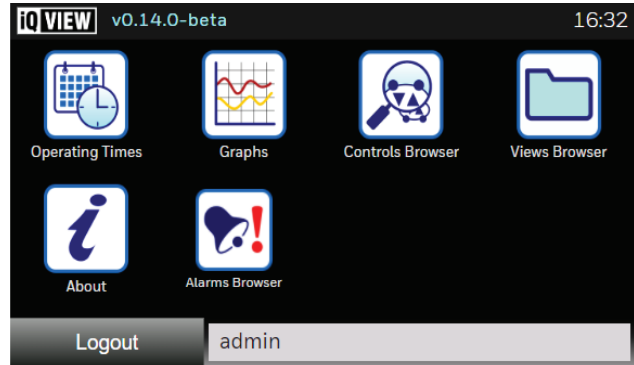


IQVIEW-4-S IQVIEW SCD for IQ4



Description

The IQVIEW Single Controller Display (SCD) for IQ4 provides an interface to an IQ4 controller. It enables the user to view and adjust operating times, monitor alarms, adjust controller parameters, and display graphs of logged data. It comprises two parts:

Application
 Display

Application: The application provides all the functionality and is hosted in an IQ4 controller. It is accessed using a web browser from an IQVIEW-4-S Display, or 3rd party display over Ethernet.

Display: The Display accesses the application over Ethernet. You can use either the IQVIEW-4-S Display available with a licence for the application or you can use a 3rd Party display - see '3rd Party Displays' on page 5 for the specification required for the 3rd party display.

Features

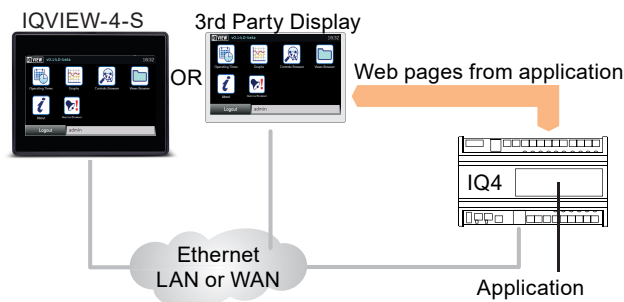
- IQVIEW SCD for IQ4 Application**
- Viewing of inputs, outputs, directories, alarms, plots
 - Adjustment of knobs, switches, time zones, and time
 - Graphing of logged data
 - Security features to restrict access
 - Accessed using web browser over Ethernet

- IQVIEW-4-S Display**
- Panel or wall mounting
 - 4.3" / 480x272 / WVGA 16:9
 - Dimmable LED backlight.
 - Resistive touchscreen
 - Integrated Ethernet interface
 - IP66 rating from front
 - 24 Vdc SELV (safety extra low voltage) operation
 - Washable front panel
 - Includes application licence for one IQ4 controller.

FUNCTIONALITY

The functionality can be divided into [Architecture](#), [Application](#), [Controller Connection](#), and [IQVIEW-4-S Display](#) sections:

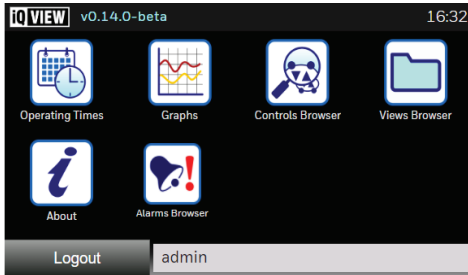
ARCHITECTURE



APPLICATION

The application enables viewing/adjustment of operating times and device values, as well as the display of graphs and enables configuration.

The Features screen is shown below:



The Features screen contains icons that enable the selection of the main features.

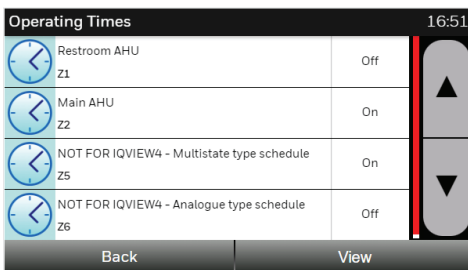
Icon	Description
	Provides access to the controller's operating times.
	Provides access to graph views. Graph views can be displayed, created or deleted. It also enables you to browse directly to any plot and display it as a graph.
	Provides access to the controller's presentation modules (i.e. sensors, digital inputs, knobs, switches, time schedules, and drivers) and control loops. The values can be viewed, adjusted, or graphed.
	Provides access to the controller's display and directory modules, the values can be viewed as a list.
	Provides access to the controller's alarms.
	Displays information about the application.

