the 22 mm drill-outs along the top edge. The drill outs have a drill centre to aid drilling and are suitable for standard 20 mm cable glands (not supplied).

Sufficient clearance must be allowed for cable glands and cables (if used) above the unit. Refer to the IQView8 Installation Instructions (TG201232) for dimensions.

A removable cover on the lower edge of the mounting box provides access to the various connectors.

In-Wall Mounting

The optional IQVIEW8 DRY PARTITION WALL BOX enables the IQView8 to be embedded in a dry partition wall with panels of between 9.5 mm (0.35") and 25 mm (0.98") thick. The wall must be deep enough (at least 55 mm (2.17")) to accommodate the wall box.

A rectangular cut-out is made in the wall panel and the wall box is then secured in place with four retaining brackets (supplied). IQView8 is then clipped into the box from the front. When mounted in this way the unit has an IP rating of IP30.

Cable entry from inside the wall can be made through the cut-out at the rear of the wall box, or through the open bottom edge of the box.

Sufficient clearance must be allowed on the front of the wall to accommodate the display bezel, and also inside the wall to allow for the wall box, retaining brackets and cable connections. Refer to the IQView8 Installation Instructions (TG201232) for dimensions.

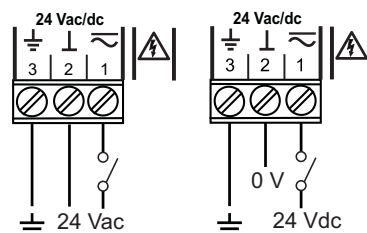
Input Power Supply

The IQView8 requires a 24 Vac $\pm 15\%$, 50/60 Hz, 20 VA (minimum) supply or a 24 Vdc 440 mA, 10.5 W (minimum) supply. For dc operation a supply with a minimum output of 600 mA is recommended.

Note: This power level cannot be provided from an IQ controller's auxiliary supply output; a separate supply is required.

A 230 V/24 Vac, 36 VA, transformer is available (ACC/24VAC). This is a sealed unit with two mounting lugs; it has an isolated 24 Vac output and an additional earth (ground) lead connected through from its input power supply earth (ground) to the 24 Vac output earth (ground) for earthing (grounding) the IQView8.

A general purpose 24 Vac transformer may be used to supply the IQView8, but if one side of its output is earthed (grounded), this side must be connected to the IQView8's central power inlet pin 2.



For USA/Canada use a UL Listed, Class 2, 24 Vac transformer.

WARNING: This apparatus must be earthed (grounded) via input supply earth (ground) terminal. The earth (ground) on this unit is NOT a protective earth (ground), but it is essential that an earth is fitted for functional reasons.

The 24V supply must include a suitably rated switch in close proximity and be clearly marked as the disconnecting device for the unit. Do not position the equipment so that the disconnecting device is difficult to operate.

CAUTION: Do not attempt to supply power through the RS232 connector. This will cause damage to the unit.

Fusing

The input supply is protected by a 3.15 A fast-blow fuse; this protects the IQView8 from drawing excessive current from the supply. If it blows the unit should be returned to the supplier for repair.

Power Failure Protection

All configuration data is stored on the memory card (see "Memory Card"). Stored Trend network information, including the presentation modules discovered in the controller(s) (i.e. sensors, drivers, etc.) is also retained. Received alarms are not restored after a power failure.

Memory Card

A 2GB memory card is supplied and fitted, and is used for storing configuration and system data in the event of a power failure.

Display

The IQView8 has an 8" 800 x 480 pixel high colour (16 bit) LCD transmissive colour display. The backlight is LED with autodim. The autodim function enables the screen brightness to be dropped to 50% brightness after a user definable delay time (auto dim off, or 1, 2, 3, 4 or 5 minutes).

The touch screen should only be tapped using a finger; sharp objects (e.g. screwdrivers) or pointers must not be used as they may damage the unit.

