DK

ADVARSEL

GENERELT

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.

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- / programmeringsenhederne i PR 4500-serien. 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- / overspændings-kategori II og Forureningsgrad 2. Modulerne er designet til at være sikker mindst op til en højde af 2000 m. Eheden er konstrueret til indendørs brug.

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.
Flerkoret ledning skal installeres med en afisoleringslængde på 5 mm eller via en egnet isoleret terminal som f.eks. en dupsko.
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-kriterium, gniststøj	< ±1% af span
2-trådsforsyning (kl. 44...43)	25...16 VDC / 0...20 mA
Relativ luftfugtighed	< 95% RH (ikke kond.)
Mål (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

Godkendelser

DNV, Ships & Offshore	TAA00000JD
ClassNK	TA24034M
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 & UK SI 2016/1091
LVD	2014/35/EU & UK SI 2016/1101
ATEX	2014/34/EU & UK SI 2016/1107
RoHS	2011/65/EU & UK SI 2012/3032

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 displays / programming fronts in the PR 4500 series. 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. The device is designed for indoor use.

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.
Stranded wire should be installed with an insulation stripping length of 5 mm or via a suitable insulated terminal such as a bootlace ferrule.
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 (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

Approvals

DNV, Ships & Offshore	TAA00000JD
ClassNK	TA24034M
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 & UK SI 2016/1091
LVD	2014/35/EU & UK SI 2016/1101
ATEX	2014/34/EU & UK SI 2016/1107
RoHS	2011/65/EU & UK SI 2012/3032

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 des indicateurs / façades de programmation de la série PR 4500. 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. L'appareil est conçu pour une utilisation à l'intérieur.

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 fils multibrins doivent être installés avec une longueur de dénudage de 5 mm ou au moyen d'une borne isolée appropriée, par exemple un embout 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 (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

Approbations

DNV, Ships & Offshore	TAA00000JD
ClassNK	TA24034M
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 & UK SI 2016/1091
DBT	2014/35/UE & UK SI 2016/1101
ATEX	2014/34/EU & UK SI 2016/1107
RoHS	2011/65/UE & UK SI 2012/3032

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 der Frontdisplays der PR 4500-Serie 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. Das Gerät ist auf den Gebrauch in Innenräumen ausgelegt.

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. Die Litzendrähte sollten mit einer 5 mm Abisolierlänge oder mit einer entsprechend isolierten Klemme, wie beispielsweise einer Aderendhülse, installiert werden.
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	≤ 1,6 W / 1,8 W
Sicherung	400 mA T / 250 VAC
Isolationsspannung, Test/Betrieb	2,6 kVAC / 300 VAC
Isolierung - Ausgang 1 zum Ausgang 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. (Kl. 44...43)	25...16 VDC / 0...20 mA
Relative Luftfeuchtigkeit	< 95% RH (nicht kond.)
Abmessungen (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. Belast., Strom/Spannung	80 mA / 30 VDC

Zulassungen

DNV, Ships & Offshore	TAA00000JD
ClassNK	TA24034M
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 & UK SI 2016/1091
LVD	2014/35/EU & UK SI 2016/1101
ATEX	2014/34/EU & UK SI 2016/1107
RoHS	2011/65/EU & UK SI 2012/3032

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**

PR electronics A/S • Lerbakken 10 • DK-8410 Rønde • Tel. +45 8637 2677 • www.prelectronics.com
UK importer: PR electronics (UK) Ltd • Unit 1 Block B • Southern Gate, Chichester • West Sussex, PO19 8GR • Tel. +44 (0) 1243 776 450

SN9202_112 (2421)

9202A / 9202B

Segurança Compulsório DEKRA OCP 0089 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

9202A 9202B

EU DECLARATION OF CONFORMITY

(9202DoC_103)

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.: 231033351
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 + A1 : 2019 + A1 : 2019

The ATEX Directive 2014/34/EU and later amendments
EN 60079-0 : 2018, EN 60079-11 : 2012, EN 60079-15 : 2019 and
EN 60079-7 : 2015 + A1 : 2018
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 IEC 63000 : 2018

Notified body 0344
DEKRA Certification B.V.
Meander 1051, 6825 MJ Arnhem
P.O. Box 5185, 6802 ED Arnhem
The Netherlands

