



VersaRouter 910

Datasheet

The Nivis **VersaRouter 910** (VR910) is an all-in-one, industrial wireless router designed specifically for customers that are ready to deliver market leading wireless solutions. The VR910 is architected to support Nivis WirelessHART or ISA100.11a (VR900 model) software running on the same platform. From temperature sensors to gas monitors, the VR910 helps customers unlock valuable information about the status of their industrial network at a lower overall cost of ownership than non-standards based or legacy wired solutions.

The VR910 offers both hardware and software capabilities to make it the best choice for any company planning to deploy and manage standards based, wireless mesh networks. With its rugged enclosure and ATEX Zone 2 and C1D2 nonincendive hardware design, the VR910 can be mounted directly in your process environment. The included software provides customers with the network management tools required for fast and comprehensive management of industrial wireless sensors.

The VR910 with the MCS allows the administrator to configure alerts, set advanced parameters, update system firmware, run and view command logs, and review network health status. Administrators can even add their own custom sensor icons!

Monitoring Control System NIVIS™ WirelessHART™

Network Health

Devices Count:	25	Generated:	20220	DLL Failures:	400
Join Count:	0	AB Tx:	17150	NI Failures:	400
Start Date (UTC):	2010-06-08 13:47:14	No ACK:	408	CRC Error:	1597
Current Date (UTC):	2010-06-08 13:18:02	Terminated:	10078	Nonce Lost:	0

Configuration

EUI-64 Address	Join Count	Power Status	Generated	AB Tx	No ACK	Terminated	AB Ex	DLL Failure	CRC Error	Nonce Lost
0018:1E9F:7000:0004	0	9	12259	4263	32	2522	195	3	56	2
0018:1E9F:7000:0022	0	0	42	387	57	38	174	4	6	0
0018:1E9F:7000:0023	0	0	11	311	14	9	429	15	29	0
0018:1E9F:7000:0024	0	0	98	314	27	61	452	3	13	0
0018:1E9F:7000:0025	0	0	61	211	9	45	253	11	4	0
0018:1E9F:7000:0026	0	0	6196	256	1	4373	247	5	31	0
0018:1E9F:7000:0027	0	0	188	256	4	95	68	58	99	0
0018:1E9F:7000:0028	0	0	7	354	53	5	436	8	6	0
0018:1E9F:7000:0029	0	0	294	0	0	70	0	0	123	0
0018:1E9F:7000:0028	0	0	714	4679	66	474	7612	12	121	0

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Network Topology

LEVEL 0

LEVEL 1

Service details: Last refreshed on UTC: N/A

Links legend: Link, ClockSource

In addition to the viewing of device data such as Device type, EUI-64 address, Nickname, the Monitoring Control System (MCS) provides administrators with control and sensor management. From a full topological view to in-depth network health information about sensor devices, the VR910 delivers the information in the MCS console.

Technical Features

Processor/Memory	Detail
Freescale MCF5485	ColdFire V4e microprocessor @200MHz with MMU and Hardware Encryption Engine
RAM memory	64 MB DDR SDRAM
Flash memory	16 MB NOR, 2MB BOOT
EEPROM	128 byte serial EEPROM (used for factory settings and configuration)
Peripherals/Software	Detail
Ethernet Channel	1 x10/100Base-T Ethernet Channel, RJ45 connector
Radio	1 x VN210 IEEE802.15.4 radio module
Operating System	Linux Kernel 2.6 Embedded
Modbus Support	Modbus TCP
Antenna	2.4GHz, 5.5dBi, OUTDOOR OMNI ANTENNA, N-TYPE

Technical Features cont.

Electrical & Mechanical Specs	Detail
Input Voltage	24VDC
Power consumption	~8.5W
Power over Ethernet (POE)	24V
Dimensions	12.4 " x 11.54" x 2.95" (L x W x H)
Enclosure /Dust & Water	NEMA 4x and IP67
Temperature Range	-40...+60C
Relative Humidity	Maximum 95%
Certifications	Detail
EMC: USA	FCC Part 15 Section 247
EMC: Canada	IC: RSS 210, must comply with FCC 15.247
EMC: EU	ETSI EN 300 328, ETSI EN 301 489-1, ETSI EN 310 489-17
EMC: Japan	MPHPT Chapter 3, Section 4.17, Article 49.20
HazLoc: ETL / cETL (USA)	ISA 12.12.01, CSA C22.2#213, UL 50, UL50E, CSA C22.2#94.1, CSA C22.2#94.2, UL 60950-1, CSA C22.2#60950-1
HazLoc: IEC (Japan)	IEC 60079-0, IECEx Zone2, IEC 60529 (Japan) IEC 60079-15 (Japan)
HazLoc: ATEX (CENLEC) (EU)	CENLEC EN 60079-0, CENLEC EN 60079-15, CENLEC EN 60529, ATEX Category 3G (Zone 2)
Add'l Safety: USA	IEC 60950:1999 Ordinary Safety Location Testing (equivalent to UL)
Add'l Safety: EU	CENLEC EN 60950-1 Ordinary Location Safety Testing
Features:	Supports RS232 for console port IEEE802.15.4 radio