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 (kun PR 4511).
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.
Reparation af modulet må kun foretages af PR electronics A/S.

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, montage og -demontage af Modbus-kabel (PR 4511)
Fejlfinding på modulet.

PR 4512 er udstyret med et internt genopladeligt knapcellebatteri, der ikke kan fjernes.
Forsøg aldrig at åbne bagbeklædningen eller fjerne batteriet, da det kan medføre beskadigelse af modulet.

SIKKERHEDSREGLER

Modtagelse og udpakning
Udpak modulet uden at beskadige det. Kontrollér ved modtagelsen, at modultypen svarer til den bestilte.

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.
Enheden skal installeres i forureningsgrad 2 eller bedre. Enheden er designet til at være sikker mindst op til en højde af 2000 m. Enheden er konstrueret til indendørs brug.
Hvis slutanvendelsen medfører, at udstyret installeres i et kabinet, svarer kabinettets indvendige driftstemperatur til modulets omgivelsestemperatur.
Hvis modulet benyttes ved en omgivelsestemperatur på +55°C til +60°C, kan temperaturen i modulhuset være over +60°C. Enheden skal derfor installeres på en sådan måde, at den kun er tilgængelig for servicepersonale eller brugere, der er klar over årsagen til den begrænsede adgang og kender de nødvendige sikkerhedsforholdsregler ved en omgivelsestemperatur på +55°C til +60°C.

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.
Installer kun moduler, der er fri for fugt og støv.
Modulet må kun monteres på enheder fra PR electronics 4000 og 9000 serier samt forsynes fra 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.**

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

PR 4500 Kommunikationsinterfaces - til ændring af driftsparametre.
Klikkes på fronten af 4000 / 9000 modulet.

Eletriske specifikationer

Specifikationsområde	-20°C til +60°C
Lagringstemperatur	-25°C til +85°C
Relativ luftfugtighed	< 95% RH (ikke kond.)
Kapslingsklasse	IP20
Mål (H x B x D)	73,2 x 23,3 x 26,5 mm
Mål, med 4000 / 9000 modul (H x B x D)	109 x 23,5 x 131 mm
Forsyningsspænding	6,5...20 V fra 4000 / 9000 værtsmodul
Max. forbrug	150 mW
4511: Isolationsspænding, test / drift	2,5 kVAC / 250 VAC
4511: Forstærket isolation mellem	Modbus linje og 4000 / 9000 moduler
Opdateringsfrekvens / reaktionstid	> 50 Hz / < 20 ms

Modbus-specifikationer - 4511

Signaltype	RS-485 half duplex
Seriel protokol	Modbus RTU
Modbus mode	RTU - slave
Enheder på en RS485 linje	Op til 32 (uden repeater)
Digital adressering	1...247
Paritet	Even, Odd, None
Stop bit(s)	1 eller 2
Reaktionsforsinkelse	0...1000 ms
Automatisk baud rate detektering	Ja, som option
Data rates, baud	2400, 4800, 9600, 19200, 38400, 57600, 115200

Default-indstillinger - 4511

Baud	19200 bps
Paritetsmode	Even
Stop bit	1
Adresse	247
Reaktionsforsinkelse	0 ms

Specifikationer - 4512

Intern batteri-back-up (realtidsur)	2 år (@ 25°C)
Kalibreret realtidsur nøjagtighed	<±60 s/år @ 25°C
Bluetooth-kommunikation	BLE 4.2

Overholdte myndighedskrav:

EMC	2014/30/EU & UK SI 2016/1091
ATEX	2014/34/EU & UK SI 2016/1107
LVD - 4511	2014/34/EU & UK SI 2010/1101
RED - 4512	2014/53/EU & UK SI 2017/1206
RoHS	2011/65/EU & UK SI 2012/3032

Godkendelser

*DNV, Ships & Offshore	TAA00000JD
c UL us, UL 61010-1	E314307
ATEX	DEKRA 13ATEX0098 X
IECEx	DEK 13.0026X
FM, US - 4510 & 4511	FM22US0014X
FM, CA - 4510 & 4511	FM22CA0009X
FM, US - 4512	FM18US0268X
FM, CA - 4512	FM18CA0129X
UKCA	DEKRA 21UKEX0167X

Bluetooth - 4512

Europa, CE	117-37823-1
US, FCC	ID QoQBGM111
Canada, IC	5123A-BGM111
Japan, MIC	R209-J00192
Korea, KC	MSIP-CRM-BGT, BGM111
Kina, SRRC, CMIIT-ID	2018DJ6574
Brasilien, Anatel	06541-18-11723
Peru, MTC	T-251621-2018
Singapore, IMDA	N1861-20
Australien, RCM	42 004 182 772
Malaysia, SIRIM QAS	RAHY/63M/1020/S(20-4544)

*Gælder kun 4510 & 4511.

