

# MobileView Tethered Operator Terminals and Junction Boxes

Bulletin 2711T

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## Summary of Changes

This publication contains the following new or updated information. This list includes substantive updates only and is not intended to reflect all changes.

Topic	Page
Revised the operating temperature range and added the footnote to Table 5.	4
Revised the relative humidity range to Table 5.	4
Revised the operating temperature range in Table 8.	5
Revised the relative humidity range in Table 8.	5
Revised the operating temperature range in Table 11.	5
Revised the relative humidity range in Table 11.	5
Updated hyperlink (URL) addresses.	7, 8

## Overview

The MobileView™ 2711T family of human machine interface (HMI) devices have a rugged design with features that include a 3-position enable switch, touch and function keys, and stop push buttons<sup>(1)</sup>. These features let you access the safety system of a machine and the general interface to its control system.

There are two generations of MobileView 2711T terminals. First-generation terminals use a 20-pin connection cable with a silver connector to connect to an IP20 junction box. Second-generation terminals use a 22-pin connection cable with a black connector to connect to one of two available IP65 junction boxes. Because of the pin differences, you cannot mix components between generations.

The second-generation MobileView terminal, cat. no. 2711T-T101N1-TC, is a thin client model without an operating system but is set for PXE boot into a thin client server. This terminal is configured to work with ThinManager® software.

There are two IP65 junction boxes that work with second-generation MobileView terminals. One junction box has cord grip connections, and the other junction box has M12 On-Machine™ connections. Both IP65 junction boxes have LED lights and a status indicator bar on their front plate that can signify different operating and error states.

(1) Three of the first-generation MobileView terminals are equipped with a red-yellow emergency stop (E-stop) push button. Both second-generation MobileView terminals are equipped with an illuminated red E-stop push button, and two of the first-generation MobileView terminals are equipped with a gray stop button that is not classified as an E-stop button.

## MobileView 2711T Terminal Options

The following tables summarize the options available for MobileView 2711T tethered operator terminals. A comparative summary of features for the MobileView terminals starts on [page 4](#).

**Table 1 - First-generation MobileView 2711T Terminal Options**

Cat. No.	Display Size (in.)	Touch Screen	Function Keys	3-position Enabling Switch	3-position Keyswitch	Momentary Button	2-circuit Push Button			
							E-stop (red/yellow)	Stop (Gray)		
2711T-B10R1K1	10.1	Yes	Yes	Yes	Yes	Yes	No	Yes		
2711T-B10R1M1						Yes	Yes			
2711T-F10G1N1			No			No	No	Yes		
2711T-T10G1N1						No	Yes	No		
2711T-T10R1N1						No	Yes	No		

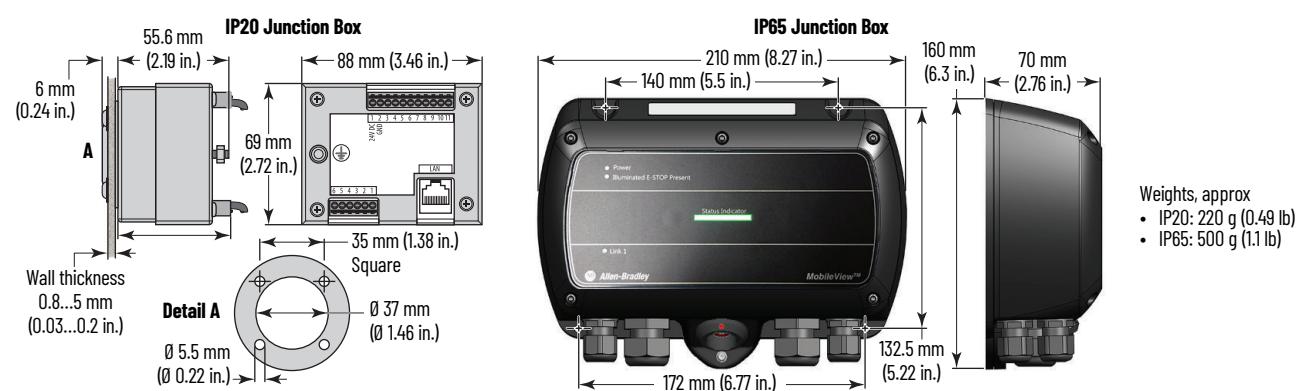
**Table 2 - Second-generation MobileView 2711T Terminal Options**

