# CERTIFICATE OF COMPLIANCE

 Certificate Number
 20131230-E175531

 Report Reference
 E175531-20121215

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 2013-DECEMBER-30

Issued to: HIRSCHMANN AUTOMATION AND CONTROL GMBH

STUTTGARTER STR 45-51

72654 NECKARTENZLINGEN GERMANY

This is to certify that representative samples of

PROGRAMMABLE CONTROLLERS

Listed Open Type, Programmable Controller, Cat. Nos. RSP20-, RSP25-, RSP30- and RSP35-, followed by a combination of up to 27 digits, letters, dashes and dots, and EAGLE20-, EAGLE30-, followed by a combination of up to

37 digits, letters, dashes and dots.

Have been investigated by UL in accordance with the

Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL 508, Industrial Control Equipment.

CSA C22.2 No. 142-M1987, Process Control Equipment.

Additional Information: See the UL Online Certifications Directory at

www.ul.com/database for additional information

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Look for the UL Listing Mark on the product.

William R. Carney, Director, North American Certification Programs

UL LLC

William R. Carrey

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(UL)

File E175531 Project 12CA46429

December 15, 2012

REPORT

on

## PROGRAMMABLE CONTROLLERS

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#### DESCRIPTION

## PRODUCT COVERED:

USL, CNL - Listed Open Type, Programmable Controller, Cat. Nos. RSP20- , RSP25-, RSP30- and RSP35-, followed by a combination of up to 27 digits, letters, dashes and dots, and EAGLE20-, EAGLE30-, followed by a combination of up to 37 digits, letters, dashes and dots.

#### **GENERAL:**

This device is an industrial Gigabit Ethernet Switch for DIN rail installation and for use in industrial automation applications. It is microcomputer-based and communicates via interfaces through wire or optical ports.

#### **ELECTRICAL RATINGS:**

All Cat. Nos. RSP20, RSP25, RSP30, RSP35, EAGLE20 and EAGLE30, can be rated as follow:

Power Supply		Power Supply		Power Supply		Power Supply		
Type KK		Type CC		Type K9		Type TT		
						(RSP only)		
Supply	Input	Supply	Input	Supply	Input	Supply	Input	
voltage	current	voltage	current	voltage	current	voltage	Current	
110-230Vac	0.2-0.15	24-48	0.7-0.4 A	110-230Vac	0.2-0.1			
50-60Hz,	A (ac)	Vdc		50-60Hz,	A (ac)	12-24 V		
alternati-	0.3-0.15	Class 2	0.8-0.4 A	alternati-	0.3-0.1	(dc)	2.0-0.8	
vely	A (dc)			vely	A (dc)	Class 2	A	
60-250 Vdc	0.2-0.1 A		0.8-0.4 A	60-250 Vdc	0.2-0.1			
	(ac)				A (ac)			
	0.4-0.1 A		1.0-0.5 A		0.4-0.1			
	(dc)				A (dc)			

## Signal contact Output: 1 A, 30Vdc or 1A, 30Vac

Max. surrounding air temperature:  $60^{\circ}\text{C}$  for parameter "S"  $70^{\circ}\text{C}$  for parameter "T" or "E"

Refer to "Temperature range" of nomenclature breakdown.

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## ENGINEERING CONSIDERATIONS (NOT FOR UL REPRESENTATIVE'S USE):

- Note: CNL = Canadian National Standards Listed.
  USL = United States Standards Listed.

#### CONSTRUCTION DETAILS:

General - The details of construction are covered in the following photographs and accompanying descriptive pages and illustrations.

Corrosion Protection - All metal parts are made of aluminum and are painted or plated as corrosion protection.

Any kind of Printed Wiring Board (ZPMV2/8) - suitable for direct support of live parts, rated min. V-0, 105°C can be used.

Installation Instructions - Shall be provided and include a wiring diagram.

Marking - Markings may be provided in French or English for Canadian markets. Ink-stamped label permanently secured to the device, including Listee's name or File Number, device catalog number, the electrical ratings and max. surrounding temperature. In addition diagrams and instructions for installation shall be provided. Markings in the instruction manual:

For Models with Type CC or TT Power Supply must be marked, "For Use In Class 2 Circuits," "Class 2" or an equivalent statement. This may be provided in the installation instructions.

