Foxboro™ DCS

Liquid Crystal Display (LCD) Monitors

PSS 41H-4VDU

Product Specification

December 2024

Legal Information

The information provided in this document contains general descriptions, technical characteristics and/or recommendations related to products/solutions.

This document is not intended as a substitute for a detailed study or operational and site-specific development or schematic plan. It is not to be used for determining suitability or reliability of the products/solutions for specific user applications. It is the duty of any such user to perform or have any professional expert of its choice (integrator, specifier or the like) perform the appropriate and comprehensive risk analysis, evaluation and testing of the products/solutions with respect to the relevant specific application or use thereof.

Overview

The EcoStruxure Foxboro DCS Process Automation System has advanced visualization software to help support plant operators in safely and securely achieving maximum production. Modem high definition liquid crystal display monitors are provided in the high definition aspect ratio.

Foxboro DCS systems offer 24-inch LCD monitors.

24-inch LCD Monitor

The 24-inch flat panel LCD monitor (RH103FR) has a picture matrix of 1920x1080 pixels which provides excellent images when driven at its standard resolution while producing very good images at off-standard resolutions. The monitor is capable of accepting digital DVI-D and DisplayPort and Analog VGA video signals. This monitor can be used with workstations at its full 1920x1080 resolution and with workstations at lesser resolutions.

As a tabletop unit, the monitor comes with a stand that has swivel, tilt, rotate and height adjustments.

24-inch, Tabletop

The 24-inch monitor has a standard 16:9 aspect ratio to support widescreen resolutions, although it can support images at the 4:3 aspect ratio as well.

Workstations require:

- Foxboro DCS FoxView/FoxDraw application, version 10.2.4 or later
- 1920x1080 high definition capability to support the 16:9 aspect ratio

FoxView/FoxDraw is available for workstations, which support Foxboro DCS Control Core Services (CCS) software v9.0 and later. The application includes a conversion

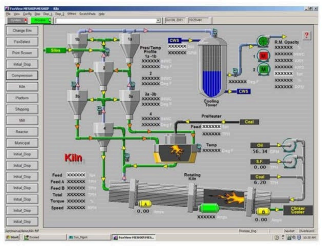
utility to convert displays previously configured for the 4:3 aspect ratio to the 16:9 aspect ratio supported by the 24-inch monitor.

Workstations without both 1920 x1080 resolution and FoxView/FoxDraw 10.2.4 or later (required for 16:9 displays) can still use the 24-inch monitor to replace the previously offered 19-inch or 20-inch monitors with 4:3 displays.

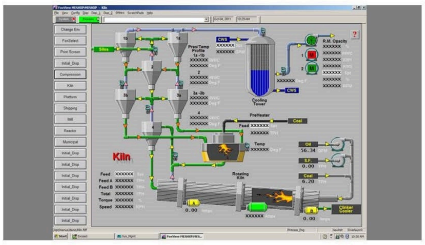
While the 24-inch flat panel monitors work best in their 1920x1080 standard resolution and newer workstations have this capability, many older workstations do not. As a result, 24-inch monitors on workstations with 4:3 aspect ratio displays must have their associated graphics cards set to specific resolutions.

NOTE: A single workstation cannot support a mix of 24-inch and the previously offered 19-inch or 20-inch monitors.

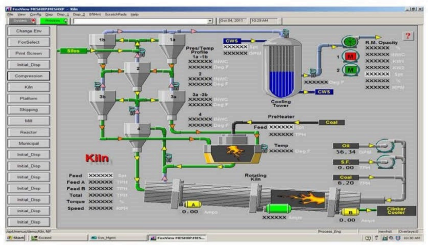
Options for Displaying 4:3 Image on a 16:9 Monitor (Not to Scale)



FoxView Display - 4:3 Aspect Ratio on 19”-20” Monitor

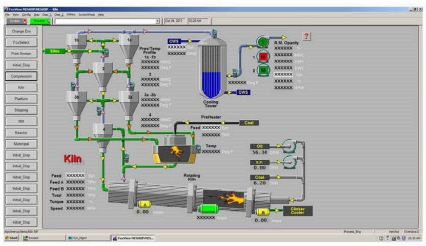


Example 1 - 4:3 Aspect Ratio
Maintained in 16:9 Display
(Grey area not usable)

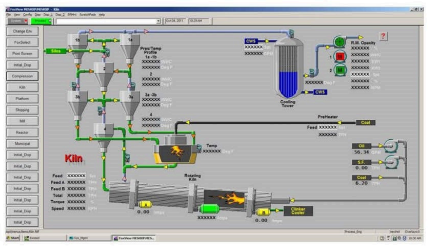


Example 2 - 4:3 Aspect Ratio
Stretched to 16:9 Aspect Ratio
(Stretched with Distortion)

24" Monitor - used with Workstations Without FoxView/FoxDraw V10.2.4 or Later
And Support for 1920 x1080 Resolution



Example 3 - 16:9 Aspect Ratio
View Display on Successful Conversion



Example 3a - 16:9 Aspect Ratio
View Display or Successful Conversion and
Manual Modification of Visual Elements

24" Monitor - used with Workstations with FoxView/FoxDraw v10.2.4 or Later
And Support for 1920 x1080 Resolution

European Certification

As symbolized by the CE logo on these monitors, they are in compliance with the applicable European Union directives.

Video Screen Replacement

The placement of the video display in relation to the workstation can affect your choice of video cables. In general, analog cables are suitable for use up to 30 m (100 ft) whereas digital cables have a maximum limit of 4.8 m (16 ft), but there are exceptions.

