



**DK 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.

**DK 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.

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

**DK 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.

**DK 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/udgangforsyningsforbindelser findes i produktmanualen, som kan hentes på www.prelectronics.dk.

**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.

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

**DK 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, følerleddetektering og udgangssignal.

**Elektriske specifikationer**

Specifikationsområde.....	-40°C til +85°C
Forsyningsspænding, 5335A & 5337A.....	8,0...35 VDC
Internt effekttab, 5335A & 5337A.....	25 mW...0,8 W
Forsyningsspænding, 5335D & 5337D.....	8,0...30 VDC
Internt effekttab, 5335D & 5337D.....	25 mW...0,7 W
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

**Strømodgang:**

Signalområde.....	4...20 mA
Min. signalområde.....	16 mA
Belastningsmodstand, Ω.....	≤ (Vforsyn.-8,0 V)/0,023

**Godkendelser:**

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

**Overholdte myndighedskrav:**

EMC.....	2014/30/EU
ATEX.....	2014/34/EU
RoHS.....	2011/65/EU

**UK 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.

**UK 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.

**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.

**UK 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.

**UK 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.

**UK 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.

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

**UK 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
Internal power dissipation, 5335A & 5337A.....	25 mW...0.8 W
Supply voltage, 5335D & 5337D.....	8.0...30 VDC
Internal power dissipation, 5335D & 5337D.....	25 mW...0.7 W
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.....	≤ (Vsupply-8.0 V)/0.023

**Approvals:**

DNV-GL, 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

**FR 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.

**FR 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.

**FR 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.

**FR 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.

**FR 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.

**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.

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

**FR 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
Puissance dissipée, 5335A & 5337A.....	25 mW...0,8 W
Tension d'alimentation, 5335D & 5337D.....	8,0...30 Vcc
Puissance dissipée, 5335D & 5337D.....	25 mW...0,7 W
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
Résistance linéaire.....	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-GL, 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

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

**DE 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.

**DE 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.

**DE 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.

**DE 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.

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

**DE 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 Versorgungsschnittstelle 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, Fehlererkennung und Ausgangssignal.

**DE Elektrische Daten**  
Spezifikationsbereich..... -40°C bis +85°C  
Versorgungsspannung, 5335A & 5337A..... 8,0...35 VDC  
Verlustleistung, 5335A & 5337A..... 25 mW...0,8 W  
Versorgungsspannung, 5335D & 5337D..... 8,0...30 VDC  
Verlustleistung, 5335D & 5337D..... 25 mW...0,7 W  
Isolationsspannung, Test / Betrieb..... 1,5 kVAC / 50 VAC  
Kalibreringstemperatur..... 20...28°C  
Luftfeuchtigkeit..... < 95% RF (nicht kond.)  
Maß..... Ø44 x 20,2 mm  
Schutzart (Gehäuse / Anschluss)..... IP68 / IP00

**DE 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

**DE Stromausgang:**

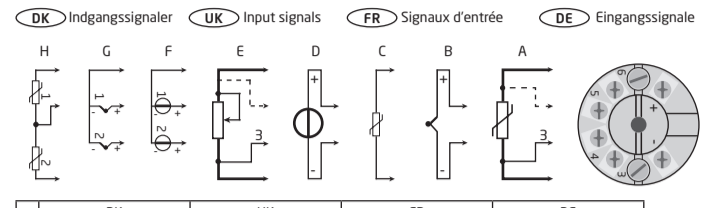
Signalbereich.....	4...20 mA
Min. Signalbereich.....	16 mA
Belastungswiderstand, Ω.....	≤ (Vversorg.-8,0V)/0,023

**DE Zulassungen:**

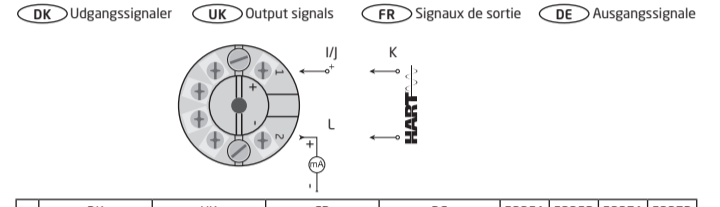
DNV-GL, Ships & Offshore.....	Stand. f. Certific. No. 2.4
EAC.....	TR-CU 020/2011
EAC Ex.....	TR-CU 012/2011

