



DK ADVARSEL

Dette modul er beregnet for tilslutning til livsfarlige elektriske spændinger. Hvis denne advarsel ignoreres, kan det føre til alvorlig legemsbeskadigelse eller mekanisk ødelæggelse.

For at undgå faren for elektriske stød og brand skal sikkerhedsreglerne overholdes, og vejledningerne skal følges.

Specifikationerne må ikke overskrides, og modulet må kun benyttes som beskrevet i det følgende. Installationsvejledningen skal studeres omhyggeligt, før modulet tages i brug. Kun kvalificeret personale (teknikere) må installere dette modul. Hvis modulet ikke benyttes som beskrevet i denne installationsvejledning, så forringes modulets beskyttelsesforanstaltninger.

DK ADVARSEL

Der må ikke tilsluttes farlig spænding til modulet, før dette er fastmonteret, og følgende operationer bør kun udføres på modulet i spændingsløs tilstand og under ESD-sikre forhold: Installation, ledningsmontage og -demontage. Fejlfinding på modulet. Reparation af modulet og udskiftning af sikringer må kun foretages af PR electronics A/S.

DK ADVARSEL

Modulets frontplade må ikke åbnes, da dette vil medføre skade på stikforbindelsen til display / programmeringsfronten PR 4501. Modulerne indeholder ingen DIP-switche eller jumpere.

DK SIKKERHEDSREGLER

Mottagelse og udpakning
Udpak modulet uden at beskadige det. Kontrollér ved mottagelsen, at modultypen svarer til den bestilte. Indpakningen bør følge modulet, indtil dette er monteret på blivende plads.

Miljøforhold
Undgå direkte sollys, kraftigt støj eller varme, mekaniske rystelser og stød, og udsæt ikke modulet for regn eller kraftigt fugt. Om nødvendigt skal opvarmning, ud over de opgivne grænser for omgivelsestemperatur, forhindres ved hjælp af ventilation. Alle moduler kan anvendes i Måle- / overspændingskategorii 2 og Foreningsringsgr 2. Modulerne er designet til at være sikker mindst op til en højde af 2000 m.

Installation
Modulet må kun tilsluttes af kvalificerede teknikere, som er bekendt med de tekniske udtryk, advarsler og instruktioner i installationsvejledningen, og som vil følge disse.

Hvis der er tvivl om modulets rette håndtering, skal det rettes henvendelse til den lokale forhandler eller alternativt direkte til PR electronics A/S.

Det er ikke tilladt at benytte flerkeret ledning ved tilslutning af forsyningsledning med mindre ledningsendene er forsynet med ledningsstikler.

Beskrivelse af indgang / udgang og forsyningsforbindelser findes i produktmanualen og på sideskiltet. Modulet er forsynet med skrutermineraler og skal forsynes fra en dobbeltisolert / forstærket isoleret spændingsforsyning. En afbryder placeres til tilgængeligt og tæt ved modulet. Afbryderen skal mærkes således, at der ikke er tvivl om, at den afbryder spændingen til modulet.

Ved installation på Power Rail 9400 bliver forsyningsspændingen leveret af Power Control Unit 9410.

Kalibrering og justering
Under kalibrering og justering skal måling og tilslutning af eksterne spændinger udføres i henhold til denne installationsvejledning, og teknikeren skal benytte sikkerhedsmæssigt korrekte værktøjer og instrumenter.

Betjening under normal drift
Operatører må kun indstille eller betjene modulerne, når disse er fast installeret på forsvarlig måde i tavler eller lignende, så betjeningen ikke medfører fare for liv eller materiel. Dvs., at der ikke er berøringsfare, og at modulet er placeret, så det er let at betjene.

Rennging
Modulet må i spændingsløs tilstand, rengøres med en klud let fugtet med destilleret vand.

Elektriske specifikationer

Specifikationsområde	-20°C til +60°C
Forsyningsspænding	19.2...31.2 VDC
Max. forbrug, 1 / 2 kanaler	≤ 0.8 W / 1.4 W
Max. effekttab, 1 / 2 kanaler	≤ 0.8 W / 1.4 W
Sikring	400 mA SB / 250 VAC
Isoleringsspænding, test / drift:	
Indgang til alle	2.6 kVAC/300 VAC forstærkt
Analog udgang til forsyning	2.6 kVAC/300 VAC forstærkt
Statusrelat. til forsyning	1.5 kVAC/150 VAC forstærkt
Kalibreringstemperatur	20...28°C
EMC-immunitetspåvirking	< ±0.5% af span
Udvædet EMC-immunitet:	
NAMUR NE21, A.krit. gniststet	< ±1% af span
2-trådsforsyning (klemme 44..43)	25...16 VDC / 0.20 mA
Relativ luftfugtighed	< 95% RH (ikke kond.)
Mål, uden 4501 (H x B x D)	109 x 23.5 x 116 mm
Mål, uden 4501 (H x B x D)	109 x 23.5 x 104 mm
Kapslingsklasse	IP20

