

ATEX Installation drawing – V4R0

For safe installation of 9107 the following must be observed. The module shall only be installed by qualified personnel who are familiar with the national and international laws, directives and standards that apply to this area.

For installation in Zone 2 the following must be observed. The 4501 programming module is to be used solely with PR electronics modules. It is important that the module is undamaged and has not been altered or modified in any way.

9107BA: 1 channel HART-transparent driver
9107BB: 2 channel HART-transparent driver
ATEX Certificate: DEKRA 11 ATEX0247X
Marking 9107Bx: II (I) G [Ex ia Ga] IIC/IIA/IIIA
Marking 9107Ax, 9107Bx: II 3 G Ex ec nC IIC T4 Gc

Standards: EN 60079-0:2018, EN 60079-11:2012, EN 60079-15:2019, EN 60079-7:2015+A1:2018
Supply terminal (31,32) Voltage: 19.2 – 31.2 VDC
Status Relay terminal (33,34) Zone 2 Installation Voltage max: 125 VAC / 110 VDC

Installation notes: Install in pollution degree 2, overvoltage category II as defined in EN 60664-1. Do not separate connectors when energized and an explosive gas mixture is present.

In type of protection [Ex ia Da] the parameters for intrinsic safety for gas group IIB are applicable. For installation in Zone 2, the module shall be installed in an enclosure in type of protection Ex n or Ex e, providing a degree of protection of at least IP54.

For installation on Power Rail in Zone 2, only Power Rail type 9400 supplied by Power Control Unit type 9410 (Type Examination Certificate KEMA 07ATEX0152 X) is allowed.

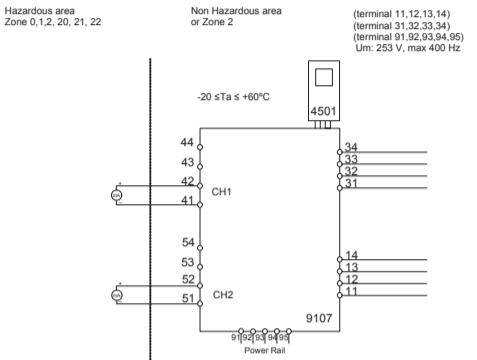
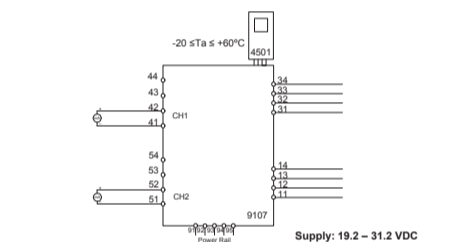


Table with 4 columns: IIC, IIB, IIA, I. Values for capacitance and inductance for different protection levels.

9107Bx, 9107Ax Installation:

Hazardous area Zone 2



Output CH1 (terminal 41,42) CH2 (terminal 51,52) Voc or Uo: 28 Vdc

Status Relay terminal (33,34) Zone 2 Installation Voltage max: 125 VAC / 110 VDC

For installation in Zone 2, the module shall be installed in an enclosure in type of protection Ex n or Ex e, providing a degree of protection of at least IP54.

For installation on Power Rail in Zone 2, only Power Rail type 9400 supplied by Power Control Unit type 9410 (Type Examination Certificate KEMA 07ATEX0152 X) is allowed.

For installation in Zone 2 the following must be observed. The 4501 programming module is to be used solely with PR electronics modules.

IECEx Installation drawing – V4R0

For safe installation of 9107 the following must be observed. The module shall only be installed by qualified personnel who are familiar with the national and international laws, directives and standards that apply to this area.

For installation in Zone 2 the following must be observed. The 4501 programming module is to be used solely with PR electronics modules. It is important that the module is undamaged and has not been altered or modified in any way.