En opdateret liste over lande, der har godkendt brugen af 4512, findes på adressen:
www.prelectronics.com/4512-bluetooth-approvals/

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 (only PR 4511).
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.
Repair of the device must be done by PR electronics A/S only.

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 Modbus cable (PR 4511).
Troubleshooting the device.

PR 4512 has an internal, non-removable, rechargeable coin cell battery.
Do not attempt to open the back cover or remove the battery, as you may damage the device.

SAFETY INSTRUCTIONS

Receipt and unpacking
Unpack the device without damaging it. 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.
The device must be installed in pollution degree 2 or better. The device is designed to be safe at least under an altitude up to 2 000 m. The device is designed for indoor use.
If the equipment is installed within an ultimate enclosure, the inner service temperature of the enclosure corresponds to the ambient temperature of the module.
If the device is operated in an ambient temperature between +55°C and +60°C, the temperature of the device housing may be higher than +60°C. The device must therefore be installed so that it is only accessible to service personnel or users that are aware of the reason for restricted access and the required safety measures at an ambient temperature of +55°C to +60°C.

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.
Only devices which are undamaged and free of moist and dust may be installed.
The device may be installed and supplied by PR electronics 4000 and 9000 series only.
Should there be any doubt as to the correct handling of the device, please contact your local distributor or, alternatively, **PR electronics A/S.**

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

PR 4500 Communications interfaces for modification of operational parameters. Click the PR 4500 device onto the front of the 4000 / 9000 device.

Electrical specifications

Temperature range	-20°C to +60°C
Storage	-25°C to +85°C
Relative humidity	< 95% RH (non-cond.)
Protection degree	IP20
Dimensions (HxWxD)	73.2 x 23.3 x 26.5 mm
Dimensions, with 4000/9000 (HxWxD)	109 x 23.5 x 131 mm
Supply voltage	6.5...20 V supplied from host 4000 / 9000 device
Power consumption	150 mW
4511: Isolation voltage, test / operation	2.5 kVAC / 250 VAC
4511: Reinforced isolation between	Modbus line and 4000/9000 devices
Update rate / response time	> 50 Hz / < 20 ms

Modbus specifications - 4511

Signal type	RS-485 half duplex
Serial protocol	Modbus RTU
Modbus mode	RTU - slave
Devices on an RS485 line	Up to 32 (w/o a repeater)
Digital addressing	1...247
Parity	Even, Odd, None
Stop bit(s)	1 or 2
Response delay	0...1000 ms
Automatic baud rate detection	Yes - as an option
Data rates, baud	2400, 4800, 9600, 19200, 38400, 57600, 115200

Default settings - 4511

Baud	19200 bps
Parity mode	Even
Stop bit	1
Address	247
Reponse delay	0 ms

Specifications - 4512

Internal battery back-up (for real-time clock)	2 years (@ 25°C)
Calibrated real-time clock accuracy	<±60 s/year @ 25°C
Bluetooth communication	BLE 4.2

Observed authority requirements:

EMC	2014/30/EU & UK SI 2016/1091
ATEX	2014/34/EU & UK SI 2016/1107
LVD - 4511	2014/34/EU & UK SI 2010/1101
RED -4512	2014/53/EU & UK SI 2017/1206
RoHS	2011/65/EU & UK SI 2012/3032

Approvals

*DNV, Ships & Offshore	TAA00000JD
c UL us, UL 61010-1	E314307
ATEX	DEKRA 13ATEX0098 X
IECEx	DEK 13.0026X
FM, US - 4510 & 4511	FM22US0014X
FM, CA - 4510 & 4511	FM22CA0009X
FM, US - 4512	FM18US0268X
FM, CA - 4512	FM18CA0129X
UKCA	DEKRA 21UKEX0167X

