9202A / 9202B

9202A 9202B

Segurança Elétrica Segurança

DEKRA OCP 0089 Compulsório INMETRO

9202 脉冲隔离器
丹麥製造
佩勒电子（上海）有限公司
云岭东路 651 号 305 室
普陀区, 上海 200062 中国

DK

ADVARSEL

GENERELT

Dette modul er beregnet til 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.

ADVARSEL

FARLIG SPÆNDING

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.

ADVARSEL

Modulets frontplade må ikke åbnes, da dette vil medføre skade på stikforbindelsen til display- / programmeringsfronten PR 4511/4501. Modulerne indeholder ingen DIP-switche eller jumpere.

SIKKERHEDSREGLER

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

Miljøforhold
Undgå direkte sollys, kraftigt støv eller varme, mekaniske rystelser og stød, og udsæt ikke modulet for regn eller kraftig fugt. Om nødvendigt skal opvarmning, ud over de opgivne grænser for omgivelsestemperatur, forhindres ved hjælp af ventilation.
Alle moduler kan anvendes i Måle- / overspændingskategori II og Forureningsgrad 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 bekendte med de tekniske udtryk, advarsler og instruktioner i installationsvejledningen, og som vil følge disse.
Hvis der er tvivl om modulets rette håndtering, skal der rettes henvendelse til den lokale forhandler eller alternativt direkte til **PR electronics A/S.**
Det er ikke tilladt at benytte flerkoret ledning ved tilslutning af forsyningsspænding med mindre ledningsenderne er forsynet med ledningstyller.
Beskrivelse af indgang / udgang og forsyningsforbindelser findes i produktmanualen og på sideskiltet.
Modulet er forsynet med skrueterminaler og skal forsynes fra en dobbeltisoleret/ forstærket isoleret spændingsforsyning. En afbryder placeres let 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 type 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 el. 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.

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

Eletriske specifikationer

Specifikationsområde	-20°C til +60°C
Forsyningsspænding	19,2...31,2 VDC
Max. forbrug	
1 kanal, opto / relæ	≤ 1,1 W / 1,3 W
2 kanaler, opto / relæ	≤ 1,5 W / 1,9 W
Max. effekttab	
1 kanal, opto / relæ	≤ 1,2 W / 1,2 W
2 kanaler, opto / relæ	≤ 1,6 W / 1,8 W
Sikring	400 mA T / 250 VAC
Isolationsspænding, test / drift	2,6 kVAC / 300 VAC
Isolation - udgang 1 til udgang 2	1,5 kVAC / 150 VAC
Isolation - relæ til forsyning	1,5 kVAC / 150 VAC (forstærket isolation)
Kalibreringstemperatur	20...28°C
EMC-immunitetspåvirkning	< ±0,5% af span
Udvidet EMC-immunitet:	
NAMUR NE21, A-krit., gnistst	< ±1% af span
2-trådsforsyning (klemme 44...43)	25...16 VDC / 0...20 mA
Relativ luftfugtighed	< 95% RH (ikke kond.)
Mål, med 4501/45xx (HxBxD)	109 x 23,5 x 116 / 131 mm
Mål, uden 4501/45xx (HxBxD)	109 x 23,5 x 104 mm
Kapslingsklasse	IP20

NAMUR-indgang:

NAMUR-standard	EN 60947-5-6
Frekvensområde	0...5 kHz
Impulslængde	> 0,1 ms

Relæudgange:

Max. spænding	250 VAC / 30 VDC
Max. strøm	2 AAC / 2 ADC
Max. effekt	500 VA / 60 W

Opto, NPN-udgange:

Max. frekvens	5 kHz
Max. belastning, strøm / spænding	80 mA / 30 VDC

Statusrelæ i sikkert område:

Maks. spænding	125 VAC / 110 VDC
Maks. strøm	0,5 A AC / 0,3 A DC
Maks. effekt	62,5 VA / 32 W

Godkendelser:

DNV-GL, Ships & Offshore	TAA00000JD
ClassNK	TA18527M
c UL us, UL 61010-1	E314307
EAC	TR-CU 020/2011
EAC LVD	TR-CU 004/2011
EAC Ex	TR-CU 012/2011
SIL	IEC 61508

Overholdte myndighedskrav:

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

UK

WARNING

GENERAL

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.

WARNING

HAZARDOUS VOLTAGE

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.

WARNING

Do not open the front plate of the device as this will cause damage to the connector for the display / programming front PR 4511/74501. The SYSTEM 9000 devices contain no DIP-switches or jumpers.

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.

Electrical specifications

Specifications range	-20°C to +60°C
Supply voltage	19.2...31.2 VDC
Max. required power	
1 channel, opto / relay	≤ 1.1 W / 1.3 W
2 channels, opto / relay	≤ 1.5 W / 1.9 W
Max. power dissipation	
1 channel, opto / relay	≤ 1.2 W / 1.2 W
2 channels, opto / relay	≤ 1.6 W / 1.8 W
Fuse	400 mA SB / 250 VAC
Isolation voltage, test / operation	2.6 kVAC / 300 VAC
Isolation - output 1 to output 2	1.5 kVAC / 150 VAC
Isolation - relay to supply	1.5 kVAC / 150 VAC (reinforced isolation)
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 4501/45xx (HxWxD)	109 x 23.5 x 116 / 131 mm
Dimensions, without 4501/45xx (HxWxD)	109 x 23.5 x 104 mm
Protection degree	IP20

NAMUR input:

NAMUR standard	EN 60947-5-6
Frequency range	0...5 kHz
Pulse length	> 0.1 ms

Relay outputs:

Max. voltage	250 VAC / 30 VDC
Max. current	2 AAC / 2 ADC
Max. AC power	500 VA / 60 W

Opto, NPN outputs:

Max. frequency	5 kHz
Max. load, current / voltage	80 mA / 30 VDC

Status relay in safe area:

Max. voltage	125 VAC / 110 VDC
Max. current	0.5 A AC / 0.3 A DC
Max. power	62.5 VA / 32 W

Approvals:

DNV-GL, Ships & Offshore	TAA00000JD
ClassNK	TA18527M
c UL us, UL 61010-1	E314307
EAC	TR-CU 020/2011
EAC LVD	TR-CU 004/2011
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

FR

AVERTISSEMENT

INFORMATIONS GENERALES

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 vous 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.

