



**BUREAU
VERITAS**



(1) **EC Certificate of Conformity**

(2) Equipment and Protective Systems Intended for Use
in Potentially Explosive Atmospheres – **Directive 94/9/EC**

(3) EC Certificate of Conformity Number:

EPS 11 ATEX 1 312 X

(4) Equipment: Redundancy modules Type: MLY02.100, MLY10.241, YR80.241,
YR40.241, YR2.DIODE and YRM2.DIODE

(5) Manufacturer: PULS GmbH

(6) Address: Arabellastrasse 15
81925 Muenchen
Germany

(7) This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

(8) Bureau Veritas Consumer Product Services Germany GmbH, Notified Body No. 2004 in accordance with Article 9 of the Council Directive 94/9/EC of March 23rd 1994, certifies, based on a voluntary testing, that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II of the Directive. The examination and test results are recorded in the confidential report 10TH0536.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2009

EN 60079-15:2005

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC Certificate of Conformity relates only to the design and the construction of the specified equipment in accordance with Directive 94/9/EC. Further requirements of this Directive apply to the manufacture and supply of this equipment.

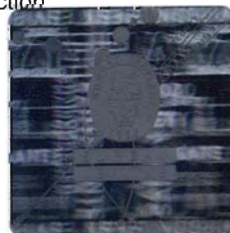
(12) The marking of the equipment shall include the following:



II 3G Ex nA IIC T4 Gc
II 3G Ex nA nC IIC T4 Gc

Certification department of explosion protection

Arabellastrasse 15
81925 München
Germany



Türkheim, February 10, 2011



(13)

Annexe

(14) **EC-Certificate of Conformity EPS 11 ATEX 1 312 x**

(15) Description of equipment:

Redundancy modules are used to isolate the output voltages of the individual power supply of a redundant power supply system. To achieve redundancy, one extra power supply must be installed in order to deliver the required current in case one power supply in the system fails. The redundancy modules have two input channels and one output and utilize diodes or MOSFET's to isolate the two inputs. They can be used to build 1+1 and N+1 redundant systems.

Electrical data:

MLY02.100:	Input:	2x DC 12-48V +/-25% 2x 0-5A
	Output:	Input voltage - 0,9V; 0-10A
MLY10.241:	Input:	2x DC 12-48V +/-25% 2x 0-5A
	Output:	Input voltage - 0,9V; 0-10A
YR2.DIODE:	Input:	2x DC 12-48V +/-25% 2x 0-10A
	Output:	Input voltage - 0,9V; 0-20A
YRM2.DIODE:	Input:	2x DC 24-48V +/-25% 2x 0-10A
	Output:	Input voltage - 0,9V; 0-20A
YR40.241:	Input:	2x DC 24-28V +/-30% 2x 0-20A
	Output:	Input voltage - 0,1V; 0-40A
YR80.241:	Input:	2x DC 24-28V +/-30% 2x 0-40A
	Output:	Input voltage - 0,1V; 0-80A



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EC-Certificate of conformity EPS 11 ATEX 1 312 X

(16) Test report: 10TH0536

(17) Special conditions for safe use:

The equipment must be installed in an enclosure or cabinet rated min. IP54.
The enclosure / cabinet must comply with the requirements of EN 60079-15:2005.

For models YR2.DIODE and YRM2.DIODE the temperature range is $-25^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$.

For models YR40.241 and YR80.241 the temperature range is $-40^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$.

For models MLY02.100 and MLY10.241 the temperature range is $-40^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$.

The models MLY02.100, MLY10.241, YR80.241, YR40.241 and YR2.DIODE are type of protection "nA".

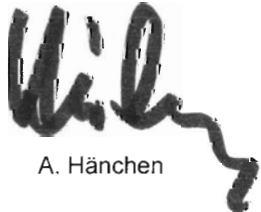
The model YRM2.DIODE is type of protection "nA nC".

(18) Essential health and safety requirements:

Met by standards.

Certification department of explosion protection

Türkheim, February 10, 2011



A. Hänchen