

File E175531  
Project 08CA41724

January 27, 2009

REPORT

on

PROGRAMMABLE CONTROLLERS

Hirschmann Automation and Control GmbH  
Neckartenzlingen, Germany

Copyright © 2009 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 - Listed, open type, programmable controllers, fieldbus repeater, cat. no. OZD Profi 12M, may be followed by G11, G12, P11, P12, may be followed by -1300, may be followed by EEC, followed by PRO.

## GENERAL:

These devices are for use in industrial automation applications. These devices are fiberoptic fieldbus repeater for industrial bus systems. They communicate via interfaces through wire or fiber optics, to be supplied by a Class 2 source only.

## ELECTRICAL RATINGS:

Main Supply Voltage: 18..32 Vdc, Class 2  
Input Current: 0.2 A

Max. surrounding air temperature: 60°C

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

CNL - Indicates investigation to Canadian National Standard(s)  
C22.2 No. 142-M1987.

USL - Indicates investigation to United States Standard UL 508,  
(Industrial Control Equipment).

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 parts of corrosion resistant materials are painted or plated as corrosion protection.

Class 2 circuit - The investigation has been conducted under consideration of the Class 2 requirements. Regarding to table 32.0 of UL 508 no requirements to spacings for this device.

Any kind of Printed Wiring Board (ZPMV2/8) - rated min. 94V-2, 125°C can be used.

Installation Instructions - Shall be provided and include a wiring diagram. It must include a statement "Only for connection with a Class 2 power supply" or equivalent.

Warning Markings - See Section General for details.

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. ambient temperature. In addition diagrams and instructions for installation shall be provided. Markings in the instruction manual:

- (i) Use 60/75°C or 90°C copper wire only" for every model of this section.
- (ii) Tightening torque for field wiring terminals.
- (iii) Use in a pollution degree 2 environment.
- (iv) Use Class 1 wire only" or equivalent.

"For Use In Class 2 Circuits" or equivalent statement.

## NOMENCLATURE:

The significance of the alphanumeric marking system is explained as follows:

## NOMENCLATURE BREAKDOWN:

OZD	Profi	12M	G	12	-1300	EEC	PRO
I	II	III	IV	V	VI	VII	VIII

I:	OZD	basic fiber optical repeater designation
II:	Profi	Profi Bus type
III:	12M	12 Mbit/s max.
IV:	G	glass fiber (860nm or 1300nm)
	P	plastic fiber (660nm)
V:	1	number of electrical ports
	2	number of optical ports
VI:	blank	wave length 860 nm (glass fiber) or 660nm (plastic fiber)
	-1300	wave length 1300 nm (glass fiber only)
VII:	blank	0...+60°C Surrounding air temperature range
	EEC	-20...+60°C Surrounding air temperature range incl. any coating of PCB's
VIII:	PRO	Professional modul type

MODEL OZD Profi 12M G12 PRO

FIG. 1, 2, 3, 4

General - These figures show the field-bus repeater OZD Profi 12M G12 PRO and are for reference use only. Due to the use of Class 2 Source, no evaluation of components was considered necessary except of the following:

1. Any R/C Terminal Block - (XCFR2/8), 7 pole, rated 51 V, 1 A, 105°C, suitable for field wiring; in combination with any R/C Terminal Block. with above mentioned ratings.
2. Any R/C Terminal Block - (XCFR2/8), 3 pole, rated 51 V, 1 A, 105°C, suitable for field wiring; in combination with any R/C Terminal Block. with above mentioned ratings.
3. Any SUB-D Connector, 9 pole, for signaling use only.