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Rønde, 3 April 2023

Stig Lindemann, CTO
Manufacturer's signature

UKCA DECLARATION OF CONFORMITY

(9202DoC_UKCA_100)

As manufacturer
PR electronics A/S, Lerbakken 10, DK-8410 Rønde
hereby declares that the following product:
Type: 9202
Name: Pulse isolator
From serial no.: 231033351
is in conformity with the following statutory requirements:

The Electromagnetic Compatibility Regulations 2016 (UK SI 2016/1091) 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 Electrical Equipment (Safety) Regulations 2016 (UK SI 2016/1101) and later amendments
EN 61010-1 : 2010 + A1 : 2019

The Equipment and Protective Systems Intended for use in Potentially Explosive Atmospheres Regulations 2016 (UK SI 2016/1107) and later amendments
EN 60079-0 : 2018, EN 60079-11 : 2012, EN 60079-15 : 2019 and
EN 60079-7 : 2015 + A1 : 2018
UK type examination certificate: DEKRA 21UKEX0179X (9202A & 9202B)
UK type examination certificate: DEKRA 23UKEX0105X (9202B)

The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 (UK SI 2010/3032) and later amendments
EN IEC 63000 : 2018

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Rønde, 31 July 2023

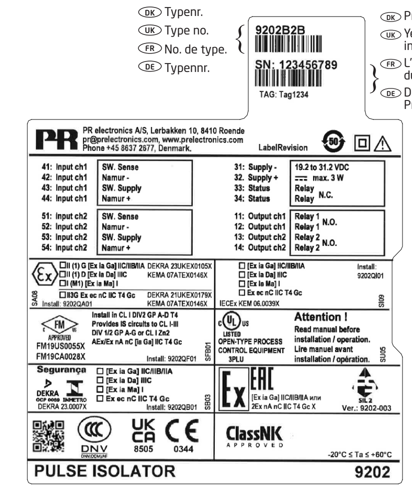
Stig Lindemann, CTO
Manufacturer's signature

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

	9202Bxxx		9202Axxx	
IECEx	[Ex ia Ga] IIC/IIB/IIA Ex ec nC IIC T4 Gc [Ex ia Da] IIIC [Ex ia Ma] I	IECEx KEM 06.0039X Installation Drawing: 9202QI01	Ex ec nC IIC T4 Gc	IECEx KEM 06.0039X Installation Drawing: 9202QI01
ATEX	II (1) G [Ex ia Ga] IIC/IIB/IIA II 3 G Ex ec nC IIC T4 Gc II (1) D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	KEMA 07ATEX 0146X Installation Drawing: 9202QA01	II 3 G Ex ec nC IIC T4 Gc	KEMA 07ATEX 0146X Installation Drawing: 9202QA01
UKEX	[Ex ia Ga] IIC/IIB/IIA II 3 G Ex ec nC IIC T4 Gc [Ex ia Da] IIIC [Ex ia Ma] I	DEKRA 21UKEX0179X DEKRA 23UKEX0105X Installation Drawing: 9202QA01	II 3 G Ex ec nC IIC T4 Gc	DEKRA 21UKEX0179X Installation Drawing: 9202QA01
FM	Install in CL I, Div. 2, Gr. A-D T4 Provides IS circuits 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 ec nC IIC T4 Gc	DEKRA 23.0007X Installation Drawing: 9202QB01	Ex ec nC IIC T4 Gc	DEKRA 23.0007X Installation Drawing: 9202QB01
UL (9202Axx-U9 / 9202Bxx-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
KCs (9202Axx-KCs / 9202Bxx-KCs)	[Ex ia Ga] IIC/IIB/IIA [Ex ia] IIC/IIB/IIA [Ex ia Da] IIIC [Ex ia D] 20	21-AV4BO-0179X 21-AV4BO-0180X Installation Drawing: 9202QKC01	Ex nA nC IIC T4 GC Ex nA nC IIC T4	21-AV4BO-0181X Installation Drawing: 9202QKC01

DK Sideskilt | UK Side label | FR Etiquette | DE Typenschild

DK Typenr.
UK Type no.
FR No. de type.
DE Typenr.



DK Produktionsår fremgår af de to første cifre i serienummeret.
UK Year of manufacture can be taken from the first two digits in the serial number.
FR L'année de production est définie grace aux deux premiers chiffres du numéro de série.
DE Die ersten beiden Ziffern der Seriennummer geben das Produktionsjahr an.