Bluetooth - 4512

Europe, CE	117-37823-1
US, FCC	ID QoQBGM111
Canada, IC	5123A-BGM111
Japan, MIC	R209-J00192
Korea, KC	MSIP-CRM-BGT, BGM111
China, SRRC, CMIIT-ID	2018DJ6574
Brazil, Anatel	06541-18-11723
Peru, MTC	T-251621-2018
Singapore, IMDA	N1861-20
Australia, RCM	42 004 182 772
Malaysia, SIRIM QAS	RAHY/63M/1020/S(20-4544)

*Valid for 4510 & 4511 only.

Please find an updated list of countries who have approved the use of 4512 at:
www.prelectronics.com/4512-bluetooth-approvals/

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 (uniquement PR 4511).
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.
Seule PR electronics SARL est autorisée à réparer le module.

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 du câble Modbus (PR 4511).
Recherche de pannes sur le module.

PR 4512 dispose d'une pile interne format bouton, rechargeable et non-amovible. Ne tentez pas d'ouvrir le panneau arrière ou de retirer la pile, car ceci pourrait endommager l'appareil.

CONSIGNES DE SECURITE

Réception et déballage
Déballez le module sans l'endommager. A la réception du module, vérifiez que le type de module reçu correspond à celui que vous avez commandé.

Environnement
Ce module est déstiné à une utilisation intérieure. 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.
Ce module doit être installé en degré de pollution 2 ou meilleur. 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.
Si l'équipement est installé dans une enceinte finale, la température de service intérieure de l'enceinte correspond à la température ambiante du module.
Si le module fonctionne dans une plage de température ambiante comprise entre +55°C et +60°C, la température du boîtier du module peut être supérieure à +60°C. L'appareil doit donc être installé de façon à être uniquement accessible au personnel de service ou aux personnes conscientes de la raison de cet accès limité et conformément aux mesures de sécurité requises pour une température ambiante comprise entre +55°C et +60°C.

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.
Seuls des modules en bon état qui sont exempt d'humidité et de poussière doivent être installés. Ce module doit uniquement être monté sur les unités 4000 et 9000 de PR electronics et alimentés par ces derniers.
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.**

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

PR 4500 Interfaces de communication - pour la modification des paramètres de fonctionnement.
Cliquer le PR 4500 sur la face avant du module 4000 / 9000.

Spécifications électriques

Plage de température	-20° à +60°C
Température de stockage	-25°C à +85°C
Humidité relative	< 95% HR (sans cond.)
Degré de protection	IP20
Dimensions (HxLxP)	73,2 x 23,3 x 26,5 mm
Dimensions, avec un module 4000 / 9000 (HxLxP)	109 x 23,5 x 131 mm
Tension d'alimentation	10...20 V fourni par un hôte 4000 / 9000
Consommation	150 mW
4511 : Tension d'isolation, test / opération	2,5 kVca / 250 Vca
4511 : Isolation renforcé entre	Ligne Modbus et les modules 4000 / 9000
Vitesse de mise à jour / temps de réponse	> 50 Hz / < 20 ms

Spécifications Modbus - 4511

Type de signal	RS-485 half duplex
Protocole sériel	Modbus RTU
Mode Modbus	RTU - esclave
Modules sur un ligne RS485	Jusqu'à 32 (sans répétiteur)
Adressage numérique	1...247
Parité	Paire, impaire, aucune
Bit(s) de stop	1 ou 2
Délai de réponse	0...1000 ms
Détection automatique de la vitesse de transmission	Oui, en option
Vitesse de données, baud	2400, 4800, 9600, 19200, 38400, 57600, 115200

Paramétrage de défaut - 4511

Baud	19200 bps
Mode de parité	Paire
Bit de stop	1
Adresse	247
Délai de réponse	0 ms

Spécifications - 4512

Sauvegarde de la batterie interne (pour l'horloge en temps réel)	2 ans (à 25°C)
Précision calibrée de l'horloge	<±60 s/an à 25 °C
Communication Bluetooth	BLE 4.2

