

DK

ADVARSEL

Følgende operationer bør kun udføres på modulet i spændingsløs tilstand og under ESD-sikre forhold:
Installation, ledningsmontage og -demontage.
Fejfinding 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 installationsvejledning ved montering i eksplosionsfarlig område. System 6300 skal monteres på DIN-skinne efter DIN EN 60715.

SIKKERHEDSREGLER

Motdagelse og udpakning
Udpak modulet uden at beskadige det. Kontrollér ved motdagelsen, 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 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 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 ledningstværn, forsikring og placering.

Beskrivelse af indgang / udgang og forsyningsforbindelser findes i produktdokumentet og på sideskiltet.

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 værktøj og instrumenter.

Rengøring

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

PC-programmering af SYSTEM 6300

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 kommunikationsinterfacet leverer nødvendig forsyning til opsætningen. Kommunikationsinterfacet er galvanisk isoleret, så PC'en port er optimalt beskyttet. Kommunikationen 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, fejfejlsdetection og udgangssignal.

Elektriske specifikationer

Specifikationsområde.....	-40°C til +85°C
Forsyningsspænding,	
6333A.....	8,0...35 VDC
Max. forbrug, 6333A,	
1 / 2 kanaler.....	0,8 W / 1,6 W
Forsyningsspænding,	
6333B.....	8,0...30 VDC
Max. forbrug, 6333B,	
1 / 2 kanaler.....	0,7 W / 1,4 W
Kalibreringstemperatur.....	20...28°C
Relativ fugtighed.....	< 95% RH (ikke kond.)
Mål.....	109 x 23,5 x 104 mm
Kapslingsklasse.....	IP20
Indgangstyper:	
Pt100.....	-200°C...+850°C
Ni100.....	-60°C...+250°C
Lin. R.....	0 Ω...10000 Ω
Strømudgang:	
Signalområde.....	4...20 mA
Min. signalområde.....	16 mA
Belastringsmodstand, Q.....	≤ (Vforsy.-8,0 V)/0,023
Godkendelser:	
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.

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. SYSTEM 6300 must be mounted on a DIN rail according to DIN EN 60715.

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 and on the side label.

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 6300

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 in 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.

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 panne 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 les installations en zone classée, les modules doivent être montés conformément aux plans appropriés. Il convient de monter l'appareil SYSTEME 6300 sur un rail DIN en se conformant à la norme DIN EN 60715.

CONSIGNES DE SÉCURITÉ**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 ambiante.

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.

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 et sur l'étiquette de la face latérale du module.

Étalonnage et réglage

Lors des opérations d'étalement 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 6300

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 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,

6333A..... 8,0...35 VDC

Max. required power,
6333A, 1 / 2 channels..... 0,8 W / 1,6 W

Supply voltage,
6333B..... 8,0...30 VDC

Max. required power,
6333B, 1 / 2 channels..... 0,7 W / 1,4 W

Calibration temperature..... 20...28°C

Relative humidity..... < 95% RH (non-cond.)

Dimensions..... 109 x 23,5 x 104 mm

Protection degree..... IP20

Input types:

Pt100..... -200°C...+850°C

Ni100..... -60°C...+250°C

Lin. R..... 0 Ω...10000 Ω

Current output:

Signal range..... 4...20 mA

Min. signal range..... 16 mA

Load resistance, Q..... ≤ (Vforsy.-8,0 V)/0,023

Approvals:

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

DE

WARNUNG

Folgende Maßnahmen sollten nur in spannunglosem 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.

WARNUNG

Benutzen Sie die Programmierschnittstelle Loop Link nicht im Ex Bereich. Zur Montage in klassifizierten Zonen müssen die Geräte nach den dazugehörigen Einbaubeschriften installiert werden. Das System 6300 muss auf eine DIN-Schiene nach DIN EN 60715 montiert werden.

SICHERHEITSREGELN**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 Sonneninstrahlung, starke Staubentwicklung oder Hitze, mechanische Erschütterungen und Stoße 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, Warnings 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 Leitungskreuzungen, (elektrischer) Vor-Absicherung und Positionierung. Eine Beschreibung von Eingangs- / Ausgangs- und Versorgungsanschlüssen befindet sich im Produktmanual und auf dem Typenschild.

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 spannunglosem Zustand mit einem Lappen gereinigt werden, der mit destilliertem Wasser leicht angefeuchtet ist.