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## NOMENCLATURE BREAKDOWN (RSP Series):

RSP30-	11	03	3Z6	ТТ	E	CC	XX	HS	Н	2R	01.0.	00
I	II	III	IV	V	VI	VII	VIII	IX	Х	XI	XII	XIII

I: MODEL:

RSP20- Rail Switch Power, up to 100 Mbps, Standard

RSP25- Rail Switch Power, up to 100 Mbps, Enhanced Redundancy and PTP

RSP30- Rail Switch Power, up to 1000 Mbps, Standard

RSP35- Rail Switch Power, up to 1000 Mbps, Enhanced Redundancy and PTP

II: No. of Ports Fast Ethernet:

08 - 8x10/100 Mbps Ethernet Ports

11 - 11x10/100 Mbps Ethernet Ports

III: No of Ports Gigabit Ethernet:

00 - 0x10/100/1000 Mbps Ethernet Ports

03 - 3x10/100/1000 Mbps Ethernet Ports

IV: Uplink Port Configuration:

3Z6 - all SFP Slot (100Mbps)

306 - all SFP Slot (1000Mbps)

V: Port Configuration:

TT- - all Twisted Pair /RJ45

ZT- - 4x SFP slot (100Mbps); remains Twisted Pair / RJ45

VI: Temperature range:

S - Standard 0°C up to 60°C

T - Extended -40°C up to 70°C

E - Extended -40°C up to 70°C inclusive conformal coating.

VII: Voltage range:

CC - (24 - 48) VDC, with redundant power supply connectivity

 $K9 - (60 - 250) \ VDC - alternatively (110 - 230 \ VAC);$ 

("9": redundant Power supply connectivity not available)

KK - (60 - 250) VDC alternatively (110-230 VAC),

("K": redundant Power supply connectivity)

 ${
m TT}$  - (12-24) VDC, Class 2 supplied - with redundant power supply connectivity.

VIII: Approvals: (for information only)

Z9 - CE; FCC; EN61131; (EN60950 on request only)

Y9 - "Z9" + cUL508;

V9 - "Z9" + IEC 61850; IEEE1613

VY - "V9" + cUL508;

XX - customer specific (X: any number or letter)

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IX: Redundancy Configuration:

HS - Hirschmann Standard

HM - Hirschmann Fast MRP

HP - Hirschmann PRP

X: Software Configuration:

H - Standard

E - Enhanced Encryption

XI: Software Level

2R - Layer 2 Rail Switch Power Software

XII: Software version:

01.0. - Software version 01.0.

xx.x. - Software version ... (x : any number)

XIII: Bugfix

00 - Bugfix version 00

xx - Bugfix version ... - (x: any number)

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NOMENCLATURE BREAKDOWN (Eagle Series):

EAGLE20	04	00	206	TT	9	99	S	CC	xxx
I	II	III	IV	V	VI	VII	VIII	IX	X

I: Product:

EAGLE20 - Router without gigabit ports EAGLE30 - Router with gigabit ports

II: Number of 10/100 Mbit/s ports: 04 - 4x 10/100-Mbit/s ports

III: Number of 100/1000 Mbit/s ports:
 00 - 0x 100/1000-Mbit/s ports
 02 - 2x 100/1000-Mbit/s ports

IV: Uplink Port Configuration:

206 - 2x SFP slot for 100/1000 Mbit/s F/O connections 999 - Not present

V: Port Configuration:

TT- - all Twisted Pair /RJ45

VI: Cellular phone interface:

9 - Not present

VII: WAN port:

99 - Not present H2 - 2x SHDSL

VIII: Temperature range:

S - Standard 0°C up to 60°C T - Extended -40°C up to 70°C

E - Extended -40°C up to 70°C inclusive conformal coating.

IX: Voltage range:

 $\mbox{CC}$  - (24 - 48) VDC, with redundant power supply connectivity

 $\mbox{K9}$  - (60 - 250)  $\mbox{VDC}$  - alternatively (110 - 230  $\mbox{VAC});$ 

("9": redundant Power supply connectivity not available)

X: XXX- A combination of up to 14 suffixes, which represent the Approvals and Software (for information only)