9107BA: 1 channel HART-transparent driver
9107BB: 2 channel HART-transparent driver
IECEx Certificate: IECEx DEK 11.0088X
Marking 9107Bx: [Ex ia Ga] IIC/IIA/IIIA
Marking 9107Ax, 9107Bx: Ex ec nC IIC T4 Gc

Standards: IEC60079-11:2011, IEC60079-0:2017, IEC60079-15:2017, IEC60079-7:2015+A1:2017
Supply terminal (31,32) Voltage: 19.2 – 31.2 VDC
Status Relay terminal (33,34) Zone 2 Installation Voltage max: 125 VAC / 110 VDC

Installation notes: Install in pollution degree 2, overvoltage category II as defined in IEC 60664-1. Do not separate connectors when energized and an explosive gas mixture is present.

In type of protection [Ex ia Da] the parameters for intrinsic safety for gas group IIB are applicable. For installation in Zone 2, the module shall be installed in an enclosure in type of protection Ex n or Ex e, providing a degree of protection of at least IP54.

For installation on Power Rail in Zone 2, only Power Rail type 9400 supplied by Power Control Unit type 9410 (Type Examination Certificate KEMA 07ATEX0152 X) is allowed.

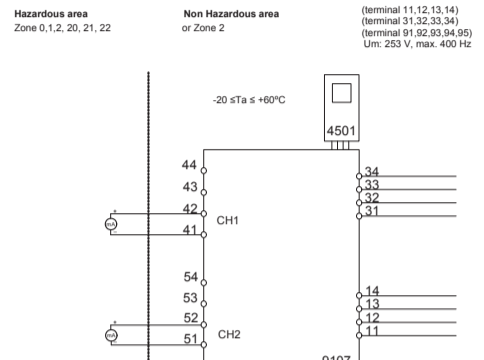
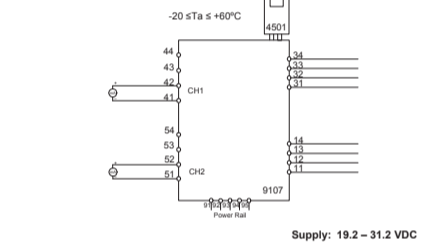


Table with 4 columns: IIC, IIB, IIA, I. Values for capacitance and inductance for different protection levels.

9107Ax, 9107Bx Installation:

Hazardous area Zone 2



Output CH1 (terminal 41,42) CH2 (terminal 51,52) Voc or Uo: 28 Vdc

Status Relay terminal (33,34) Zone 2 Installation Voltage max: 125 VAC / 110 VDC

For installation in Zone 2, the module shall be installed in an enclosure in type of protection Ex n or Ex e, providing a degree of protection of at least IP54.

For installation on Power Rail in Zone 2, only Power Rail type 9400 supplied by Power Control Unit type 9410 (Type Examination Certificate KEMA 07ATEX0152 X) is allowed.

For installation in Zone 2 the following must be observed. The 4501 programming module is to be used solely with PR electronics modules.

FM Installation drawing – V3R0

For safe installation of 9107B the following must be observed. The module shall only be installed by qualified personnel who are familiar with the national and international laws, directives and standards that apply to this area.

For installation in Zone 2 the following must be observed. The 4501 programming module is to be used solely with PR electronics modules. It is important that the module is undamaged and has not been altered or modified in any way.

9107BA: 1 channel HART-transparent driver
9107BB: 2 channel HART-transparent driver
Supply terminal (31,32) Voltage: 19.2 – 31.2 VDC
Status Relay terminal (33,34) Voltage max: 125 VAC / 110 VDC

Zone 2 installation: Voltage max: 32 VAC / 32 VDC
Power max: 18 VA / 32 W
Current max: 0.5 A AC / 1 A DC

Installation notes: In Class I, Division 2 installations, the subject equipment shall be mounted within a tool-secured enclosure which is capable of accepting one or more of the Class I, Division 2 wiring methods specified in the National Electrical Code (ANSI/NFPA 70) or Canadian Electrical Code (C22.1).

In Class I, Zone 2 installations, the subject equipment shall be mounted within a tool secured enclosure which is capable of accepting one or more of the Class I, Zone 2 wiring methods specified in the National Electrical Code (ANSI/NFPA 70) or Canadian Electrical Code (C22.1).

