



CERTIFICATE FOR CHINA COMPULSORY PRODUCT CERTIFICATION

CERTIFICATE NO.: 2024322316005917

NAME AND ADDRESS OF THE APPLICANT

PR electronics A/S
Lerbakken 10, 8410 Roende Denmark

NAME AND ADDRESS OF THE MANUFACTURER

PR electronics A/S
Lerbakken 10, 8410 Roende Denmark

NAME AND ADDRESS OF THE FACTORY

PR electronics A/S
Lerbakken 10, 8410 Roende Denmark

NAME, SERIES, MODEL AND SPECIFICATION

Isolating Safety Barrier
9116Series

THE STANDARDS AND TECHNICAL REQUIREMENTS FOR THE PRODUCTS

GB/T 3836.1-2021、GB/T 3836.3-2021、GB/T 3836.4-2021、GB/T 3836.8-2021

This is to certify that the above-mentioned product(s) complies with the requirements of implementation rules for compulsory certification (CNCA-C23-01:2024).

Issue date: 2024-05-08 Valid until: 2029-05-07

Date of initial issue: 2024-05-08

Type of Certification: Type test + Initial inspection + Surveillance inspection

The certificate details and validity can be verified by scanning the QR code below or logging into the issuing authority's official website. It can also be inquired on the CNCA website (www.cnca.gov.cn).

(In case of dispute, the Chinese text shall prevail.)



APPROVAL:





中国国家强制性产品认证证书

证书编号: 2024322316005917

认证委托人名称及地址
PR electronics A/S
Lerbakken 10, 8410 Roende Denmark

生产者名称及地址
PR electronics A/S
Lerbakken 10, 8410 Roende Denmark

生产企业名称及地址
PR electronics A/S
Lerbakken 10, 8410 Roende Denmark

产品名称和系列、型号、规格
隔离式安全栅
9116系列

产品标准和技术要求
GB/T 3836.1-2021、GB/T 3836.3-2021、GB/T 3836.4-2021、
GB/T 3836.8-2021

上述产品符合《强制性产品认证实施规则 防爆电气》
(CNCA-C23-01:2024)的要求, 特发此证。
发证日期:2024年05月08日 有效期至:2029年05月07日

首次发证日期:2024年05月08日
认证模式:型式试验+初始工厂检查+获证后监督

证书信息和有效性可扫描下方二维码或登录发证机构网站查验,
也可在认监委网站 (www.cnca.gov.cn) 查询。



批准:





中国国家强制性产品认证证书

证书编号：2024322316005917

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产品名称：
隔离式安全栅

型号规格：
9116系列
9116abc

a表示关联设备，可以是A、B。其中A代表没有关联设备，B代表具有关联设备。

b表示最大回路电压，可以是1、2。其中1代表 U_0 : 28V，2代表 U_0 : 21.4V。

c表示认证信息，可以是空格、U9。与防爆性能无关。

防爆标志：

[Ex ia Ga] II C/II B/II A: 9116B1、9116B2

[Ex ia Da] III C: 9116B1、9116B2

Ex ec nC II C T4 Gc: 9116B1、9116B2、9116A1、9116A2

电气参数：

电源电压：19.2 ... 31.2 Vdc.

详细参数如下：

Supply (terminals 31, 32 and rear contacts): $U = 19.2 \dots 31.2 \text{ Vdc}$.

Outputs (terminals 11, 12): $I = 0/4 \dots 20 \text{ mA}$.

Relay output (terminals 13, 14): $U \leq 32 \text{ Vac}$ or 30 Vdc , $I \leq 2 \text{ Aac}$ or $I \leq 2 \text{ Adc}$ respectively.

Status-Relay output (terminals 33, 34): $U \leq 32 \text{ Vac}$ or 32 Vdc , $I \leq 0.5 \text{ Aac}$ or $I \leq 1 \text{ Adc}$ respectively.

For all circuits above: $U_m = 253 \text{ Vac}$ (max. frequency 400 Hz).

Sensor circuit (terminals 41 ... 44): in type of protection intrinsic safety

Ex ia IIC/IIB/IIA/IIIC, with following maximum values:

$U_0 = 8.3 \text{ V}$; $I_0 = 13.1 \text{ mA}$; $P_0 = 27.3 \text{ mW}$; $C_0 = 7 \mu\text{F}$ (IIC) or $73 \mu\text{F}$ (IIB) or $1000 \mu\text{F}$ (IIA);

$L_0 = 207 \text{ mH}$ (IIC) or 828 mH (IIB) or 1000 mH (IIA);

