

ADVARSEL
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 må kun foretages af PR electronics A/S.

ADVARSEL
PR Loop Link programmeringsenheden må ikke benyttes til kommunikation med moduler installeret i Ex-område.
Enhederne skal installeres i henhold til den tilhørende installations vejledning ved montering i eksplosionsfarligt område.

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

Miljøforhold
Undgå direkte sollys, kraftigt udsæt 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.

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**.
Installation og tilslutning af modulet skal følge landets gældende regler for installation af elektrisk materiel bl.a. med hensyn til ledningsværnsnit, for-sikring og placering.
Beskrivelse af indgang/udgang/forsyningsforbindelser findes i produktmanualen, som kan hentes på www.prelectronics.dk.

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.

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

PC-programmering af SYSTEM 5300
Modulet konfigureres til den aktuelle opgave ved hjælp af en PC og PR electronics A/S kommunikationsinterface Loop Link. Det er muligt at konfigurere modulet både med og uden tilsluttet forsyningsspænding, idet kommunikationsinterface leverer nødvendig forsyning til opsettningen. Kommunikationsinterface er galvanisk isoleret, så PC'ens port er optimalt beskyttet. Kommunikationen er 2-vejs, så modulets opsettning kan hentes ind i PC'en, og opsettningen i PC'en kan sendes til modulet. For de brugere, der ikke selv vil foretage opsettning, kan modulet leveres konfigureret efter oplyst specifikation: indgangstype, måleområde, følerfejlsdetektering og udgangssignal.

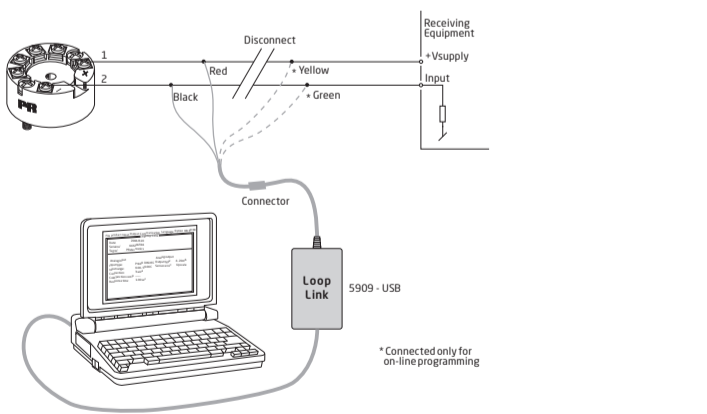
Elektriske specifikationer
Specifikationsområde..... -40°C til +85°C
Forsyningsspænding, 5335A & 5337A 8,0...35 VDC
Forsyningsspænding, 5335D & 5337D 8,0...30 VDC
Isolationsspænd, test/oper.. 1,5 kVAC / 50 VAC
Kalibreringstemperatur 20...28°C
Relativ fugtighed..... < 95% RH (ikke kond.)
Mål Ø44 x 20,2 mm
Kapslingsklasse (hus/klemme)..... IP68 / IP00

Indgangstyper:
Pt100..... -200°C...+850°C
Ni100..... -60°C...+250°C
TC-indgang B, E, J, K, L, N, R, S, T, U, W3, W5, Lr
Lin. R 0 Ω...7000 Ω
Spænding -800...+800 mV

Strømdgang:
Signalområde..... 4...20 mA
Min. signalområde..... 16 mA
Belastningsmodstand, Ω..... ≤ (V_{forsyn}-8,0 V)/0,023

Godkendelser:
DNV, Ships & Offshore..... Stand. f. Certific. No. 2.4
EAC..... TR-CU 020/2011
EAC Ex..... TR-CU 012/2011

Overholde myndighedskrav:
EMC..... 2014/30/EU
ATEX..... 2014/34/EU
RoHS..... 2011/65/EU



- DK** Loop Link er et kommunikationsinterface, der er nødvendigt for programmering af 53xx. Loop Link må ikke benyttes til kommunikation med moduler installeret i Ex-område.
- UK** Loop Link is a communications interface that is needed for programming 53xx. Loop link is not approved for communication with devices installed in hazardous (Ex) areas.
- FR** Loop Link est un kit de programmation permettant de programmer le 53xx. Loop Link ne doit pas être utilisé pour communication avec des modules installés en zone dangereuse.
- DE** Loop Link ist eine Schnittstelle zur Programmierung des 53xx. Loop Link darf nicht zur Kommunikation mit Geräten, die in Ex-gefährdeten Bereichen installiert sind, benutzt werden.