Indgang for RTD-typer:
Pt10, Pt20, Pt50, Pt100, Pt200, Pt250, Pt300, Pt400, Pt500, Pt1000 Ni50, Ni100, Ni120, Ni1000

Indgang for TC-typer:
B, E, J, K, L, N, R, S, T, U, W3, W5, LR

Strømindgang:
Programmerbare måleområder 0...20 og 4...20 mA
Indgangsmodstand Nom. 20 Ω + PTC 50 Ω

Strømudgang:
Programmerbare signalområder 0...20/4...20/20...0/20...4 mA
Belastning ≤ 600 Ω
Belastningsstabilitet ≤ 0.01% af span / 100 Ω
Følerfejlsreaktion 0 / 3.5 / 23 mA / ingen
NAMUR NE43 Upscale / Downscale 23 mA / 3.5 mA
Godkendelsesgrænser ≤ 28 mA

Standbegrænser:
DNV-GL, Ships & Offshore. Stand. f. Certification No. 2.4 ClassNK
TA18527M
UL Standard for Safety UL 61010-1
EAC TR-CU 020/2011
EAC Ex TR-CU 012/2011
SIL IEC 61508

Observed authority requirements:
EMC 2014/30/EU
LVD 2014/35/EU
ATEX 2014/34/EU
RoHS 2011/65/EU

Overholdte myndighedskrav
EMC 2014/30/EU
LVD 2014/35/EU
ATEX 2014/34/EU
RoHS 2011/65/EU

EU DECLARATION OF CONFORMITY

(9113DoC_102)

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

hereby declares that the following products:

Type: 9113

Name: Temperature / mA converter

From serial no.: 161458112

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 60079-0: 2012 + A11, **EN 60079-11: 2012** and **EN 60079-15: 2010**

ATEX certificate: PR 14ATEX0101 X (9113A)

ATEX certificate: KEMA 07ATEX0148 X (9113B)

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

Rønde, 11 December 2017

Stig Lindemann, CTO
Manufacturer's signature

PR electronics A/S • Lerbakken 10 • DK-8410 Rønde • Tel. +45 8637 2677 • Fax +45 8637 3085 • www.prelectronics.com

UK WARNING

This device is designed for connection to hazardous electric voltages. Ignoring this warning can result in severe personal injury or mechanical damage.

To avoid the risk of electric shock and fire, the safety instructions of this guide must be observed and the guidelines followed. The specifications must not be exceeded, and the device must only be applied as described in the following.

Prior to the commissioning of the device, this installation guide must be examined carefully. Only qualified personnel (technicians) should install this device. If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

UK WARNING

Until the device is fixed, do not connect hazardous voltages to the device. The following operations should only be carried out on a disconnected device and under ESD safe conditions: General mounting, connection and disconnection of wires. Troubleshooting the device. Repair of the device and replacement of circuit breakers must be done by PR electronics A/S only.

UK WARNING

Do not open the front plate of the device as this will cause damage to the connector for the display / programming front PR 4501. The SYSTEM 9000 devices contain no DIP-switches or jumpers.

UK SAFETY INSTRUCTIONS

Receipt and unpacking
Unpack the device without damaging it. The packing should always follow the device until this has been permanently mounted. Check at the receipt of the device whether the type corresponds to the one ordered.

Environment
Avoid direct sunlight, dust, high temperatures, mechanical vibrations and shock, as well as rain and heavy moisture. If necessary, heating in excess of the stated limits for ambient temperatures should be avoided by way of ventilation. All devices can be used for Measurement / Overvoltage Category II and Pollution Degree 2. The modules are designed to be safe at least under an altitude up to 2000 m.

Mounting
Only qualified technicians who are familiar with the technical terms, warnings, and instructions in this installation guide and who are able to follow these should connect the device. Should there be any doubt as to the correct handling of the device, please contact your local distributor or, alternatively, PR electronics A/S.

The use of stranded wires is not permitted for mains wiring except when wires are fitted with cable ends. Descriptions of input / output and supply connections are shown in the product manual and on the side label.

The device is provided with field wiring terminals and shall be supplied from a Power Supply having double / reinforced insulation. A power switch shall be easily accessible and close to the device. The power switch shall be marked as the disconnecting unit for the device.

