

PROCUREMENT SPECIFICATION

Graphic Terminals PanelView 800

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TABLE OF CONTENTS

PART 1 GENERAL3
1.01 QUALIFICATIONS.....3
1.02 REFERENCES.....3
1.03 ENVIRONMENTAL REQUIREMENTS.....3
1.04 SUBMITTALS3
PART 2 PRODUCTS3
2.01 MANUFACTURER–GENERAL3
2.02 CONSTRUCTION–GENERAL4
2.03 DISPLAY FEATURES–GENERAL4
2.04 LOGIC FEATURES–GENERAL4
2.05 PROGRAMMING–GENERAL5
2.06 PROGRAMMING TECHNIQUES–GENERAL5
2.07 RATINGS–GENERAL6
2.08 TERMINAL–SPECIFIC6
PART 3 EXECUTION8
3.01 INSTALLATION8
3.02 INTERFACE WITH OTHER PRODUCTS8
3.03 CLEANING8
3.04 SPARE MATERIALS8

SECTION XX XX XX

GRAPHIC TERMINAL

PART 1 GENERAL

1.01 QUALIFICATIONS

- A. Manufacturer must:
 - 1. Specialize in manufacturing products specified in this section with minimum 20 years documented experience.
 - 2. Have service personnel available 24 hours per day through a toll-free phone number.
 - 3. Offer local standard and customized training courses.
- B. Supplier must be an authorized distributor of specified manufacturer with minimum three years documented experience.

1.02 REFERENCES

- A. The operator interface terminal shall be designed to meet the following agency approvals.
 - 1. cULus listed
 - 2. Hazardous Locations Class I, Division 2, Groups A, B, C, D certified
 - 3. CE marked for all applicable directives
 - 4. RCM/Australian Radiocommunications Act compliant
 - 5. KC/Korean Registration of Broadcasting and Communications Equipment compliant
 - 6. China RoHS compliant

1.03 ENVIRONMENTAL REQUIREMENTS

- A. The supplier shall conform to specified service conditions during and after installation of products.
- B. The supplier shall maintain area free of dirt and dust during and after installation of products.

1.04 SUBMITTALS

- A. The supplier shall provide catalog cut-sheets.

PART 2 PRODUCTS

Any general specifications (–GENERAL) are design requirements for all PanelView 800 terminals covered in this document. Design requirements specific to each model start with section 2.08, which are in addition to the general design requirements.

2.01 MANUFACTURER–GENERAL

- A. Shall be Allen-Bradley PanelView 800 Series 2711R.
- B. Substitutions are not permitted.

2.02 CONSTRUCTION–GENERAL

- A. The operator interface terminal shall provide visualization for control, configurable to support both landscape and portrait applications.
- B. The operator interface terminal shall be designed with interchangeability provided for similar PanelView Component models with 4-inch to 10-inch screen sizes. All new model designs shall be interchangeable with similar models to reduce obsolescence.
- C. The operator interface terminal shall be designed for the following environmental parameters.
 - 1. Operating temperature range of 0 to 50 °C (32 to 122 °F).
 - 2. Storage temperature range of -25 to 70 °C (-13 to 158 °F).
 - 3. Humidity range of 5 to 95% non-condensing.
- D. The operator interface terminal shall operate on power input of 18 to 30 VDC (24 VDC nominal). A DIN-rail-mounted, AC-to-DC power supply 85 to 265 VAC, 47 to 63 Hz option shall be available.
- E. The operator interface terminal shall have a CPU with a processor speed of 800 MHz.
- F. The front bezel protection shall meet NEMA/UL Type 4X (indoor), 12, 13, and IP65.
- G. Communication ports shall include:
 - 1. RS-232, RS-422/RS-485 (isolated).
 - 2. Ethernet 10/100 Mbps.
- H. The operator interface terminal shall have a slot for a microSD™ (Micro Secure Digital) memory card for loading the application, for upgrading firmware, and for external storage.
- I. The operator interface terminal shall have one Universal Serial Bus (USB) connector port, host-type (USB 2.0).
- J. The operator interface terminal shall have a real-time clock with battery backup. The battery is replaceable.

2.03 DISPLAY FEATURES–GENERAL

- A. The operator interface terminal shall have a flat panel display with LED backlight.
- B. Touch screen operator interface terminals shall have the entire screen available for object usage, and not be limited by specific templates or function keys.
- C. Keypad-based operator interface terminals shall have function keys that the user can program as required by application specifications.

2.04 LOGIC FEATURES–GENERAL

- A. The operator interface terminal shall interface as addressed in this specification or as indicated on the drawings.
 - 1. The operator interface terminal shall be able to communicate to Micro800™ and MicroLogix™ controllers.
 - 2. The operator interface terminal shall be able to communicate to CompactLogix 5370 controllers (exclude 1769-L37ERMO and 1769-L37ERMOS).
*Limited to 25 screens, 200 tags and 150 alarms.
 - 3. The operator interface terminal shall be able to connect directly to a component device, such as a specified drive.

- B. The operator interface terminal's multi-vendor communication shall include Modbus RTU and Modbus/TCP.
- C. Review of alarm status, history, and time/date of equipment events shall be available even after a power cycle.