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Lo/Ro = 1 mH/Ω (IIC), 5 mH/Ω (IIB) or 10 mH/Ω (IIA);
Loop supply circuit (terminals 51-54, 52-54):in type of protection intrinsic safety
Ex ia IIC/IIB/IIA/IIIC, with following maximum values:
Io = 93 mA; Po = 650 mW; Lo = 4 mH (IIC) or 16 mH (IIB) or 32 mH (IIA);
Lo/Ro = 54 μH/Ω (IIC), 218 μH/Ω (IIB) or 436 μH/Ω (IIA);
Type 9116B1,9116A1:
Uo = 28 V; Co = 80 nF (IIC) or 640 nF (IIB) or 2.1 μF (IIA);
Type 9116B2,9116A2:
Uo = 21.4 V; Co = 0.16 μF (IIC) or 1.13 μF (IIB) or 4.15 μF (IIA);
Loop input circuit (terminals 51-53):in type of protection intrinsic safety
Ex ia IIC/IIB/IIA/IIIC, with following maximum values:
Ui = 30 V; Ii = 120 mA; Pi = 900 mW; Ci = 3 nF; Li = 1 μH;
Io = 1.1 mA; Po = 8 mW; Lo = 1000 mH (all groups);
Lo/Ro = 4 mH/Ω (IIC), 17 mH/Ω (IIB) or 35 mH/Ω (IIA);
Type 9116A1,9116B1:
Uo = 28 V; Co = 80 nF (IIC) or 640 nF (IIB) or 2.1 μF (IIA);
Type 9116B2,9116A2:
Uo = 21.4 V; Co = 0.16 μF (IIC) or 1.13 μF (IIB) or 4.15 μF (IIA);
Loop input supply circuit (terminals 51-52):in type of protection intrinsic safety
Ex ia IIC/IIB/IIA/IIIC, with following maximum values:
Ui = 30 V; Ii = 120 mA; Pi = 900 mW; Ci = 3 nF; Li = 1 μH;
Uo = 8.3 V; Io = 0.2 mA; Po = 0.4 mW; Co = 7 μF (IIC) or 73 μF (IIB) or 1000 μF (IIA);
Lo = 1000 mH (all groups); Lo/Ro = 100 mH/Ω (IIC), 400 mH/Ω (IIB) or 800 mH/Ω (IIA);
Combination of the loop supply circuit (terminals 52-54) of one Universal Converter with the loop input circuit(terminals 51-52) of a second Universal Converter (where terminal 52 of the first Universal Converter is connected with terminal 51 of the second Universal converter):in type of protection intrinsic safety
Ex ia IIC/IIB/IIA/IIIC, with following maximum values:
Ui = 30 V; Ii = 120 mA; Pi = 900 mW; Ci = 3 nF; Li = 2 μH;

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$I_o = 93 \text{ mA}$; $P_o = 650 \text{ mW}$; $L_o = 4 \text{ mH}$ (IIC) or 16 mH (IIB) or 32 mH (IIA);

$L_o/R_o = 54 \mu\text{H}/\Omega$ (IIC), $218 \mu\text{H}/\Omega$ (IIB) or $436 \mu\text{H}/\Omega$ (IIA);

Type 9116A1,9116B1:

$U_o = 28 \text{ V}$; $C_o = 80 \text{ nF}$ (IIC) or 640 nF (IIB) or $2.1 \mu\text{F}$ (IIA);

Type 9116B2,9116A2:

$U_o = 21.4 \text{ V}$; $C_o = 0.16 \mu\text{F}$ (IIC) or $1.13 \mu\text{F}$ (IIB) or $4.15 \mu\text{F}$ (IIA);

Combination of the loop input circuit (terminals 51-52) of one Universal Converter in series with the loop input circuit (terminals 51-52) of a second Universal Converter:in type of protection intrinsic safety Ex ia IIC/IIB/IIA/IIIC, with following maximum values:

$U_i = 30 \text{ V}$; $I_i = 120 \text{ mA}$; $P_i = 900 \text{ mW}$; $C_i = 6 \text{ nF}$; $L_i = 2 \mu\text{H}$;

$U_o = 16.6 \text{ V}$; $I_o = 0.2 \text{ mA}$; $P_o = 0.8 \text{ mW}$; $C_o = 0.4 \mu\text{F}$ (IIC) or $2.3 \mu\text{F}$ (IIB) or $9.5 \mu\text{F}$ (IIA);

$L_o = 1000 \text{ mH}$ (all groups); $L_o/R_o = 25 \text{ mH}/\Omega$ (IIC), $100 \text{ mH}/\Omega$ (IIB) or $200 \text{ mH}/\Omega$ (IIA);

For Ex ia IIIC, the parameters of group IIB apply.

相关报告编号：

2023S17402-012763

使用条件：

1.特殊（限制）使用条件：

- 1) 产品使用的区域污染等级限制在2级或更佳的等级。
- 2) 非本质安全电路只能连接到GB/T 16935.1-2008(IEC 60664-1)中定义的I类或II类过压电源。
- 3) 如果产品安装在需要设备保护等级Gc的爆炸性环境中，则如下认证条件另外适用：

产品安装在增安型外壳中，应满足符合GB/T 3836.1(IEC 60079-0)相关要求，提供至少IP54的防护等级。电缆引入装置和封堵元件等应满足相同的要求。

4) 可拆卸显示模块4501连接到产品时，应防止损坏、避免灰尘和湿气。

5) 产品的使用环境温度范围： $-20^{\circ}\text{C}\sim+60^{\circ}\text{C}$ 。

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