For installation on Power Rail 9400 the power is supplied by Power Control Unit 9410.

Calibration and adjustment
During calibration and adjustment, the measuring and connection of external voltages must be carried out according to the specifications of this installation guide. The technician must use tools and instruments that are safe to use.

Cleaning
When disconnected, the device may be cleaned with a cloth moistened with distilled water.

UK Electrical specifications

Specifications range	-20°C to +60°C
Supply voltage	19.2...31.2 VDC
Max. required power, 1 / 2 ch.	≤ 0.8 W / 1.4 W
Max. power dissipation, 1 / 2 ch.	≤ 0.8 W / 1.4 W
Fuse	400 mA SB / 250 VAC
Isolation - test / working:	
Input to any	2.6 kVAC/300 VAC reinforced
Analog output to supply	2.6 kVAC/300 VAC reinforced
Status relay to supply	1.5 kVAC/150 VAC reinforced
Calibration temperature	20...28°C
EMC immunity influence	< ±0.5% of span
Extended EMC immunity:	
NAMUR NE21, A.criterion, burst	< ±1% of span
2-wire supply (terminal 44..43)	25...16 VDC / 0.20 mA
Relative humidity	< 95% RH (non-cond.)
Dimensions, with 4501 (HxWxD)	109 x 23.5 x 116 mm
Dimensions, without 4501 (HxWxD)	109 x 23.5 x 104 mm
Protection degree	IP20

Input for RTD types:
Pt10, Pt20, Pt50, Pt100, Pt200, Pt250, Pt300, Pt400, Pt500, Pt1000 Ni50, Ni100, Ni120, Ni1000

Input for TC types:
B, E, J, K, L, N, R, S, T, U, W3, W5, LR

Current input:
Programmable measurement ranges 0...20 and 4...20 mA
Input resistance Nom. 20 Ω + PTC 50 Ω

Current output:
Programmable signal ranges 0...20/4...20/20...0/20...4 mA
Load ≤ 600 Ω
Load stability ≤ 0.01% of span / 100 Ω
Sensor error detection 0 / 3.5 / 23 mA / none
NAMUR NE43 Upscale / Downscale 23 mA / 3.5 mA
Current limit ≤ 28 mA

Approvals:
DNV-GL, Ships & Offshore. Stand. f. Certification No. 2.4 ClassNK
TA18527M
UL Standard for Safety UL 61010-1
EAC TR-CU 020/2011
EAC Ex TR-CU 012/2011
SIL IEC 61508

Observed authority requirements:
EMC 2014/30/EU
LVD 2014/35/EU
ATEX 2014/34/EU
RoHS 2011/65/EU

Overholdte myndighedskrav
EMC 2014/30/EU
LVD 2014/35/EU
ATEX 2014/34/EU
RoHS 2011/65/EU

FR AVERTISSEMENT

Ce module est conçu pour supporter une connexion à des tensions électriques dangereuses. Si vous ne tenez pas compte de cet avertissement, cela peut causer des dommages corporels ou des dégâts mécaniques. Pour éviter les risques d'électrocution et d'incendie, conformez-vous aux consignes de sécurité et suivez les instructions mentionnées dans ce guide. Vous devez limiter aux spécifications indiquées et respecter les instructions d'utilisation de ce module, telles qu'elles sont décrites dans ce guide. Il est nécessaire de lire ce guide attentivement avant de mettre ce module en marche. L'installation de ce module est réservée à un personnel qualifié (techniciens). Si la méthode d'utilisation de l'équipement diffère de celle décrite par le fabricant, la protection assurée par l'équipement risque d'être altérée.

FR INFORMATIONS GENERALES

Prior to the commissioning of the device, this installation guide must be examined carefully. Only qualified personnel (technicians) should install this device. If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

FR AVERTISSEMENT

Tant que le module n'est pas fixé, ne le mettez pas sous tensions dangereuses. Les opérations suivantes doivent être effectuées avec le module débranché et dans un environnement exempt de décharges électrostatiques (ESD): montage général, raccordement et débranchement de fils et recherche de pannes sur le module. Seule PR electronics SARL est autorisée à réparer le module et à remplacer les fusibles.

FR AVERTISSEMENT

Ne pas ouvrir la plaque avant du module au risque d'endommager le connecteur de l'indicateur / la façade de programmation PR 4501. Les modules ne contiennent ni de commutateurs DIP ni de cavaliers.

FR CONSIGNES DE SECURITE

Réception et déballage
Déballer le module sans l'endommager. Il est recommandé de garder l'emballage du module tant que ce dernier n'est pas définitivement monté. A la réception du module, vérifiez que le type de module reçu correspond à celui que vous avez commandé.

