

**DK****ADVAREL**

Følgende operationer bør kun udføres på modulet i spændingslös tilstand og under ESD-sikre forhold. Installation, ledningsmontage og demontage.

Troubleshooting på modulet. Reparation af modulet må kun foretages af PR electronics A/S.

ADVAREL

PR Loop Link programmeringenheneden må ikke benyttes til kommunikation med moduler installeret i Ex-område.

Enheder skal installeres i henhold til den tilhørende installations vejledning ved montering i eksplosionfarlig område.

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.

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 omgivelstes 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 følge disse.

Hvis der er tvivl om modulets rette håndtering, skal derrettes 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 ledningstværsnit, for-sikring og placering.

Beskrivelse af findgang/udgangsforbindelser findes i produktmanuallen, 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 sikkerhedsmaßigt korrekte værktøj og instrumenter.

Rengøring

Modulet må, i spændingslös 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 moduler både med og uden tilslutning forsyningsspænding, idet kommunikationsinterfacet leverer nødvendig forsyning til opsætningen. Kommunikationsinterfacet er galvanisk isoleret, så PC'en port er optimalt beskyttet. Kommunikationsporten er 2-vejs, så modulets opsætning kan hentes ind i PC'en, og opsætningen i PC'en kan sendes til modulet. For de brugere, der ikke selv vil foretage opsætning, kan modulet leveres konfigureret efter oplyst specifikation: indgangstype, måleområde, følerfejl-detectering og udgangssignal.

Elektriske specifikationer

Specifikationsområde..... -40°C til +85°C
Forsyningsspænding..... 8,0...35 VDC
Intern effektstab., 5333A & 5343A..... 8,0...35 VDC
Intern effektstab., 5333D & 5343B..... 25 mW..0,8 W
Forsyningsspænding, 5333D & 5343B..... 8,0...30 VDC
Intern effektstab., 5333D & 5343B..... 25 mW..0,7 W
Kalibrerings temperatur..... 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
Lin. R, 5333 0 Ω...10000 Ω
Lin. R, 5343 0 Ω...100 kΩ

Strømudgang:

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

Godkendelses:

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

* Gælder kun 5333

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

As manufacturer PR electronics A/S, Lerbakken 10, DK-8410 Rønde hereby declares that the following products:

Type: 5333
Name: 2-wire programmable transmitter
From serial no.: 161966001

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 10ATEX0003 X (5333A)

ATEX certificate: KEMA 03ATEX1535 X (5333D)

No changes are required to enable compliance with the replacement standards:

EN 60079-0: 2012 + A11: 2013

ATEX notified body: DEKRA Certification B.V.

Meadow 1051, 6825 MJ Arnhem

P.O. Box 5185, 6802 ED Arnhem

The Netherlands

The RoHS Directive 2011/65/EU and later amendments:

EN 50581: 2012

Notified body 0344

DEKRA Certification B.V.

Meadow 1051, 6825 MJ Arnhem

P.O. Box 5185, 6802 ED Arnhem

The Netherlands

Rønde, 5 December 2017

* Only applies to 5333

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 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, 5333A & 5343A..... 8,0...35 VDC
Internal power dissipation, 5333A & 5343A..... 25 mW..0,8 W
Supply voltage, 5333D & 5343B..... 8,0...30 VDC
Internal power dissipation, 5333D & 5343B..... 25 mW..0,7 W
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
Lin. R, 5333 0 Ω...10000 Ω
Lin. R, 5343 0 Ω...100 kΩ

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.

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. 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 réservé 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.

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 getesteten Regeln des jeweiligen Landes bez. der Installation elektrischer Apparaturen zu erfolgen, u.a. bezüglich Leitungsquerschnitt, (elektrischer) Vor-Absehung und Positionierung.

Eine Beschreibung von Eingangs- / Ausgangs- und Versorgungsanschlüssen befindet sich im Produkthandbuch, das unter www.prelectronics.de gefunden und abgerufen werden kann.

Etalonnage 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 la 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 allumé 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 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.