PC-Programmierung des Systems 6300

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

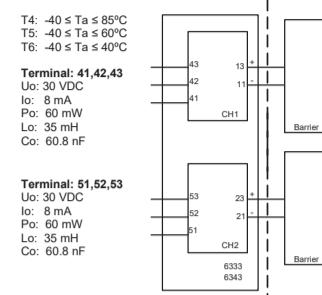
ATEX Installation drawing 6333QA01-V2R0

For safe installation of 6333B and 6343B 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 09ATEX 0147 X
Marking Ex II 1 G Ex ia IIC T6..T4 Ga
II 1 D Ex ia IIC Da
I M 1 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



General installation instructions

To avoid risk of ignition during installation and maintenance appropriate safety measures against electrostatic discharge (ESD) are to be considered.

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

To avoid risk of ignition due to electrostatic discharge (ESD) the transmitter shall be mounted in an enclosure providing a degree of protection of at least IP20 according to EN/IEC 60529. Ambient temperature range:

T4: -40 ≤ Ta ≤ 85°C
T5: -40 ≤ Ta ≤ 60°C
T6: -40 ≤ Ta ≤ 40°C

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

The transmitter shall be mounted in a metal enclosure or equivalent that is providing a degree of protection of at least IP6X according to EN/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. The surface temperature of the enclosure is equal to the ambient temperature +20K for a dust layer with a maximum thickness of 5 mm. Ambient temperature range:

T4: -40 ≤ Ta ≤ 85°C

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

The transmitter shall be mounted in an enclosure providing a degree of protection of at least IP6X according to EN/IEC 60529. Cable entries and blanking elements shall be used that are suitable for the application and correctly installed. Ambient temperature range:

T4: -40 ≤ Ta ≤ 85°C

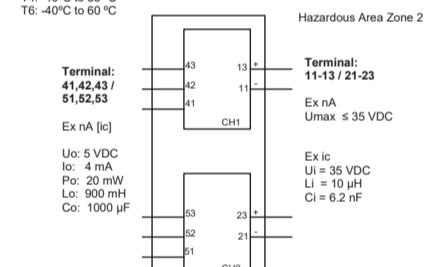
ATEX Installation drawing 6333QA02-V3R0

For safe installation of 6333A and 6343A 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 09ATEX 0147 X
Marking Ex 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

T4: -40°C to 85 °C
T6: -40°C to 60 °C



General installation instructions

To avoid risk of ignition during installation and maintenance appropriate safety measures against electrostatic discharge (ESD) are to be considered.

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

If the transmitter is applied in type of protection "Ex nA", it shall be installed in an enclosure that is Ex nA certified according to IEC-EN 60079-15, or "Ex e" certified and suitable for the application and correctly installed. 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 that provides a degree of protection of at least IP6X according to EN/IEC 60529, and that is suitable for the application. Cable entry devices and blanking elements shall fulfill the same requirements. The surface temperature of the enclosure is equal to the ambient temperature +20K for a dust layer with a maximum thickness of 5 mm.

IECEx Installation drawing 6333QI01-V1R0

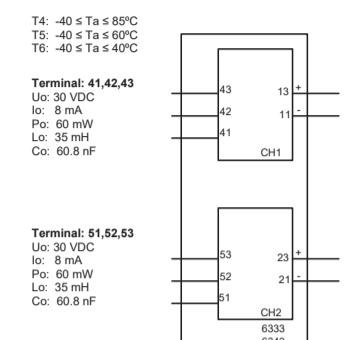
For safe installation of 6333B and 6343B the following must be observed. The module shall only be installed by qualified personnel who are familiar with the national and international laws, directives and standards that apply to this area. Year of manufacture can be taken from the first two digits in the serial number.

IECEx Certificate IECEx DEK 14.0049X

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



General installation instructions

To avoid risk of ignition during installation and maintenance appropriate safety measures against electrostatic discharge (ESD) are to be considered.