Compatibilité avec les normes

CEM	2014/30/UE & UK SI 2016/1091
ATEX	2014/34/UE & UK SI 2016/1107
DBT - 4511	2014/34/UE & UK SI 2010/1101
RED - 4512	2014/53/UE & UK SI 2017/1206
RoHS	2011/65/UE & UK SI 2012/3032

Approbations

*DNV, Ships & Offshore	TAA00000JD
c UL us, UL 61010-1	E314307
ATEX	DEKRA 13ATEX0098 X
IECEx	DEK 13.0026X
FM, US - 4510 & 4511	FM22US0014X
FM, CA - 4510 & 4511	FM22CA0009X
FM, US - 4512	FM18US0268X
FM, CA - 4512	FM18CA0129X
UKCA	DEKRA 21UKEX0167X

Bluetooth - 4512

Europe, CE	117-37823-1
États-Unis, FCC	ID QoQBGM111
Canada, IC	5123A-BGM111
Japon, MIC	R209-J00192
Corée, KC	MSIP-CRM-BGT, BGM111
Chine, SRRC, CMIIT-ID	2018DJ6574
Brésil, Anatel	06541-18-11723
Pérou, MTC	T-251621-2018
Singapour, IMDA	N1861-20
Australie, RCM	42 004 182 772
Malaisie, SIRIM QAS	RAHY/63M/1020/S(20-4544)

*Valable pour 4510 & 4511 uniquement.

Vous trouverez la liste à jour des pays ayant approuvé l'utilisation du 4512 sur la page : www.prelectronics.com/4512-bluetooth-approvals/

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 (nur PR 4511). 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.
Reparaturen des Gerätes dürfen nur von PR electronics A/S vorgenommen werden.

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 des Modbus-Kabels (PR 4511).
Fehlersuche im Gerät.

PR 4512 verfügt über eine integrierte, nicht austauschbare, wiederaufladbare Knopfzellenbatterie. Versuchen Sie nicht, die Geräterückseite zu öffnen oder die Batterie zu entnehmen, da das zu einer Beschädigung des Gerätes führen könnte.

SICHERHEITSREGELN

Empfang und Auspacken
Packen Sie das Gerät aus, ohne es zu beschädigen, und kontrollieren Sie beim Empfang, ob der Gerätetyp Ihrer Bestellung entspricht.

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.
Das Gerät muss im Verschmutzungsgrad 2 oder besser installiert 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.
Wenn das Gerät mit einem festen Gehäuse ausgestattet ist, entspricht die innere Betriebstemperatur des Gehäuses der Umgebungstemperatur des Gerätes.
Wird das Gerät bei einer Umgebungstemperatur zwischen +55°C und +60°C betrieben, kann die Temperatur des Gerätegehäuses über +60°C steigen. Das Gerät muss daher so installiert werden, dass es nur Servicepersonal zugänglich ist oder den Nutzern, die sich der Gründe für den eingeschränkten Zugang und der erforderlichen Sicherheitsmaßnahmen bei einer Umgebungstemperatur zwischen +55°C to +60°C bewusst sind.

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.
Nur Geräte, die unbeschädigt und frei von Staub und Feucht sind, dürfen installiert werden. Das Gerät darf nur auf PR electronics 4000 und 9000 Einheiten montiert werden und Versorgung von diesen Geräten erhalten.
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.

Reinigung
Das Gerät darf in spannungslosem Zustand mit einem Lappen gereinigt werden, der mit destilliertem Wasser leicht angefeuchtet ist.

PR 4500 Kommunikationsschnittstellen - zur Änderung der operativen Parameter. Stecke das PR 4500 Gerät auf die Front des 4000 / 9000 Gerätes.

Elektrische Daten

Umgebungstemperatur	-20°C bis +60°C
Lagertemperatur	-25°C bis +85°C
Relative Luftfeuchtigkeit	< 95% RH (nicht kond.)
Schutzart	IP20
Abmessungen (HxBxT)	73,2 x 23,3 x 26,5 mm
Abmessungen, mit 4000 / 9000 (HxBxT)	109 x 23,5 x 131 mm
Versorgungsspannung	10...20 V von 4000 / 9000 Wirtsgerät zugeführt
Verbrauch	150 mW
4511: Isolationsspannung, Test / Betrieb	2,5 kVAC / 250 VAC
4511: Erhöhte Isolation zwischen	Modbus-Linie und 4000 / 9000 Geräte
Aktualisierungsrate / Ansprechzeit	> 50 Hz / < 20 ms