AVERTISSEMENT

TENSION DANGEREUSE

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.

AVERTISSEMENT

Ne pas ouvrir la plaque avant du module au risque d'endommager le connecteur de l'indicateur/la façade de programmation PR 4511/4501. Les modules ne contiennent ni de commutateurs DIP ni de cavaliers.

CONSIGNES DE SECURITE

Réception et déballage
Déballez le module sans l'endommager. Il est recommandé de conserver 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 l'humidité modérée 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'une pièce soit chauffée au-delà des limites prescrites pour les températures ambiantes.
Tous les modules peuvent être installés dans catégorie de mesure / surtension II et 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 quelconque quant à la manipulation du module, veuillez contacter votre distributeur local. Vous pouvez également vous adresser à **PR electronics SARL.**
Pour le raccordement électrique de l'alimentation générale, il est possible 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 convient d'effectuer les mesures et les connexions des tensions 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.

Spécifications

Plage de température	-20° à +60°C
Tension d'alimentation	19,2...31,2 Vcc
Puissance nécessaire max.,	
1 voie, opto / relais	≤ 1,1 W / 1,3 W
2 voies, opto / relais	≤ 1,5 W / 1,9 W
Puissance dissipée max.	
1 voie, opto / relais	≤ 1,2 W / 1,2 W
2 voies, opto / relais	≤ 1,6 W / 1,8 W
Fusible	400 mA SB / 250 Vca
Tension d'isolation, test/opération	2,6 kVca / 300 Vca
Isolation - sortie 1 à sortie 2	1,5 kVca / 150 Vca
Isolation - relais à l'alimentation	1,5 kVca / 150 Vca (isolation 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 4501/45xx (HxLxP)	109 x 23,5 x 116 / 131 mm
Dimensions, sans 4501/45xx (HxLxP)	109 x 23,5 x 104 mm
Degré de protection	IP20

Entrée NAMUR :

Standard NAMUR	EN 60947-5-6
Gamme de fréquences	0...5 kHz
Largeur d'impulsions	> 0,1 ms

Sorties relais:

Tension max.	250 Vca / 30 Vcc
Courant max.	2 Aca / 2 Acc
Puissance ca max.	500 VA / 60 W

Opto, sorties NPN :

Fréquence max.	5 kHz
Charge max., courant / tension	80 mA / 30 Vcc

Relais d'état en zone non-dangereuse :

Tension max.	125 Vca / 110 Vcc
Courant max.	0,5 Aca / 0,3 Acc
Puissance ca max.	62,5 VA / 32 W

Approbations :

DNV-GL, Ships & Offshore	TAA00000JD
ClassNK	TA18527M
c UL us, UL 61010-1	E314307
EAC	TR-CU 020/2011
EAC LVD	TR-CU 004/2011
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/EU

DE

WARNUNG

ALLGEMEINES

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 Schutzeinrichtungen des Gerätes beeinträchtigt.

WARNUNG

GEFÄHRLICHE SPANNUNG

Vor dem abgeschlossenen 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 Verhältnisse 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.

WARNUNG

Die Frontplatte des Gerätes darf nicht geöffnet werden, weil hierdurch die Kontakte zur Kontaktierung des frontdisplays 4511/4501 beschädigt werden können. Die Geräte enthalten keine internen DIP-Schalter oder Programmierbrücken.

SICHERHEITSREGELN

Empfang und Auspacken
Packen Sie das Gerät aus, 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 Staubentwicklung 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 Kühlgebläses verhindert werden.
Alle Geräte können für Mess- / Überspannungskategorie II und Verschmutzungsgrad 2 benutz werden. Das Gerät ist so konzipiert, dass es auch in einer Einsatzhöhe 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 verdrillter Leitung ist nicht erlaubt außer die Enden sind mit Aderendhülsen versehen.
Eine Beschreibung von Eingangs- / Ausgangs- und Versorgungsanschlüssen befindet sich a 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
Das Gerät darf in spannungslosem Zustand mit einem Lappen gereinigt werden, der mit destilliertem Wasser leicht angefeuchtet ist.

Elektrische Daten

Umgebungstemperatur	-20°C bis +60°C
Versorgungsspannung	19,2...31,2 VDC
Leistungsbedarf, max.	
1 Kanal, Opto / Relais	≤ 1,1 W / 1,3 W
2 Kanäle, Opto / Relais	≤ 1,5 W / 1,9 W
Max. Verlustleistung	
1 Kanal, Opto / Relais	≤ 1,2 W / 1,2 W
2 Kanäle, Opto / Relais	≤ 1,6W / 1,8 W
Sicherung	400 mA T / 250 VAC
Isolationsspannung, Test/Betrieb	2,6 kVAC / 300 VAC
Isolierung - Ausg. 1 zum Ausg. 2	1,5 kVAC / 150 VAC
Isolierung - Relais zur Versorg	1,5 kVAC / 150 VAC (erhöhte isolation)
Kalibrierungstemperatur	20...28°C
EMV Störspannungseinfluss	< ±0,5% d. Messspanne
Erweitere EMV Störfestigkeit:	
NAMUR NE21, Kriterium A, Burst	< ±1% d. Messspanne
2-Draht-Versorg. (Klemme 44...43)	25...16 VDC / 0...20 mA
Relative Luftfeuchtigkeit	< 95% RH (nicht kond.)
Abmessungen, mit 4501/45xx (HxBxT)	109 x 23,5 x 116 / 131 mm
Abmessungen, ohne 4501/45xx (HxBxT)	109 x 23,5 x 104 mm
Schutzart	IP20