Indicators

The following indicators are provided on IQView8 giving feedback on its operational status:

Indicator	Colour	Function
System Status	Orange Green Red	Normal operation. Unit in power save mode. Alarm(s) received requiring action.
Ethernet LINK	Green	Status of Ethernet connection.
Ethernet DATA	Yellow	Presence of data reception.

Sounder

The IQView8 has an internal sounder which can be configured to emit a 'beep' when the screen is touched (in Schematics) or when an alarm is received. By default, the sounder is disabled.

USB Connector

A standard USB A connector is provided for the connection of a memory stick (not included). This can be used for:

- Backing up or restoring the current configuration,
- Loading images for a screen saver slideshow,
- Importing schematic files,
- Importing or exporting users,
- Upgrading the IQView8 software,
- Taking screen shots.

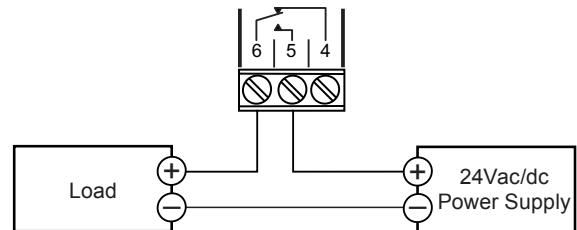
Note: Only USB memory sticks fully formatted FAT/FAT32 up to 2GB are supported.

Relay Output

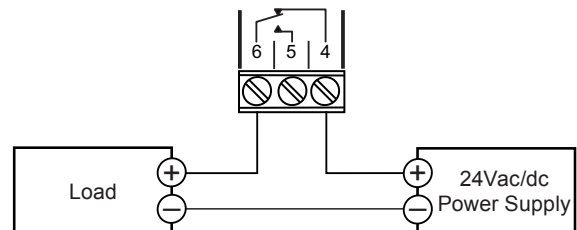
An internal relay is provided, featuring single pole changeover contacts. The relay can be configured to operate when alarms are received and thus be used to activate an external alarm sounder/indicator. Acknowledging the alarm will de-activate the relay.

Wiring examples

Load on when alarm present (relay activated)



Load on when alarm not present (relay de-activated)



Caution: The relay contacts **must not** be used to switch to mains voltage; see page 11 for details of contact ratings.

Service Button

The service button can be used to restore the unit's factory default configuration settings. This feature should only be accessed when instructed by Trend Technical Support.

FIELD MAINTENANCE

The screen should be cleaned regularly to remove dust and grease by wiping gently with a soft cloth such as that used for spectacles. A special screen cleaning mode can be selected to disable the touch screen during cleaning.



WARNING: Contains no serviceable parts. Do not attempt to open the unit. Failure to comply may cause damage to the unit.

DISPOSAL

COSHH (Control of Substances Hazardous to Health - UK Government Regulations 2002) ASSESSMENT FOR DISPOSAL OF IQView8.

RECYCLING

All plastic and metal parts are recyclable. The printed circuit board may be sent to any PCB recovery contractor to recover some of the components for any metals such as gold and silver.



WEEE Directive:

At the end of their useful life the packaging, and product should be disposed of by a suitable recycling centre.
Do not dispose of with normal household waste.
Do not burn.

COMPATIBILITY

The IQView8 can connect to a single Trend site. It will show any device, and identify those who respond to W comms. Autodialled LANs and remote Ethernet sites cannot be accessed.

Controllers: IQView8 is compatible with IQ1xx controllers version 6.5 and above and all IQ2xx, IQ3, IQ4, IQeco, and IQL controllers. FNC/FC controllers are not supported.

Alarms: IQView8 supports general, item, critical, and network alarms from devices on the network. It supports alarms retransmitted from 962/963, however alarms retransmitted from earlier supervisors (e.g. 945) are not supported. IP alarms from IQ3 and IQ4 controllers are not supported.

NKSV and BBUF notifications are ignored.