Cat. No.	Display Size (in.)	Touch Screen	Function Keys	3-position Enabling Switch	3-position Keyswitch	Momentary Button	2-circuit Push Button	
							Illuminated E-stop	Stop (Gray)
2711T-B10I1N1	10.1	Yes	Yes	Yes	No	No	Yes	No
2711T-T10I1NT-TC			No					

## MobileView 2711T Terminal Dimensions and Weight



## MobileView Junction Box Dimensions and Weight



## MobileView Terminal Specifications

**Table 3 - General**

Attribute	Cat. No. 2711T-						
	T10R1N1	B10I1N1	B10R1K1	B10R1M1	F10G1N1	T10G1N1	T10G1N1-TC
Processor	Intel Atom E3815, 1.46 GHz						
Operating system	Microsoft Windows® Embedded Standard 7 SP1, 64 bit						
Memory	4 GB DRAM/32 GB Flash						
Display Size (in.) Color/resolution Resistive touch screen	10.1 WXGA/1280 x 800 pixels Analog resistive						
Function keys	No	Yes					No
3-position enable switch	Yes						
2-circuit E-stop	Yes						
USB drive slot	Yes (2.0)						
Communication	10/100 Ethernet						
Dimensions	See <a href="#">page 3</a>						
Weight	1550 g (3.42 lb)						

(1) The operating system and 32 GB flash drive are not included with the 2711T-T10G1N1-TC MobileView terminal.

**Table 4 - Electrical**

Attribute	Cat. No. 2711T-						
	T10R1N1	B10I1N1	B10R1K1	B10R1M1	F10G1N1	T10G1N1	T10G1N1-TC
Rated supply voltage	24V DC						
Supply voltage tolerance range	19.2...30V DC (EN 61131-2)						
Input current	500 mA at 24V DC						
Peak inrush current	5.6 A (max)						

**Table 5 - Environmental**

Attribute	Cat. No. 2711T-						
	T10R1N1	B10I1N1	B10R1K1	B10R1M1	F10G1N1	T10G1N1	T10G1N1-TC
Operating temperature	0...50 °C (32...122 °F) <sup>(1)</sup> The MobileView 2711T is UL rated for 0...45 °C (32...113 °F) under full load						
Storage temperature	-25...+70 °C (-13...+158 °F)						
Relative humidity (noncondensing)	5...95% at 0...50 °C (32...122 °F) The MobileView 2711T is UL rated for 5...95% at 0...45 °C (32...113 °F)						
Vibration (operating)	5...150 Hz 5...8.4 Hz, 3.5 mm p-p 8.4...150 Hz, 1G peak						
Shock (operating)	15 G (1/2 Sine, 11 ms) IEC 60068-2-27						
Altitude	0...2000 m (0...6562 ft)						

(1) 0...50 °C (32...122 °F) temperature range is with typical device utilization of 100% CPU, display brightness at 50%, and GPU set to maximum battery life. When operating under full load, a derating of 5 °C (9 °F), absolute 45 °C (113 °F) must be taken into consideration.

To adjust the display brightness and GPU energy setting, see the MobileView Tethered Operator Terminal User Manual, publication [2711T-UM001](#).

If you need assistance setting CPU and GPU ratings, contact your local Rockwell Automation sales office or Allen-Bradley distributor.

