Digi TransPort® WR31 Hazardous Locations

User Guide

TransPort WR31 Hazardous Locations User Guide

90001490

Revision	Date	Description
A	December 2015	First release.
B	June 2017	Added warning that antennas for use in Class I, Division 2 Hazardous Locations must be installed within the end use enclosure. Updated Power Input specification to add minimum wattage. Reordered hardware specification categories.

Trademarks and copyright

Digi, Digi International, and the Digi logo are trademarks or registered trademarks in the United States and other countries worldwide. All other trademarks mentioned in this document are the property of their respective owners.

Disclaimers

Information in this document is subject to change without notice and does not represent a commitment on the part of Digi International. Digi provides this document “as is,” without warranty of any kind, expressed or implied, including, but not limited to, the implied warranties of fitness or merchantability for a particular purpose. Digi may make improvements and/or changes in this manual or in the product(s) and/or the program(s) described in this manual at any time.

Warranty

To view product warranties online, visit www.digi.com/howtobuy/terms.

Send comments

Documentation feedback: To provide feedback on this document, send your comments to techcomm@digi.com.

Customer support

Digi Technical Support: Digi offers multiple technical support plans and service packages to help our customers get the most out of their Digi product. For information on Technical Support plans and pricing, contact us at +1 952.912.3456 or visit www.digi.com/support.

TransPort WR31 Hazardous Locations information

TransPort WR31 Hazardous Locations information

This guide provides information on the installation and use of the TransPort WR31 in hazardous locations, including compliance statements and certifications.

ATEX Directive compliance

Digi complies with ATEX directives to ensure a safe working environment when working with equipment in potentially explosive atmospheres. The TransPort WR31 device is compliant to the ATEX Directive under Certification DEMKO 15 ATEX 1574X.

Special conditions for safe use:

The equipment shall be used only in an area of not more than pollution degree 2, as defined in EN 60664-1.

The equipment shall be installed in an enclosure that provides a degree of protection not less than IP 54 in accordance with EN 60079-15 and only accessible by the use of a tool.

Transient protection shall be provided that is set at a level not exceeding 140% of the peak rated voltage value at the supply terminals to the equipment.

Class I Division 2, Groups A,B,C,D Hazardous Location statement

WARNING! The TransPort WR31 is suitable for use in Class I, Division 2, Groups A, B, C, and D or Non-hazardous locations only.
These devices are open-type devices that are to be installed in a tool only accessible enclosure suitable for the environment.

WARNING! Explosion Hazard - Do not disconnect equipment unless power has been switched off or the area is known to be non-hazardous.
Avertissement: Risque d'Exlposion - Avant de déconnecter l'equipment, couper le courant ou s'assurer que l'emplacement est désigné non dangereux.

WARNING! Explosion Hazard - Substitution of components may impair suitability for Class I, Division 2.
Avertissement: Risque d'Exlposion - La substitution de composants peut rendre ce matérial inacceptable pour les emplacements de Classe I, Division 2.

WARNING! The area must be known to be non-hazardous before servicing/replacing the unit and before installing.
Avertissement: La zone doit être connu pour être non dangereux avant l'entretien / remplacement de l'unité et avant l'installation.

WARNING! Explosion Hazard - Do not replace power supply unless power has been switched off or the area is known to be non-hazardous.
Avertissement: Risque d'Exlposion - Ne remplace power supply pas d'alimentation eletrique á moins que le pouvoir n'ait été éteint ou on connu que la région soit non-hasardeuse.

WARNING! The USB port is for use in ordinary locations. It is not for use in a hazardous location environment.

WARNING! Antennas intended for use in Class I, Division 2 Hazardous Locations must be installed within the end use enclosure. For remote mounting in an unclassified location, routing and installation of the antennas shall be in accordance with the National Electrical Codes requirements.

Restriction on use of USB port

WARNING! The USB port is for use in a normal location only, not a hazardous location.