Time Schedules: IQView8 can view and adjust the operating times in IQ1, IQ2, IQ3 and IQ4 controllers. For IQ1 and IQ2 controllers it can adjust the standard and current weeks, and when supported by the controller set up and adjust the Holiday Calendar times. For IQ3 and IQ4 controllers it can adjust the normal week, and set up and adjust the exception times.

IQView8 will not discover modules without labels.

Plots: IQView8 supports synchronised, triggered, and periodic plots.

Supervisors/Tools: IQView8 will be learnt by SET, and 963 and appear in the navigation tree.

Network connection: IQView8 supports connection to the Trend network using Ethernet, current loop LAN, or RS232 to suitable a network node.

Schematics: IQView8 supports schematic pages exported from 963 using the 96x Schematic Export Utility. See the 96x Schematic Export Utility Manual (TE201242) for a full list of supported 963 actions.

GraphIQs: It supports the display of GraphIQs from IQ3 and IQ4 controllers. The 'clickable' action available on GraphIQs is not supported by IQView8. This means that links to module detail pages, module type pages, web pages, other GraphIQs and email will not work.

INSTALLATION

The IQView8 is designed for rear panel mounting. A rectangular cutout needs to be made in the panel then the unit can be inserted into the hole and fixed into place using the two mounting brackets. Use of the surface mounting or in wall mounting kit enables the unit to be either surface or in wall mounted.

All units are UL rated as 'UL916, listed open energy management equipment'.

The procedure involves:

- Mounting the unit
- Running necessary power, communications, and relay (optional) connections
- Connecting power (do not power up), communications, and relay wiring
- Reading 'End User Licence Agreement'
- Powering up
- Configuring the unit
- Testing the unit's configuration.

A full description of installing the unit is given in the IQView8 Installation Instructions (TG201232). Details on configuring and using the IQView8 is given in the IQView8 Configuration Manual (TE201233).

ORDER CODES

IQVIEW8/24
IQVIEW8 SURFACE MOUNTING BOX

IQVIEW8 DRY PARTITION WALL BOX
CABLE/EJ105046

CABLE/EJ105651

CABLE/78-1172

ACC/24VAC

IQView8 including 2GB memory card.
 Kit for mounting IQView8 on a flat surface, or UK or USA double-gang back box.
 Kit for mounting IQView8 embedded in an dry partition wall.
 RJ11 plug to RJ11 plug with crossover to connect to IQ4, IQ3, IQ2xx, and IQ1xx controller's with RJ11 local supervisor port connector.
 RJ11 to 25 way D type male to connect to IQ1xx controller's with RJ11 local supervisor port connector and to a CNC.
 25 way D type female to 5 in line socket adapter to connect to IQ1xx controller's with 5 in-line local supervisor port connector. Should be used in conjunction with CABLE/EJ105651).
 230/24 Vac, 36 VA, transformer for IQView8 with surface mounting lugs, and through earth (ground) connection.

SPECIFICATION

ELECTRICAL

Power Input :24 Vac $\pm 15\%$, 50/60 Hz or 24 Vdc $\pm 10\%$
 Power Consumption
 24 Vac :20 VA max.
 24 Vdc :440 mA, 10.5W
 Power Failure Protection
 Configuration data :2GB SD/MMCflash memory card.
 Display
 Type: :LCD transmissive colour touch screen.
 Size / Resolution :8" / 800 x 480 pixel.
 Colour depth :high colour (16 bit).
 Backlight :LED with autodim.
 Sounder :Piezo electric - SPL 85 dBA @ 1 m
 Alarm Relay
 Type :Single pole changeover.
 Contact rating :AC: 60 VA
 (30 Vac max at 2 A, 24 Vac at 2.5 A).
 DC: 60 W
 (40 Vdc max at 1.5A, 24 Vdc at 2.5 A)
 Note: UL rating applies up to 30 V maximum @2A.

Ethernet Network

Transmission :10/100 BASE-T (IEE 802.3).
 Connection :RJ45, auto MDI-X.
 Cable Type :Cat 5e, UTP (unshielded twisted pair).
 Distance (to hub) :100 m (109 yds) maximum.