NAMUR-Eingang:

NAMUR-Norm	EN 60947-5-6
Frequenzbereich	0...5 kHz
Impulslänge	> 0,1 ms

Relais-Ausgänge:

Maximalspannung	250 VAC / 30 VDC
Maximalstrom	2 AAC / 2 ADC
Max. Wechselstromleistung	500 VA / 60 W

Opto, NPN-Ausgänge:

Max. Frequenz	5 kHz
Max. Belastung, Strom/Spannung	80 mA / 30 VDC

Statusrelais in sicheres Bereich:

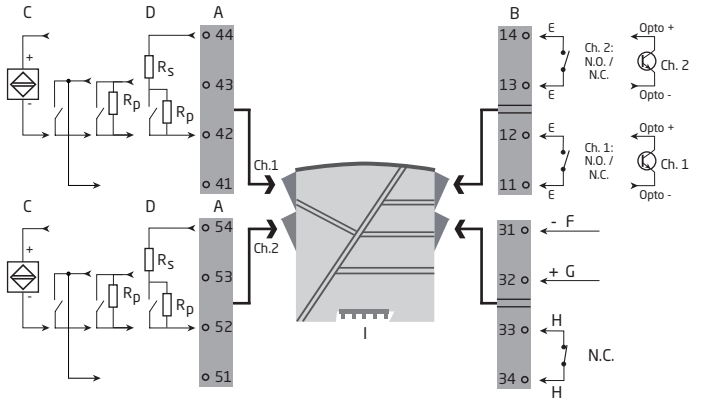
Max. Spannung	125 VAC / 110 VDC
Max. Strom	0,5 AAC / 0,3 ADC
Max. Leistung	62,5 VA / 32 W

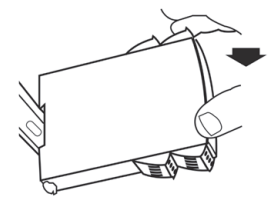
Zulassungen:

DNV-GL, Ships & Offshore	TAA00000JD
ClassNK	TA18527M
c UL us, UL 61010-1	E314307
EAC	TR-CU 020/2011
EAC LVD	TR-CU 004/2011
EAC Ex	TR-CU 012/2011
SIL	IEC 61508

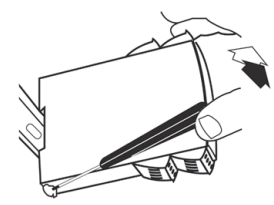
Eingehaltene Behördenvorschriften:

EMV	2014/30/EU
LVD	2014/35/EU
ATEX	2014/34/EU
RoHS	2011/65/EU





DK Montering på power rail / DIN-skinne.
UK Mounting on power rail / DIN rail.
FR Montage sur rail d'alimentation / rail DIN.
DE Montage auf Power Rail / DIN-Schiene.

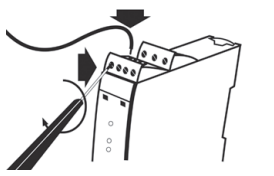


DK Frigørelse fra power rail / DIN-skinne
Husk først at demontere tilslutningsklemmerne med farlig spænding. Modulet frigøres fra skinnen ved at løfte i den nederste lås.

UK Demounting from power rail / DIN rail
First, remember to demount the connectors with hazardous voltages. Detach the device from the rail by lifting the bottom lock.

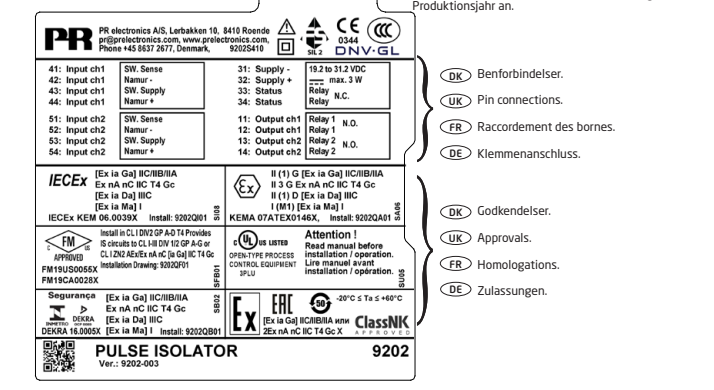
FR Démontage du rail d'alimentation / rail DIN
Tout d'abord, n'oubliez pas de démonter les connecteurs où règnent des tensions dangereuses. Débloquez le verrou inférieur pour dégager le module du rail.

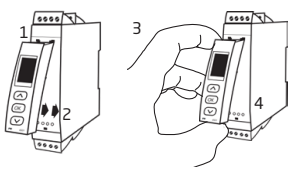
DE Lösen von Power Rail / DIN-Schiene
Zunächst ist gefährliche Spannung von den Anschlussklemmen zu trennen. Das Gerät wird von der Schiene gelöst, indem man den unteren Verschluss löst.