DK Benforbindelser
UK Pin connections
FR Raccordement des bornes
DE Klemmenanschluss

DK Godkendelser
UK Approvals
FR Homologations
DE Zulassungen

DK Hvis modulet installeres som type Ex ia eller ec, skal installationstypen angives på etiketten med en permanent markering i den tilhørende boks.

UK When this product has been installed as Ex ia or ec, use a permanent marker in the appropriate box to indicate the type of installation on the label.

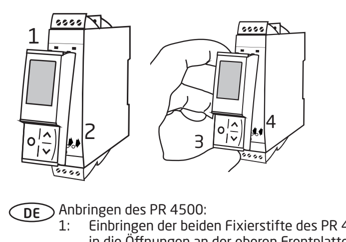
FR Lorsque ce produit est installé selon une protection Ex ia ou ec, utilisez un marqueur indélébile dans la case appropriée pour indiquer le type d'installation sur l'étiquette.

DE Wenn dieses Produkt mit der Schutzart Ex ia oder ec installiert wurde, verwenden Sie einen Permanentmarker im entsprechenden Feld, um die Verwendungsart der Installation auf dem Etikett zu kennzeichnen.

DK Påsætning af PR 4500:
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 PR 4500 og sving PR 4500 op.

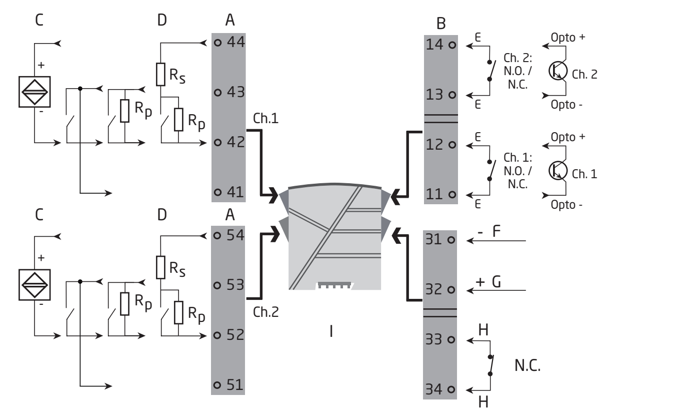
UK Mounting of PR 4500:
1: Insert the tabs of the PR 4500 into the holes at the top of the device.
2: Hinge the PR 4500 down until it snaps into place.
Demounting of the PR 4500
3: Push the release button on the bottom of the PR 4500 and hinge the the PR 4500 out and up.
4: With the PR 4500 hinged up,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

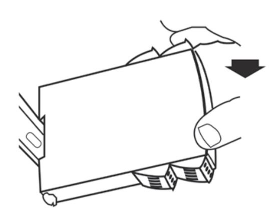
FR Montage du PR 4500 :
1 : Insérez les crochets du PR 4500 dans les trous en haut du module.
2 : Poussez le bas du PR 4500 vers le module.
Démontage du PR 4500 :
3/4 : Appuyez sur le bouton de déclenchement en dessous du PR 4500, puis tirez le PR 4500 vers le haut.



DE Anbringen des PR 4500:
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	UK	FR	DE
A	Indgangssignaler	Input signals	Signaux d'entrée	Eingangssignale
B	Udgangssignaler	Output signals	Signaux de sortie	Ausgangssignale
C	NAMUR	NAMUR	NAMUR	NAMUR
D	Mekanisk kontakt	Mechanical switch	Commutateur mécanique	Mechanisher Schalter
E	Relæ	Relay	Relais	Relais
F	Forsyning -	Supply -	Alimentation -	Versorgung -
G	Forsyning +19,2...31,2 VDC	Power supply +19.2...31.2 VDC	Alimentation +19,2...31,2 Vcc	Versorgung +19,2...31,2 VDC
H	Modulstatus	Device status	Etat du module	Gerätestatus
I	Forsyning via power rail	Power supply via power rail	Alimentation par rail	Versorgung über Power Rail
Ch.1	Kanal 1	Channel 1	Voie 1	Kanal 1
Ch.2	Kanal 2	Channel 2	Voie 2	Kanal 2
N.C.	Normalt lukket	Normally closed	Normalement fermé	Öffner
N.O.	Normalt åben	Normally open	Normalement ouvert	Schließer



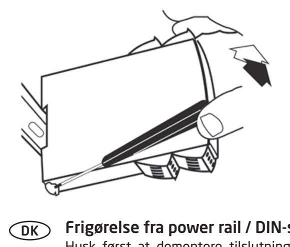


DK Montering på power rail / DIN-skinne.