DK Godkendelser **UK** Approvals **FR** Approbations **DE** Zulassungen **BR** Aprovações

| | ATEX | Area / Zone | Installation drawing | IECEx | Area / Zone | Installation drawing | FM | Zone / Div. | Installation drawing | CSA | Zone / Div. | Installation drawing | INMETRO | Area | Installation drawing |
|---------------|-------------------|-------------------------|----------------------|--------------|------------------------|----------------------|----------|--------------------|----------------------|---------|--------------------|----------------------|--------------|------------------------|----------------------|
| 5335A & 5337A | KEMA 03ATEX1508 X | 2, 22 | 5335QA02 | KEM 10.0083X | 2, 22 | 5335QI02 | | | | | | | NCC 12.0844X | 2, 22 | 5335QE01 |
| 5335D & 5337D | KEMA 03ATEX1537 | 0, 1, 2, 20, 21, 22, M1 | 5335QE01 | KEM 10.0083X | 0, 1, 2, 20, 21, 22, M | 5335QE01 | 2D5A7 AX | 0, 1, 2 / Div 1, 2 | 5300Q502 | 1125003 | 0, 1, 2 / Div 1, 2 | 533XQC03 | NCC 12.0844X | 0, 1, 2, 20, 21, 22, M | 5335QE01 |

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

WARNING
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 must be done by PR electronics A/S only.

WARNING
Do not use the Loop Link programming interface to program the units in Ex area. For installation in classified area the modules must be installed according to the appropriate installation drawings.

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.

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**.
Mounting and connection of the device should comply with national legislation for mounting of electric materials, i.e. wire cross section, protective fuse, and location. Descriptions of input / output and supply connections are shown in the product manual found on www.prelectronics.com.

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.

PC programming of SYSTEM 5300
The device is configured to the present task by way of a PC and PR electronics A/S communications interface Loop Link. The device can be configured with or without a connected supply voltage as the communications interface supplies the necessary voltage to the set-up. The communications interface is galvanically isolated to protect the PC port. Communication is 2-way to allow the retrieval of the device set-up into the PC and to allow the transmission of the PC set-up to the device. For users who do not wish to do the set-up themselves, the device can be delivered configured according to customer specifications: input type, measurement range, sensor error detection, and output signal.

Electrical specifications
Specifications range..... -40°C to +85°C
Supply voltage, 5335A & 5337A 8,0...35 VDC
Supply voltage, 5335D & 5337D 8,0...30 VDC
Isolation voltage, test/oper.. 1,5 kVAC / 50 VAC
Calibration temperature 20...28°C
Relative humidity..... < 95% RH (non-cond.)
Dimensions Ø44 x 20,2 mm
Protection degree (encl./terminal)..... IP68 / IP00

Input types:
Pt100..... -200°C...+850°C
Ni100..... -60°C...+250°C
TC input..... B, E, J, K, L, N, R, S, T, U, W3, W5, Lr
Lin. R 0 Ω...7000 Ω
Voltage..... -800...+800 mV

Current output:
Signal range..... 4...20 mA
Min. signal range..... 16 mA
Load resistance, Ω..... ≤ (V_{supply}-8,0 V)/0,023

Approvals:
DNV, Ships & Offshore..... Stand. f. Certific. No. 2.4
EAC..... TR-CU 020/2011
EAC Ex..... TR-CU 012/2011

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

AVERTISSEMENT
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.

AVERTISSEMENT
Ne pas utiliser le kit de programmation "Loop Link" en zone classée dangereuse Ex. Pour des installations en zone classée, les modules doivent être montés conformément aux plans appropriés.

CONSIGNES DE SECURITE
Réception et déballage
Déballiez 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.

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 montage et le raccordement du module doivent être conformes à la législation nationale en vigueur pour le montage de matériaux électriques, par exemple, diamètres des fils, fusibles de protection et implantation des modules. Les connexions des alimentations et des entrées / sorties sont décrites dans le manuel du produit sur www.prelectronics.fr.

Etalonnage et réglage
Lors des opérations d'étalonnage et de réglage, il convient d'éviter 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.

Programmation par PC du SYSTEM 5300
Le module peut être programmé en fonction d'une application donnée à partir d'un PC et le kit de programmation Loop Link de PR electronics A/S. Le module peut être programmé sans être alimenté car l'interface de communication fournit l'alimentation nécessaire pour la configuration. L'interface de communication est dotée d'une isolation galvanique pour protéger le port du PC. La communication est bidirectionnelle. Cela permet non seulement la programmation du module mais également la récupération d'une configuration existante ainsi que la lecture du numéro de série et du repère. Le module peut être livré déjà programmé, si l'utilisateur le souhaite.