The bottom of the display has buttons and indicators:

Login/Logout	Enables the user to log in or log out. It also indicates whether a user is logged in or out; if the button shows 'Logout' then a user is currently logged in (and vice versa).
Admin	Shows status messages.

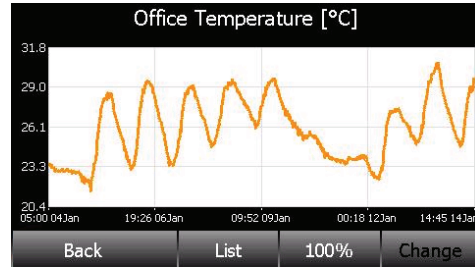
Operating Times

The user can adjust the operating times in the controller. It allows adjustment of standard operating times, operating times for the current week, or setting up exceptions for the year ahead.



Graphs

Logged data from the controller can be displayed in multi-trace graphs. A single graph can contain multiple traces from different controllers enabling easy comparison of data. Any point logged in the controller can be graphed.



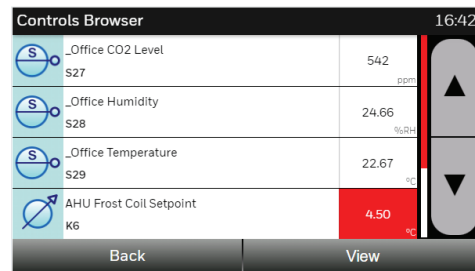
Graphs can be accessed from a list of values in the controller (Controls Browser), or from the display and directory navigation (Views Browser). It is possible to zoom in on selected parts of the graph, display spot values, or view the underlying data.

View Controller Data

Values from the IQ4's presentation modules (i.e. sensors, digital inputs, knobs, switches, loops, time schedules, and drivers) can be viewed, adjusted, or graphed depending on the type of value using either the Controls Browser, or the Views Browser.

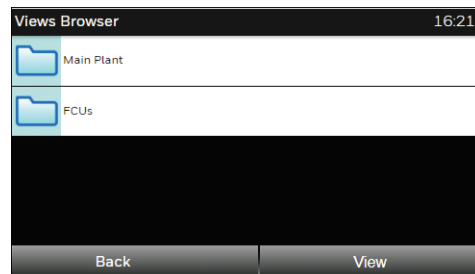
Controls Browser

The Controls Browser displays a list of sensor, digital input, knob, switch, time schedule driver, and loop modules. Once the values are displayed, they can be by adjusted or viewed.



Views Browser

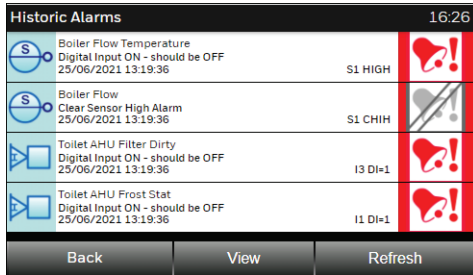
The Views Browser enables the display and directory modules in the controller to be accessed and navigated.



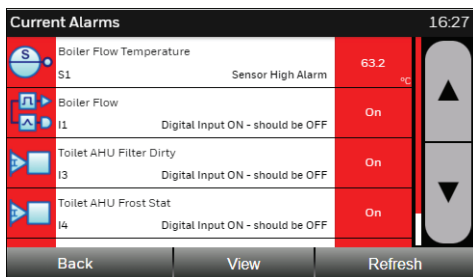
Alarms Browser

The Alarms Browser gives access to the controller’s historic or current alarms.

The Historic Alarms come from the controller’s alarm history buffer (alarm log).



The Current Alarms show all the current item alarms (module alarms which are enabled).



About

Information about the Application.

Backup and Restore

The application’s configuration is backed up as part of a standard strategy upload using IQSET.

Software Upgrade

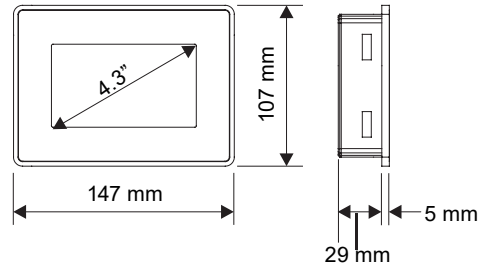
The application can be upgraded using IQSET.