DK En eller to ledninger med (min....max.) ledningskvadrat 0,13...2,08 mm² / AWG 26...14 flerkoret ledning. Max. klemskruetilspændingsmoment 0,5 Nm.
UK One or two wires with (min....max.) wire size 0.13...2.08 mm² / AWG 26...14 stranded wire. Max. screw terminal torque 0.5 Nm.
FR Une ou deux fils avec taille des fils (min....max.) 0,13...2,08 mm² / AWG 26...14 fils multibrins. Pression max. avant déformation de la vis 0,5 Nm.
DE Ein oder zwei Leiter mit (min....max.) Leitungsquerschnitt 0,13...2,08 mm² / AWG 26...14 Litzendraht. Max. Klemmschraubenanzugsmoment 0,5 Nm.

DK Sideskilt UK Side label FR Etiquette DE Typenschild





DK Påsætning af PR 4500 kommunikationsinterfaces:
1: Indsæt tappene på PR 4500 i hullerne øverst på modulet.
2: Sving PR 4500 på plads.
Aftagning af PR 4500:
3/4: Tryk på udløserknap i bunden af 45xx og sving 45xx op.

UK Mounting of the PR 4500 communication interfaces:
1: Insert the tabs of the PR 4500 into the slots at the top of the device.
2: Hinge the PR 4500 down until it snaps into place.
Demounting of the PR 45xx
3: Push the release button on the bottom of the PR 4500 and hinge the PR 4500 out and up.
4: With the PR 4500 hinged up, remove from the slots at the top of the device.

FR Montage des interfaces de communication PR 4500 :
1 : Insérez les crochets du PR 4500 dans les trous en haut du module.
2 : Poussez le bas du PR 4500 vers le module.
Démontage du PR 4500 :
3/4 : Appuyez sur le bouton de déclenchement en dessous du PR 4500, puis tirez le PR 4500 vers le haut.

DE Anbringen der PR 4500 Kommunikations-schnittstellen:
1: Einbringen der beiden Fixierstifte des PR 4500 in die Öffnungen an der oberen Frontplatte des Gerätes.
2: Das Display PR 4500 an der Unterkante einrasten lassen.
Entfernen des PR 4500:
3/4: Die Entriegelung des PR 4500 an der Unterseite betätigen und das PR 4500 vorsichtig abnehmen.

DK Ex-godkendelser UK I.S approvals FR Approbations S.I. DE Ex-Zulassungen

	9202Bxxx		9202Axxx	
IECEx	[Ex ia Ga] IIC/IIB/IIA Ex nA nC IIC T4 Gc [Ex ia Da] IIIC / [Ex ia Ma] I	IECEx KEM 06.0039X Installation Drawing: 9202QI01	Ex nA nC IIC T4 Gc	IECEx KEM 06.0039X Installation Drawing: 9202QI01
ATEX	II (1) G [Ex ia Ga] IIC/IIB/IIA II 3G Ex nA nC IIC T4 Gc II (1) D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	KEMA 07ATEX 0146 X Installation Drawing: 9202QA01	II 3 G Ex nA nC IIC T4 Gc	KEMA 07ATEX 0146 X Installation Drawing: 9202QA01
FM	Install in CL I, Div. 2, Gr. A-D T4 Provides IS outputs to CL I-III, Div. 1/2, Gr. A-G or CL I, Zn2 AEx/Ex nA nC [ia] IIC T4	FM16US0055X / FM16CA0028X Installation Drawing: 9202QF01	Install in CL I, Div. 2, Gr. A-D T4 or CL I, Zone 2, AEx/Ex nA nC IIC T4	FM16US0055X / FM16CA0028X Installation Drawing: 9202QF01
INMETRO	[Ex ia Ga] IIC/IIB/IIA [Ex ia Da] IIIC / [Ex ia Ma] I Ex nA nC IIC T4 Gc	DEKRA 16.0005 X Installation Drawing: 9202QB01	-	-
UL (9202Axxx-U9 / 9202Bxxx-U9)	Install in CL I DIV2 GP A-D T4 provides IS circuits to CL I-III DIV 1 GP A-G or install in CL I Zn2 Gp IIC T4 provides IS circuits to CL I Zn0 Gp IIC/Zn20 Gp IIIC	E233311 Installation Drawing: 9202QU01	Install in CL I, Div. 2, Gr. A-D T4 or CL I, Zone 2, AEx nA nC IIC T4	E233311 Installation Drawing: 9202QU01
CCC	Ex nA nC [Ex ia Ga] IIC T4 Gc Ex nA nC [Ex iaD] IIC T4 Gc [Ex ia Ga] IIC/IIB/IIA [Ex iaD]	2020322309003424	Ex nA nC IIC T4 Gc	2020322309003424

DK Kina RoHS UK China RoHS FR RoHS chinois DE China-RoHS

Part Name	Hazardous Substances					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Printed circuit board	X	O	O	O	O	O

This table is prepared in accordance with the provisions of SJ/T 11364
O: Indicates that said hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement of GB/T 26572.
X: Indicates that said hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement of GB/T 26572.

The product's Environmentally Friendly Use Period (EFUP) is 50 years

DK Dokumentation, godkendelser og yderligere information findes på internettet på **www.prelectronics.dk**

UK Documentation, permits and other information can be found on the internet at **www.prelectronics.com**

FR La documentation et toute autre information peuvent être trouvées sur l'Internet sur notre site: **www.prelectronics.fr**

DE Dokumentationen, Zulassungen und andere Informationen können auf unserer Internet-Seite unter **www.prelectronics.de** gefunden und abgerufen werden.

BR Documentações, licenças e outras informações podem ser encontradas no site **www.prelectronics.com**

ATEX Installation drawing 9202QA01-V5R0

For safe installation of 9202 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.
Year of manufacture can be taken from the first two digits in the serial number.