Spécifications
Plage de température..... -40°C à +85°C
Tension d'alimentation, 5335A & 5337A 8,0...35 Vcc
Tension d'alimentation, 5335D & 5337D 8,0...30 Vcc
Tension d'iso. test/opér..... 1,5 kVca / 50 Vca
Température d'étalonnage... 20...28°C
Humidité relative < 95% HR (sans cond.)
Dimensions Ø44 x 20,2 mm
Degré de protection (boîtier/bornier)..... IP68 / IP00

Types d'entrée:
Pt100..... -200°C...+850°C
Ni100..... -60°C...+250°C
Entrée TC..... B, E, J, K, L, N, R, S, T, U, W3, W5, Lr
Lin. R 0 Ω...7000 Ω
Tension..... -800...+800 mV

Sortie courant:
Gamme de signal..... 4...20 mA
Plage de signal min..... 16 mA
Résistance de charge, Ω..... ≤ (Valim-8,0 V)/0,023

Approbations:
DNV, Ships & Offshore..... Stand. f. Certific. No. 2.4
EAC..... TR-CU 020/2011
EAC Ex..... TR-CU 012/2011

Compatibilité avec les normes:
CEM..... 2014/30/EU
ATEX..... 2014/34/EU
RoHS..... 2011/65/EU

Eingehaltene Behördenvorschriften:
EMV..... 2014/30/EU
ATEX..... 2014/34/EU
RoHS..... 2011/65/EU

- DK** Programmering med HART-modem.
- UK** Programming with HART modem.

WARNUNG
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 und Reparaturen des Gerätes dürfen nur von PR electronics A/S vorgenommen werden.

WARNUNG
Benutzen Sie die Programmierschnittstelle Loop Link nicht im Ex Bereich
Zur Montage in klassifizierten Zonen müssen die Geräte nach den dazugehörigen Einba Zeichnungen installiert werden.

SICHERHEITSGEDELN
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.

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.

Die Installation und der Anschluss des Gerätes haben in Übereinstimmung mit den geltenden Regeln des jeweiligen Landes bez. der Installation elektrischer Apparaturen zu erfolgen, u.a. bezüglich Leitungsquerschnitt, (elektrischer) Vor-Absicherung und Positionierung. Eine Beschreibung von Eingangs- / Ausgangs- und Versorgungsanschlüssen befindet sich im Produkthandbuch, das unter www.prelectronics.de gefunden und abgerufen werden kann.

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.

PC-Programmierung des Systems 5300
Das Gerät wird für die jeweilige Aufgabe mit Hilfe eines PCs und PR electronics A/S Kommunikations-schnittstelle Loop Link konfiguriert. Es ist möglich, das Gerät sowohl mit als auch ohne angeschlossene Versorgungsspannung zu konfigurieren, da die Kommunikationsschnittstelle die notwendige Versorgung für die Einstellung liefert. Die Kommunikationsschnittstelle ist galvanisch isoliert, sodass der Anschluss des PCs optimal geschützt ist. Die Kommunikation erfolgt in beiden Richtungen, sodass die Einstellung des Gerätes in den PC geholt, und die Einstellung im PC an das Gerät gesandt werden kann. Für diejenigen Anwender, welche die Einstellung nicht selbst vornehmen wollen, kann das Gerät nach folgenden Kundenspezifikationen konfiguriert geliefert werden: Eingangstyp, Messbereich, Fehlerfühlererkennung und Ausgangssignal.

Elektrische Daten
Spezifikationsbereich..... -40°C bis +85°C
Versorgungsspannung, 5335A & 5337A 8,0...35 VDC
Versorgungsspannung, 5335D & 5337D 8,0...30 VDC
Isolationsspannung, Test / Betrieb 1,5 kVAC / 50 VAC
Kalibrierungstemperatur..... 20...28°C
Luftfeuchtigkeit..... < 95% RF (nicht kond.)
Maß Ø44 x 20,2 mm
Schutzart (Gehäuse / Anschluss)..... IP68 / IP00

Eingangs-Typen:
Pt100..... -200°C...+850°C
Ni100..... -60°C...+250°C
TE-Eingang B, E, J, K, L, N, R, S, T, U, W3, W5, Lr
Lin. R 0 Ω...7000 Ω
Spannung -800...+800 mV

Stromausgang:
Signalbereich..... 4...20 mA
Min. Signalbereich..... 16 mA
Belastungswiderstand, Ω..... ≤ (V_{Versorg}-8,0V)/0,023

