



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.

DK ADVARSEL

FARLIG SPENDING 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 udskipling af sikringer må kun foretages af PR electronics A/S.

DK ADVARSEL

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

DK SIKKERHEDSREGLER

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

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

Installation Modulet må kun tilsluttes af kvalificerede teknikere, som er bekendt med de tekniske udtryk, advarsler og instruktioner i installationsvejledningen, og som vil følge disse. Hvis der er tvivl om modulets rette håndtering, skal det rettes henvisende til den lokale forhandler eller alternativt direkte til PR electronics A/S.

Det er ikke tilladt at benytte flertrådet ledning ved tilslutning af forsyningsspænding med mindre ledningsendene er forsynet med ledningsklemmer. Beskrivelse af indgang / udgang og forsyningsforbindelser findes i produktmanualen og på sideskiltet. Modulet er forsynet med skrutermineraler og skal forsynes fra en dobbeltisoleret / forstærket isoleret spændingsforsyning. En afbryder placeret til tilgængeligt og tæt ved modulet. Afbryderen skal mærkes således, at der ikke er tvivl om, at den afbryder spændingen til modulet.

Ved installation på Power Rail 9400 bliver forsyningsspændingen leveret af Power Control Unit 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 eller lignende, så betjeningen ikke medfører fare for liv eller materiel. Dvs., at der ikke er berøringfare, og at modulet er placeret, så det er let at betjene.

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

Elektriske specifikationer

Specifikationsområde	-20°C til +60°C
Forsyningsspænding	19,2...31,2 VDC
Max. forbrug	
1 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. gniststøj	≤ ±1% af span
2-trådsforsyning (klemme 44..43)	25..16 VDC / 0..20 mA
Relativ luftfugtighed	< 95% RH (ikke kond)
Mål, med 4501/4511 (H x B x D)	109 x 23,5 x 116 / 131 mm
Mål, uden 4501/4511 (H x B x D)	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-GL, Ships & Offshore	Stand. f. Certification No. 2.4 ClassNK
UL, Standard for Safety	UL 61010-1
EAC	TR-CU 020/2011
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.

UK WARNING

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

UK WARNING

Do not open the front plate of the device as this will cause damage to the connector for the display / programming front PR 4511/4501. The SYSTEM 9000 devices contain no DIP-switches or jumpers.

UK SAFETY INSTRUCTIONS

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

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

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

The use of stranded wires is not permitted for mains wiring except when wires are fitted with cable ends. Descriptions of input / output and supply connections are shown in the product manual and on the side label. The device is provided with field wiring terminals and shall be supplied from a Power Supply having double / reinforced insulation. A power switch shall be easily accessible and close to the device. The power switch shall be marked as the disconnecting unit for the device. For installation on Power Rail 9400 the power is supplied by Power Control Unit 9410.

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

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

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 4501/4511 (HxWxD)	109 x 23.5 x 116 / 131 mm
Dimensions, without 4501/4511 (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-GL, Ships & Offshore	Stand. f. Certification No. 2.4 ClassNK
UL, Standard for Safety	UL 61010-1
EAC	TR-CU 020/2011
EAC Ex	TR-CU 012/2011
SIL	IEC 61508

Observed authority requirements:

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

FR AVERTISSEMENT

Information 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.

FR 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.

FR AVERTISSEMENT

Ne pas ouvrir la plaque avant du module car cela 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.

FR CONSIGNES DE SECURITE

Réception et déballage Déballer 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 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.

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 de l'opération 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
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 (isolacion reforzada)
Temperatura de etalonage	20...28°C
EMC inmunidad influencia	< ±0,5% de span
Extendida EMC inmunidad:	
NAMUR NE21, A criterio, burst	≤ ±1% de span
2-wire supply (terminal 44..43)	25..16 VDC / 0..20 mA
Humididade relativa	< 95% RH (non-cond)
Dimensões, com 4501/4511 (HxWxD)	109 x 23.5 x 116 / 131 mm
Dimensões, sem 4501/4511 (HxWxD)	109 x 23.5 x 104 mm
Grado de protección	IP20

Entrée NAMUR:

Standard NAMUR	EN 60947-5-6
Game 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-GL, Ships & Offshore	Stand. f. Certification No. 2.4 ClassNK
UL, Standard for Safety	UL 61010-1
EAC	TR-CU 020/2011
EAC Ex	TR-CU 012/2011
SIL	IEC 61508

Compatibilité avec les normes:

CEM	2014/30/EU
DBT	2014/35/EU
ATEX	2014/34/EU
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 Schutzvorrichtungen des Gerätes beeinträchtigt.