Modbus-Daten - 4511

Signaltyp	RS-485 Halb-Duplex
Serielle Protokoll	Modbus RTU
Modbus-Modus	RTU - Slave
Geräte auf einer RS485-Linie	Bis zu 32 (ohne Verstärker)
Digitale Adressierung	1...247
Parität	Gerade, ungerade, keine
Stoppbit(s)	1 oder 2
Verzögerung	0...1000 ms
Automatische Baudraten-Erkennung	Ja - als Option
Datairaten, Baud	2400, 4800, 9600, 19200, 38400, 57600, 115200

Default-Einstellungen - 4511

Baud	19200 bps
Paritäts-Modus	Gerade
Stoppbit	1
Adresse	247
Verzögerung	0 ms

4512-Daten

Int. Haltestrombatterie (Echtzeituhr)	2 Jahre (@ 25°C)
Kalibrierte Genauigkeit der Echtzeituhr	<±60 s/Jahr @ 25°C
Bluetooth-Kommunikation	BLE 4.2

Eingehaltene Behördenvorschriften

EMV	2014/30/EU & UK SI 2016/1091
ATEX	2014/34/EU & UK SI 2016/1107
LVD - 4511	2014/34/EU & UK SI 2010/1101
RED - 4512	2014/53/EU & UK SI 2017/1206
RoHS	2011/65/EU & UK SI 2012/3032

Zulassungen

*DNV, Ships & Offshore	TAA00000JD
c UL us, UL 61010-1	E314307
ATEX	DEKRA 13ATEX0098 X
IECEx	DEK 13.0026X
FM, US - 4510 & 4511	FM22US0014X
FM, CA - 4510 & 4511	FM22CA0009X
FM, US - 4512	FM18US0268X
FM, CA - 4512	FM18CA0129X
UKCA	DEKRA 21UKEX0167X

Bluetooth - 4512

Europa, CE	117-37823-1
USA, FCC	ID QoQBGM111
Canada, IC	5123A-BGM111
Japan, MIC	R209-J00192
Korea, KC	MSIP-CRM-BGT, BGM111
China, SRRC, CMIIT-ID	2018DJ6574
Brazilien, Anatel	06541-18-11723
Peru, MTC	T-251621-2018
Singapur, IMDA	N1861-20
Australien, RCM	42 004 182 772
Malaysia, SIRIM QAS	RAHY/63M/1020/S(20-4544)

*Nur gültig für 4510 & 4511.

Unter dem folgenden Link finden Sie eine aktuelle Liste der Länder, für die der 4512 zugelassen ist: www.prelectronics.com/4512-bluetooth-approvals/

DK Installationsvejledningen for teknikere omfatter følgende produkter: 4510, 4511 & 4512.

UK This installation guide for technical personnel covers the following products: 4510, 4511 & 4512.

FR Ce guide d'installation pour le personnel qualifié couvre les produits suivants : 4510, 4511 & 4512.

DE Diese Installationsanleitung für Techniker umfasst die folgenden Produkte: 4510, 4511 & 4512.

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.

DK Mærkning UK Marking FR Marquage DE Markierung

4510 Display / programming front
4511 Modbus Communication Enabler

PR electronics A/S
Lerbakken 10, 8410
Roende Denmark
Tel. +45 86372677
www.prelectronics.com

-20°C < Ta < +60°C

DEKRA 13ATEX0098 X
DEKRA 21UKEX0167X
II 3 G Ex ec IIC T5 Gc

Open-type process control equipment
3PLU

IECEx DEK 13.0026 X
Ex ec IIC T5 Gc

TAA00000JD

FM22US0014X
FM22CA0009X
CL I DIV2 GP A-D T5
CL I Zn2 AEx/Ex ec IIC T5 Gc

4512 Bluetooth Communication Enabler

PR electronics A/S
Lerbakken 10, 8410
Roende Denmark
Tel. +45 86372677
www.prelectronics.com

-20°C < Ta < +60°C

Caution: Read manual prior to installation and operation of unit

DEKRA 13ATEX0098 X
DEKRA 21UKEX0167X
II 3 G Ex ec IIC T5 Gc

SRRC CMIIT ID 2018DJ6574

IECEx DEK 13.0026 X
Ex ec IIC T5 Gc

42 004 182 772

FM18US0268X
FM18CA0129X
CL I DIV2 GP A-D T5
CL I Zn2 GP IIC T5 (US only)

ANATEL 06541-18-11723

Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados.