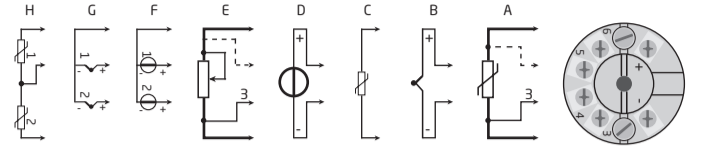
Zulassungen:
DNV, Ships & Offshore..... Stand. f. Certific. No. 2.4
EAC..... TR-CU 020/2011
EAC Ex..... TR-CU 012/2011

Eingehaltene Behördenvorschriften:
EMV..... 2014/30/EU
ATEX..... 2014/34/EU
RoHS..... 2011/65/EU

- FR** Programmation par modem HART.
- DE** Programmierung mit HART-Modem.

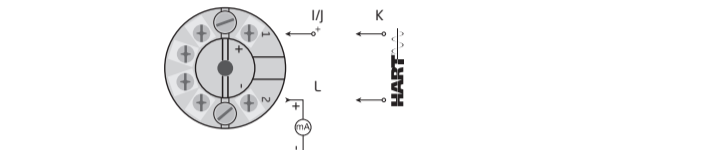
- DK** Installationsvejledningen for teknikere omfatter følgende produkter: 5335A, 5335D, 5337A og 5337D.
- UK** This installation guide for technical personnel covers the following products: 5335A, 5335D, 5337A and 5337D.
- FR** Ce guide d'installation pour le personnel qualifié couvre les produits suivants: 5335A, 5335D, 5337A et 5337D.
- DE** Diese Installationsanleitung für Techniker umfasst die folgenden Produkte: 5335A, 5335D, 5337A und 5337D.

DK Indgangssignaler **UK** Input signals **FR** Signaux d'entrée **DE** Eingangssignale



| | DK | UK | FR | DE |
|---|--|--|--|---|
| A | RTD | RTD | RTD | WTH |
| B | TC | TC | TC | TE |
| C | CJC | CJC | CSF | CJC |
| D | Spænding | Voltage | Tension | Spannung |
| E | Lin R | Lin R | Lin R | Lin R |
| F | mV, differens eller middel | mV, difference or average | mV, différence ou moyen | mV, Differenz oder Mittel |
| G | TC, differens eller middel, med intern CJC | TC, difference or average, with internal CJC | TC, différence ou moyen avec CSF interne | TE, Differenz oder Mittel, mit interner CJC |
| H | RTD, differens eller middel | RTD, difference or average | RTD, différence ou moyen | WTH, Differenz oder Mittel |

DK Udgangssignaler **UK** Output signals **FR** Signaux de sortie **DE** Ausgangssignale



| | DK | UK | FR | DE | 5335A | 5335D | 5337A | 5337D |
|---|-------------------------|----------------------|----------------------------|--------------------------|-------|-------|-------|-------|
| I | Forsyning +8,0...35 VDC | Supply +8,0...35 VDC | Alimentation +8,0...35 Vcc | Versorgung +8,0...35 VDC | x | | x | |
| J | Forsyning +8,0...30 VDC | Supply +8,0...30 VDC | Alimentation +8,0...30 Vcc | Versorgung +8,0...30 VDC | | x | | x |
| K | 4...20 mA udgang | 4...20 mA output | Sortie 4...20 mA | 4...20 mA-Ausgang | x | x | x | x |
| L | HART | HART | HART | HART | x | x | x | x |

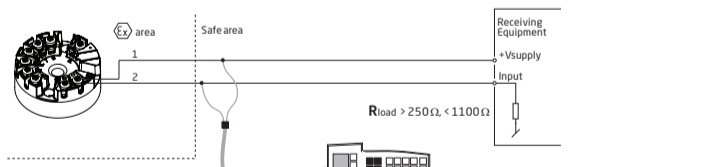
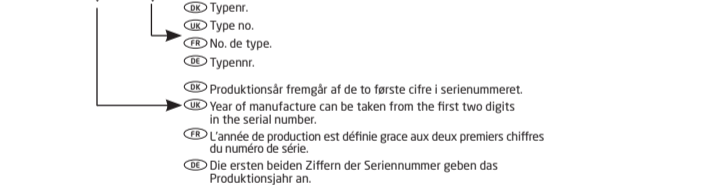
- DK** Mekaniske specifikationer.
- UK** Mechanical specifications.
- FR** Dimensions mécaniques.
- DE** Abmessungen.