## IP20 Junction Box Specifications

Table 6 - General

Attribute	Cat. No. 2711T-JBIP20DC
USB drive slot	Yes (2.0)
Communication	10/100 Ethernet
Dimensions	See <a href="#">page 3</a>
Weight, approx	220 g (0.49 lb)

Table 7 - Electrical

Attribute	Cat. No. 2711T-JBIP20DC
Rated supply voltage	24V DC
Supply voltage tolerance range	19.2...30V DC (EN 61131-2)
Input current <sup>(1)</sup>	500 mA at 24V DC
Peak inrush current	5.6 A (max)
Connector cycle duration <sup>(2)</sup>	5000 (typical)

(1) Without a MobileView terminal connected to the junction box.

(2) Applies to silver 20-pin cable connector. Test the connector monthly to verify that it locks properly. Remove the IP20 junction box from operation after the connection cycles have been exceeded.

Table 8 - Environmental

Attribute	Cat. No. 2711T-JBIP20DC
Operating temperature	0...45 °C (32...113 °F)
Storage temperature	-25...+70 °C (-13...+158 °F)
Relative humidity (noncondensing)	5...95% at 0....55°C
Vibration (operating)	5...150 Hz 5...8.4 Hz, 3.5 mm p-p 8.4...150 Hz, 1G peak
Shock (operating)	15 G (½ Sine, 11 msec) IEC 60068-2-27
Altitude	0...2,000 m (0...6,562 ft)

## IP65 Junction Box Specifications

Table 9 - General

Attribute	Cat. No. 2711T-	
	JBIP65DC1	JBIP65DM1
USB drive slot	Yes (2.0)	
Communication	10/100 Ethernet	
Dimensions	See <a href="#">page 3</a>	
Weight, approx	500 g (1.1 lb)	

Table 10 - Electrical

Attribute	Cat. No. 2711T-	
	JBIP65DC1	JBIP65DM1
Rated supply voltage	24V DC	
Supply voltage tolerance range	19.2...30V DC (EN 61131-2)	
Input current <sup>(1)</sup>	500 mA at 24V DC	
Peak inrush current	5.6 A (max)	
Connector cycle duration <sup>(2)</sup>	5000 (typical)	
E-stop functions		
• Voltage, min	• 5V DC per contact	
• Current, min ( $I_e$ )	• 10 mA per contact	
• Current carrying capacity, min	• 1000 mA per contact	
• Usage category	• DC-13 (IEC 60947-5-1)	
• Reaction time, max <sup>(3)</sup>	• 19 ms	
• Isolation	• 500V AC to rest	
• Bounce time	• <10 ms	
• Proof test interval <sup>(4)</sup>	• 20 years	
• Switching cycles relay	• $10 \times 10^5$	
• PFH <sub>d</sub>	• $9.79 \times 10^{-10}$ (1/h)	

(1) Without a MobileView terminal connected to the junction box.

(2) Applies to black, 22-pin cable connector. Test the connector monthly to verify that it locks properly. Remove the IP65 junction box from operation after the connection cycles have been exceeded.

(3) Reaction time is time before the E-stop is triggered.

(4) Decommission the safety function after the E-stop has been activated 250,000 times or after 20 years, whichever comes first.

Table 11 - Environmental

Attribute	Cat. No. 2711T-	
	JBIP65DC1	JBIP65DM1
Operating temperature	0...50 °C (32...122 °F)	
Storage temperature	-25...+70 °C (-13...+158 °F)	
Relative humidity (noncondensing)	5...95% at 0...50 °C (32...122 °F)	
Vibration (operating)	5...150 Hz 5...8.4 Hz, 3.5 mm p-p 8.4...150 Hz, 1G peak	
Shock (operating)	15 G (½ Sine, 11 msec) IEC 60068-2-27	
Altitude	0...3,000 m (0...9,843 ft)	

## MobileView Accessories

**Table 12 - For All MobileView Terminals**

Cat. No.	Description
2711T-BRACKET	Mounting bracket for stationary operation or to store the terminal.
2711T-VMBRACKET	VESA Mounting bracket for stationary operation, to store the terminal, or to lock the terminal for security reasons.