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. Only 4501 modules free of dust and moisture shall be installed.

ATEX Certificate KEMA 07 ATEX 0146 X

Marking 9202Bxx
II (1) G [Ex ia Ga] IIC/IB/IIA
II 3G Ex nA nC IIC T4 Gc
I (1) D [Ex ia Da] IIIC
I (M1) [Ex ia Ma] I

Marking 9202Axx II 3G 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
Power max:	62.5 VA / 32 W	16 VA / 32 W
Current max:	0.5 AAC / 0.3 ADC	0.5 AAC / 1 ADC

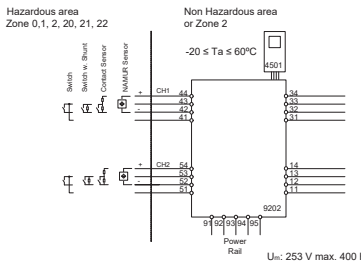
Installation notes:
Install in pollution degree 2, overvoltage category II as defined in EN 60664-1

Do not separate connectors when energized and an explosive gas mixture is present.
Do not mount or remove modules from the Power Rail when an explosive gas mixture is present.
Disconnect power before servicing.
The wiring of unused terminals is not allowed.

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. Cable entry devices and blanking elements shall fulfill the same requirements.

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.



U_o:10.6 VDC
I_o: 12 mADC
P_o: 32 mW
Lo/Ro:1150 µH/Ω

U_m: 253 V max. 400 Hz

Supply / Output:
(terminal 11,12,13,14)
(terminal 31,32,33,34)
(terminal 91,92,93,94,95)

	IIC	IIB	IIA	I
C_o	2.0 µF	6.0 µF	18 µF	90 µF
L_o	260 mH	780 mH	1000 mH	1000 mH

Ex input:
CH1 (terminal 41,42,43,44)
CH2 (terminal 51,52,53,54)

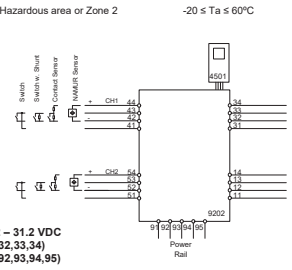
Terminal CH1(11,12) CH2(13,14)

Digital output:	**NPN output:**
Voltage max	30 VDC
Current max	80 mA

Terminal CH1(11,12) CH2(13,14)

Relay output:	**Non Hazardous location**	**Zone 2 installation**
Voltage max.	250 VAC / 30 VDC	32 VAC / 30 VDC
Power max.	500 VA / 60 W	64 VA / 60 W
Current max.	2 AAC / 2 ADC	2 AAC / 2ADC

9202Axx Installation:



Supply: 19.2 – 31.2 VDC
(terminal 31,32,33,34)
(terminal 91,92,93,94,95)

Input: Namur sensor, Contact Sensor, Switch
CH1 (terminal 41,42,43,44)
CH2 (terminal 51,52,53,54)

Output:
Terminal CH1(11,12) CH2(13,14)

Digital output:	**NPN output:**
Voltage max.	30 VDC
Current max.	80 mA

Terminal CH1(11,12) CH2(13,14)

Relay output:	**Non Hazardous location**	**Zone 2 installation**
Voltage max.	250 VAC / 30 VDC	32 V AC / 30 VDC
Power max.	500 VA / 60 W	64 VA / 60 W
Current max.	2 AAC / 2 ADC	2 AAC / 2 ADC

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. Cable entry devices and blanking elements shall fulfill the same requirements.

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 / 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. Only 4501 modules free of dust and moisture shall be installed.

INMETRO Desenhos para Instalação – V6R0

Para instalação segura do 9202B o manual seguinte deve ser observado. O módulo deve ser instalado somente por profissionais qualificados que estão familiarizados com as leis nacionais e internacionais, diretrizes e normas que se aplicam a esta área.
Ano de fabricação pode ser obtido a partir dos dois primeiros dígitos do número de série.

Para a instalação na Zona 2 o seguinte deve ser observado. O módulo de programação de 4501, deve ser utilizado apenas com os módulos PRelectronics. É importante que o módulo esteja intacto e não tenha sido alterado ou modificado de qualquer maneira. Apenas os módulos 4501 livres de poeira e umidade devem ser instalados.

INMETRO Certificado ..... DEKRA 16.0005X

Marcasão [Ex ia Ga] IIC/IIB/IIA
Ex nA nC IIC T4 Gc
[Ex ia Da] IIIC
[Ex ia Ma] I

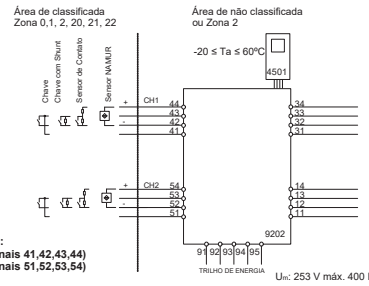
Normas: ABNT NBR IEC 60079-0:2013, ABNT NBR IEC60079-11:2013, ABNT NBR IEC60079-15:2012

Terminais de fonte de alimentação (31,32)
Voltagem: 19.2 – 31.2 VDC

Relê de estado. terminais (33,34)

		Instalação Zona 2
Voltagem máx.:	125 VAC / 110 VDC	32 VAC / 32 VDC
Potência máx.:	62,5 VA / 32 W	16 VA / 32 W
Corrente máx.:	0,5 A AC / 0,3 ADC	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 pode ser connectado para sobretensão limitado ao categoria I/II como definido na IEC 60664-1
Não separe conectores quando energizado ou quando uma mistura de gás explosivo estiver presente.
Não monte ou remova módulos do trilho de alimentação quando uma mistura de gás explosivo estiver presente.
Desligue a alimentação antes da manutenção.
A fiação de terminais sem uso não é permitida.
A fonte de Loop e terminais de entrada de corrente para o mesmo canal não deve ser aplicada ao mesmo tempo.
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 proteçao IP54
Dispositivos de entrada de cabo e elementos de vedação devem cumprir com os mesmos requisitos.
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.