TransPort WR31 hardware specifications

Category	Specification	Value
Physical	Dimensions (L x W x H)	5 in x 3.5 in x 2 in (12.7 cm x 8.9 cm x 5.1cm);
	Weight	1.1 lb. (.5kg)
	Status LEDs	Power Service WWAN Signal strength (3x) System (user-programmable LED)
	Enclosure	Aluminum
	Mounting	DIN rail, wall, shelf mount, or NEMA enclosure mount
Power requirements	Power input	9-30 VDC; 18 W min
	Power connector	Screw down removable terminal block
	Power consumption	Typical 4 W (Max 6 W)
Environmental	Hazardous (Class 1 Div 2)	Yes
	Operating Temperature	-30° C to +70° C (-22° F to +158°F) Reduced cellular performance above 60°C
	Storage Temperature	-40° C to +85° C (-40° F to +185°F)
	Ethernet Isolation	1.5 kV RMS
	Serial Port Protection (ESD)	15 kV
	Relative Humidity	5% to 95% (non-condensing)

Category	Specification	Value
Cellular	Antenna connectors	1 x 50 Ω SMA (Center pin: female) 2x connectors for LTE models
	SIM slots	2
	SIM card type	Mini (standard) size (2FF)
	SIM security	Screw-down SIM cover
	3G/4G LTE Specifications:	
	LTE-North America(L5)	Software-Defined Multi-Carrier (Verizon, AT&T, and Sprint) 700/850/1700(AWS)/1900 MHz 2G/3G GSM fall back to850/900/1700AWS/1800/1900/2100 MHz 2G/3G CDMA fall back to 800/1900 MHz Transfer Rate (max): 50 Mbps Up, 100 Mbps Down
	LTE-North America(L6)	700/850/1700 (AWS)/1900 MHz 2G/3G fall back to 850/1900 MHz Transfer Rate (max): 50 Mbps Up, 100 Mbps Down
	LTE-EMEA/APAC(L1)	800/850/900/1800/1900/2100/2600 MHz 3G fall back to 850/900/1900/2100 MHz 2G fall back to 850/900/1800/1900 MHz Transfer Rate (max): 50 Mbps Up, 100 Mbps Down
	HSPA+ -(U9)	850/900/1700 (AWS)/1900/2100 MHz Transfer Rate (max): 5.76 Mbps Up, 21 Mbps Down
Ethernet	Ports	(2) RJ-45ports
	Physical Layer	10/100Base-T
	Data Rate	10/100 Mbps (auto-sensing)
	Mode	Full or half duplex (auto-sensing)
	Interface	Auto MDI/MDIX

Category	Specification	Value
Serial	Ports	(1) RS-232/422/485
	DTE/DCE	DCE
	Signal Support	TXD, RXD, RTS, CTS, DTR, DCD, DSR, RI
	Flow Control	Software (XON/XOFF) Hardware supported
	COM Port Redirector	Digi RealPort®
Digital and analog I/O	Connector	(5) pin screw-down terminal block
	Digital	0-30VDC. (2) I/O, software-selectable
	Analog	(1) analog input 4-20mA or 0-10V Software Selectable 12 bit resolution
USB	Ports	(1) USB Type A
	Standard	USB2.0
Software and Management	Remote Management	Digi Remote Manager SNMPv1/v2c/v3
	Local Management	Web UI (HTTP/HTTPS) CLI (Telnet, SSH, SMS)
	Management/Troubleshooting tools	FTP, SFTP, SCP Protocol analyzer with PCAP for Wireshark Event logging with Syslog and SMTP NTP/SNTP
	Memory	20 MB RAM 10 MB file space

Category	Specification	Value
Approvals	Safety	Hazardous Locations: • ANSI/ISA-12.12.01-2015 • CAN/CSA C22.2 NO.213-15 Ordinary Locations: • UL 60950-1, 2nd Edition, 2014-10-14 ATEX Standards: • Protection Method: II 3 G Ex nA IIC T4 Gc • EN 60079-0:2012+A11:2013 • EN 60079-15:2010 • DEMKO 15 ATEX 1574X
	Emissions/Immunity	CE FCC Part15 Class B AS/NZS CISPR22 EN55024 EN55032 Class B
	GSM/UMTS	PTCRB
	Cellular Carriers	Certified by most major carriers. See www.digi.com for a full list.
Warranty	Product Warranty	5 years