Environnement
N'exposez pas votre module aux rayons directs du soleil et choisissez un endroit à humidité contrôlée et à l'abri de la poussière, des températures élevées, des chocs et des vibrations mécaniques et de la pluie. Le cas échéant, des systèmes de ventilation permettent d'éviter qu'il y ait de la chaleur au-dessus des limites prescrites pour les températures ambiantes. Tous les modules peuvent être installés dans cette catégorie de mesure / surtection II et de degré de pollution 2. Ce module est conçu pour fonctionner en toute sécurité sous une altitude inférieure à 2000 m.

Montage
Il est conseillé de réserver le raccordement du module aux techniciens qualifiés qui connaissent les termes techniques, les avertissements et les instructions de ce guide et qui sont capables d'appliquer ces dernières. Si vous avez un doute quant à la manipulation du module, veuillez contacter votre distributeur local. Vous pouvez également vous adresser à PR electronics SARL.

Le plus recommandé est d'utiliser des fils multibrins seulement s'ils possèdent des embouts de câblage. Les connexions des alimentations et des entrées / sorties sont décrites dans le manuel du produit et sur l'étiquette de la face latérale du module.

Les appareils sont équipés de borniers à vis et doivent être raccordés à une alimentation qui a une isolation double ou renforcée. L'interrupteur doit être à proximité du module et facile d'accès. Ce bouton doit être étiqueté avec la mention : peut couper la tension du module.

Pour une installation sur le rail d'alimentation 9400, le module sera alimenté par le contrôleur d'alimentation 9410.

Etalonnage et réglage
Lors des opérations d'étalonnage et de réglage, il est conseillé d'effectuer les mesures et les connexions externes en respectant les spécifications mentionnées dans ce guide. Les techniciens doivent utiliser des outils et des instruments pouvant être manipulés en toute sécurité.

Maintenance et entretien
Une fois le module hors tension, prenez un chiffon imbibé d'eau distillée pour le nettoyer.

FR Spécifications

Plage de température	-20° à +60°C
Tension d'alimentation	19.2...31.2 Vcc
Puissance nécessaire max., 1 / 2 voies	≤ 0.8 W / 1.4 W
1 / 2 voies	≤ 0.8 W / 1.4 W
Fusible	400 mA SB / 250 Vca
Tension d'isolation, test / opération:	
Entrée aux autres	2.6 kVca/300 Vca renforcée
Sortie analogique à l'aliment.	2.6 kVca/300 Vca renforcée
Relais d'état à l'alimentation	1.5 kVca/150 Vca renforcée
Température d'étalonnage	20...28°C
Immunité CEM	< ±0.5% de l'échelle
Immunité CEM améliorée:	
NAMUR NE21, critère A, burst	< ±1% de l'échelle
Alimentation 2-fils (bornes 44..43)	25...16 Vcc / 0.20 mA
Humidité relative	< 95% HR (sans cond.)
Dimensions, avec 4501 (HxLxD)	109 x 23.5 x 116 mm
Dimensions, sans 4501 (HxLxD)	109 x 23.5 x 104 mm
Degré de protection	IP20

Entrée pour types Pt100:
Pt10, Pt20, Pt50, Pt100, Pt200, Pt250, Pt300, Pt400, Pt500, Pt1000 Ni50, Ni100, Ni120, Ni1000

Entrée pour types TC:
B, E, J, K, L, N, R, S, T, U, W3, W5, LR

Entrée courant:
Gammas de mesure program. 0...20 et 4...20 mA
Résistance d'entrée Nom. 20 Ω + PTC 50 Ω

Sortie courant:
Gammas de signal program. 0...20/4...20/20...0/20...4 mA
Charge ≤ 600 Ω
Stabilité de charge ≤ 0.01% de l'échelle/100 Ω
Action en cas d'erreur capteur 0 / 3.5 / 23 mA / aucune
NAMUR NE43 haut / bas d'échelle 23 mA / 3.5 mA
Limite de courant ≤ 28 mA

Approbations:
DNV-GL, Ships & Offshore. Stand. f. Certification No. 2.4 ClassNK
TA18527M
UL Standard for Safety UL 61010-1
EAC TR-CU 020/2011
EAC Ex TR-CU 012/2011
SIL IEC 61508

Compatibilité avec les normes:
CEM 2014/30/UE
DBT 2014/35/UE
ATEX 2014/34/UE
RoHS 2011/65/UE

Overholdte myndighedskrav
EMC 2014/30/EU
LVD 2014/35/EU
ATEX 2014/34/EU
RoHS 2011/65/EU