CONTROLLER CONNECTION

Access to the application is over an Ethernet connection using a web browser (either in the IQVIEW-4-S Display or 3rd party display).

IQVIEW-4-S DISPLAY

The IQVIEW-4-S Display is a 4.3” TFT colour touchscreen display running a web browser. This can either be panel or wall mounted (in a wall cavity) enabling it to be mounted in a way suitable for its environment and use.



Mounting

Panel Mounting

The IQVIEW-4-S display can be panel mounted by simply cutting the required cut-out in the panel, placing the unit into the hole from the front, and securing it from behind using the screw clips provided

It should be mounted in a lockable panel or enclosure that provides a degree of protection not less than IP54 in accordance with IEC/EN 60079-15. When correctly installed in a panel it provides a protection rating of IP66 from the front.

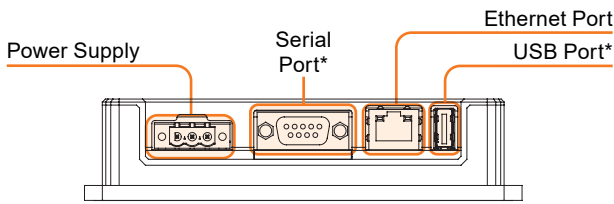
The power and networking cables can be run into the panel and then directly to the display.

Wall Mounting

The IQVIEW-4-S display can be mounted in a wall cavity using the wall mounting box (R-BOX15). When correctly installed into a wall cavity using the wall mounting box it provides protection rating of IP20 from the front.

Connections

Connections are made to the rear of the display.



* The 9-pin serial connector is reserved for future use. The USB port may be used for connection of a keyboard and/or mouse.

Ethernet Port

The Ethernet port is used to connect IQVIEW-4-S Display to the Ethernet network. Connection is made using a standard Cat 5 cable, terminated with an RJ-45 plug, and up to a maximum length of 100m.

Power Supply

The IQVIEW-4-S Display requires a 24 Vdc supply (10 to 32 Vdc). A range of suitable DIN rail mounted power supplies is available separately - please refer to the DCPSU-24 Data Sheet (EN0B-0736).

Note: For UL compliance a Class 2 power supply must be used.

Connection to the IQVIEW-4-S Display is made using the 3-way screw-terminal plug supplied. The unit must always be earthed/grounded. An earth connection must be made using the screw terminal located near the power supply terminal block. Terminal 3 on the power supply connector must also be connected to earth. The PSU must be rated for the specified inrush current.

Configuration

On first power-up the IQVIEW-4-S Display must be configured with the URL of the IQ4 hosting the application.

INSTALLATION

The IQVIEW-4-S Display is designed to be mounted in a lockable panel or enclosure that provides a degree of protection not less than IP54, or mounted in a wall cavity using the R-BOX15. The installation procedure involves:

- Installing and configuring the IQ4
- Updating the IQ4's licence
- Deploying the application
- Choosing a suitable location
- Mounting the display

- Connecting the power supply
- Connecting the Ethernet cable
- Powering up the display
- Configuring the display
- Configure the application

Full instructions for installing the IQVIEW-4-S Display are available in the IQVIEW-4-S Display Installation Instructions (TG201477). Details of configuring the application are available in the IQVIEW SCD for IQ4 Manual (TE201263).

For details of installing and configuring the IQ4 controller see:

- IQ4E, IQ4NC/16, IQ4NC/32 Controller Installation Instructions - Mounting (TG201338)
- IQ41x Series Controllers Installation Instructions - Mounting (TG201250)
- IQ422, IQ4NC/00, IQ4NC/12 Controllers Installation Instructions - Mounting (TG201264)
- IQSET Manual (TE200147).

These documents can be downloaded from the Trend PNet e-library (<https://partners.trendcontrols.com>).

COMPATIBILITY

Controllers: IQ4 controllers with v4.34 firmware or higher.

Time scheduling: BACnet time scheduling is not supported.

GraphIQs: IQVIEW SCD for IQ4 does not support the display of GraphIQs.

Plots: Supports synchronised plots. It is unable to obtain graphs from triggered and periodic plots.

Connection: The IQVIEW-4-S Display connects to the IQ4 hosting the IQVIEW SCD for IQ4 Application over Ethernet. It does not have network access.

3rd Party Displays: The IQVIEW SCD for IQ4 Application is optimised for 4.3" panels (480 x 272), however it will support touch-screen devices with resolutions up to 1280 x 800.

