

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.

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.

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.
Il convient de monter l'appareil SYSTEME 6300 sur un rail DIN en se conformant à la norme DIN EN 60715.

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.

WARNUNG

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

PR electronics A/S
Lerbakken 10
DK-8410 RøndeTel. +45 8637 2677
Fax +45 8637 3085
www.prelectronics.com

SN6300-2_104 (1650)

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-skine- ne efter DIN EN 60715.

SIKKERHEDSREGLER**Modtagelse og udpakning**

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.

Electrical specifications

Specifications range -40°C to +85°C

Supply voltage, 6335A & 6337A 8.0...35 VDC

Max. forbrug, 6335A & 6337A, 1 / 2 kanaler 0.8 W / 1.6 W

Forsyningsspænding, 6335D & 6337D 8.0...30 VDC

Max. forbrug, 6335D & 6337D, 1 / 2 kanaler 0.7 W / 1.4 W

Isolationsspænding, test / arbejdsspænding, 1.5 kVAC / 50 VAC

Kalibreringstemperatur 20...28°C

Relativ fugtighed < 95% RH (ikke kond.)

Dimensions 109 x 23.5 x 104 mm

Protection degree IP20

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:

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

Compatibility with les normes:

CEM 2014/30/EU

ATEX 2014/34/EU

RoHS 2011/65/EU

Approbations:

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

Zulassungen:

EAC TR-CU 020/2011

EAC Ex TR-CU 012/2011

Eingehaltene Behördenvorschriften:

EMV 2014/30/EU

ATEX 2014/34/EU

RoHS 2011/65/EU



DK Loop Link er et kommunikationsinterface, der er nødvendigt for programmering af 63xx. 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 63xx. 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 les 63xx. Loop Link ne doit pas être utilisé pour la communication avec des modules installés en zone dangereuse.

DE Loop Link ist eine Schnittstelle zur Programmierung des 63xx. Loop Link darf nicht zur Kommunikation mit Geräten, die in Ex-gefährdeten Bereichen installiert sind, benutzt werden.

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.

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.

Electrical specifications

Plage de température -40°C à +85°C

Tension d'alimentation, 6335A & 6337A 8.0...35 Vcc

Puissance maximale requise, 6335A & 6337A, 1 / 2 voies 0.8 W / 1.6 W

Supply voltage, 6335D & 6337D 8.0...30 VDC

Max. required power, 6335D & 6337D, 1 / 2 channels 0.7 W / 1.4 W

Isolation voltage, test/oper. 1.5 kVAC / 50 VAC

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

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:

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

Compatibility with les normes:

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RoHS 2011/65/EU

Approbations:

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

Zulassungen:

EAC TR-CU 020/2011

EAC Ex TR-CU 012/2011

Eingehaltene Behördenvorschriften:

ATEX Installation drawing 6335QA01-V4R0

For safe installation of 6335D or 6337D 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.

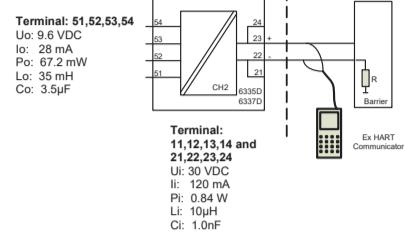


ATEX Certificate KEMA 09ATEX 0148 X
Marking Ex II 1G Ex ia IIC T6..T4 Ga
II 1D Ex ia IIC Da
IM 1 Ex ia I Ma

Standards EN60079-0:2012, EN60079-11:2012, EN60079-26:2007

Hazardous area Zone 0, 1, 2, 20, 21, 22
T4: -40 ≤ Ta ≤ 85°C
T5: -40 ≤ Ta ≤ 60°C
T6: -40 ≤ Ta ≤ 40°C

Terminal: 41,42,43,44
Uo: 9.6 VDC
Io: 28 mA
Po: 67.2 mW
Lo: 35 mH
Co: 3.5μF



General installation instructions

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

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 500Vdc during 1 minute.

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 6335QA02-V5R0

For safe installation of 6335A or 6337A 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 0148 X
Marking Ex 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

T6: -40°C to 60 °C Hazardous Area Zone 2 or Zone 22
T4: -40°C to 85 °C

Terminal: 41,42,43,44 /
51,52,53,54

Ex nA [ic]
Uo: 9.6 VDC
Io: 28 mA
Po: 67.2 mW
Lo: 45 mH
Co: 28 μF

Terminal: 11,12,13,14
21,22,23,24

Ex nA
Umax ≤ 35 VDC

Terminal: 41,42,43,44 /
51,52,53,54

Ex ic
Ui = 35 VDC
Li = 10 μH
Ci = 1.0 nF

General installation instructions

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

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 500Vdc during 1 minute.

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.