RS232 Port

Transmission :RS232, EIA/TIA,232E, V28
 Distance :10 m (11 yards) maximum.
 Baud Rate :1k2, 4k8, 9k6 (default), 19k2, 38k4, settable in user interface.

Current Loop

Transmission :20 mA, two wire current loop, opto-isolated, polarity independent receiver, balanced transmitter.
 Baud Rate: 1k2, 4k8, 9k6, 19k2, settable in user interface.
 Distance (node to node) :dependent on cable type and baud rate (see table below):

Cable	Type	Baud Rate			
		1k2	4k8	9k6	19k2
Trend TP/1/1/22/HF/200 Belden 8761	Shielded twisted pair 1 pair (2 conductors)	1000 m (1090 yds)		700 m (765 yds)	350 m (380 yds)
Trend TP/2/2/22/HF/200 Belden 8723	Shielded twisted pair 2 pairs (4 conductors)			500 m (545 yds)	250 m (270 yds)
Belden 9182	Twinaxial (2 conductors)			1000 m (1090 yds)	700 m (765 yds)
Belden 9207	Twinaxial (2 conductors)				500 m (545 yds)

Note: Adjacent devices may specify different maximum cable lengths and baud rates. The shortest cable length (for the chosen baud rate) applies when connecting to the IQView8 current loop.

Indicators

System Status :Green/Red LED (shows green, red or orange depending on status).
 Ethernet LINK :Green LED.
 Ethernet DATA :Yellow LED.

MECHANICAL

IQView8

Dimensions (WxHxD) :255 mm (10.02") x 175 mm (6.9") x 48 mm (1.88") including brackets.
 Weight : 1.07 kg (2.36 lb)
 Material : Mainly PCABS FR

IQVIEW8 SURFACE MOUNTING BOX

Dimensions (WxHxD) :244 mm (9.6") x 203 mm (8") x 46.5 mm (1.83")
 Weight : 0.53 kg(1.17 lb)
 Material : Mainly PCABS FR

IQVIEW8 DRY PARTITION WALL BOX

Dimensions (WxHxD) :234 mm (9.21") x 170 mm (6.7") x 60 mm (2.36")
 Weight : 0.265 kg (0.58 lb)
 Material :Chassis 1.2 mm ROHS compliant black zinc plated mild steel.

Connectors

Power
 Connector type :3-way 2 part connector with rising cage clamp screw terminals.
 Cable size :0.5 to 2.5 mm² (20 to 14 AWG)
 Current Loop
 Connector type :4-way 2 part connector with rising cage clamp screw terminals.
 Cable size :0.5 to 2.5 mm² (20 to 14 AWG)
 Relay Output
 Connector type :3-way 2 part connector with rising cage clamp screw terminals.
 Cable size :0.5 to 2.5 mm² (20 to 14 AWG)
 RS232 Port :RJ11 (FCC68).
 Ethernet Port :RJ45 socket
 USB Port :USB Type A socket.

SPECIFICATION (continued)**ENVIRONMENTAL**

EMC		Ambient Limits	
	:EN61326 -1: 2006	Storage	: -20 °C (-4 °F) to 70 °C (158°F)
Immunity	:Table 2 For equipment used in industrial locations	Operating	: -10 °C (14 °F) to 60 °C (140 °F)
Emissions	:Class B	Humidity	:0 to 85 %RH non-condensing up to 40 °C (104 °F)
Safety		Altitude	:<2000 m (6562')
	:EN60950-1:2006	Protection	
CB Certificate	:NO68111	Panel mounting	:IP40 (from front if correctly mounted with panel closed)
USA	:UL rated as 'UL916 listed open energy management equipment' (E219709).	Surface mounting	:IP30
Canada	:CSA22.2 No. 205-M1983 - Signal Equipment	In-wall mounting	:IP30

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