Entrada Ex:
CN1 (terminais 41,42,43,44)
CN2 (terminais 51,52,53,54)

U_o:10,6 VDC
I_o: 12 mADC
P_o: 32 mW
Lo/Ro:1150 µH/Ω

U_m: 253 V máx. 400 Hz

Fonte / Saida:
(terminais 11,12,13,14)
(terminais 31,32,33,34)
(terminais 91,92,93,94,95)

	IIC	IIB	IIA	I
C_o	2,0 µF	6,0 µF	18 µF	90 µF
L_o	260 mH	780 mH	1000 mH	1000 mH

Terminais CN1(11,12) CN2(13,14)
Saída Digital: **Saida NPN:**
Voltagem máx. 30 VDC
Corrente máx. 80 mA

Terminais CN1(11,12) CN2(13,14)

Saida relê:	**Área de não classificada**	**Instalação ZONA 2**
Voltagem máx..	250 VAC / 30 VDC	32 V AC / 30 VDC
Potência máx..	500 VA / 60 W	64 VA / 60 W
Corrente máx..	2 AAC / 2 ADC	2 AAC / 2 ADC

IECEx Installation drawing 9202QI01-V5R0

For safe installation of 9202 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.
Year of manufacture can be taken from the first two digits in the serial number.

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. Only 4501 modules free of dust and moisture shall be installed.

IECEx Certificate KEM 06.0039 X

Marking 9202Bxx [Ex ia Ga] IIC/IIB/IIA
Ex nA nC IIC T4 Gc
[Ex ia Da] IIIC
[Ex ia Ma] I

Marking 9202Axx Ex nA nC IIC T4 Gc

Standards IEC60079-15 :2005, IEC60079-11:2011, IEC60079-0: 2011

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
Power max:	62.5 VA / 32 W	16 VA / 32 W
Current max:	0.5 A AC / 0.3 ADC	0.5 A AC / 1 ADC

Installation notes.
Install in pollution degree 2, overvoltage category II as defined in IEC60664-1

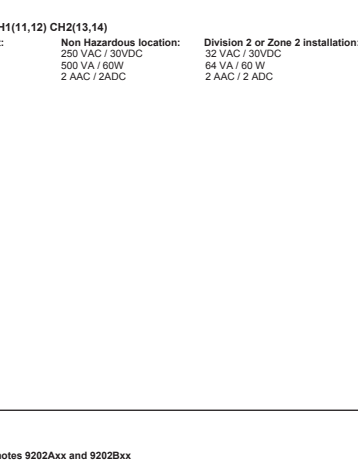
Do not separate connectors when energized and an explosive gas mixture is present.
Do not mount or remove modules from the Power Rail when an explosive gas mixture is present.
Disconnect power before servicing.
The wiring of unused terminals is not allowed.

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. Cable entry devices and blanking elements shall fulfill the same requirements.

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.

9202Bxx Installation



Ex input:
CH1 (terminal 41,42,43,44)
CH2 (terminal 51,52,53,54)

U_o:10.6 VDC
I_o: 12 mADC
P_o: 32 mW
Lo/Ro:1150 µH/Ω

U_m: 253 V max. 400 Hz

Supply / Output:
(terminal 11,12,13,14)
(terminal 31,32,33,34)
(terminal 91,92,93,94,95)

	IIC	IIB	IIA	I
C_o	2.0 µF	6.0 µF	18 µF	90 µF
L_o	260 mH	780 mH	1000 mH	1000 mH

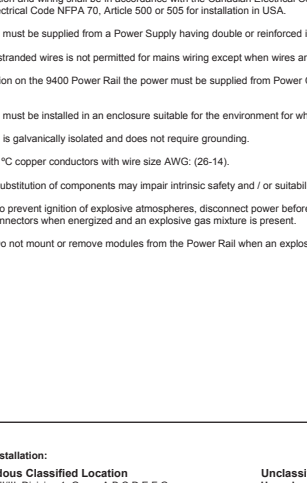
Terminal CH1(11,12) CH2(13,14)

Digital output:	**NPN output:**
Voltage max.	30 VDC
Current max.	80 mA

Terminal CH1(11,12) CH2(13,14)

Relay output:	**Non Hazardous location**	**Zone 2 installation**
Voltage max.	250 VAC / 30 VDC	32 V AC / 30 VDC
Power max.	500 VA / 60 W	64 VA / 60 W
Current max.	2 AAC / 2 ADC	2 AAC / 2 ADC

9202Axx Installation:



Supply: 19.2 – 31.2 VDC
(terminal 31,32,33,34)
(terminal 91,92,93,94,95)

Input: Namur sensor, Contact Sensor, Switch
CH1 (terminal 41,42,43,44)
CH2 (terminal 51,52,53,54)

Output:
Terminal CH1(11,12) CH2(13,14)

Digital output:	**NPN output:**
Voltage max.	30 VDC
Current max.	80 mA

Terminal CH1(11,12) CH2(13,14)

Relay output:	**Non Hazardous location**	**Zone 2 installation**
Voltage max.	250 VAC / 30 VDC	32 V AC / 30 VDC
Power max.	500 VA / 60 W	64 VA / 60 W
Current max.	2 AAC / 2 ADC	2 AAC / 2 ADC

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. Cable entry devices and blanking elements shall fulfill the same requirements.