- DK** **Montering af følerledninger**
Ledninger monteres mellem metalpladerne. Ledningskvadrat (max.) 1 x 1,5 mm² flertrådet ledning. Klemskruetiltspændingsmoment 0,4 Nm.
- UK** **Mounting of sensor wires**
Wires must be mounted between the metal plates. Max. wire size 1 x 1,5 mm² stranded wire. Screw terminal torque 0,4 Nm.
- FR** **Montage des fils du capteur**
Les fils doivent être montés entre les plaques métalliques. Taille max. des fils 1 x 1,5 mm² fils multibrins. Pression max. avant déformation de la vis 0,4 Nm.
- DE** **Montage von Fühlerleitungen**
Die Leitungen müssen zwischen den Metallplatten montiert werden. Leitungsquerschnitt (max.) 1 x 1,5 mm² Litzendraht. Klemmschraubenzugmoment 0,4 Nm.

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

DK Godkendelser **UK** Approvals **FR** Homologations **DE** Zulassungen



- DK** Programmering med HART-kommunikator.
- UK** Programming with HART communicator.
- FR** Programmation par communicateur HART.
- DE** Programmierung mit HART-Kommunikator.

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

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

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

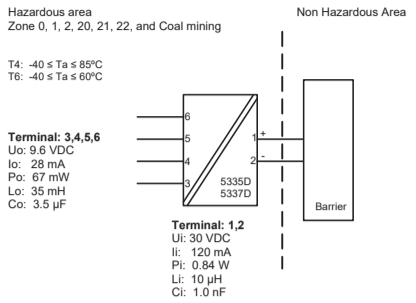
BR Documentações, licenças e outras informações podem ser encontradas no site www.prelectronics.com

ATEX Installation drawing 5335QA01 - V4R0

! For safe installation of 5335D or 5337D 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.

ATEX Certificate KEMA 03ATEX 1537
 Marking II 1 G Ex ia IIC T6 ...T4 Ga
 II 1 D Ex ia IIC Da
 I M1 Ex ia I Ma

Standards: EN 60079-0 : 2012, EN 60079-11 : 2012, EN 60079-26 : 2007



Installation notes

General installation instructions
 The sensor circuit is not infallibly galvanic isolated from the supply output circuit. However, the galvanic isolation between the circuits is capable of withstanding a test voltage of 500Vac during 1 minute.
 If the enclosure is made of aluminium, it must be installed such, that even in the event of rare incidents, ignition sources due to impact and friction, sparks are excluded.
 If the enclosure is made of non-metallic materials or painted metals electrostatic charging shall be avoided.

For installation in a potentially explosive gas atmosphere, the following instructions apply:
 The transmitter shall be mounted in an enclosure form B according to DIN43729 or equivalent that is providing a degree of protection of at least IP20 according to EN60529 that is suitable for the application and correctly installed.

For installation in a potentially explosive dust atmosphere, the following instructions apply:
 The transmitter shall be mounted in a metal enclosure form B according to DIN43729 or equivalent, that is providing a degree of protection of at least IP6X according to EN60529 that is suitable for the application and correctly installed. Cable entries and blanking elements shall be used that are suitable for the application and correctly installed.

For installation in mines the following instructions apply:
 The transmitter shall be mounted in a metal enclosure that is providing a degree of protection of at least IP6X according to EN60529, and is suitable for the application and correctly installed. Cable entries and blanking elements shall be used that are suitable for the application and correctly installed.

If the enclosure is made of aluminium, it must be installed such, that even in the event of rare incidents, ignition sources due to impact and friction, sparks are excluded.
 If the enclosure is made of non-metallic materials or painted metals electrostatic charging shall be avoided.

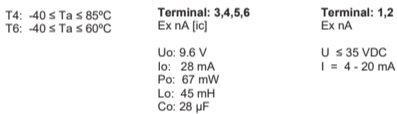
The enclosure shall not contain by mass more than
 a) 15 % in total of aluminium, magnesium, titanium and zirconium, and
 b) 7,5 % in total of magnesium, titanium and zirconium.

ATEX Installation drawing 5335QA02 - V4R0

! For safe installation of 5335A, or 5337A 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.