Use 60 / 75 °C copper conductors with wire size AWG: (26-14)

Warning: Substitution of components may impair intrinsic safety.

Warning: To prevent ignition of the explosive atmosphere, disconnect power before servicing and do not separate connectors when energized and an explosive gas mixture is present.

Warning: Do not install or remove modules from the Power Rail when an explosive gas mixture is present.

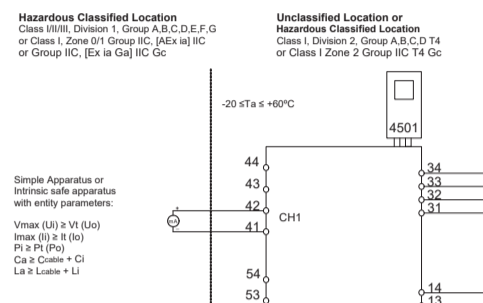
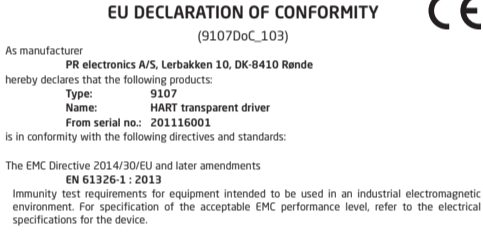


Table with 4 columns: IIC or A/B, IIB or C/E/F, IIA or D/G, I. Values for capacitance and inductance for different protection levels.

9107Bx, 9107Bx Installation:

Hazardous area Zone 2



Output CH1 (terminal 41,42) CH2 (terminal 51,52) Voc or Uo: 28 Vdc

Status Relay terminal (33,34) Zone 2 Installation Voltage max: 125 VAC / 110 VDC

For installation in Zone 2, the module shall be installed in an enclosure in type of protection Ex n or Ex e, providing a degree of protection of at least IP54.

For installation on Power Rail in Zone 2, only Power Rail type 9400 supplied by Power Control Unit type 9410 (Type Examination Certificate KEMA 07ATEX0152 X) is allowed.

For installation in Zone 2 the following must be observed. The 4501 programming module is to be used solely with PR electronics modules.

INMETRO - Desenhos para Instalação

9107QB01 – V3R0

Para instalação segura do 9107B o manual seguinte deve ser observado. O módulo deve ser instalado somente por profissionais qualificados que estão familiarizados com as leis nacionais e internacionais, diretivas e normas que se aplicam a esta área.

Para instalação na Zona 2 o seguinte deve ser observado. O módulo de programação de 4501, deve ser utilizado apenas com os módulos PR electronics. É importante que o módulo esteja intacto e não tenha sido alterado ou modificado de qualquer maneira.

9107BA: 1 canal HART - driver transparente
9107BB: 2 canais HART - driver transparente
INMETRO Certificado: DEKRA 16.0002X
Marcas: [Ex ia Ga] IIC/IIA/IIIA

Normas: ABNT NBR IEC 60079-0:2013, ABNT NBR IEC 60079-11:2013, ABNT NBR IEC 60079-15:2012
Terminal de fonte de alimentação (31,32) Voltagem: 19.2 – 31.2 VDC
Relé de estado terminal (33,34) Instalação Zona 2

Notas de instalação: Instalação em grau de poluição 2, categoria de sobretensão II conforme definido no IEC 60664-1. Os circuitos não intrinsecamente seguros só pode ser conectado a sobretensão limitado ao categoria III como definido na IEC 60664-1.

Em tipo de proteção [Ex ia Da] os parâmetros para a segurança intrínseca para grupo de gás IIB são aplicáveis. Para a instalação em Zona 2, o módulo deve ser instalado em um invólucro conformidade com o tipo de proteção Ex n ou Ex e, fornecendo no mínimo grau de proteção IP54.

Para a instalação de linha de energia na Zona 2, apenas o trilho de alimentação Rail 9400 fornecido pela Unidade de Controle de Poluição 9410 é permitido.