**DE Eingehaltene Behördenvorschriften:**

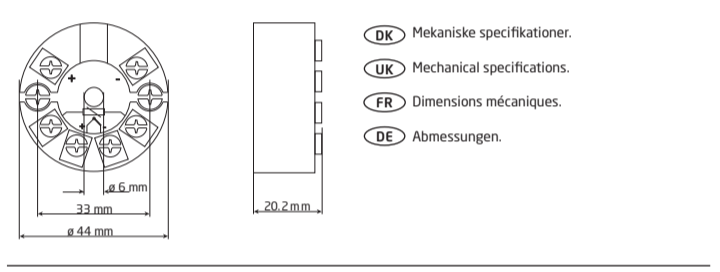
EMV.....	2014/30/EU
ATEX.....	2014/34/EU
RoHS.....	2011/65/EU



	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	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 Montering af følerledninger**  
Ledninger monteres mellem metalpladerne. Ledningskvadrat (max.) 1 x 1,5 mm<sup>2</sup> flertrådet ledning. Klemmekruet/spændingsmoment 0,4 Nm.

**UK Mounting of sensor wires**  
Wires must be mounted between the metal plates. Max. wire size 1 x 1,5 mm<sup>2</sup> 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 mm<sup>2</sup> 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 mm<sup>2</sup> Litzendraht. Klemmschraubenanzugsmoment 0,4 Nm.

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

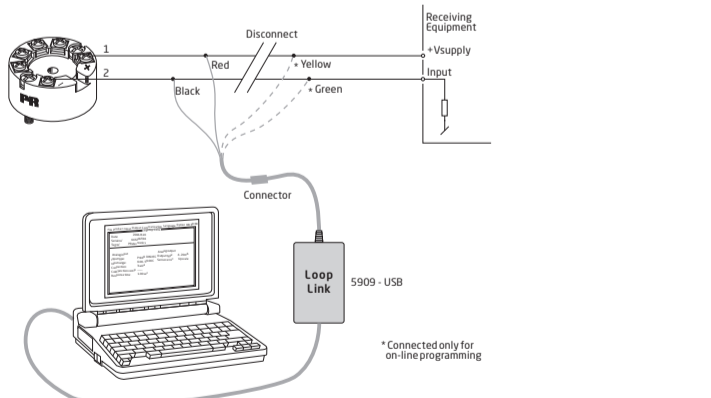
**DK Godkendelser**  
**UK Approvals**  
**FR Homologations**  
**DE Zulassungen**

**PO 500000 SN 020500000 63360**

CE 0944 IECEx FM 1180823 NCC 12 0844X ENEC 12 0844X EAC TR-CU 020/2011

PR electronics A/S, Lerbakken 10, 8410 Rønde, Danmark

(DK) Typenr.  
 (UK) Type no.  
 (FR) No. de type.  
 (DE) Typenr.  
 (DK) Produktionsår fremgår af de to første cifre i serienummeret.  
 (UK) Year of manufacture can be taken from the first two digits in the serial number.  
 (FR) L'année de production est définie grâce aux deux premiers chiffres du numéro de série.  
 (DE) Die ersten beiden Ziffern der Seriennummer geben das Produktionsjahr an.

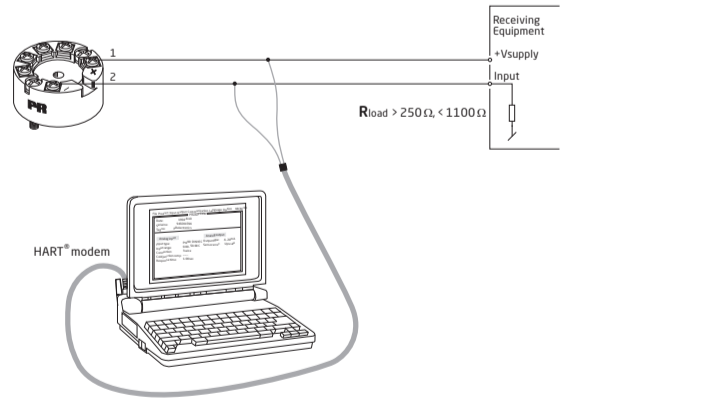


**DK** Loop Link er et kommunikationsinterface, der er nødvendigt for programmering af 53xx. Loop Link må ikke benyttes til kommunikation med moduler installeret i Ex-område.