DE WARNUNG

Dieses Gerät ist für den Anschluss an lebensgefährliche elektrische Spannungen gebaut. Missachtung dieser Warnung kann zu schweren Verletzungen oder mechanischer Zerstörung führen. Um eine Gefährdung durch Stromstöße oder Brand zu vermeiden müssen die Sicherheitsregeln der Installationsanleitung eingehalten, und die Anweisungen befolgt werden. Die Spezifikationswerte dürfen nicht überschritten werden, und das Gerät darf nur gemäß folgender Beschreibung benutzt werden. Diese Installationsanleitung ist sorgfältig durchzulesen, ehe das Gerät in Gebrauch genommen wird. Nur qualifizierte Personen (Techniker) dürfen dieses Gerät installieren. Wenn das Gerät nicht wie in dieser Installationsanleitung beschrieben benutzt wird, werden die Schutzvorrichtungen des Gerätes beeinträchtigt.

DE ALLGEMEINES

Prior to the commissioning of the device, this installation guide must be examined carefully. Only qualified personnel (technicians) should install this device. If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

DE WARNUNG

Vor dem abgeschlossnen festen Einbau des Gerätes darf daran keine gefährliche Spannung angeschlossen werden, und folgende Maßnahmen sollten nur in spannungslosem Zustand des Gerätes und unter ESD-sicheren Verhältnissen durchgeführt werden: Installation, Montage und Demontage von Leitungen. Fehlersuche im Gerät. Reparaturen des Gerätes und Austausch von Sicherungen dürfen nur von PR electronics A/S vorgenommen werden.

DE WARNUNG

Die Frontplatte des Gerätes darf nicht geöffnet werden, weil hierdurch die Kontakte zur Kontaktierung des frontdisplays 4501 beschädigt werden können. Die Geräte enthalten keine internen DIP-Schalter oder Programmierbrücken.

DE SICHERHEITSREGELN

Empfang und Auspacken
Packen Sie das Gerät ohne es zu beschädigen, und kontrollieren Sie beim Empfang, ob der Gerätetyp Ihrer Bestellung entspricht. Die Verpackung sollte beim Gerät bleiben, bis dieses am endgültigen Platz montiert ist.

Umgebungsbedingungen
Direkte Sonneneinstrahlung, starke Staubbildung oder Hitze, mechanische Erschütterungen und Stöße sind zu vermeiden; das Gerät darf nicht Regen oder starker Feuchtigkeit ausgesetzt werden. Bei Bedarf muss eine Erwärmung, welche die angegebenen Grenzen für die Umgebungstemperatur überschreitet, mit Hilfe eines Kühlbläses verhindert werden. Alle Geräte können für Mess- / Überspannungskategorie II und Verschmutzungsgrad 2 benutzt werden. Das Gerät ist so konzipiert, dass es auch in einer Einshöhe von bis zu 2000 m noch sicher funktioniert.

Installation
Das Gerät darf nur von qualifizierten Technikern angeschlossen werden, die mit den technischen Ausdrücken, Warnungen und Anweisungen in dieser Installationsanleitung vertraut sind und diese befolgen. Sollten Zweifel bezüglich der richtigen Handhabung des Gerätes bestehen, sollte man mit dem Händler vor Ort Kontakt aufnehmen. Sie können aber auch direkt mit PR electronics GmbH Kontakt aufnehmen.

Der Einsatz von verdrehter Leitung ist nicht erlaubt außer die Enden sind mit Aderendhülsen versehen. Eine Beschreibung von Eingangs- / Ausgangs- und Versorgungsanschlüssen befindet sich im Produktmanual und auf dem Typenschild.

Das Gerät ist mit Feldverdrahtungsklemmen ausgestattet und wird von einem Netzteil mit doppelter / verstärkter Isolierung versorgt. Der Netzschalter sollte leicht zugänglich und in der Nähe des Gerätes sein. Der Netzschalter sollte mit einem Schild gekennzeichnet sein, auf dem steht, dass durch Betätigung dieses Schalters das Gerät vom Netz genommen wird.

Für den Anschluss auf der Power Rail 9400 wird das Gerät über das Power Control Unit 9410 versorgt.

Kalibrierung und Justierung
Während der Kalibrierung und Justierung sind die Messung und der Anschluss externer Spannungen entsprechend dieser Installationsanleitung auszuführen, und der Techniker muss hierbei sicherheitsmäßig einwandfreie Werkzeuge und Instrumente benutzen.

Reinigung

ATEX Installation drawing V5R0



For safe installation of 9113 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. Only 4501 modules free of dust and moisture shall be installed.