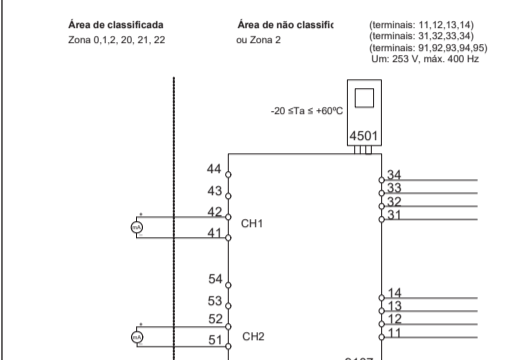


Table with 4 columns: IIC, IIB, IIA, I. Values for capacitance and inductance for different protection levels.

9107Bx, 9107Bx Installation:

Hazardous area Zone 2



Output CH1 (terminal 41,42) CH2 (terminal 51,52) Voc or Uo: 28 Vdc

Status Relay terminal (33,34) Zone 2 Installation Voltage max: 125 VAC / 110 VDC

For installation in Zone 2, the module shall be installed in an enclosure in type of protection Ex n or Ex e, providing a degree of protection of at least IP54.

For installation on Power Rail in Zone 2, only Power Rail type 9400 supplied by Power Control Unit type 9410 (Type Examination Certificate KEMA 07ATEX0152 X) is allowed.

For installation in Zone 2 the following must be observed. The 4501 programming module is to be used solely with PR electronics modules.

UL Installation drawing 9107QU01 – V1R0

For safe installation of the Process Control Equipment (Associated Apparatus) 9107 the following must be observed. The module shall only be installed by qualified personnel who are familiar with the national and international laws, directives and standards that apply to this area.

For installation in Div2 / Zone2 the following must be observed. The 4501 programming module is to be used solely with PR electronics modules. It is important that the module is undamaged and has not been altered or modified in any way.

9107AA-US: 1 channel HART-transparent driver
9107BA-US: 1 channel HART-transparent driver
9107AB-US: 2 channel HART-transparent driver
9107BB-US: 2 channel HART-transparent driver

Marking: Proc. Cont. Eq. for Use in Haz. Loc.
UL LISTED
E2233311 Installation Drawing: 9107QU01

Standards: UL 121201 NONINCENDIVE ELECTRICAL EQUIPMENT FOR USE IN CLASS I AND II, DIVISION 2 AND CLASS III, DIVISIONS 1 AND 2 HAZARDOUS (CLASSIFIED) LOCATIONS

CSA C22.2 NO. 213 NONINCENDIVE ELECTRICAL EQUIPMENT FOR USE IN CLASS I AND II, DIVISION 2 AND CLASS III, DIVISIONS 1 AND 2 HAZARDOUS (CLASSIFIED) LOCATIONS

UL 913 STANDARD FOR INTRINSICALLY SAFE APPARATUS AND ASSOCIATED APPARATUS FOR USE IN CLASS I, II, III, DIVISION 1, HAZARDOUS (CLASSIFIED) LOCATIONS

CSA C22.2 NO. 60079-0 EXPLOSIVE ATMOSPHERES – PART 0. EQUIPMENT – GENERAL REQUIREMENTS

CSA C22.2 NO. 60079-11-14 EXPLOSIVE ATMOSPHERES – PART 11. EQUIPMENT PROTECTION BY INTRINSIC SAFETY

Installation notes 9107Ax and 9107Bx: The module must be installed in a tool-secured enclosure suitable for the application in accordance with the National Electrical Code (ANSI/NFPA 70) for installation in the United States, the Canadian Electrical Code for installations in Canada, or other local codes, as applicable.

The module is galvanically isolated and does not require grounding. Terminal 41, 42, 43, 44 are internally connected to CH1.

Install in pollution degree 2, overvoltage category II in accordance with IEC 60664-1. Use minimum 75 °C copper conductors with wire size AWG: (26-14)

Warning: Substitution of components may impair intrinsic safety. Avvertissement: La substitution des composants peut nuire à la sécurité intrinsèque.

There are no serviceable parts in the equipment and no component substitution is permitted. Warning: To prevent ignition of the explosive atmosphere, disconnect power before servicing and do not separate connectors, install or remove module from Power Rail when energized and an explosive gas mixture is present.