UK Mounting on power rail / DIN rail.

FR Montage sur rail d'alimentation / rail DIN.

DE Montage auf Power Rail / DIN-Schiene.

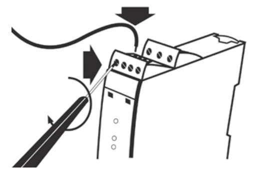


DK **Frigørelse fra power rail / DIN-skinne**
Husk først at demontere tilslutningsklemmerne med farlig spænding. Modulet frigøres fra skinnen ved at løfte i den nederste lås.

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.

PR electronics — 9202QA01
LERBAKKEN 10, 8410 RØNDE DENMARK

ATEX / UKEX Installation drawing

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 0146X
UKEX Certificate, 9202B	DEKRA 23UKEX0105X
UKEX Certificate, 9202A, 9202B	DEKRA 21UKEX0179X
Marking 9202Bxx	II (1) G [Ex ia Ga] IIC/IIB/IIA I (1) D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I
Marking 9202Bxx ,9202Axx	II 3G Ex ec nC IIC T4 Gc
Standards	EN 60079-0 : 2018, EN 60079-11 : 2012, EN 60079-15 : 2019, EN60079-7:2015+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	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

Special Conditions of Use
Install in pollution degree 2, overvoltage category II as defined in EN 60664-1.

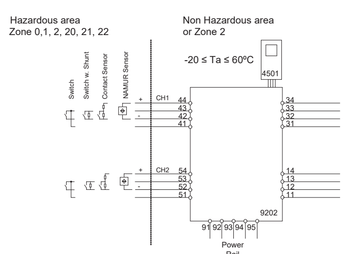
Do not separate connectors when energized and an explosive gas mixture is present.
Do not mount or remove modules from the Power Rail when an explosive gas mixture is present.
Disconnect power before servicing.
The wiring of unused terminals is not allowed.

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 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, DEKRA 21UKEX0169 X) is allowed.
Max. screw terminal torque 0.5 Nm.
Stranded wire should be installed with an insulation stripping length of 5 mm or via a suitable insulated terminal such as a bootlace ferrule.

Revision date: 2023-07-11 | Version Revision: V7R1 | Prepared by: MMA | Page: 1/3

PR electronics — 9202QA01
LERBAKKEN 10, 8410 RØNDE DENMARK



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

	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

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

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

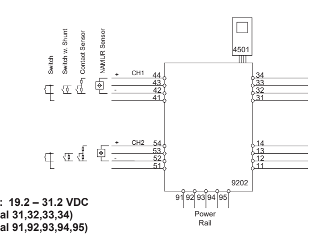
Terminal CH1(11,12) CH2(13,14)

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

Revision date: 2023-07-11 | Version Revision: V7R1 | Prepared by: MMA | Page: 2/3

PR electronics — 9202QA01
LERBAKKEN 10, 8410 RØNDE DENMARK

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 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, DEKRA 21UKEX0169 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.

Revision date: 2023-07-11 | Version Revision: V7R1 | Prepared by: MMA | Page: 3/3

PR electronics — 9202QI01
LERBAKKEN 10, 8410 RØNDE DENMARK

IECEx Installation drawing

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 ia Da] IIIC [Ex ia Ma] I
Marking 9202Bxx, 9202Axx	Ex ec nC IIC T4 Gc
Standards	IEC60079-0: 2017, IEC60079-11:2011, 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	32VAC / 32VDC
Power max:	62.5 VA / 32 W	16VA / 32W
Current max:	0.5 A AC / 0.3ADC	0.5A AC / 1ADC

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.

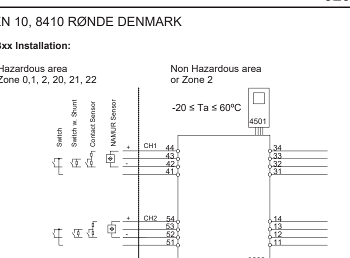
For installation in Zone 2, the module shall be installed in an enclosure in type of protection Ex e, providing a degree of protection of at least IP54. Cable entry devices and blanking elements shall fulfill the same requirements.