**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** Programmering med HART-modem.

**UK** Programming with HART modem.

**FR** Programmation par modem HART.

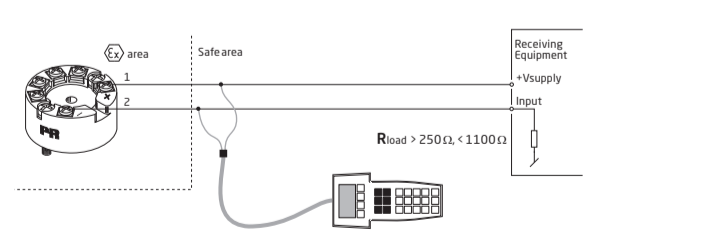
**DE** Programmierung mit HART-Modem.

**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 diphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Printed circuit board	X	0	0	0	0	0

This table is prepared in accordance with the provisions of SJ/T 11364  
 0: 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 **50**



**DK** Programmering med HART-kommunikator.

**UK** Programming with HART communicator.

**FR** Programmation par communicateur HART.

**DE** Programmierung mit HART-Kommunikator.

**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	5335QB01
5335D & 5337D	KEMA 03ATEX1537	0, 1, 2, 20, 21, 22, M1	5335QA01	KEM 10.0083X	0, 1, 2, 20, 21, 22, M	5335QI01	FM17U50013X	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	5335QB01

**DK** Dokumentation, godkend

## 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.

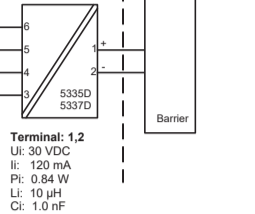
ATEX Certificate KEMA 03ATEX 1537  
 Marking II 1 G Ex ia IIC T6 ...T4 Ga  
 I 1 D Ex ia IIC Da  
 I M1 Ex ia I Ma

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

Hazardous area Zone 0, 1, 2, 20, 21, 22, and Coal mining

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

**Terminal: 3,4,5,6**  
 Uo: 9.6 VDC  
 Io: 28 mA  
 Po: 67 mW  
 Lo: 35 mH  
 Co: 3.5 µF



### 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 aluminum, 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 aluminum, 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 aluminum, 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 D 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

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

**Terminal: 3,4,5,6**  
 Ex nA [ic]  
 Uo: 9.6 V  
 Io: 28 mA  
 Po: 67 mW  
 Lo: 45 mH  
 Co: 28 µF

**Terminal: 1,2**  
 Ex nA  
 U ≤ 35 VDC  
 I = 4 - 20 mA

### 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.

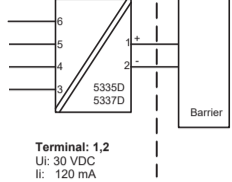
IECEx Certificate IECEx KEM.10.0083X  
 Marking Ex ia IIC T6...T4 Ga  
 Ex ia IIC Da  
 Ex ia I Ma

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

Hazardous area Zone 0, 1, 2, 20, 21, 22 and Coal mining

T4: -40 ≤ Ta ≤ 85°C  
 T6: -40 ≤ Ta ≤ 45°C

**Terminal: 3,4,5,6**  
 Uo: 9.6 VDC  
 Io: 28 mA  
 Po: 67 mW  
 Lo: 35 mH  
 Co: 3.5 µF



**Terminal: 1,2**  
 U: 30 VDC  
 I: 120 mA  
 P: 0.84 W  
 L: 10 µH  
 C: 1.0 nF

### 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 aluminum, 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 aluminum, 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 aluminum, magnesium, titanium and zirconium, and  
 b) 7,5 % in total of magnesium, titanium and zirconium.

## IECEx Installation drawing 5335QI02 - 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

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

**Terminal: 3,4,5,6**  
 Ex nA [ic]  
 Uo: 9.6 V  
 Io: 28 mA  
 Po: 67 mW  
 Lo: 45 mH  
 Co: 28 µF

**Terminal: 1,2**  
 Ex nA  
 U ≤ 35 VDC  
 I = 4 - 20 mA

### 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 a 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 faíscas 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

Terminal 1, 2  
 U: 30 VDC  
 I: 120 mA  
 P: 0.84 W  
 L: 10 µH  
 C: 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 adequado 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

Terminal 1 e 2  
 U: 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

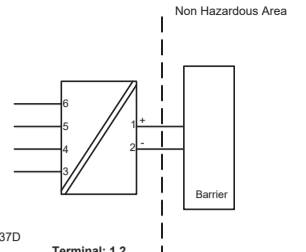
## CSA Installation drawing 533XQC03 - V4R0

