

DK**ADVARSEL**

Følgende operationer bør kun udføres på modulet i spændingslös 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 programmeringseenheden må ikke betyrtes til kommunikation med modular installeret i Ex-område.

Enhederne skal installeres i henhold til den tilhørende installations vejledning ved montering i eksplosionsfarlig område.

SIKKERHEDSREGLER**Modtagelse og udpakning**

Udpak modulet uden at beskadige det. Kontroller ved modtagelsen, at modultypen sværer til den bestilte. Indpakningen bør følge modulet, indtil dette er monteret på blivende plads.

Miljøforhold

Undgå direkte sollys, kraftigt støv eller varme, mekaniske rystelser og stød, og udset ikke modulet for regn eller kraftig fugt. Om nødvendigt skal opvarmning, ud over de opgivne grænser for omgivelses temperatur, 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 fulgte disse.

Hvis der træffes 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 ledningstværtning, til sikring og placering.

Beskrivelse af indgang / udgang og forsyningsforbindelser findes i produktmanualen, som kan hentes på www.prelectronics.dk.

Kalibrering og justering

Under kalibrering og justering skal mätning og tilslutning af eksterne spændinger udføres i henhold til denne installationsvejledning, og teknikeren skal benytte sikkerhedsmæssigt korrekte værktøj og instrumenter.

Rengøring

Modulet må, i spændingslös tilstand, rengøres med en klud let fugtet med destillert 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 tilslutning af forsyningsspænding. I det kommunikationsinterface leverer nødvendigst forsyning til opslutningen. Kommunikationsinterfacet er galvanisk isoleret, så PC'en port er optimalt beskyttet.

Kommunikationen er 2-veis, så modulene opslutning kan hentes ind i PC'en, og opslutningen i PC'en kan sendes til modullet.

For de brugere, der ikke selv vil foretage opslutning, kan modulet leveres konfigureret efter oplyst specifikation: indgangstype, måleområde, fejlfejlsdetection og udgangssignal.

Elektriske specifikationer

Specifikationsområde -40°C til +85°C

Forsyningsspænding 8..35 VDC

Intern effekt 25 mW...0.8 W

Forsyningsspænding 8..30 VDC

Intern effekt 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...+950°C

Ni100 -60°C...+250°C

TC-indgang B, E, J, K, L, N, R, S, T, U,

W3, W5, Lr

Lin. R 0.0...7000 Q

Spænding -800...+800 mV

Strømudgang

Signalområde 4...20 mA

Min. signalområde 16 mA

Belastningsmodstand, Ω \leq (Vforsorg-8.0 V)/0.023

Overholde myndighedskrav

EMC 2014/30/EU & UK SI 2016/1091

ATEX 2014/34/EU & UK SI 2016/1107

RoHS 2011/65/EU & UK SI 2012/3032

EAC TR-CU 020/2011

EAC Ex TR-CU 012/2011

Godkendelser

DNV, Ships & Offshore TAA0000101

EAC Ex RU C-DK-HA65.B.00355/19

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.

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 power 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 communications interface.

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, 8..35 VDC

Internal power dissipation 25 mW...0.8 W

Forsyningsspænding 8..30 VDC

Internal effekt 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

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 0.0...7000 Q

Voltage -800...+800 mV

Current output

Signal range 4...20 mA

Min. signal range 16 mA

Load resistance, Ω \leq (Vforsorg-8.0 V)/0.023

Observed authority requirements

EMC 2014/30/EU & UK SI 2016/1091

ATEX 2014/34/EU & UK SI 2016/1107

RoHS 2011/65/EU & UK SI 2012/3032

EAC TR-CU 020/2011

EAC Ex TR-CU 012/2011

Approvals

DNV, Ships & Offshore TAA0000101

EAC Ex RU C-DK-HA65.B.00355/19

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.

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 monté conformément aux plans appropriés.