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.
Max. screw terminal torque 0.5 Nm.
Stranded wire should be installed with an insulation stripping length of 5 mm or via a suitable insulated terminal such as a bootlace ferrule.

Revision date: 2022-02-14 | Version Revision: V6 R0 | Prepared by: MMA | Page: 1/3

PR electronics — 9202QI01
LERBAKKEN 10, 8410 RØNDE DENMARK

9202Bxx Installation:



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

U_m: 253 V max. 400 Hz

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

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

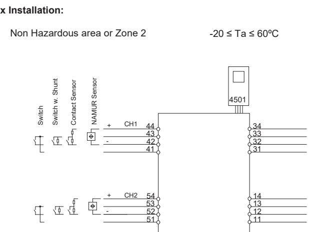
Terminal CH1(11,12) CH2(13,14)

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

Revision date: 2022-02-14 | Version Revision: V6 R0 | Prepared by: MMA | Page: 2/3

PR electronics — 9202QI01
LERBAKKEN 10, 8410 RØNDE DENMARK

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 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.

Revision date: 2022-02-14 | Version Revision: V6 R0 | Prepared by: MMA | Page: 3/3

LERBAKKEN 10, 8410 RØNDE DENMARK

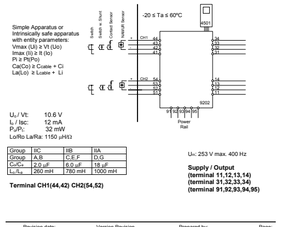
FM Installation drawing

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, IIA/B+ (a) 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



Simple Apparatus or Intrinsically safe apparatus with entirity parameters:
V_{max} (Ui) ≥ V_t (Uo)
I_{max} (Ii) ≥ I_t (Io)
P_i ≥ P_t(Po)
Ca(Co) ≥ Cable + Ci
La(Lo) ≥ Lcable + Li

U_n / V_t: 10.6 V
I_t / Isc: 12 mA
P_t/P_i: 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_n: 253 V max. 400 Hz

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

LERBAKKEN 10, 8410 RØNDE DENMARK

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.

LERBAKKEN 10, 8410 RØNDE DENMARK

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 °C 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.

LERBAKKEN 10, 8410 RØNDE DENMARK

UL Installation drawing

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 DIV/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
E233311 circuits for CL I ZnO Gp IIC/ZnO Gp IIIC
Um=253V [Exia] Installation Drawing: 9202QU01

The 9202Bxx is galvanically isolating associated apparatus intended for installation in non-hazardous locations or Class I, Division 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 Group 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

LERBAKKEN 10, 8410 RØNDE DENMARK

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.

LERBAKKEN 10, 8410 RØNDE DENMARK

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 U_i)	≥	Voc or V_t (or U_o)
I_{max} (or I_i)	≥	Isc or It (or I_o)
P_{max}, P_i	≥	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(2) 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.

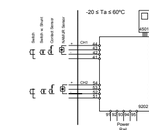
For installations in which both the Ci and Li of the intrinsically safe apparatus exceeds 1% of the Ca (or Co) and La (or Lo) parameters of the associated apparatus (excluding the cable), then 50% of Ca (or Co) and La (or Lo) parameters of the associated apparatus may be used for the cable. The reduced capacitance shall not be greater than 1 µF for Group A, B, C, D, and 600 nF for Groups E and F. 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.

LERBAKKEN 10, 8410 RØNDE DENMARK

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



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: 1150µH/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

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

LERBAKKEN 10, 8410 RØNDE DENMARK

KC 설치 도면

9202의 안전한 설치를 위해 다음 사항을 준수해야 합니다. 이 모듈은 이 지역에 적용되는 국내 및 국제 법률, 지침 및 표준에 정통한 유자격자만 설치해야 합니다.
제조번호는 일련번호의 처음 5 자리입니다.

구역 2 / 디비전 2에 설치하려면 다음 사항을 준수해야 합니다.
4501 프로그래밍 모듈은 PR 제품의 모듈과 함께 사용해야 합니다. 모듈이 손상되지 않았고, 어떤 식으로든 변경 또는 수정되지 않은 수정되지 않는 모듈만 설치해야 합니다. 먼지와 습기가 없는 상태에서 4501 모듈을 설치해야 합니다.