DE WARNUNG

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

DE WARNUNG

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

DE SICHERHEITSREGELN

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

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

Installation Das Gerät darf nur von qualifizierten Technikern angeschlossen werden, die mit den technischen Ausdrücken, Warnungen und Anweisungen in dieser Installationsanleitung vertraut sind und diese befolgen. Sollten Zweifel bezüglich der richtigen Handhabung des Gerätes bestehen, sollte man mit dem Händler vor Ort Kontakt aufnehmen. Sie können aber auch direkt mit PR electronics GmbH Kontakt aufnehmen. Der Einsatz von verdrehter Leitung ist nicht erlaubt außer die Enden sind mit Aderendhülsen versehen. Eine Beschreibung von Eingangs- / Ausgangs- und Versorgungsanschlüssen befindet sich 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 - 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
Erweiterte 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 4501/4511 (HxBxT)	109 x 23,5 x 116 / 131 mm
Abmessungen, ohne 4501/4511 (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

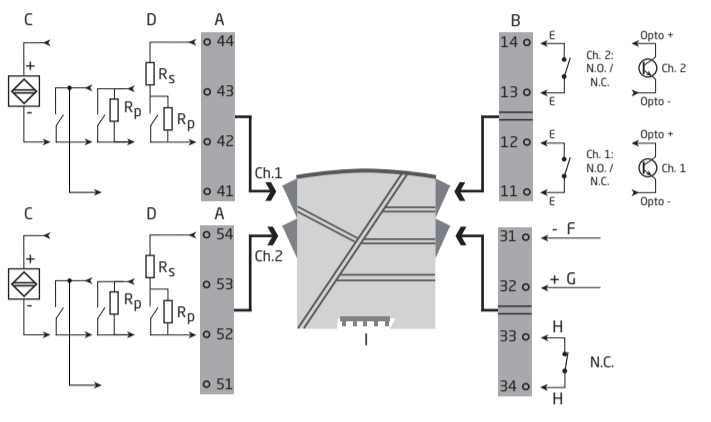
Zulassungen:

DNV-GL, Ships & Offshore	Stand. f. Certification No. 2.4 ClassNK
UL, Standard for Safety	UL 61010-1
EAC	TR-CU 020/2011
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	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	Mechanischer 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



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ATEX Installation drawing 9202QA01-V5R0

ATEX 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.

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/IIIB/IIA II 3G Ex nA nC IIC T4 Gc I (1) D [Ex ia Da] IIC (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

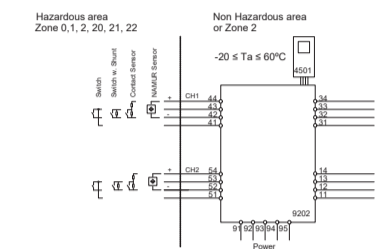
Status Relay, terminal (33,34) Zone 2 Installation Voltage max: 125 VAC / 110 VDC 32 VAC / 32 VDC Power max: 62.5 VA / 32 W 16 VA / 32 W Current max: 0.5 AAC / 0.3 ADC 0.5 AAC / 1 ADC

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. 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_i: 10.6 VDC
I_i: 12 mAADC
P_i: 32 mW
Lo/Ro: 1150 µH/Ω

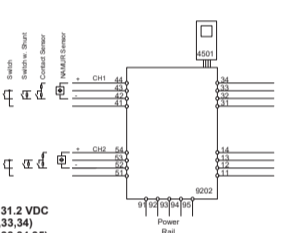
	IIC	IIB	IIA	I
C _i	2.0 µF	6.0 µF	18 µF	90 µF
L _i	260 mH	780 mH	1000 mH	1000 mH

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

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 / 2 ADC

9202Axx Installation: Non Hazardous area or Zone 2 -20 ≤ Ta ≤ 60°C



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

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 / 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.

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.