For installation on Power Rail in Zone 2, only Power Rail type 9400 supplied by Power Control Unit type 9410 (Type Examination Certificate IECEx 08.0052X) is allowed.

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. Only 4501 modules free of dust and moisture shall be installed.

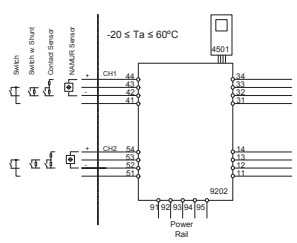
FM Installation drawing 9202QF01-V5R0

For safe installation of 9202B 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. Only 4501 modules free of dust and moisture shall be installed.

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 Group IIC, [Ex ia Ga] IIC Gc

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



U_o / Vt: 10.6 V
I_o / Isc: 12 mA
P_o/P_t: 32 mW
Lo/Ro La/Ra: 1150 µH/Ω

Group	IIC	IIB	IIA
Group	A,B	C,E,F	D,G
C_o/C_a	2.0 µF	6.0 µF	18 µF
L_o/L_a	260 mH	780 mH	1000 mH

Terminal CH1(44,42) CH2(54,52)

U_m: 253 V max. 400 Hz

Supply / Output
(terminal 11,12,13,14)
(terminal 31,32,33,34)
(terminal 91,92,93,94,95)

Terminal (31,32)
Supply:
Voltage 19.2 – 31.2 VDC
Power max. 3 W

Terminal (33,34)

Status Relay:	**Non Hazardous location:**	**Division 2 or Zone 2 installation:**
Voltage max.	125 VAC / 110 VDC	32 VAC / 32VDC
Power max.	62.5 VA / 32 W	16 VA / 32 W
Current max.	0.5 AAC / 0.3 ADC	0.5 AAC / 1 ADC

Terminal CH1(11,12) CH2(13,14)

Digital output:	**NPN output:**
Voltage max.	30 VDC
Current max.	80 mA

Terminal CH1(11,12) CH2(13,14)

Relay output:	**Non Hazardous location:**	**Division 2 or Zone 2 installation:**
Voltage max.	250 VAC / 30VDC	32 VAC / 30VDC
Power max.	500 VA / 60W	64 VA / 60 W
Current max.	2 AAC / 2ADC	2 AAC / 2 ADC

Installation notes:

In Class I, Division 2 installations, the subject equipment shall be mounted within a too-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 the 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 the Canadian Electrical Code (C22.1). Where installed in outdoor or potentially wet locations, the enclosure shall, at a minimum, meet the requirements of IP54.

In Class I, Zone 2 installations, the installer shall ensure protection of supply terminals against transient voltages exceeding 140% of the rated supply voltage.

Install in environments rated Pollution Degree 2 or better; overvoltage category I or II.

The installation and wiring shall be in accordance with the Canadian Electrical Code for Canada and National Electrical Code NFPA 70, Article 500 or 505 for installation in USA.

The module must be supplied from a Power Supply having double or reinforced insulation.

The use of stranded wires is not permitted for mains wiring except when wires are fitted with cable ends.

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

The module must be installed in an enclosure suitable for the environment for which it is used.

The module is galvanically isolated and does not require grounding.

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

Warning: Substitution of components may impair intrinsic safety and / or suitability for Div. 2 / Zone 2.

Warning: To prevent ignition of explosive atmospheres, disconnect power before servicing and 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.

EU DECLARATION OF CONFORMITY

CE

(9202DoC_102)

As manufacturer
PR electronics A/S, Lerbakken 10, DK-8410 Rønde
hereby declares that the following products:
Type: 9202
Name: Pulse isolator
From serial no.: 161267325
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 : 2013, EN 60079-11 : 2012 and EN 60079-15 : 2010
ATEX certificate: KEMA 07ATEX0146 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

Rønde, 15 March 2018

Stig Lindemann, CTO
Manufacturer's signature

UL Installation drawing – V1R0

For safe installation of the Process Control Equipment (Associated Apparatus) 9202 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. Only 4501 modules free of dust and moisture shall be installed.

9202A1A-U9 and 9202B1A-U9: One channel Opto output
9202A1B-U9 and 9202B1B-U9: Two channel Opto output
9202A2A-U9 and 9202B2A-U9: One channel N.O. Relay output
9202A2B-U9 and 9202B2B-U9: Two channel N.O. Relay output
9202A3A-U9 and 9202B3A-U9: One channel N.C. Relay output
9202A3B-U9 and 9202B3B-U9: Two channel N.C. Relay output

9202abc-U9 where
a: A or B See below
b: 1=Opto, 2=N.O. Relay, 3= N.C. Relay
c: A= One Channel, B= Two Channel

Marking:

Proc. Cont. Eq. for Use in Haz. Loc.
Install in CL I DIV2 GP A-D T4 provide IS circuits to CL I-III DIV 1 GP A-G or CL I Zn2 Gp IIC T4 provides IS circuits for CL I Zn0 Gp IIC/Zn20 Gp IIIC
E233311
Um=253V [Exia] Installation Drawing: 9202QU01

The 9202Bxx is galvanically isolating associated apparatus intended for installation in non-hazardous locations or Class I, Division 2, Groups A – D hazardous locations with intrinsically safe connections to Class I, II and III hazardous locations.

Proc. Cont. Eq. for Use in Haz. Loc.
Install in CL I DIV2 GP A-D T4
or CL I Zn2 Gp IIC T4
E233311 Installation Drawing: 9202QU01

The 9202Axx equipment is intended for installation in non-hazardous locations or Class I,Division 2, Groups A – D or Zone 2 Croup IIC hazardous locations.