Color Consistency

These monitors are sourced through a global supply chain that treats this category of equipment as a commodity item. As such, minor color inconsistencies among delivered monitors are to be expected. If the application requires color adjustments or strict consistency of color presentation, contact Global Customer Support at https://pasupport.se.com (registration required) for assistance in selecting monitors of the appropriate capability.

Functional Specifications

Display Characteristics	Resolution (Pixels): • Standard Resolution 1920 H x 1080 V (usually used at 60 Hz) Viewable Size: • 60.47 cm (23.8 in) Recommended Operating Resolution: • 1920x1080x60 Standard Workstation and Server Models[a] D96, H90, H92, H94, V91 and V95
Input Characteristics	**NOTE:** The recommended resolution is a function of the graphics card in the system, the monitor that the system originally had and the preference of the operator. Older systems do not have the capabilities to host modern 1920x1080 high definition resolutions. Input Connectors: • Analog: 15-pin VGA • Digital: DVI-D and DisplayPort Sync Range: • Horizontal (Analog/Digital): 31.5 KHz to 83 KHz • Vertical: 50 Hz to 75 Hz
Brightness (Typical)	250 cd/m^2
Power Requirements	• Input Voltage: Auto Select: 100 to 240 VAC • Line Frequency: 50 and 60 Hz nominal • Input Current: 0.90 - 0.50 A (with USB and Audio) • Power: 15 W Typical
(a) Foxboro DCS systems will only operate in either 1280x1024 or 1920x1080 resolution.	

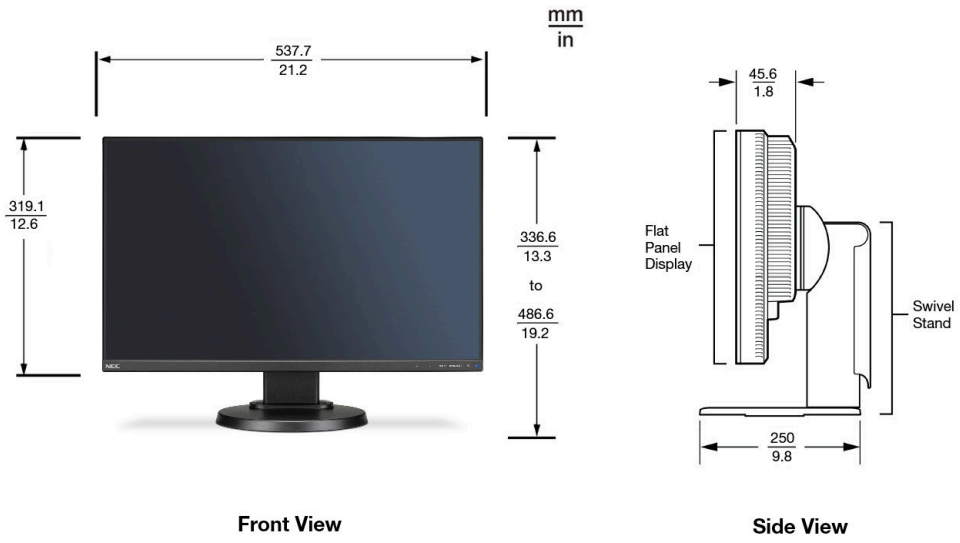
Environmental Specifications

	Operating	Storage
Temperature	5 to 35°C (41 to 95°F)	-10 to +60°C (14 to 140°F)
Humidity	20 to 80% (non condensing)	10 to 85% (non condensing)
Altitude	0 to 5000 m (0 to 16404 ft)	0 to 12192 m (0 to 40,000 ft)
Location	UL/UL-C listed as suitable for use in ordinary locations and is designed to help meet ordinary safety standards for fire and shock hazards.	
Contamination	Class G1 (Mild) as defined in ISA Standard S71.04	

Physical Specifications

Weight	• Display with Swivel Stand: 6.1 kg (13.4 lb) • Display without Swivel Stand: 3.6 kg (7.9 lb)
Mounting	Desktop: 100 x 100 mm VESA mounting capability
Swivel Stand	Swivel Range • Side to Side: ±170° from center • Up to Down: +35°, -5° from center
Viewing Range	±89° from center
Dimensions	Display • Width: 537.7 mm (21.2 in) • Height: 319.1 mm (12.6 in) • Depth: 45.6 mm (1.8 in) Display with Swivel Stand • Width: 537.7 mm (21.2 in) • Height: 336.6 - 486.6 mm (13.3 - 19.2 in) • Depth: 250 mm (9.8 in)

Dimensionals Nominal



Front View **Side View**

Regulatory Compliance

Safety Certifications	• US, Canada UL® / cUL • European Union Complies with the Low Voltage Directive (LVD) 2014/35/EU and the following Harmonized Standards: ◦ EN 62368-1:2014+A11:2017 ◦ EN 60950-1:2006+ A11:2009 +A1: 2010 + A12:2011 + A2:2013
EMC Approvals and Certifications	• USA, Canada Complies with FCC Part 15, Class B • European Union Complies with the Electromagnetic Compatibility Directive (EMC) 2014/30/EU and the following Harmonized Standards: ◦ EN 61000-3-2:2014 ◦ EN 61000-3-3:2013 ◦ EN 55024:2010+A1:2015 ◦ EN 55032:2015+AC:2016 (Class B)

⚠ **WARNING**: This product can expose you to chemicals including lead and lead compounds, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.p65warnings.ca.gov/.

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Global Customer Support: https://pasupport.se.com

As standards, specifications, and design change from time to time, please ask for confirmation of the information given in this publication.

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