CONSIGNES DE SECURITE

Réception et déballage
Déballez le module sans l'endommager. Il est recommandé de conserver l'emballage du module tant que ce dernier n'est pas définitivement monté. À 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 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 une ou deux questions 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.

Calibration et réglage

Lors des opérations d'étalonnage et de réglage, il convient d'effectuer les mesures et les connexions des tensions externes en respectant les spécifications mentionnées dans ce guide. Les techniciens doivent utiliser des outils et des instruments pouvant être manipulés en toute sécurité.

Maintenance et entretien

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

Programmation par PC du SYSTEME 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 répère. Le module peut être livré déjà programmé, si l'utilisateur le souhaite.

PC-Programmierung des Systems 5300

Das Gerät wird für die jeweilige Aufgabe mit Hilfe eines PCs und PR electronics A/S Kommunikationschnittstelle Loop Link konfiguriert. Es ist möglich, das Gerät sowohl mit als auch ohne angeschlossene Versorgungsspannung zu konfigurieren, da die Kommunikationschnittstelle die notwendige Versorgung für die Einstellung liefert. Die Einstellung 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 übertragen werden kann. Für diejenigen Anwender, welche die Einstellung nicht selbst vornehmen wollen, kann das Gerät nach folgenden Kundenspezifikationen konfiguriert lieferiert werden: Eingangstyp, Messbereich, Führerlehrerkennung und Ausgangssignal.

Elektrische Daten

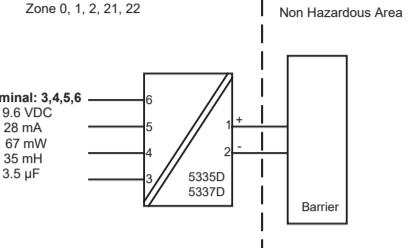
ATEX-installation drawing 5335QA01-V5R0

! For safe installation of 5335D or 5337D the following must be observed. This 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 DEKRA 20ATEX0108 X

Marking II 1 G Ex ia IIC T6...T4 Ga
II 2 D Ex ia IIC Db
I M1 Ex ia I Ma

Standards EN IEC 60079-0: 2018, EN 60079-11: 2012



Terminal: 1,2
Ui: 30 VDC Io: 120 mA Pi: 0.84 W or Pi: 0.75 W
Li: 0 μ H Ci: 1.0 nF

Temperature Class		Ambient temperature range	
		Pi: 0.84 W	Pi: 0.75 W
T6	-40°C to +47°C	-40°C to +50°C	
T5	-40°C to +62°C	-40°C to +65°C	
T4	-40°C to +85°C	-40°C to +85°C	

Installation notes

If the enclosure is made of non-metallic plastic materials, electrostatic charges on the transmitter enclosure shall be avoided.

If the transmitter is installed in an explosive atmosphere requiring the use of equipment protection level Ga, the transmitter shall be mounted in an enclosure that provides a degree of protection of at least IP20 according to EN 60529, and that is suitable for the application and correctly installed.

If the transmitter is installed in an explosive atmosphere requiring the use of equipment protection level Ga or Ma, and if the enclosure is made of aluminum, it must be installed such that, ignition sources due to impact and friction sparks are excluded.

If the transmitter is installed in an explosive atmosphere requiring the use of equipment protection level Db, the transmitter shall be mounted in a separately certified enclosure that provides a degree of protection of at least IP5X according to EN 60079-0, and that is suitable for the application and correctly installed. The surface temperature of the outer enclosure is +20 K above the ambient temperature, determined without a dust layer. Ambient temperature range: -40°C to +85°C.

If the transmitter is installed in an explosive atmosphere requiring the use of equipment protection level Ma, the transmitter shall be mounted in an enclosure that provides a degree of protection of at least IP54 according to EN 60529, and that is suitable for the application and correctly installed. Ambient temperature range: -40°C to +85°C.

Cable entries and blanking elements shall be used that are suitable for the application and correctly installed.