**Table 13 - For First-generation MobileView Terminals (cat. nos. 2711T-B10R1K1, -B10R1M1, -F10G1N1, -T10G1N1, and -T10R1N1)**

Cat. No.	Description
2711T-5MCABLE	Connection cable (5 m/16.4 ft) with silver connector to connect a 20-pin MobileView terminal to an IP20 junction box.
2711T-10MCABLE	Connection cable (10 m/32.8 ft) with silver connector to connect a 20-pin MobileView terminal to an IP20 junction box.
2711T-15MCABLE	Connection cable (15 m/49.2 ft) with silver connector to connect a 20-pin MobileView terminal to an IP20 junction box.
2711T-JBIP20DC	A 24V DC powered, IP20 junction box that includes a junction box cap.
2711T-JUMP	A silver, 20-pin bridge connector to bypass emergency stop (E-stop) contactors in an IP20 MobileView junction box. <sup>(1)</sup>

(1) For applications where the customer plans to move one MobileView terminal between many MobileView junction boxes.

**Table 14 - For Second-generation MobileView Terminals (cat. nos. 2711T-B10I1N1 and -T10I1N1-TC)**

Cat. No.	Description
2711T-5MCABLE2	Connection cable (5 m/16.4 ft) with black connector to connect a 22-pin MobileView terminal to an IP65 junction box.
2711T-10MCABLE2	Connection cable (10 m/32.8 ft) with black connector to connect a 22-pin MobileView terminal to an IP65 junction box.
2711T-15MCABLE2	Connection cable (15 m/49.2 ft) with black connector to connect a 22-pin MobileView terminal to an IP65 junction box.
2711T-JBIP65DC1 <sup>(1)</sup>	A 24V DC powered, IP65 junction box with cord grips, and Box ID and E-stop bypass functionality.
2711T-JBIP65DM1 <sup>(1)</sup>	A 24V DC powered, IP65 junction box with M12 On-Machine™ connectors, and Box ID and E-stop bypass functionality.
2711T-JBBKCOVER	A back cover accessory plate for the 2711T-JBIP65DC1 and 2711T-JBIP65DM1 junction boxes.
2711T-22JUMP	A black, 22-pin bridge connector to bypass emergency stop (E-stop) contactors in an IP65 MobileView junction box. <sup>(2)</sup>

(1) first-generation MobileView terminals 2711T-T10G1N1 and 2711T-F10G1N1 can be used with IP65 junction boxes and 22-pin connection cables.

(2) For applications where the customer plans to move one MobileView terminal between many MobileView junction boxes.

## Standards Compliance and Certifications

For declarations of conformity, certificates, and other certification details, please visit the Rockwell Automation Product Certifications site at [rok.auto/certifications](http://rok.auto/certifications).