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

Module 5331D, 5333D  
**Terminal: 3,4,5,6**  
 Only passive, or non-energy storing devices such as RTD's and Thermocouples may be connected

Module 5335D, 5336D and 5337D  
**Terminal: 3,4,5,6**  
 Uo: 9.6 VDC  
 Io: 28 mA  
 Po: 67.2 mW  
 Lo: 35 mH  
 Co: 2.5µF

**Terminal: 1,2**  
 U: 30 VDC  
 I: 120 mA  
 P: 0.84 W  
 L: 10µH  
 C: 1.0nF



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 84 - 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 V2R0

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

Hazardous (Classified) Location  
 Class I, Division 1, Groups, A,B,C,D T4...T6  
 Class I, Zone 0, AEx ia IIC T4...T6

Ambient temperature limits  
 T4: -40 to + 85 deg. Celsius  
 T6: -40 to + 60 deg. Celsius

Terminal 1, 2  
 Vmax or Uo: 30 V  
 Imax or Io: 120 mA  
 Pmax or Pi: 0.84 W  
 Ci: 1 nF  
 Li: 10 µH



Non Hazardous Location  
 Associated Apparatus or Barrier with  
 entry Parameters:  
 UM ≤ 250V  
 Voc or Uo ≤ Vmax or Ui  
 Isc or Io ≤ Imax or Ii  
 Po ≤ Pi  
 Ca or Co ≥ Ci + Ccable  
 La or Lc ≥ Li + Lcable  
 This device must not be connected to any associated apparatus which uses or generates more than 250 Vrms

### Model 5335D, 5337D

Hazardous (Classified) Location  
 Class I, Division 1, Groups, A,B,C,D T4...T6  
 Class I, Zone 0, AEx ia IIC T4...T6

Ambient temperature limits  
 T4: -40 to + 85 deg. Celsius  
 T6: -40 to + 60 deg. Celsius

Terminal 1, 2  
 Vmax or Uo: 30 V  
 Imax or Io: 120 mA  
 Pmax or Pi: 0.84 W  
 Ci: 1 nF  
 Li: 10 µH



Non Hazardous Location  
 Associated Apparatus or Barrier with  
 entry Parameters:  
 UM ≤ 250V  
 Voc or Uo ≤ Vmax or Ui  
 Isc or Io ≤ Imax or Ii  
 Po ≤ Pi  
 Ca or Co ≥ Ci + Ccable  
 La or Lc ≥ Li + Lcable  
 This device must not be connected to any associated apparatus which uses or generates more than 250 Vrms

### 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 Ui(VMAX) and current Ii(IMAX), and maximum power Pi(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 Ii) 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 interconnect-ing 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 Ii, and Ca and La for barriers are provided by the barrier manufacturer.

### NI Field Circuit Parameters

#### Model 5331D, 5333D, 5335D, 5337D and 5343B

Hazardous (Classified) Location  
 Class I, Division 2, Groups, A,B,C,D T4...T6  
 Class I, Zone 2, IIC T4...T6

Ambient temperature limits  
 T4: -40 to + 85 deg. Celsius  
 T6: -40 to + 60 deg. Celsius

Terminal 1, 2  
 Vmax: 35 V  
 Ci: 1.0 nF  
 Li: 10 µH



Non Hazardous Location  
 Associated Apparatus or Barrier  
 This device must not be connected to any associated apparatus which uses or generates more than 250 Vrms

## EU DECLARATION OF CONFORMITY



(5335\_5337DoC\_102)

As manufacturer PR electronics A/S, Lerbakken 10, DK-8410 Rønde

hereby declares that the following products:

Type: 5335 / 5337  
 Name: 2-wire transmitter with HART protocol  
 From serial no.: 160933112

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 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)

No changes are required to enable compliance with the replacement standards:  
 EN 60079-0 : 2012 + A11 : 2013

ATEX notified body (type approval)

DEKRA Certification B.V.  
 Meander 1051, 6825 Mj Arnhem  
 P.O. Box 5185, 6802 ED Arnhem  
 The Netherlands

The RoHS2 Directive 2011/65/EU and later amendments  
 EN 50581 : 2012

Notified body 0344

DEKRA Certification B.V.  
 Meander 1051, 6825 Mj Arnhem  
 P.O. Box 5185, 6802 ED Arnhem  
 The Netherlands

Notified body 0344

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Stig Lindemann, CTO  
 Manufacturer's signature

Rønde, 16 January 2018