Spécifications

Plage de température -40°C à +85°C
Tension d'alimentation, 5333A & 5343A 8,0...35 Vcc
Puissance dissipée, 5333A & 5343A 25 mW..0,8 W
Supply voltage, 5333D & 5343B 8,0...30 VDC
Internal power dissipation, 5333D & 5343B 25 mW..0,7 W
Calibration temperature 20...28°C
Relative humidity < 95%

ATEX Installation drawing 5333QA01-V2R0

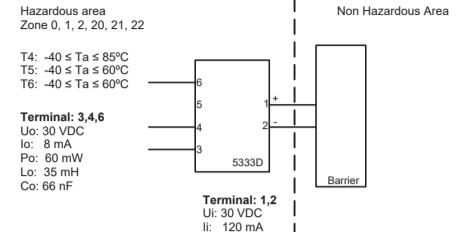
For safe installation of 5333D the following must be observed. The module shall only be installed by qualified personnel who are familiar with the national and international laws, directives and standards that apply to this area.

Year of manufacture can be taken from the first two digits in the serial number.

ATEX Certificate KEMA 03ATEX 1535 X

Marking II 1 G Ex ia IIC T4...T6 Ga
II 1 D Ex ia IIC Da
II 1 M Ex ia I Ma

Standards EN 60079-0 : 2012, EN 60079-11 : 2012, EN 60079-26 : 2007, EN 60079-15 : 2010



Installation notes

In a potentially explosive gas atmosphere, the transmitter shall be mounted in an enclosure in order to provide a degree of protection of at least IP20 according to EN60529.

If the transmitter is installed in an explosive atmosphere requiring the use of equipment of category 1 G, 1 M or 2 M, 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 enclosure is made of non-metallic materials, electrostatic charging shall be avoided.

For installation in a potentially explosive dust atmosphere, the following instructions apply:

The transmitter shall be mounted in a metal enclosure form B 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 an ambient temperature $\geq 60^\circ\text{C}$, heat resistant cables shall be used with a rating of at least 20 K above the ambient temperature.

The surface temperature of the enclosure is equal to the ambient temperature plus 20 K, for a dust layer with a thickness up to 5 mm

ATEX Installation drawing 5333QA02-V2R0

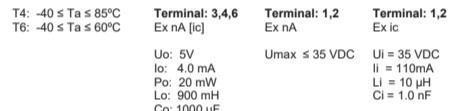
For safe installation of 5333A the following must be observed. The module shall only be installed by qualified personnel who are familiar with the national and international laws, directives and standards that apply to this area.

Year of manufacture can be taken from the first two digits in the serial number.

ATEX Certificate KEMA 10ATEX 0003X

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

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



Special conditions for safe use

For type of protection Ex nA, the transmitter shall be mounted in a metal enclosure providing a degree of protection of at least IP54 according to EN60529.

For use in the presence of combustible dusts the transmitter shall be mounted in an enclosure providing a degree of protection of at least IP6X in accordance with EN60529, the surface temperature of the outer enclosure is 20 K above the ambient temperature.

For an ambient temperature $\geq 60^\circ\text{C}$, heat resistant cables shall be used with a rating of at least 20 K above the ambient temperature.

The transmitter shall be mounted in a enclosure 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.

ATEX Installation drawing 5343QA01-V2R0

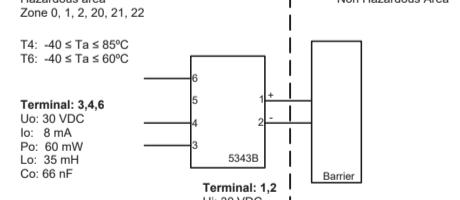
For safe installation of 5343B the following must be observed. The module shall only be installed by qualified personnel who are familiar with the national and international laws, directives and standards that apply to this area.

Year of manufacture can be taken from the first two digits in the serial number.

ATEX Certificate KEMA 03ATEX 1538 X

Marking II 1 G Ex ia IIC T4...T6 Ga
II 1 D Ex ia IIC Da
II 1 M Ex ia I Ma

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



Installation notes

In a potentially explosive gas atmosphere, the transmitter shall be mounted in an enclosure in order to provide a degree of protection of at least IP20 according to EN60529.

If the transmitter is installed in an explosive atmosphere requiring the use of equipment of category 1 G, 1 M or 2 M, 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 enclosure is made of non-metallic materials, electrostatic charging shall be avoided.

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 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 an ambient temperature $\geq 60^\circ\text{C}$, heat resistant cables shall be used with a rating of at least 20 K above the ambient temperature.

The surface temperature of the enclosure is equal to the ambient temperature plus 20 K, for a dust layer with a thickness up to 5 mm.