Avvertissement: Pour éviter l'inflammation d'atmosphères explosives, déconnecter l'alimentation avant les opérations d'entretien. Ne montez pas ou n'enlevez pas les connecteurs quand le module est sous tension et en présence d'un mélange de gaz.

Installation notes 9107Bx: Associated Equipment (Appareillage Associé) [Ex ia]

The Ex output current of this associated apparatus is limited by a resistor such that the output voltage-current plot is a straight line drawn between open-circuit voltage and short-circuit current.

Selected intrinsically safe equipment must be third party listed as intrinsically safe for the application, and have intrinsically safe parameters conforming with Table 1 below.

TABLE 1: I.B. Equipment V max (or Uo) ≥ Voc or Vt (or Uo) I max (or Ii) ≥ Iac or Ii (or Io) P max (or Pi) ≤ Pt

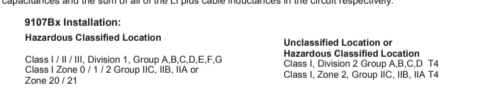
Capacitance and inductance of the field wiring from the intrinsically safe equipment to the associated apparatus shall be calculated and must be included in the system calculations as shown in Table 1.

Where multiple circuits extend from the same piece of associated apparatus, they must be installed in separate cables or in one cable having suitable insulation. Refer to Article 504.35(B) of the National Electrical Code (ANSI/NFPA 70) and Instrument Society of America Recommended Practice ISA RP12.06 for installing intrinsically safe equipment.

Intrinsically safe circuits must be wired and separated in accordance with Article 504.20 of the National Electrical Code (ANSI/NFPA 70) or other local codes, as applicable.

The module has not been evaluated for use in combination with another associated apparatus. For installations in which both the Ci and Li of the intrinsically safe apparatus exceeds 1% of the Ca (or Co) and La (or Lo) parameters of the associated apparatus (excluding the cable), then 50% of Ca (or Co) and La (or Lo) parameters are applicable and shall not be exceeded.

9107Bx Installation: Hazardous Classified Location Class I / II / III, Division 1, Group A,B,C,D,E,F,G



Output CH1 (terminal 41,42) CH2 (terminal 51,52) Voc or Uo: 28 Vdc

Status Relay terminal (33,34) Zone 2 Installation Voltage max: 125 VAC / 110 VDC

For installation in Zone 2, the module shall be installed in an enclosure in type of protection Ex n or Ex e, providing a degree of protection of at least IP54.

For installation on Power Rail in Zone 2, only Power Rail type 9400 supplied by Power Control Unit type 9410 (Type Examination Certificate KEMA 07ATEX0152 X) is allowed.

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EU DECLARATION OF CONFORMITY

(9107DoC_103)

As manufacturer PR electronics A/S, Lerbakken 10, DK-8410 Rende

hereby declares that the following products: Type: 9107 Name: HART transparent driver

From serial no.: 201116001

is in conformity with the following directives and standards: The EMC Directive 2014/30/EU and later amendments

EN 61326-1:2013

Immunity test requirements for equipment intended to be used in an industrial electromagnetic environment. For specification of the acceptable EMC performance level, refer to the electrical specifications for the device.

The Low Voltage Directive 2014/35/EU and later amendments EN 61010-1:2010

The ATEX Directive 2014/34/EU and later amendments EN IEC 60079-0:2018, EN 60079-11:2012, EN 60079-15:2019

EN 60079-7:2015 + A1:2018

ATEX certificate: DEKRA 11ATEX0247 X

ATEX notified body (type approval) DEKRA Certification B.V. Meander 1051, 6825 MJ Arnhem

P.O. Box 5185, 6802 ED Arnhem The Netherlands

The RoHS2 Directive 2011/65/EU and later amendments EN 50581:2012

Notified body 0344 DEKRA Certification B.V. Meander 1051, 6825 MJ Arnhem

P.O. Box 5185, 6802 ED Arnhem The Netherlands

Rende, 18 June 2020

Signature of Sig Lindemann, CTO

Manufacturer's signature