2.05 PROGRAMMING—GENERAL

- A. The operator interface terminal shall have:
 - 1. Communication of control to a single device
 - 2. Alarm messages that include embedded variables
 - 3. Recipe upload/download capabilities and ability to save recipes in .cvs format
 - 4. Trending capabilities
 - 5. Datalogging capabilities
 - 6. Pushbuttons and selectors
 - 7. ASCII entry devices
 - 8. Message displays
 - 9. Embedded numeric and ASCII variable displays
 - 10. Analog and digital gauges
 - 11. Object visibility animation
- B. The operator interface terminal shall be able to provide a remote monitoring feature to user with Virtual Network Computing (VNC) server.
- C. The operator interface terminal shall be able to secure information with user name and password protection.
- D. The software package shall offer such features as cut, copy, paste, and object import/export capabilities in and between various PanelView component application files.
- E. The operator interface terminal shall be able to display information in various languages, including:
 - 1. English
 - 2. French
 - 3. German
 - 4. Italian
 - 5. Portuguese
 - 6. Spanish
 - 7. Simplified Chinese

2.06 PROGRAMMING TECHNIQUES—GENERAL

- A. The operator interface terminal shall be capable of being configured offline, using Connected Components Workbench™ (CCW) software.
- B. CCW software shall:
 - 1. Be available for installation on a PC as a free download.
 - 2. Require at least an Intel Pentium 4, 2.8 GHz, processor with 2 GB RAM and 10 GB free hard disk space.
 - 3. Be supported in Windows 7 SP1, Windows 8 (and 8.1), and Windows Server 2008 (R2) environments.
 - 4. Create applications that can be transferred to the operator interface terminal using a USB flash or microSD storage card.

- C. Connected Components Workbench shall act as a single software package for various component products, coordinating the programming of controllers, the configuration of devices, and the screen design of the operator interface.
- D. The operator interface terminal shall have a user-configurable alarm system capable of popping up an alarm screen for the user and presenting information that is critical to the user and of immediate use.
- E. The programming format shall involve placing input and output objects via the offline programming and configuration software.
- F. When used with Micro 800 controllers, input and output objects shall be linked to the logic controller via “tags” that contain addressing information to access the data in the logic controller.
- G. Capability shall exist for the following:
 - 1. Trending/datalogging which can be stored to microSD or USB (supports 6 datasets for logging).
 - 2. Recipe management (50 recipes are supported).
 - 3. Reporting (which provides a detailed report of the PVc application including, but not limited to, screen shots of all screens present in the application, list of tags, connections, data usage, etc.).

2.07 RATINGS–GENERAL

- A. The operator interface terminal shall be able to withstand conducted susceptibility tests as outlined in:

Vibration	IEC 60068-2-6
Shock	IEC 60068-2-27
Emissions	IEC 61000-6-4
ESD Immunity	EN 61000-4-2
Radiated RF Immunity	EN 61000-4-3
EFT/B Immunity	EN 61000-4-4
Surge Transient Immunity	EN 61000-4-5
Conducted RF Immunity	EN 61000-4-6

2.08 TERMINAL–SPECIFIC

- A. 4-INCH TERMINAL

- 1. The operator interface terminal shall be Allen-Bradley PanelView 800, 2711R-T4T.
- 2. The display area shall be 95 mm wide by 53.9 mm high (3.74 inches wide by 2.12 inches high).
- 3. The display shall be:
 - a) 4-inch color transmissive TFT active matrix LCD, widescreen format.
 - b) 480 x 272 WQVGA with 65K colors.
- 4. The operator input shall be analog touch and 4 function keys.
- 5. The CPU shall have 256 MB flash memory and 256 MB DDR SDRAM.
- 6. The operator interface terminal shall have a maximum power consumption of 9W (0.39A at 24 VDC).

B. 7-INCH TERMINAL

1. The operator interface terminal shall be Allen-Bradley PanelView 800, 2711R-T7T.
2. The display area shall be 153.6 mm wide by 86.6 mm high (6.05 inches wide by 3.41 inches high).
3. The display shall be:
 - a) 7-inch color transmissive TFT active matrix LCD, widescreen format.
 - b) 800 x 480 WVGA with 65K colors.
4. The operator input shall be analog touch.
5. The CPU shall have 256 MB flash memory and 256 MB DDR SDRAM.
6. The operator interface terminal shall have a maximum power consumption of 11W (0.40A at 24 VDC).

C. 10-INCH TERMINAL

1. The operator interface terminal shall be Allen-Bradley PanelView 800, 2711R-T10T.
2. The display area shall be 211.2 mm wide by 158.4 mm high (8.31 inches wide by 6.24 inches high).
3. The display shall be:
 - a) 10-inch color transmissive TFT active matrix LCD, widescreen format.
 - b) 800 x 600 SVGA with 65K colors.
4. The operator input shall be analog touch.
5. The CPU shall have 256 MB flash memory and 256 MB DDR SDRAM.
6. The operator interface terminal shall have a maximum power consumption of 14W (0.48A at 24 VDC).

PART 3 EXECUTION

3.01 INSTALLATION

- A. The supplier shall install in accordance with manufacturer's instructions.
- B. The supplier shall unload, unpack and transport equipment to prevent damage or loss.
- C. The supplier shall replace damaged components as directed by engineer.
- D. The equipment shall be protected from dust and other harmful materials.

3.02 INTERFACE WITH OTHER PRODUCTS

- A. The supplier shall provide all required cables, cords, and connections for interface with other control system components.
- B. The supplier shall coordinate size and configuration of enclosure to meet project requirements.

3.03 CLEANING

- A. The supplier shall clean units as recommended by manufacturer.

3.04 SPARE MATERIALS

- A. For each size operator interface terminal being installed, the supplier shall provide:
 - 1. Antiglare overlay kit.
 - 2. Backlight lamp where operator interface terminal has a field-replaceable backlight.
 - 3. Real-time clock replacement battery.

END OF SECTION