ATEX Certificate: KEMA 07ATEX 0148 X
Marking 9113Bx: II (1) G Ex ia Ga IIC/IIA/IIA II 3 G Ex na nC IIC T4 Gc
Marking 9113Ax: II 3 G Ex na nC IIC T4 Gc
Standards: EN 60079-0 : 2012, EN 60079-11 : 2012, EN 60079-15 : 2010

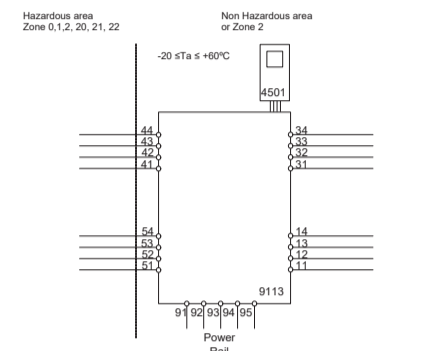
Supply terminal (31,32) Voltage: 19.2 - 31.2 VDC

Status Relay, terminal (33,34) Zone 2 Installation Voltage max: 125 VAC / 110 VDC 32 VAC / 32 VDC

Installation notes: Install in pollution degree 2, overvoltage category II as defined in IEC60664-1. Do not separate connectors when energized and an explosive gas mixture is present.

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.

9113Bx Installation:

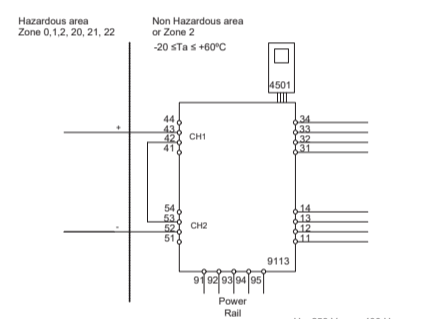


Ex input CH1 (terminal 41,42,43,44) CH2 (terminal 51,52,53,54) U: 8.7 V I: 18.4 mA P: 40 mW LoRo 892 µH/Ω

Table with columns IIC, IIB, IIA or I, and rows C, L, L.

U: 10 V I: 30 mA C: 30 nF L: 820 nH

9113Bx Installation:

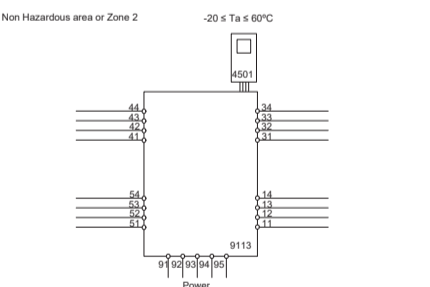


Ex input CH1 (terminal 43) CH2 (terminal 52) U: 17.4 V I: 18.4 mA P: 80 mW LoRo 445 µH/Ω

Table with columns IIC, IIB, IIA or I, and rows C, L, L.

U: 10 V I: 30 mA C: 15 nF L: 1.7 µH

9113Ax Installation:



Supply: 19.2 - 31.2 VDC (terminal 31,32) (terminal 91,92,93,94,95) Output: (terminal 11,12,13,14)

Status Relay, terminal (33,34) Zone 2 Installation Voltage max: 125 VAC / 110 VDC 32 VAC / 32 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. It is important that the module is undamaged and has not been altered or modified in any way.

IECEx Installation drawing - V5R0



For safe installation of 9113 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.

IECEx Certificate: KEM 09 0052 X
Marking 9113Bx: [Ex ia Ga] IIC/IIA/IIA Ex na nC IIC T4 Gc
Marking 9113Ax: II 3 G Ex na nC IIC T4 Gc
Standards: IEC60079-0:2011, IEC60079-11:2011, IEC60079-15:2010

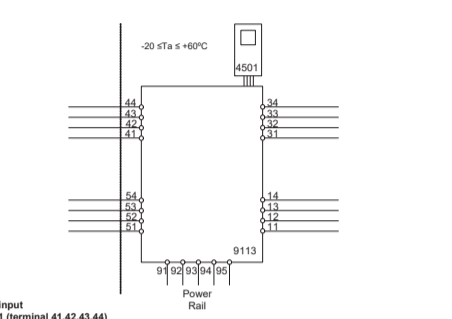
Supply terminal (31,32) Voltage: 19.2 - 31.2 VDC

Status Relay, terminal (33,34) Zone 2 Installation Voltage max: 125 VAC / 110 VDC 32 VAC / 32 VDC

Installation notes: Install in pollution degree 2, overvoltage category II as defined in IEC60664-1. Do not separate connectors when energized and an explosive gas mixture is present.