IECEx Installation drawing 5333QI01-V1R0

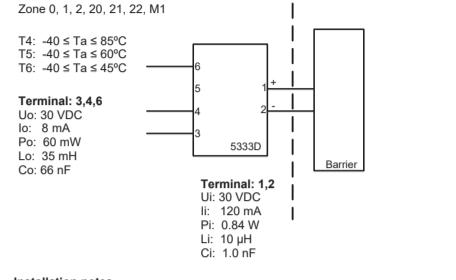
For safe installation of 5333D the following must be observed. The module shall only be installed by qualified personnel who are familiar with the national and international laws, directives and standards that apply to this area.

Year of manufacture can be taken from the first two digits in the serial number.

Certificate IECEx DEK 13.0036X

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

Standards IEC 60079-0 : 2011, IEC 60079-11 : 2011, IEC 60079-26:2006



Installation notes

In a potentially explosive gas atmosphere, the transmitter shall be mounted in a metal form B enclosure in order to provide a degree of protection of at least IP20 according to IEC60529. If however the environment requires a higher degree of protection, this shall be taken into account.

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

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 that is providing a degree of protection of at least IP6X according to IEC60529, 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 an ambient temperature $\geq 60^\circ\text{C}$, heat resistant cables shall be used with a rating of at least 20 K above the ambient temperature.

The transmitter shall be mounted in a metal enclosure form B according to DIN43729 that is providing a degree of protection of at least IP6X according to IEC60529, 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 an ambient temperature $\geq 60^\circ\text{C}$, heat resistant cables shall be used with a rating of at least 20 K above the ambient temperature.

The surface temperature of the enclosure is equal to the ambient temperature plus 20 K, for a dust layer with a thickness up to 5 mm.

Desenho de Instalação InMETRO 5333QB01-V2R0

Para instalação segura do 5333D ou 5343B o seguinte deve ser observado. O modo deve apenas ser instalado por pessoas qualificadas que são familiarizadas com as leis nacionais e internacionais, diretrizes e padrões que se aplicam a esta área.

Ano de fabricação pode ser pego dos dois primeiros dígitos do número de série.

Certificado DEKRA 16.0014 X

Markas Ex ia IIC T6...T4 Ga

Ex ia IIC Da

Normas ABNT NBR IEC 60079-0 : 2013; ABNT NBR IEC 60079-11 : 2013

Áreas Risco Zona 0, 1, 2, 20, 21, 22, M1

Non Hazardous Area

T4: -40 \leq Ta \leq 85°C

T5: -40 \leq Ta \leq 60°C

T6: -40 \leq Ta \leq 0°C

Terminais: 3,4,6

Us: 30 VDC

Io: 8 mA

Po: 60 mW

Lo: 35 mH

Co: 66 nF

Terminais: 1,2

Ui: 30 VDC

Il: 120 mA

Pi: 0.84 W

Li: 10 μ H

Ci: 1.0 nF

Terminais: 1,2

Ui: 30 VDC

Il: 120 mA

Pi: 0.84 W

Li: 10 μ H

Ci: 1.0 nF

Terminais: 1,2

Ui: 30 VDC

Il: 120 mA

Pi: 0.84 W

Li: 10 μ H

Ci: 1.0 nF

Terminais: 1,2

Ui: 30 VDC

Il: 120 mA

Pi: 0.84 W

Li: 10 μ H

Ci: 1.0 nF

Terminais: 1,2

Ui: 30 VDC

Il: 120 mA

Pi: 0.84 W

Li: 10 μ H

Ci: 1.0 nF

Terminais: 1,2

Ui: 30 VDC

Il: 120 mA

Pi: 0.84 W

Li: 10 μ H

Ci: 1.0 nF

Terminais: 1,2

Ui: 30 VDC

Il: 120 mA

Pi: 0.84 W

Li: 10 μ H

Ci: 1.0 nF

Terminais: 1,2

Ui: 30 VDC

Il: 120 mA

Pi: 0.84 W

Li: 10 μ H

Ci: 1.0 nF

Terminais: 1,2

Ui: 30 VDC

Il: 120 mA

Pi: 0.84 W

Li: 10 μ H

Ci: 1.0 nF

Terminais: 1,2

Ui: 30 VDC

Il: 120 mA

Pi: 0.84 W

Li: 10 μ H

Ci: 1.0 nF

Terminais: 1,2

Ui: 30 VDC

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