FCC ID QoQBGM111
IC: 5123A-BGM111

R 209-J00192

MSIP-CRM-BGT
BGM111

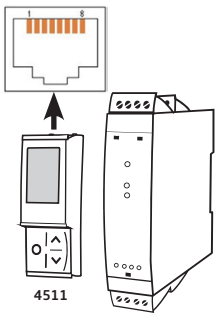
DK Kina RoHS UK China RoHS FR RoHS chinois DE China-RoHS

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 PR 4511 top UK PR 4511 top FR Dessus du PR 4511 DE PR 4511 Draufsicht



DK

RJ45 Modbus stik
Terminal 5: RS485 linie A
Terminal 4: RS485 linie B
Terminal 8: RS485 GND og skærm

UK

RJ45 Modbus Connector
Pin 5: RS485 A line
Pin 4: RS485 B line
Pin 8: RS485 GND and shield

FR

Connecteur Modbus RJ45
Borne 5 : RS485 ligne A
Borne 4 : RS485 ligne B
Borne 8 : RS485 terre et écran

DE

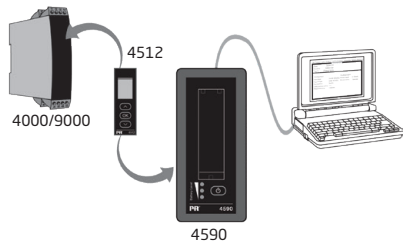
RJ45 Modbus Connector
Terminal 5: RS485 Linie A
Terminal 4: RS485 Linie B
Terminal 8: RS485 Erde und Schirm

DK Tilslutning af ConfigMate 4590 til et PR 4000 eller 9000 modul vha. 4512 Bluetooth kommunikations-interface til overførsel af loggede data til en pc.

UK Connection of ConfigMate 4590 to a PR 4000 or 9000 device using the 4512 Bluetooth communication enabler for transfer of logged data to a PC.

FR Connexion d'un ConfigMate 4590 à un appareil PR 4000 ou 9000 en utilisant l'interface de communication Bluetooth 4512 pour le transfert de données enregistrées vers un PC..

DE Anschluss des ConfigMate 4590 an ein Gerät der 4000er- oder 9000er-Serie, die über die Bluetooth Kommunikationsschnittstelle 4512 konfiguriert werden.



EU DECLARATION OF CONFORMITY

(4510_4511DoC_104)

As manufacturer
PR electronics A/S, Lerbakken 10, DK-8410 Rønde
hereby declares that the following products:
Type: 4510 - 4511
Name: Display / programming front - Modbus communication enabler
From serial no.: 221207001
are 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 2014/35/EU Directive and later amendments
EN 61010-1 : 2010 + A1 : 2019

The ATEX Directive 2014/34/EU and later amendments
EN IEC 60079-0 : 2018 and EN 60079-7 : 2015 + A1 : 2018
ATEX certificate: DEKRA 13ATEX0098 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 responsability of the manufacturer.

Rønde, 19 April 2022

Stig Lindemann, CTO
Manufacturer's signature

*Does not apply to 4510.

EU DECLARATION OF CONFORMITY

(4512DoC_102)

As manufacturer
PR electronics A/S, Lerbakken 10, DK-8410 Rønde
hereby declares that the following products:
Type: 4512
Name: Bluetooth communication enabler
From serial no.: 221025240
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 ATEX Directive 2014/34/EU and later amendments
EN IEC 60079-0 : 2018 and EN 60079-7 : 2015 + A1 : 2018
ATEX certificate: DEKRA 13ATEX0098 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 Radio Equipment Directive (RED) 2014/53/EU and later amendments
EN 300328 V2.2.2 : 2016 and EN 300440 V2.1.1 : 2017

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 responsability of the manufacturer.