DECLARATION OF CONFORMITY

(6335_6337DoC_102)

As manufacturer

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

hereby declares that the following products:

Type: 6335 / 6337
Name: 2-wire HART transmitter
From serial no.: 160949210 (6335) / 160946109 (6337)

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 09ATEX0148 X

Notified body

DEKRA Certification B.V. (0344)
Meander 101, 6825 MJ Arnhem
P.O. Box 5185, 6802 ED Arnhem
The Netherlands

The RoHS2 Directive 2011/65/EU and later amendments

EN 50581 : 2012

Stig Lindemann, CTO

Manufacturer's signature

IECEx Installation drawing 6335QI01-V4R0

For safe installation of 6335D or 6337D 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 0148 X
Marking Ex II 1G Ex ia IIC T6..T4 Ga
II 1D Ex ia IIC Da
IM 1 Ex ia I Ma

Standards EN60079-0:2012, EN60079-11:2012, EN60079-26:2007

Hazardous area Zone 0, 1, 2, 20, 21, 22
T4: -40 ≤ Ta ≤ 85°C
T5: -40 ≤ Ta ≤ 60°C
T6: -40 ≤ Ta ≤ 40°C

Terminal: 41,42,43,44

Uo: 9.6 VDC
Io: 28 mA
Po: 67.2 mW
Lo: 35 mH
Co: 3.5μF

Terminal: 51,52,53,54

Uo: 9.6 VDC
Io: 28 mA
Po: 67.2 mW
Lo: 35 mH
Co: 3.5μF

Terminal: 11,12,13,14 and
21,22,23,24

Uo: 30 VDC
Io: 120 mA
Pi: 0.84 W
Li: 10μH
Ci: 1.0nF

Terminal: 6335D2A
6337D2A

250 < R < 1100 ohm

Ex HART Communicator

Terminal: 41,42,43,44

Uo: 9.6 VDC
Io: 28 mA
Po: 67.2 mW
Lo: 35 mH
Co: 3.5μF

Terminal: 51,52,53,54

Uo: 9.6 VDC
Io: 28 mA
Po: 67.2 mW
Lo: 35 mH
Co: 3.5μF

Terminal: 11,12,13,14 and
21,22,23,24

Uo: 30 VDC
Io: 120 mA
Pi: 0.84 W
Li: 10μH
Ci: 1.0nF

Terminal: 6335D2B
6337D2B

250 < R < 1100 ohm

Ex HART Communicator

General installation instructions

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

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 500Vdc during 1 minute.

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:

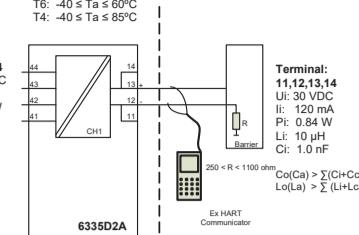
The transmitter shall be mounted in an enclosure providing a degree of protection of at least IP6X according to EN/IEC 60529. Cable entries and blanking elements shall be used that are suitable for the application and correctly installed.

Ambient temperature range:
T4: -40 ≤ Ta ≤ 85°C

CSA Installation drawing 6335QC02-V4R0

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

Non Hazardous Location

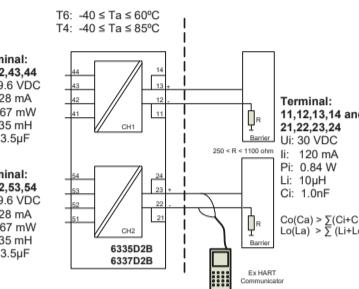


Installation notes
The Transmitter must be installed in a suitable enclosure to meet installation codes stipulated in The Canadian Electrical Code (CEC).

Substitution of components may impair intrinsic safety.

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

Non Hazardous Location



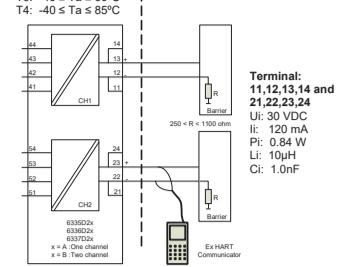
Installation notes
The Transmitter must be installed in a suitable enclosure to meet installation codes stipulated in The Canadian Electrical Code (CEC).

Channel 1 and Channel 2 are separate channels and therefore separate shielded cables shall be used for each channel.

FM Installation drawing 6335QF01-V6R0

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

Non Hazardous Location



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).

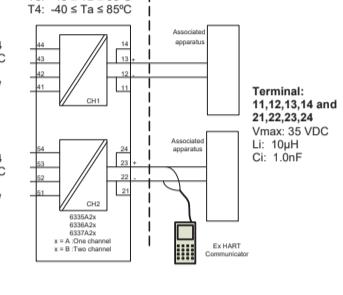
Equipment that is FM-approved for intrinsic safety may be connected to barriers based on the Entity Concept. This concept permits interconnection of approved transmitters, meters and other devices in combinations, which have not been specifically examined by FM, provided that the agency's criteria are 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(MAX) and current IL(MAX), and maximum power Pi(MAX), which the device can receive and remain intrinsically safe, must be equal to or greater than the voltage UI and current IL and power Pi 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 Vt and Io, ISC or Lt, 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 T4..T6

Non Hazardous Location



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