ATEX Certificate KEMA 03ATEX 1508X
 Marking II 3 G Ex nA [ic] IIC T6, T4 Gc
 II 3 G Ex ic IIC T6, T4 Gc
 II 3 D Ex ic IIC Dc

Standards: EN 60079-0:2012, EN 60079-11:2012, EN 60079-15:2010



General installation instructions

If the enclosure is made of non-metallic materials or of painted metal, electrostatic charging shall be avoided.
 For an ambient temperature ≥ 60°C, heat resistant cables shall be used with a rating of at least 20 K above the ambient temperature.
 For installation in a potentially explosive gas atmosphere, the following instructions apply:
 For "Ex ic" the transmitter must be installed in an enclosure providing a degree of protection of at least IP20 according to EN60529 that is suitable for the application and is correctly installed.
 For "Ex nA" the transmitter must be installed in an enclosure providing a degree of protection of at least IP54 according to EN60529 that is suitable for the application and is correctly installed, or in an enclosure with type of protection Ex n or Ex e.
 Cable entry devices and blanking elements shall fulfill the same requirements.

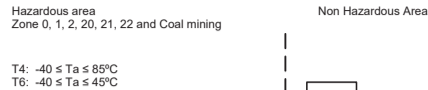
For installation in a potentially explosive dust atmosphere, the following instructions apply:
 If the transmitter is supplied with an intrinsically safe signal "ic" and interfaces an intrinsically safe signal "ic" (e.g. a passive device), the transmitter shall be mounted in a metal enclosure form B according to DIN 43729 that provides a degree of protection of at least IP6X according to EN60529, and that is suitable for the application. Cable entry devices and blanking elements shall fulfill the same requirements.
 If the transmitter is supplied with a non-sparking signal "nA", or interfaces a non sparking signal, the transmitter shall be mounted in a metal enclosure form B according to DIN 43729 providing a degree of protection of at least IP6X according to EN60529, and in conformance with type of protection Ex ID and suitable for the application. Cable entry devices and blanking elements shall fulfill the same requirements.

IECEx Installation drawing 5335QI01 - V4R0

! For safe installation of 5335D or 5337D 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.

IECEx Certificate IECEx KEM.10.0083X
 Marking Ex ia IIC T6, T4 Ga
 Ex ia IIC Da
 Ex ia I Ma

Standards: IEC60079-11:2011, IEC60079-0: 2011, IEC60079-26:2006



Installation notes

General installation instructions
 The sensor circuit is not infallibly galvanic isolated from the supply output circuit. However, the galvanic isolation between the circuits is capable of withstanding a test voltage of 500Vac during 1 minute.
 If the enclosure is made of aluminium, it must be installed such, that even in the event of rare incidents, ignition sources due to impact and friction, sparks are excluded.
 If the enclosure is made of non-metallic materials or painted metals electrostatic charging shall be avoided.

For installation in a potentially explosive gas atmosphere, the following instructions apply:
 The transmitter shall be mounted in an enclosure form B according to DIN43729 or equivalent that is providing a degree of protection of at least IP20 according to IEC 60529 that is suitable for the application and correctly installed.

For installation in a potentially explosive dust atmosphere, the following instructions apply:
 The transmitter shall be mounted in a metal enclosure form B according to DIN43729 or equivalent, that is providing a degree of protection of at least IP6X according to IEC 60529 that is suitable for the application and correctly installed. Cable entries and blanking elements shall be used that are suitable for the application and correctly installed.

For installation in mines the following instructions apply:
 The transmitter shall be mounted in a metal enclosure that is providing a degree of protection of at least IP6X according to IEC 60529, and is suitable for the application and correctly installed. Cable entries and blanking elements shall be used that are suitable for the application and correctly installed.

If the enclosure is made of aluminium, it must be installed such, that even in the event of rare incidents, ignition sources due to impact and friction, sparks are excluded.
 If the enclosure is made of non-metallic materials or painted metals electrostatic charging shall be avoided.

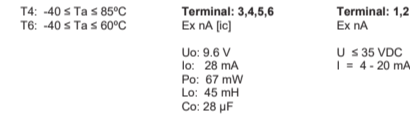
The enclosure shall not contain by mass more than
 a) 15 % in total of aluminium, magnesium, titanium and zirconium, and
 b) 7,5 % in total of magnesium, titanium and zirconium.

IECEx Installation drawing 5335QI021 - V4R0

! For safe installation of 5335A or 5337A 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.

IECEx Certificate IECEx KEM 10.0083X
 Marking Ex nA [ic] IIC T6, T4 Gc
 Ex ic IIC T6, T4 Gc
 Ex ic IIC Dc

Standards: IEC 60079-0 : 2011, IEC 60079-11 : 2011, EN 60079-15 : 2010



General installation instructions

If the enclosure is made of non-metallic materials or of painted metal, electrostatic charging shall be avoided.
 For an ambient temperature ≥ 60°C, heat resistant cables shall be used with a rating of at least 20 K above the ambient temperature.
 For installation in a potentially explosive gas atmosphere, the following instructions apply:
 For "Ex ic" the transmitter must be installed in an enclosure providing a degree of protection of at least IP20 according to IEC60529 that is suitable for the application and is correctly installed.
 For "Ex nA" the transmitter must be installed in an enclosure providing a degree of protection of at least IP54 according to IEC60529 that is suitable for the application and is correctly installed, or in an enclosure with type of protection Ex n or Ex e.
 Cable entry devices and blanking elements shall fulfill the same requirements.