Rønde, 25 May 2022

Stig Lindemann, CTO
Manufacturer's signature

UKCA DECLARATION OF CONFORMITY

(4510_4511DoC_UKCA_100)

As manufacturer
PR electronics A/S, Lerbakken 10, DK-8410 Rønde
hereby declares that the following products:
Type: 4510 - 4511
Name: Display / programming front - Modbus communication enabler
From serial no.: 221207001
are in conformity with the following statutory requirements:

The Electromagnetic Compatibility Regulations 2016 (UK SI 2010/1091) 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 2010/1101) 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 and EN 60079-7 : 2015 + A1 : 2018
UK type examination certificate: DEK 21UKEX0167X

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, 30 May 2024

Stig Lindemann, CTO
Manufacturer's signature

*Does not apply to 4510.

UKCA DECLARATION OF CONFORMITY

(4512DoC_UKCA_100)

As manufacturer
PR electronics A/S, Lerbakken 10, DK-8410 Rønde
hereby declares that the following product:
Type: 4512
Name: Bluetooth communication enabler
From serial no.: 221025240
is in conformity with the following statutory requirements:

The Electromagnetic Compatibility Regulations 2016 (UK SI 2010/1091) 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 Equipment and Protective Systems Intended for use in Potentially Explosive Atmospheres Regulations 2016 (UK SI 2016/1107) and later amendments
EN 60079-0 : 2018 and EN 60079-7 : 2015 + A1 : 2018
UK type examination certificate: DEK 21UKEX0167X

The Radio Equipment Regulations 2017 (UK SI 2017/1206) and later amendments
EN 300328 V2.2.2 : 2016 and EN 300440 V2.1.1 : 2017

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, 30 May 2024

Stig Lindemann, CTO
Manufacturer's signature

ATEX/UKEX Installation drawing 4500QA01-V2R0

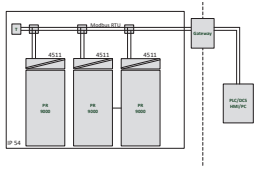
Ex Certificates	DEKRA 13ATEX0098 X DEKRA 21UKEX0167X
Standards:	EN IEC 60079-0 EN 60079-7
Marking:	Ex II 3G Ex ec IIC T5
Temperature range	-20°C ≤ Ta ≤ +60°C

ATEX/UKEX Installation Instructions

For safe installation of the 4500 series of products the following must be observed.

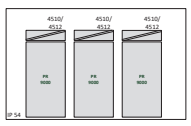
Hazardous Area
II 3G Ex IIC

Unclassified Area

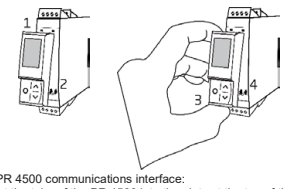


Hazardous Area
II 3G Ex IIC

Unclassified Area



General installation instructions
Year of manufacture can be taken from the first two digits in the serial number.
For safe Ex installation the following must be observed: The device must be installed by qualified personnel who are familiar with the national and international laws, directives and standards that apply to this area.
To prevent ignition of the explosive atmospheres do not separate connectors when energized and an explosive gas mixture is present.
To avoid the risk of explosion due to electrostatic charging of the enclosure, do not handle the units unless the area is known to be safe, or appropriate safety measures are taken to avoid electrostatic discharge.



Mounting of PR 4500 communications interface:
1. Insert the tabs of the PR 4500 into the slots at the top of the device.
2. Hinge the PR 4500 down until it snaps into place.

Demounting of the PR 4500 communication interfaces:
3. Push the release button on the bottom of the PR 4500 and hinge the PR 4500 out and up.
4. With the PR 4500 hinged up, remove from the slots at the top of the device.

Specific Conditions of Use

- The equipment shall only be used in an area of not more than pollution degree 2, as defined in EN IEC 60664-1.
- The devices must be installed in a suitable enclosure providing a degree of protection of at least IP54 according to EN IEC 60079-0, taking into account the environmental conditions under which the equipment will be used.
- Transient protection shall be provided that is set at a level not exceeding 140% of the peak rated voltage value at the supply terminals to the equipment.

IECEx Installation drawing 4500QI01-V2R0

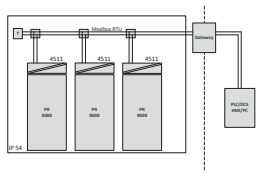
Ex Certificates	IECEx DEK 13.0026X
Standards:	IEC 60079-0 IEC 60079-7
Marking:	Ex ec IIC T5 Gc
Temperature range	-20°C ≤ Ta ≤ +60°C

IECEx Installation Instructions

For safe installation of the 4500 series of products the following must be observed.