KC 인증서: 21-AV4BO-0179X
마킹 9202Bxx: [Ex ia Ga] IIC/IIB/IIA

KC 인증서: 21-AV4BO-0180X
마킹 9202Bxx: [Ex ia Da] IIIC

KC 인증서: 21-AV4BO-0181X
마킹 9202Axx: Ex nA nC IIC T4 Gc

표준 IEC60079-0:2017, IEC60079-11:2011,
IEC60079-15:2017, IEC60079-7:2015+A1:2017

공급 단자(31,32)
전압: 19.2 – 31.2 VDC

상태 릴레이, 단자(33,34)

		구역 2 설치
최대 전압:	125 VAC / 110 VDC	32 VAC / 32 VDC
최대 출력:	62.5 VA / 32 W	16V A / 32 W
최대 전류:	0.5 AAC / 0.3 ADC	0.5 AAC / 1 ADC

LERBAKKEN 10, 8410 RØNDE DENMARK

s등급 참고 사항
IECO60464 1에 정의된 대로 오염 등급 2, 과전압 범주 II에 설치하십시오.

전원이 공급되고 폭발성 가스 혼합물이 있는 경우, 커넥터를 분리하지 마십시오.
폭발성 가스 혼합물이 있는 경우, 위험 레일에 모듈을 장착하거나 제거하지 마십시오.
수리하기 전에 전원을 분리하십시오.
사용하지 않는 단자의 배선은 적절하지 않습니다.

보호 유형 [Ex ia Da]에서는 가스 그룹 IIIB의 분당 먼진 폐색변수를 적용할 수 있습니다.

구역 2에 설치하는 경우, 모듈을 보호 유형 Ex e 또는 Ex eC 인클로저에 설치하고, 최소한 IP54의 보호 수준을 제공해야 합니다. 케이블 인입 장치에 정해 요소는 동일한 요구 사항을 충족해야 합니다.

구역 2의 외부 배알에 설치하는 경우, 전력 제어 장치 유형 9410(유형 시험 인증서 ecEx 08.0052X)의 공급을 받는 외부 레일 유형 9400만 허용됩니다.

연선은 5mm의 절연 피복을 제거 후 사용을 하거나 부트 레이스 제품과 같은 적절한 절연 단자를 통해 설치해야 합니다 :

Ex 입력:
CH1(단자 41,42,43,44)
CH2(단자 51,52,53,54)

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

	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

U_n: 253 V 최대 400 Hz

공급 / 출력:
(단자 11,12,13,14)
(단자 31,32,33,34)
(단자 91,92,93,94,95)

단자 CH1 [11,12] CH2 [13,14]
디지털 출력: **NPN 출력:**
최대 전압 30 VDC
최대 전류 80 mA

단자 CH1 [11,12] CH2 [13,14]
릴레이 출력: **비위험 장소** **구역 2 설치**
최대 전압 250 VAC / 30 VDC 32 VAC / 30 VDC
최대 출력 500 VA / 60 W 64 VA / 60 W
최대 전류 2 AAC / 2 ADC 2 AAC / 2 ADC

LERBAKKEN 10, 8410 RØNDE DENMARK

9202Bxx 설치:

Ex 입력:
CH1(단자 41,42,43,44)
CH2(단자 51,52,53,54)

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

	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

U_n: 253 V 최대 400 Hz

공급 / 출력:
(단자 11,12,13,14)
(단자 31,32,33,34)
(단자 91,92,93,94,95)

단자 CH1 [11,12] CH2 [13,14]
디지털 출력: **NPN 출력:**
최대 전압 30 VDC
최대 전류 80 mA

단자 CH1 [11,12] CH2 [13,14]
릴레이 출력: **비위험 장소** **구역 2 설치**
최대 전압 250 VAC / 30 VDC 32 VAC / 30 VDC
최대 출력 500 VA / 60 W 64 VA / 60 W
최대 전류 2 AAC / 2 ADC 2 AAC / 2 ADC

LERBAKKEN 10, 8410 RØNDE DENMARK

9202Axx 설치:

공급: 19.2 - 31.2 VDC
(단자 31,32,33,34)
(단자 91,92,93,94,95)

입력: NAMUR 센서, 접촉 센서, 스위치
CH1(단자 41,42,43,44)
CH2(단자 51,52,53,54)