For installation in a potentially explosive dust atmosphere, the following instructions apply:
 If the transmitter is supplied with an intrinsically safe signal "ic" and interfaces an intrinsically safe signal "ic" (e.g. a passive device), the transmitter shall be mounted in a metal enclosure form B according to DIN 43729 that provides a degree of protection of at least IP6X according to IEC60529, and that is suitable for the application. Cable entry devices and blanking elements shall fulfill the same requirements.
 If the transmitter is supplied with a non-sparking signal "nA", or interfaces a non sparking signal, the transmitter shall be mounted in a metal enclosure form B according to DIN 43729 providing a degree of protection of at least IP6X according to IEC60529, and in conformance with type of protection Ex ID and suitable for the application. Cable entry devices and blanking elements shall fulfill the same requirements.

Instruções de Segurança 5335QB01 V4R0

5335D, 5337D: Instalação Ex:

ATENÇÃO - RISCO POTENCIAL DE CARGA ELETROSTÁTICA - VER INSTRUÇÕES

Para a instalação segura do transmissor 5335D, 5337D em áreas classificadas, deve-se observar o seguinte:
 O módulo necessita ser instalado somente por pessoal qualificado e que tenham familiaridade com normas internacionais, diretivas e normalização aplicadas à estas áreas.
 O ano de fabricação do instrumento pode ser obtido, observando-se os primeiros dois dígitos do seu número de série.
 O circuito do sensor não está com isolamento galvânica total em relação ao circuito de entrada. Todavia a isolamento galvânica entre os circuitos é capaz de suportar teste de voltagem de 500 Vac durante 1 minuto.
 O transmissor precisa ser montado em um invólucro com um grau de proteção pelo menos IP-20.
 Em atmosferas explosivas compostas por misturas de ar / poeira:
 O transmissor somente poderá ser instalado em uma atmosfera potencialmente explosiva composta por poeira combustível se estiver montado no interior de um invólucro metálico forma B de acordo com a norma DIN 43729 com um grau de proteção pelo menos IP-6X de acordo com a norma IEC 60529, que seja adequado para esta aplicação e corretamente instalado.
 As entradas dos cabos e outras barreiras a serem utilizadas devem ser adequadas e corretamente instaladas.
 Onde a temperatura ambiente for ≥60°C, devem ser utilizados cabos resistentes ao calor que resistam pelo menos 20K acima da temperatura ambiente.
 Se o invólucro onde o transmissor está montado for feito de alumínio e instalado em Zona 0, 1 ou Zona 20,21 ou 22, este não deve conter mais do que 6% do seu peso total de magnésio e titânio.
 Acessórios adicionais ao invólucro devem ser projetados e/ou instalados de tal modo que até mesmo eventos de rara incidência, fontes de ignição causadas por impactos e falhas por fricção sejam excluídas.

Ex ia IIC T6...T4 Ga
 Ex ia I Ma

Certificado: NCC 12.0844 X

Temp. amb. máxima T1...T4 85°C
 Temp. amb. máxima T5 e T6 45°C
 Aplicável em Zona 0, 1, 2

Sinal de saída / alimentação , terminal 1 e 2:
 Uo 30 VDC
 Io 120 mADC
 Pi 0,84 W
 Li 10 μH
 Ci 1,0 nF

Entrada do sensor, terminais 3, 4, 5 e 6:
 Uo 9,6 VDC
 Io 28 mA
 Po 67 mW
 Lo 35 mH
 Co 3,5 μF

5335A, 5337A: Instalação Ex:

ATENÇÃO - RISCO POTENCIAL DE CARGA ELETROSTÁTICA - VER INSTRUÇÕES

Montado no interior de um invólucro metálico forma B de acordo com a norma DIN 43729 com um grau de proteção pelo menos IP-54 de acordo com a norma IEC 60529, que seja adequada para esta aplicação e corretamente instalado.