Hazardous Area

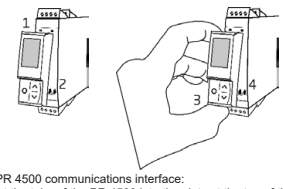
Unclassified Area



Hazardous Area

Unclassified Area

General installation instructions
Year of manufacture can be taken from the first two digits in the serial number.
For safe Ex installation the following must be observed: The device must be installed by qualified personnel who are familiar with the national and international laws, directives and standards that apply to this area.
To prevent ignition of the explosive atmospheres do not separate connectors when energized and an explosive gas mixture is present.
To avoid the risk of explosion due to electrostatic charging of the enclosure, do not handle the units unless the area is known to be safe, or appropriate safety measures are taken to avoid electrostatic discharge.



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4. With the PR 4500 hinged up, remove from the slots at the top of the device.

Specific Conditions of Use

- The equipment shall only be used in an area of not more than pollution degree 2, as defined in EN IEC 60664-1.
- The devices must be installed in a suitable enclosure providing a degree of protection of at least IP54 according to EN IEC 60079-0, taking into account the environmental conditions under which the equipment will be used.
- Transient protection shall be provided that is set at a level not exceeding 140% of the peak rated voltage value at the supply terminals to the equipment.

FM Installation drawing 4500QF01-V1R0

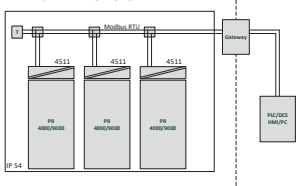
FM Certificates	FM22US0014X FM22CA0009X
Standards:	See Certificate
Marking:	CL I Div 2 GP A,B,C,D T5 CL I Zone 2 AEx/Ex ec IIC T5 Gc
Temperature range	-20°C ≤ Ta ≤ +60°C

AEx/Ex ec Installation Instructions

For safe installation of the 4500 series of products the following must be observed.

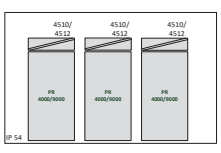
Hazardous Area
CL I Div2 GP A,B,C,D
CL I Zone 2 AEx/Ex ec IIC T5 Gc

Unclassified Area

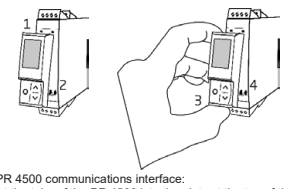


Hazardous Area
CL I Div2 GP A,B,C,D
CL I Zone 2 AEx/Ex ec IIC T5 Gc

Unclassified Area



General installation instructions
Year of manufacture can be taken from the first two digits in the serial number.
For safe Ex installation the following must be observed: The device must be installed by qualified personnel who are familiar with the national and international laws, directives and standards that apply to this area.
To prevent ignition of the explosive atmospheres do not separate connectors when energized and an explosive gas mixture is present.
To avoid the risk of explosion due to electrostatic charging of the enclosure, do not handle the units unless the area is known to be safe, or appropriate safety measures are taken to avoid electrostatic discharge.



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2. Hinge the PR 4500 down until it snaps into place.

Demounting of the PR 4500 communication interfaces:
3. Push the release button on the bottom of the PR 4500 and hinge the PR 4500 out and up.
4. With the PR 4500 hinged up, remove from the slots at the top of the device.

Specific Conditions of Use

Class 1, Division 2
In Class I, Division 2 installations, the subject equipment shall be mounted within a tool-secured enclosure which is capable of accepting one or more of the Class I, Division 2 wiring methods specified in the National NEC or CEC.

Class 1, Zone 2

- The equipment shall be installed within an enclosure that provides a minimum ingress protection of IP54 in accordance with ANSI/UL 60079-0 or CSA C22.2 No. 60079-0.
- The equipment shall only be used in an area of at least pollution degree 2, as defined in IEC 60664-1.
- Transient protection shall be provided that is set at a level not exceeding 140% of the peak rated voltage value at the supply terminals to the equipment.