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 Edition 9 - Revision Date 2018/08/31
- 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- Edition 3 - Issue Date 2017/09/01
- UL 913 STANDARD FOR INTRINSICALLY SAFE APPARATUS AND ASSOCIATED APPARATUS FOR USE IN CLASS I, II, III, DIVISION 1, HAZARDOUS (CLASSIFIED) LOCATIONS- Edition 8 - Revision Date 2015/10/16
- CSA C22.2 NO. 60079-0 EXPLOSIVE ATMOSPHERES — PART 0: EQUIPMENT — GENERAL REQUIREMENTS- Edition 3 - Issue Date 2015/10/01
- CSA C22.2 NO. 60079-11:14 EXPLOSIVE ATMOSPHERES — PART 11: EQUIPMENT PROTECTION BY INTRINSIC SAFETY "I"- Edition 2 - Issue Date 2014/02/01

Installation notes 9202Axx and 9202Bxx

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.
Terminal 51, 52, 53, 54 are internally connected to CH2.

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.
Avertissement : 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 atmospheres, 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.

Avertissement : Pour éviter l'inflammation d'atmosphères explosibles, déconnectez 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. Ne montez pas ou n'enlevez pas les modules du rail d'alimentation en présence d'un mélange de gaz.

Installation notes 9202Bxx:

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 entity parameters conforming withTable 1 below.

TABLE 1:

I.S. Equipment		Associated Apparatus
V max (or Ui)	≥	Voc or Vt (or Uo)
I max (or Ii)	≥	Isc or It (or Io)
P max, Pi	≥	Po
Ci + Ccable	≤	Ca (or Co)
Li + Lcable	≤	La (or Lo)

The module may also be connected to a simple apparatus as defined in Article 504.2 and installed and temperature classified in accordance with Article 504.10(D) of the National Electrical Code (ANSI/NFPA 70), or other local codes, as applicable.

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. Cable capacitance, Ccable, plus intrinsically safe equipment capacitance, Ci must be less than the marked capacitance, Ca (or Co), shown on any associated apparatus used. The same applies for inductance (Lcable, Li and La or Lo, respectively). Where the cable capacitance and inductance per foot are not known, the following values shall be used: Ccable = 60 pF/ft., Lcable = 0.2 µH/ft.

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 504.30(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.

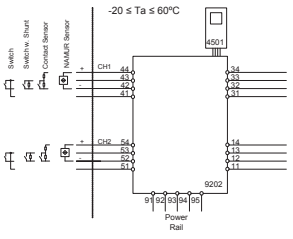
The module has not been evaluated for use in combination with another associated apparatus.

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. The reduced capacitance shall not be greater than 1 µF for Groups C and/or D, and 600 nF for Groups A and B. The values of Ca (or Co) and La (or Lo) determined by this method shall not be exceeded by the sum of all of Ci plus cable capacitances and the sum of all of the Li plus cable inductances in the circuit respectively.

9202Bxx Installation:

Hazardous Classified Location
Class I/II/III, Division 1, Group A,B,C,D,E,F,G
Zone 0,1, 2 Group IIC, IIB, IIA or
Zone 20, 21

Unclassified Location or Hazardous Classified Location
Class I, Division 2, Group ABCD T4
Class I Zone 2 Group IIC T4



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

Status relay, terminal (33,34)
Class I Division 2 or Zone 2 installation:
Voltage max: 32 VAC/ 32 VDC
Current max: 0.5 AAC / 0.3 ADC

(terminal 11,12,13,14)
(terminal 31,32,33,34)
(terminal 91,92,93,94,95)
U_m: 253 V max. 400 Hz

9202B1x
Terminal CH1(11,12) CH2(13,14)

Digital output:	**NPN output:**
Voltage max.	30 VDC
Current max.	80 mA

9202B2x and 9202B3x
Relay output:
Terminal CH1(11,12) CH2(13,14)
Class I, Division 2
Zone 2 installation
Voltage max. 32 V AC / 30 VDC
Power max. 64 VA / 60 W
Current max. 2 AAC / 2 ADC

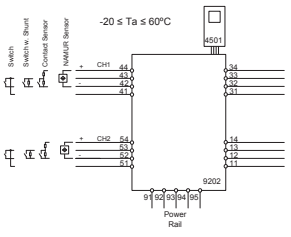
Ex input:
CH1 (terminal 41,42,43,44)
CH2 (terminal 51,52,53,54)

Uo: 10.6 VDC
Io: 12 mADC
Po: 32 mW
Lo/Ro: 1150 µH/Ω

	IIC or A,B	**IIB or C,E,F**	**IIA or D,G**
Ca or C_o	2.0 µF	6.0 µF	18 µF
La or L_o	260 mH	780 mH	1000 mH

9202Axx and 9202Bxx Installation:

Non Hazardous area or
Class I, Division 2, Group ABCD T4
or Zone 2 Group IIC T4



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

Status relay, terminal (33,34)
Class I Division 2 or Zone 2 installation:
Voltage max: 32 VAC/ 32 VDC
Current max: 0.5 AAC / 0.3 ADC

(terminal 11,12,13,14)
(terminal 31,32,33,34)
(terminal 91,92,93,94,95)

9202x1x
Terminal CH1(11,12) CH2(13,14)

Digital output:	**NPN output:**
Voltage max.	30 VDC
Current max.	80 mA

9202x2x and 9202x3x
Terminal CH1(11,12) CH2(13,14)

Relay output:	**Class I Division 2 Zone 2 installation**
Voltage max.	32 V AC / 30 VDC
Power max.	64 VA / 60 W
Current max.	2 AAC / 2 ADC