Ex nA [ic] IIC T6...T4 Gc
 Ex ic IIC T6...T4 Gc
 Certificado: NCC 12.0844 X

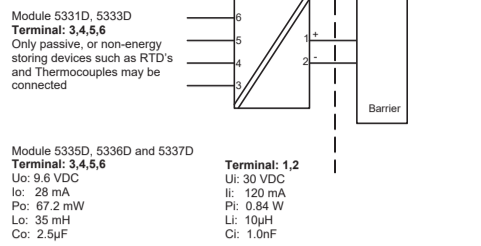
Temp. amb. máxima T1...T4 85°C
 Temp. amb. máxima T5 e T6 60°C
 Aplicável em Zona 2

Sinal de saída / alimentação , terminal 1 e 2:
 Uo 35 VDC

Entrada do sensor, terminais 3, 4, 5 e 6:
 Uo 9,6 VDC
 Io 28 mA
 Po 67 mW
 Lo 35 mH
 Co 3,5 μF

CSA Installation drawing 533XQC03 - V3R0

Hazardous area
 T4: -40 ≤ Ta ≤ 85°C
 T6: -40 ≤ Ta ≤ 60°C



CLASS 2258 04 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe Entity - For Hazardous Locations
 Class I, Division 1, Groups A, B, C and D
 Ex ia IIC, Ga

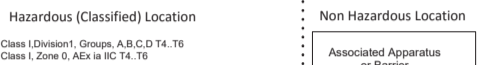
CLASS 2258 04 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe Entity - For Hazardous Locations - Certified to US Standards
 Class I, Division 1, Groups A, B, C and D
 Class I, Zone 0, AEx ia IIC, Ga

Warning:
 Substitution of components may impair intrinsic safety.

The transmitters must be installed in a suitable enclosure to meet installation codes stipulated in the Canadian Electrical Code (CEC) or for US the National Electrical Code (NEC).

FM Installation Drawing 5300Q502 Rev AH V8R0

Model 5331C, 5331D, 5333C, 5333D and 5343B



Model 5335C, 5335D, 5336B, 5337D



The entity concept

The Transmitter must be installed according to National Electrical Code (ANSI-NFPA 70) and shall be installed with the enclosure, mounting, and spacing segregation requirement of the ultimate application.

Equipment that is FM-approved for intrinsic safety may be connected to barriers based on the ENTITY CONCEPT. This concept permits interconnection of approved transmitters, meters and other devices in combinations which have not been specifically examined by FM, provided that the agency's criteria are met. The combination is then intrinsically safe, if the entity concept is acceptable to the authority having jurisdiction over the installation.

The entity concept criteria are as follows:
 The intrinsically safe devices, other than barriers, must not be a source of power.

The maximum voltage U(VMAX) and current I(IMAX), and maximum power P(Pmax), which the device can receive and remain intrinsically safe, must be equal to or greater than the voltage (Uo or Voc or Vt) and current (Io or Isc or It) and the power Po which can be delivered by the barrier.

The sum of the maximum unprotected capacitance (Ci) for each intrinsically device and the interconnecting wiring must be less than the capacitance (Ca) which can be safely connected to the barrier.

The sum of the maximum unprotected inductance (Li) for each intrinsically device and the interconnecting wiring must be less than the inductance (La) which can be safely connected to the barrier.

The entity parameters Uo,VOC or Vt and Io,Isc or It, and Ca and La for barriers are provided by the barrier manufacturer.

NI Field Circuit Parameters

Model 5331C, 5331D, 5333C, 5333D, 5335C, 5335D, 5336B, 5337D and 5343B



DECLARATION OF CONFORMITY

(5335_5337DoC_101)

As manufacturer
PR electronics A/S, Lerbakken 10, DK-8410 Rande
 hereby declares that the following products:
Type: 5335 / 5337
Name: 2-Wire transmitter with HART® protocol
From serial no.: 150802000

is in conformity with the following directives and standards:
 The EMC Directive and later amendments
 until 2016.04.19: 2004/108/EC
 from 2016.04.20: 2014/30/EU
EN 61326-1 : 2013

For specification of the acceptable EMC performance level, refer to the electrical specifications for the device.

The ATEX Directive and later amendments
 until 2016.04.19: 94/9/EC
 from 2016.04.20: 2014/34/EU
EN 60079-0 : 2012, EN 60079-11 : 2012, EN 60079-15 : 2010, and EN 60079-26 : 2007
 ATEX certificate: KEMA 03ATEX1508 X (5335A / 5337A)
 ATEX certificate: KEMA 03ATEX1537 (5335D / 5337D)

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

The RoHS2 Directive 2011/65/EU
The product has been manufactured according to Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

Rande, 21 March 2016

 S. Lindemann, CTO
 Manufacturer's signature