For an ambient temperature \geq 60°C, heat resistant cables shall be used with a rating of at least 20 K above the ambient temperature.

The sensor circuit is not infully galvanically isolated from the input circuit. However, the galvanic isolation between the circuits is capable of withstanding a test voltage of 500 VAC for 1 minute.

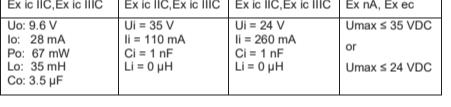
ATEX-installation drawing 5335QA02-V5R0

For safe installation of 5335A and 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 DEKRA 20ATEX0109 X

Marking II 3 G Ex nA [g] IIC T6...T4 Gc
II 3 G Ex ec [b] IIC T6...T4 Gc
II 3 G Ex ic IIC T6...T4 Gc
II 3 D Ex ic IIC Dc

Standards EN 60079-0: 2018, EN 60079-11: 2012, EN 60079-15: 2010, EN 60079-15: 2015+A1: 2018



Temperature Class		Ambient temperature range	
		Ui=35 V	Ui=24 V
T6	-40°C to +54°C	-40°C to +63°C	
T5	-40°C to +69°C	-40°C to +78°C	
T4	-40°C to +85°C	-40°C to +85°C	

Temperature Class		Ambient temperature range	
		Vmax=35 V	Vmax=24 V
T6	-40°C to +43°C	-40°C to +55°C	
T5	-40°C to +85°C	-40°C to +85°C	
T4	-40°C to +85°C	-40°C to +85°C	

Temperature Class		Ambient temperature range	
		Vmax=35 V	Vmax=24 V
T6	-40°C to +43°C	-40°C to +55°C	
T5	-40°C to +85°C	-40°C to +85°C	
T4	-40°C to +85°C	-40°C to +85°C	

Temperature Class		Ambient temperature range	
		Vmax=35 V	Vmax=24 V
T6	-40°C to +43°C	-40°C to +55°C	
T5	-40°C to +85°C	-40°C to +85°C	
T4	-40°C to +85°C	-40°C to +85°C	

Temperature Class		Ambient temperature range	
		Vmax=35 V	Vmax=24 V
T6	-40°C to +43°C	-40°C to +55°C	
T5	-40°C to +85°C	-40°C to +85°C	
T4	-40°C to +85°C	-40°C to +85°C	

Temperature Class		Ambient temperature range	
		Vmax=35 V	Vmax=24 V
T6	-40°C to +43°C	-40°C to +55°C	
T5	-40°C to +85°C	-40°C to +85°C	
T4	-40°C to +85°C	-40°C to +85°C	

Temperature Class		Ambient temperature range	
		Vmax=35 V	Vmax=24 V
T6	-40°C to +43°C	-40°C to +55°C	
T5	-40°C to +85°C	-40°C to +85°C	
T4	-40°C to +85°C	-40°C to +85°C	

Temperature Class		Ambient temperature range	
		Vmax=35 V	Vmax=24 V
T6	-40°C to +43°C	-40°C to +55°C	
T5	-40°C to +85°C	-40°C to +85°C	
T4	-40°C to +85°C	-40°C to +85°C	

Temperature Class		Ambient temperature range	
		Vmax=35 V	Vmax=24 V
T6	-40°C to +43°C	-40°C to +55°C	
T5	-40°C to +85°C	-40°C to +85°C	
T4	-40°C to +85°C	-40°C to +85°C	

Temperature Class		Ambient temperature range	
		Vmax=35 V	Vmax=24 V
T6	-40°C to +43°C	-40°C to +55°C	
T5	-40°C to +85°C	-40°C to +85°C	
T4	-40°C to +85°C	-40°C to +85°C	

Temperature Class		Ambient temperature range	
		Vmax=35 V	Vmax=24 V
T6	-40°C to +43°C	-40°C to +55°C	