Region	Standards Group	Regulatory Standard
Americas	Safety	cULus MobileView terminals: <ul style="list-style-type: none"> <li>UL 508 - Industrial Control Equipment</li> <li>UL 1740 - Robotic Equipment<sup>(1)</sup></li> <li>CSA C22.2 No. 142 - Industrial Control Equipment</li> <li>CSA Z434 - Robotic Equipment</li> </ul> IP65 junction boxes: <ul style="list-style-type: none"> <li>UL 508 - Industrial Control Equipment</li> <li>UL 61010-1 - Control Equipment</li> <li>UL 61010-2-201 - Control Equipment</li> <li>UL 1740 - Robotic Equipment</li> <li>IEC 61508 - Functional Safety</li> <li>CSA C22.2 No. 142 - Industrial Control Equipment</li> <li>CSA Z434 - Robotic Equipment</li> </ul>
		State of California In accordance with California USA disclosure regarding any perchlorate content
	Enclosure rating	IP65 per EN 60529
	Safety	EN 61131-2 - Programmable Controllers MobileView terminals: <ul style="list-style-type: none"> <li>EN ISO 13850 - Safety Function</li> <li>EN 60204-1 - Safety Function</li> </ul> IP65 junction boxes: <ul style="list-style-type: none"> <li>EN ISO 13850 - Safety Function</li> <li>EN 60204-1 - Safety Function</li> <li>EN ISO 13849-1 - Safety Function</li> <li>EN ISO 10218-1 - Safety Function</li> <li>EN 61131-2 - Programmable Controllers</li> <li>Suitable for use in applications up to Cat 4, PLe (EN ISO 13849-1) and SIL3/SIL CL3 (EN 61508/EN 62061); for more details, see TÜV Rheinland certificate, publication <a href="#">2711T-CT006</a></li> </ul>
Europe	EMC	2014/30/EU
	Emissions	EN 61131-2
	Immunity	EN 61131-2
	REACH	Regulation No. 1907/2006 of the European Parliament
	RoHS	European RoHS 2011/65/EU Turkey RoHS (EEE Yönetmeliğine Uygundur. In Conformity with the EEE Regulation)
	WEEE	Waste Electrical and Electronic Equipment (WEEE) 2012/19/E
	Machinery Directive	The product safety functions of the MobileView 2711T series are in conformity with the essential requirements of the Machinery Directive (2006/42/EC) when installed and maintained in accordance with the instructions contained in the product documentation. The standards referenced above regarding the safety function have been applied.
	EU battery directive	2006/66/EC
Asia Pacific	Product certification	China RoHS pollution control logo SJ/T13642006 RCM - Australian Radiocommunications Act, compliant with EN61000-6-4 Korean Clause 3, Article 58-2 of Radio Waves Act 위 기자재는 「전파법」 제58조의2 제3항에 따라 등록되었음을 증명합니다.

(1) Does not apply to 2711T-F10GIN1 and 2711T-T10G1N1 MobileView terminals with gray push buttons.

## Additional Resources

These documents contain additional information concerning related products from Rockwell Automation.

Resource	Description
MobileView Tethered Operator Terminal User Manual, publication <a href="#">2711T-UM001</a>	Provides information to install, operate, and troubleshoot MobileView 2711T terminals and junction boxes.
MobileView Tethered Operator Terminal Bridge Connector Installation Instructions, publication <a href="#">2711T-IN001</a>	Provides information to install the MobileView 2711T terminal bridge connector.
FactoryTalk® View Machine Edition User's Guide, publication <a href="#">VIEWME-UM004</a>	Provides comprehensive information about FactoryTalk View Machine Edition, procedures to create and run an automation application, and reference information.
System Security Design Guidelines Reference Manual, <a href="#">SECURE-RM001</a>	Provides guidance on how to conduct security assessments, implement Rockwell Automation products in a secure system, harden the control system, manage user access, and dispose of equipment.
UL Standards Listing for Industrial Control Products, publication <a href="#">CMPNTS-SR002</a>	Assists original equipment manufacturers (OEMs) with construction of panels, to help achieve that they conform to the requirements of Underwriters Laboratories.
Industrial Automation Wiring and Grounding Guidelines, publication <a href="#">1770-4.1</a>	Provides general guidelines for installing a Rockwell Automation industrial system.
Product Certifications website, <a href="#">rok.auto/certifications</a>	Provides declarations of conformity, certificates, and other certification details.

You can view or download publications at [rok.auto/literature](#).

## Notes:

# Rockwell Automation Support

Use these resources to access support information.

<b>Technical Support Center</b>	Find help with how-to videos, FAQs, chat, user forums, and product notification updates.	<a href="http://rok.auto/support">rok.auto/support</a>
<b>Knowledgebase</b>	Access Knowledgebase articles.	<a href="http://rok.auto/knowledgebase">rok.auto/knowledgebase</a>
<b>Local Technical Support Phone Numbers</b>	Locate the telephone number for your country.	<a href="http://rok.auto/phonesupport">rok.auto/phonesupport</a>
<b>Literature Library</b>	Find installation instructions, manuals, brochures, and technical data publications.	<a href="http://rok.auto/literature">rok.auto/literature</a>
<b>Product Compatibility and Download Center (PCDC)</b>	Download firmware, associated files (such as AOP, EDS, and DTM), and access product release notes.	<a href="http://rok.auto/pcdc">rok.auto/pcdc</a>

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