출력:
단자 CH1 [11,12] CH2 [13,14]
디지털 출력: **NPN 출력:**
최대 전압 30 VDC
최대 전류 80 mA

단자 CH1 [11,12] CH2 [13,14]
릴레이 출력: **비위험 장소** **구역 2 설치**
최대 전압 250 VAC / 30 VDC 32 VAC / 30 VDC
최대 출력 500 VA / 60 W 64 VA / 60 W
최대 전류 2 AAC / 2 ADC 2 AAC / 2 ADC

구역 2에 설치하는 경우, 모듈을 보호 유형 Ex e 또는 Ex eC 인클로저에 설치하고, 최소한 IP54의 보호 수준을 제공해야 합니다. 케이블 인입 장치에 정해 요소는 동일한 요구 사항을 충족해야 합니다.

구역 2의 외부 배알에 설치하는 경우, 전력 제어 장치 유형 9410(유형 시험 인증서 ecEx 08.0052X)의 공급을 받는 외부 레일 유형 9400만 허용됩니다.

구역 2 / CH2만 2에 설치하려면 다음 사항을 준수해야 합니다.
4501 프로그래밍 모듈은 PR 제품의 모듈과 함께 사용해야 합니다. 모듈이 손상되지 않았고, 어떤 식으로든 변경 또는 수정되지 않은 것이 중요합니다. 먼지와 습기가 없는 상태에서 4501 모듈을 설치해야 합니다.

LERBAKKEN 10, 8410 RØNDE DENMARK

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 / 0.3Adc

(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

LERBAKKEN 10, 8410 RØNDE DENMARK

INMETRO Desenhos para Instalação

Para instalação segura do 9202B.. e 9202A.., 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 PR-electronics. É importante que o módulo esteja intacto e não tenha sido alterado ou modificados de qualquer maneira. Apenas os módulos 4501 livres de poeira e umidade devem ser instalados.

INMETRO Certificado ..... **DEKRA 23.0007X**

Marcas: 9202B.. [Ex ia Ga] IIC/IIB/IIA
[Ex ia Da] IIIC
[Ex ia Ma] I

Marcas: 9202B.., 9202A.. Ex ec nC IIC T4 Gc

Normas:
ABNT NBR IEC 60079-0:2020 Versão Corrigida:2023
ABNT NBR IEC 60079-7:2018 Versão Corrigida:2022
ABNT NBR IEC 60079-11:2013 Versão Corrigida:2017
ABNT NBR IEC 60079-18:2019

Terminais de fonte de alimentação (31,32)
Voltagem: 19,2 – 31,2 VDC

Relé 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 III 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 cabo.
Em tipo de proteção [Ex ia Da] os parâmetros para a sequência intrínseca para grupo de gás IIIB são aplicáveis.
Para a instalação em Zona 2, o módulo deve ser instalado em um invólucro conformidade com o tipo de proteção 'Ex e', fornecendo no mínimo grau de proteçao IP54
Dispositivos de entrada de cabo e elementos de vedação devem cumprir com os mesmos requisitos.

LERBAKKEN 10, 8410 RØNDE DENMARK

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.

Máx. torque terminal de parafuso 0,5 Nm. O fio trançado deve ser instalado com um comprimento de isolamento de 5 mm ou através de um terminal isolado adequado, como um terminal de cadarço.

LERBAKKEN 10, 8410 RØNDE DENMARK

Instalação 9202B..:

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

	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

U_n: 253 V máx. 400 Hz

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

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

Terminais CN1(11,12) CN2(13,14)
Saída relé: **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

LERBAKKEN 10, 8410 RØNDE DENMARK

Instalação 9202A..:

Área de não classificada ou Zona 2 -20 ≤ Ta ≤ 60ºC

Supply 19,2 – 31,2 VDC
(terminais 31,32,33,34)
(terminais 91,92,93,94,95)

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

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

Terminais CN1(11,12) CN2(13,14)
Saída relé: **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

Para a instalação em Zona 2, o módulo deve ser instalado em um invólucro conformidade com o tipo de proteção '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.

Máx. torque terminal de parafuso 0,5 Nm. O fio trançado deve ser instalado com um comprimento de isolamento de 5 mm ou através de um terminal isolado adequado, como um terminal de cadarço.