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/IIIB/IIA Ex nA nC IIC T4 Gc [Ex ia Da] IIC [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

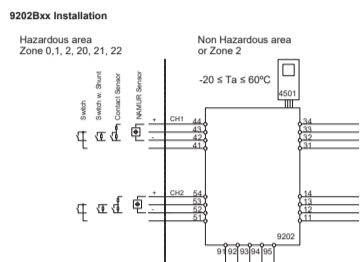
Status Relay, terminal (33,34) Zone 2 Installation Voltage max: 125 VAC / 110 VDC 32 VAC / 32 VDC Power max: 62.5 VA / 32 W 16 VA / 32 W Current max: 0.5 AAC / 0.3 ADC 0.5 AAC / 1 ADC

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. 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_i: 10.6 VDC
I_i: 12 mAADC
P_i: 32 mW
Lo/Ro: 1150 µH/Ω

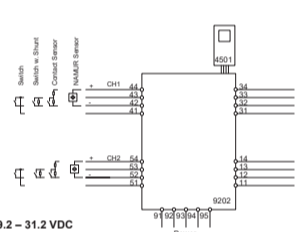
	IIC	IIB	IIA	I
C _i	2.0 µF	6.0 µF	18 µF	90 µF
L _i	260 mH	780 mH	1000 mH	1000 mH

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

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 / 2 ADC

9202Axx Installation: Non Hazardous area or Zone 2 -20 ≤ Ta ≤ 60°C



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

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 / 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.

FM Installation drawing 9202QF01-V4R0

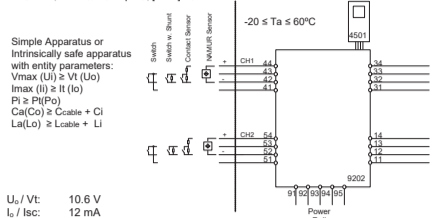
For safe installation of 9202B the following must be observed. The module shall only be installed by qualified personnel who are familiar with the national and international laws, directives and standards that apply to this area.

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.

o-FM-us Certificate 3034430

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

Non Hazardous area or Class I, Division 2, Group A,B,C,D T4 or Class I, Zone 2 Group IIC T4



U_i / V_t: 10.6 V
I_i / I_{sc}: 12 mA
P_i / P_c: 32 mW
Lo/Ro La/Ra: 1150 µH/Ω

Group	IIC	IIB	IIA
C _i /C _e	2.0 µF	6.0 µF	18 µF
L _i /L _e	260 mH	780 mH	1000 mH

Terminal CH1(44,42) CH2(54,52) Supply / Output (terminal 11,12,13,14) (terminal 31,32,33,34) (terminal 91,92,93,94,95)

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

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: 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.

Install in pollution degree 2, overvoltage category II.

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

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

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.

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, diretivas e normas que se aplicam a esta área.

Para a instalação na Zona 2 a seguinte deve ser observado. O módulo de programação de 4501, deve ser utilizado apenas com os módulos PReletrônica. 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

Marcação [Ex ia Ga] IIC/IIIB/IIA Ex nA nC IIC T4 Gc [Ex ia Da] IIC [Ex ia Ma] I

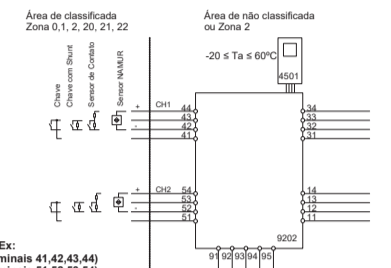
Normas: ABNT NBR IEC 60079-0:2013, ABNT NBR IEC60079-11:2013, ABNT NBR IEC60079-15:2012

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

Relé de estado, terminais (33,34) 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 AAC / 0.3 ADC 0.5 AAC / 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 conectado 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 controle 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 proteção 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.



U_i: 10.6 VDC
I_i: 12 mAADC
P_i: 32 mW
Lo/Ro: 1150 µH/Ω

	IIC	IIB	IIA	I
C _i	2.0 µF	6.0 µF	18 µF	90 µF
L _i	260 mH	780 mH	1000 mH	1000 mH

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

Terminal CH1(11,12) CH2(13,14) Saída Digital: NPN output: Voltage max: 30 VDC Current max: 80 mA

Relé de estado: Área de não classificada Instalação ZONA 2: Voltagem máx.: 250 VAC / 30 VDC 32 VAC / 30 VDC Potência máx.: 500 VA / 60 W 64 VA / 60 W Corrente máx.: 2 AAC / 2 ADC 2 AAC / 2 ADC

9202Axx Installation: Área de não classificada ou Zona 2 -20 ≤ Ta ≤ 60°C



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

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