For installation on Power Rail in Zone 2, only Power Rail type 9400 supplied by Power Control Unit type 9410 (Type Examination Certificate IECEx KEM 09.0025X) is allowed.

9113Bx Installation:

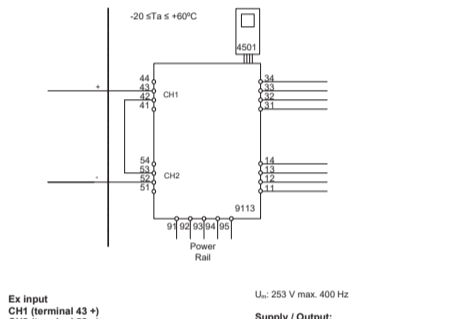


Ex input CH1 (terminal 41,42,43,44) CH2 (terminal 51,52,53,54) U: 8.7 V I: 18.4 mA P: 40 mW LoRo 892 µH/Ω

Table with columns IIC, IIB, IIA or I, and rows C, L, L.

U: 10 V I: 30 mA C: 30 nF L: 820 nH

9113Bx Installation:

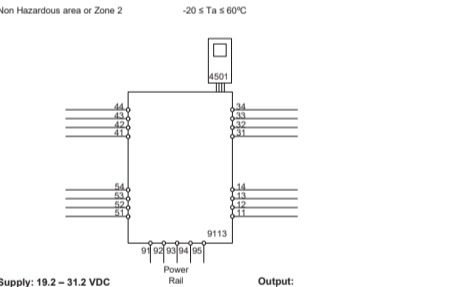


Ex input CH1 (terminal 43 +) CH2 (terminal 52 -) U: 17.4 V I: 18.4 mA P: 80 mW LoRo 445 µH/Ω

Table with columns IIC, IIB, IIA, and rows C, L, L.

U: 10 V I: 30 mA C: 15 nF L: 1.7 µH

9113Ax Installation:



Supply: 19.2 - 31.2 VDC (terminal 31,32) (terminal 91,92,93,94,95) Output: (terminal 11,12,13,14)

Status Relay, terminal (33,34) Zone 2 Installation Voltage max: 125 VAC / 110 VDC 32 VAC / 32 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 IECEx KEM 09.0025X) 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. It is important that the module is undamaged and has not been altered or modified in any way.

FM Installation drawing 9113QF01-V4R0



For safe installation of 9113B 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.

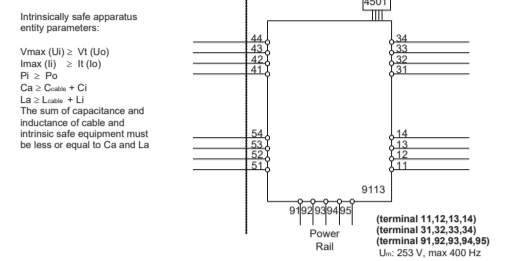


For installation in Zone 2 / Division 2 the following must be observed. The 4501 programming module is to be used solely with PR electronics modules. It is important that the module is undamaged and has not been altered or modified in any way.

c-EMV Certificate: 3038279

Hazardous Classified Location Class I/II/III, Division 1, Group A,B,C,D,E,F,G or Class I, Zone 0/1 Group IIC, [AEx ia] IIC or Class I, Zone 0/1 Group IIC, [Ex ia] IIC

Unclassified Location or Hazardous Classified Location Class I, Division 2, Group A,B,C,D,T4 or Class I, Zone 2 Group IIC T4



Ex input CH1 (terminal 41,42,43,44) CH2 (terminal 51,52,53,54) U: 8.7 V I: 18.4 mA P: 40 mW LoRo 892 µH/Ω

Table with columns IIC, IIB, IIA, I, and rows C, L, L.

U: 10 V I: 30 mA C: 30 nF L: 820 nH

Status Relay, terminal (33,34) Zone 2 Installation Voltage max: 125 VAC / 110 VDC 32 VAC / 32 VDC

Installation notes: The installation and wiring shall be in accordance with the Canadian Electrical Code for Canada and National Electrical Code NFPA 70, Article 600 or 605 for installation in USA.

For installation on the 9400 Power Rail the power must be supplied from Power Control Module Unit 9410.

Install in pollution degree 2, overvoltage category II. The module must be installed in an enclosure suitable for the environment for which it is used.

For installation in Zone 2, or Division 2, the module must be installed in a suitable outer enclosure according to the regulations in the CEC for Canada or NEC for USA.