Note: It is not possible to guarantee the compatibility of individual 3rd party displays.

FIELD MAINTENANCE

Do not allow layers of dust or other contaminants to form on the front panel of the IQVIEW-4-S: it must be cleaned regularly with a soft cloth and neutral soap product. Do not use solvents.

Disconnect power before carrying out any cleaning.

Chemical Resistance

The front glass of the IQVIEW-4-S has chemical resistance to the following substances for up to 1/2 hour at 21°C without visible changes:

- Acetone,
- Butyl Cellosolve,
- Cyclohexanone,
- Ethyl Acetate,
- Hexane,
- Isopropyl Alcohol,
- MEK,
- Methylene Chloride,
- Toluene,
- Xylene



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

The front glass of the IQVIEW-4-S has chemical resistance to the following substances for up to 24 hours at 49°C without visible changes:

- Coffee,
- Ketchup,
- Lemon Juice,
- Mustard (slight yellow stain),
- Tea,
- Tomato juice.

DISPOSAL

COSHH (Control of Substances Hazardous to Health - UK Government Regulations 2002) ASSESSMENT FOR DISPOSAL OF the IQVIEW-4-S Display.

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.

ORDER CODES

IQVIEW-4-S-B-IQ4	IQVIEW SCD for IQ4 (Bundle). 4.3" resistive touchscreen display and licence for running the application on a single IQ4 controller.
IQVIEW-SC-V	Single controller display for IQ4 application license. Required for each IQ4 controller - see '3rd Party Displays' on page 5 for the specification required for a 3rd party display.
DCPSU-24-1.3	24 Vdc power supply, input:100-240 Vac, output:24 Vdc 1.3 A
DCPSU-24-4	24 Vdc power supply, input:100-240 Vac, output:24 Vdc 4 A
R-BOX15	Wall mounting box for mounting the IQVIEW-4-S Display in a wall cavity.

SYSTEM REQUIREMENTS

IQ4

IQ4 with v4.34 firmware or greater licenced to run the application.

IQVIEW-4-S DISPLAY

ELECTRICAL

Power Supply	24 Vdc (10 to 32 Vdc)
Current Consumption	0.25 A (max) @ 24 Vdc
<i>Note: The PSU must be rated for the specified inrush current.</i>	
Input Protection	Electronic
Real-time Clock	Date /Time (NTP compatible)
Backup method	Supercapacitor (not user-replaceable)
Backup duration	3 months at 25°C
CPU	ARM Cortex A8 1 GHz
Operating System	Linux 3.12
Memory	4 GB (flash), 512 MB (RAM)
Ethernet	10/100

DISPLAY

Type	Resistive TFT Touchscreen True Glass Projected
Screen Size	4.3"
Resolution	480x272
Format	WVGA 16:9
Colour Depth	64k colours
Display Adjustments	Brightness, orientation
Brightness (typical)	200 Cd/m ²
Backlight Type	LED
Timeout period	1 to 60 minutes, or always on
Typical life*	>20,000 hours

* Continuous operation until the backlight brightness reaches 50% of the rated value at 25°C ambient air temperature. Extended use in ambient temperatures of 40°C or higher may degrade backlight quality/reliability/durability.

MECHANICAL

Dimensions (W x H)	147 x 107 mm (5.78 x 4.21")
Panel Cut-out	136 x 96 mm (5.35 x 3.78")
Weight	0.4 kg (0.88 lbs)

Connectors

Power Supply Input	
Type	2 part connector (0.2" pitch) with rising cage clamp screw terminals.
Cable size	1.3 mm ² (14 AWG) minimum, 2.5 mm ² (12 AWG) maximum.
Ethernet Port	
Type	RJ-45.
Cable type	Cat 5e, UTP (unshielded twisted pair).
Cable length	100 m (109 yds) maximum.

ENVIRONMENTAL

Ambient Limits	
Storage temp	-20 to +70°C (-4 to 158°F)
Storage humidity	5-85% RH, non condensing
Operating temp	0 to +50°C (32 to 122°F)
Operating humidity	5-85% RH, non condensing
Protection Class	
Panel mounted	IP66 (front), IP20 (rear)
Type:	12, 4X
Wall mounted	IP20
Pollution Degree	2 (as defined in IEC/EN 60664-1)
Approvals	
CE	Emission: EN 61000-6-4 Immunity: EN 61000-6-2 for installation in industrial environments
UL	cULus: UL508, cULus: Class 1 Div 2
RCM	Yes

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