

File E203960  
Project 09CA57959

December 7, 2010

REPORT

On

PROGRAMMABLE CONTROLLERS, FOR USE IN HAZARDOUS LOCATIONS  
(NRAG, NRAG7)

Hirschmann Automation and Control GmbH  
Neckartenzlingen, Germany

Copyright © 2010 Underwriters Laboratories Inc.

Underwriters Laboratories Inc. authorizes the above named company to reproduce this Report provided it is reproduced in its entirety.

## DESCRIPTION

## PRODUCT COVERED:

USL, CNL - Open type, Programmable Controller, Industrial Ethernet Switches, Cat. No. RSB20 followed by "-" followed by 4 numbers, followed by E or G or L or M or N or S or T or U or V or Z, followed by a number or by E or G or L or M or N or U or V or Z, followed by E or G or L or M or S or T or Z, followed by a number or T, followed by S or T or E, followed by A, may be followed by additional suffixes, for use in Class I, Division 2, Groups A, B, C and D Hazardous Locations.

Product is dependent upon entity parameters for safety. As detailed within the applicants 'Control Drawing' as part of their submitted documentation.

## GENERAL:

These devices are open-type devices intended for installation in an ultimate enclosure.

These devices (RSB20-Family) are industrial control Ethernet LAN components for rail mounting and intended for use in industrial automation applications. They are to be supplied by a Class 2 source only and communicate via interfaces through wire or fiber optics.

## RATINGS:

## Electrical:

Cat. no.						Input voltage	Input current	Input/output communication
RSB20-	0800	T1	T1	S T E	A	12-24Vdc Class 2	0.6-0.3A	8 twisted-pair communication ports
RSB20-	0900	M2 M4 S2 S4 E2 L2 G2	TT	S T E	A		0.8-0.4A	1 fiber-optic, 8 twisted-pair communication ports
RSB20-	0800	M2 M4 S2 S4 E2 L2 G2	M2 M4 S2 S4 E2 L2 G2	S T E	A		0.8-0.4A	2 fiber-optic, 6 twisted-pair communication ports
RSB20-	0900	MM NN VV UU EE LL GG ZZ	M2 M4 S2 S4 E2 L2 G2 Z6	S T E	A		0.9-0.4A	3 fiber-optic, 6 twisted-pair communication ports

## RATINGS (continued):

## Relay contact ratings:

30	Vmax
90mA	Imax
5pF	Ci
0.2 $\mu$ H	Li

## Environmental:

Maximum Surrounding Air Temperature: 60°C

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

Products designated USL have been investigated using requirements contained in:

ANSI/ISA 12.12.01-2007, Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Division 1 and 2 Hazardous (Classified) Locations, Approved 12 April 2007.

Products designated CNL have been investigated using requirements contained in:

CSA C22.2 No. 213-M1987, Non-incendive Control Equipment for Use in Class I, Division 2 Hazardous Locations.

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

Products have been evaluated as Programmable Controllers (NRAQ, NRAQ7) to the Ordinary Locations requirements of UL 508, "Industrial Control Equipment", Seventeenth Edition and CAN/CSA C22.2 No. 142-M1987, "Process Control Equipment" under File E175531, Issue Date: 2010-05-14.

This equipment is a Class I laser product, and it complies with FDA Radiation Performance Standards, 21 CFR Subchapter J. This is valid only for cat no. having following fiber-optic modules (identified by module code) incorporated: S2, S4, E2, L2, G2, VV, UU, EE, LL, and GG. Refer to the Nomenclature for module codes description

The following pages have been removed