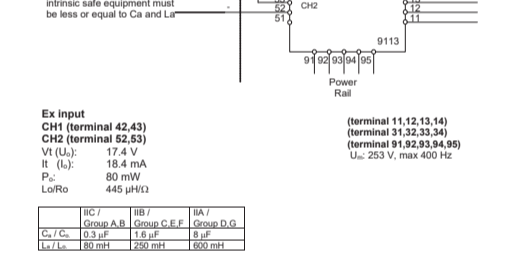
Warning: Substitution of components may impair intrinsic safety. Use 60 / 75 °C Copper Conductors with wire Size AWG: (26-14).

Warning: Do not separate connectors when energized and an explosive gas mixture is present.

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

Hazardous Classified Location Class I/II/III, Division 1, Group A,B,C,D,E,F,G or Class I, Zone 0/1 Group IIC, [AEx ia] IIC or Class I, Zone 0/1 Group IIC, [Ex ia] IIC

Unclassified Location or Hazardous Classified Location Class I, Division 2, Group A,B,C,D,T4 or Class I, Zone 2 Group IIC T4



Ex input CH1 (terminal 42,43) CH2 (terminal 52,53) U: 17.4 V I: 18.4 mA P: 80 mW LoRo 445 µH/Ω

Table with columns IIC, IIB, IIA, I, and rows C, L, L.

U: 10 V I: 30 mA C: 15 nF L: 1.7 µH

INMETRO Desenhos para Instalação-V5R0



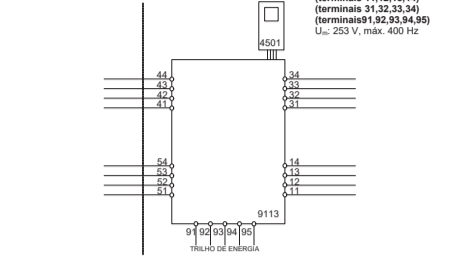
Para instalação segura do 9113B o manual seguinte deve ser observado. O módulo deve ser instalado somente por profissionais qualificados que estão familiarizados com as leis nacionais e internacionais, diretivas e normas que se aplicam a esta área.



Para a 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.

INMETRO Certificado: DEKRA 16.0003X
Marcas: [Ex ia Ga] IIC/IIA/IIA Ex na nC IIC T4 Gc
Normas: ABNT NBR IEC 60079-0:2013, ABNT NBR IEC 60079-11:2013, ABNT NBR IEC 60079-15:2012

Instalação 9113Bx 2 Circuitos Área de classificada Zona 0,1,2, 20, 21, 22 Área de não classificada ou Zona 2



Entrada Ex CN1 (terminais 41,42,43,44) CN2 (terminais 51,52,53,54) U: 8.7 V I: 18.4 mA P: 40 mW LoRo 892 µH/Ω

Table with columns IIC, IIB, IIA, I, and rows C, L, L.

U: 10 V I: 30 mA C: 30 nF L: 820 nH

Relô de estado, terminais (33,34) Voltagem máx.: 125 VAC / 110 VDC Potência máx.: 62.5 VA / 32 W Corrente máx.: 0.5 A AC / 0.3 ADC

Instalação Zone 2: Voltagem máx.: 32 VAC / 32 VDC Potência máx.: 16 VA / 32 W Corrente máx.: 0.5 A AC / 1 ADC

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 podem ser conectados para sobretensão limitada ao categoria III como definido no IEC 60664-1.

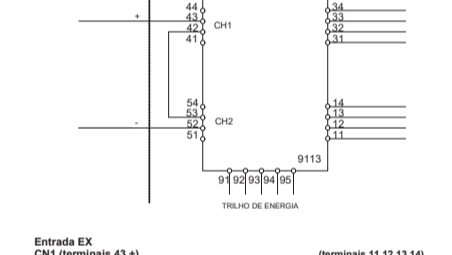
Não separe conectores quando energizado ou quando uma mistura de gás explosivo estiver presente.

Desligue a alimentação antes da manutenção. A fiação de terminais sem uso não é permitida.

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 trilho de energia na Zona 2, apenas o trilho de alimentação Rail 9400 fornecido pela Unidade de Controle de Potência 9410 é permitido.

Instalação 9113Bx 2 Circuitos combinado Área de classificada Zona 0,1,2, 20, 21, 22 Área de não classificada ou Zona 2



Entrada EX CN1 (terminais 43 +) CN2 (terminais 52 -) U: 17.4 V I: 18.4 mA P: 80 mW LoRo 445 µH/Ω

Table with columns IIC, IIB, IIA, I, and rows C, L, L.

U: 10 V I: 30 mA C: 15 nF L: 1.7 µH