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

To avoid risk of ignition due to electrostatic discharge (ESD) the transmitter shall be mounted in an enclosure providing a degree of protection of at least IP20 according to EN/IEC 60529. Ambient temperature range:

T4: -40 ≤ Ta ≤ 85°C
T5: -40 ≤ Ta ≤ 60°C
T6: -40 ≤ Ta ≤ 40°C

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

The transmitter shall be mounted in a metal enclosure or equivalent that is providing a degree of protection of at least IP6X according to EN/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. The surface temperature of the enclosure is equal to the ambient temperature +20K for a dust layer with a maximum thickness of 5 mm. Ambient temperature range:

T4: -40 ≤ Ta ≤ 85°C

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

The transmitter shall be mounted in an enclosure providing a degree of protection of at least IP6X according to EN/IEC 60529. Cable entries and blanking elements shall be used that are suitable for the application and correctly installed. Ambient temperature range:

T4: -40 ≤ Ta ≤ 85°C

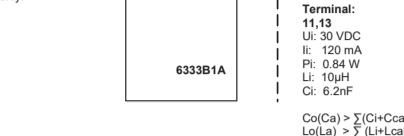
CSA Installation drawing 6333QC01-V1R0

Hazardous (Classified) Location
IS,Class I, Division 1, Group A,B,C,D T4..T6
Ex ia IC T4..T6 Ga
Class I, Zone 0, AEx ia IIC T4..T6 Ga

Non Hazardous Location

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

Terminal: 41,42,43
Connect to passive or non-energy storing devices such as RTD's Resistors and Thermocouples only.



Terminal:

11,13
Ui: 30 VDC
Ii: 120 mA
Pi: 0.84 W
Li: 10μH
Ci: 6.2nF

Co(Ca) > Σ(Ci+Ccable)
Lo(La) > Σ (Li+Lcable)

Installation notes
The Transmitter must be installed in a suitable enclosure to meet installation codes stipulated in The Canadian Electrical Code (CEC).

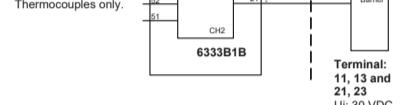
Substitution of components may impair intrinsic safety.

Hazardous (Classified) Location
IS,Class I, Division 1, Group A,B,C,D T4..T6
Ex ia IC T4..T6 Ga
Class I, Zone 0, AEx ia IIC T4..T6 Ga

Non Hazardous Location

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

Terminal: 41,42,43
Connect to passive or non-energy storing devices such as RTD's Resistors and Thermocouples only.



Terminal:

11,13 and 21,23
Ui: 30 VDC
Ii: 120 mA
Pi: 0.84 W
Li: 10μH
Ci: 6.2nF

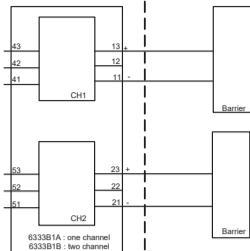
Co(Ca) > Σ(Ci+Ccable)
Lo(La) > Σ (Li+Lcable)

FM Installation drawing 6333QF01-V1R0

Hazardous (Classified) Location
Class I, Division 1, Group A,B,C,D T4..T6
Ex ia IC T4..T6 Ga

Non Hazardous Location

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



Installation notes

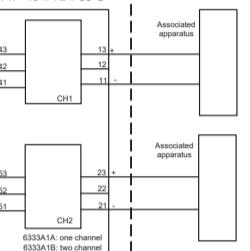
For installation in Class I the Transmitter must be installed in a suitable enclosure to meet installation codes stipulated in The National Electrical Code (ANSI-NFPA 70). Equipment that is FM-approved for intrinsic safety may be connected to barriers based on the Entity Concept. This concept permits 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 (Ui or VOC or VI) and current (Ii 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 safe 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 safe 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 VI and Ii, ISC or Ii, and Ca and La for barriers are provided by the barrier manufacturer.

Hazardous (Classified) Location
Class I, Division 2, Group A,B,C,D T4..T6
Class I, Zone 2, IIC, 14..16

Non Hazardous Location

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



Installation notes

The Transmitter must be installed in a suitable enclosure to meet installation codes stipulated in The National Electrical Code (ANSI-NFPA 70).

To assure a Non-Incendive system the transmitter and associated apparatus must be wired in accordance with the associated apparatus manufacturers field wiring instructions and the circuit diagram shown above.

EU DECLARATION OF CONFORMITY



(6333DoC_102)

As manufacturer

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

hereby declares that the following products:

Type: 6333
Name: 2-wire programmable transmitter
From serial no.: 161618109

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 + A11: 2013, EN 60079-11: 2012 and

EN 60079-15: 2010

ATEX certificate: KEMA 09ATEX0147 X

ATEX notified body (type approval)

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

Stig Lindemann, CTO

Manufacturer's signature

Rønde, 5 December 2017