

DK

ADVARSEL
Følgende operationer bør kun udføres på modulet i spændingsløs tilstand i og under ESD-sikre forhold. Installation, ledningsmontage og demontage. Fejlfindning 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 eksplosionsfarligt område. System 6300 skal monteres på DIN-skinne efter DIN EN 60715.

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 omgivelsestemperatur, forhindres ved hjælp af ventilation.

Installation
Modulet må kun tilsluttes af kvalificerede teknikere, som er bekendt med de tekniske udtryk, advarsler og instruktioner i installationsvejledningen, og som vil følge disse. Modulet må kun installeres af kvalificerede personer, som er bekendt med national og international lovgivning, direktiver og standarder i det land, hvor modulet skal installeres. Produktionsnr fremgår af de to første cifre i serienummeret. 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. Beskrivelser af indgang / udgang og forsyningsforbindelser findes i produktmanualen, som kan hentes på www.prellectronics.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.

Renngøring
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 kommunikationsinterface leverer nødvendig forsyning til opstartingen. Kommunikationsinterface er galvanisk isoleret, så PCens 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, fejlerfjeldetektering og udgangssignal.

Elektriske specifikationer

Specifikationsområde.....	-40°C til +85°C
Forsyningsspænding, 6331A & 6334A.....	7.2..35 VDC
Forsyningsspænding, 6331B & 6334B.....	7.2..30 VDC
Max. forbrug, 6331A & 6334A, 1 / 2 kanaler.....	0.8 W / 1.6 W
Max. forbrug, 6331B & 6334B, 1 / 2 kanaler.....	0.7 W / 1.4 W
Internt effekttab, 6331A & 6334A.....	0.17..0.8 W
Internt effekttab, 6331B & 6334B.....	0.17..0.7 W
Isolationsspænding, test / arbejds.....	1.5 kVAC / 50 VAC
Kalibreringstemperatur.....	20..28°C
Relativ fugtighed.....	< 95% RH (ikke kond.)
Mål.....	109 x 23,5 x 104 mm
Kapslingsklasse.....	IP20

Indgangstyper:

PI100.....	-200°C..+850°C
NI100.....	-60°C..+250°C
TC-indgang.....	B, E, J, K, L, N, R, S, T.
Lin. R.....	U, W3, W5, Lf
Spænding.....	0.0..5000 V
Strømdugang:	-12..+800 mV
Signalområde.....	4..20 mA
Min. signalområde.....	16 mA
Belastningsmodstand, Ω	$\leq (V_{supply} - 7.2 V) / 0.023$

Overholdte 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

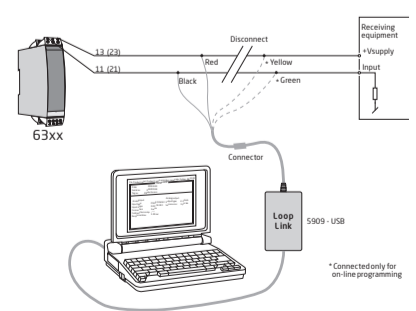
Godkendelser:

EAC Ex.....	RU C-DK.HA65.B.00355/19
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DK Ex-godkendelser **UK** I.S. approvals **FR** Approbations S.I. **DE** Ex-Zulassungen

	ATEX	Area	Installation drawing	IECEx	Area	Installation drawing	FM	Area	Installation drawing	CSA	Area	Installation drawing	INMETRO	Area	Installation drawing
6331A	DEKRA 20ATEX0096 X	2, 22	6331QA02	DEK 20.0059X	2, 22	6331QI02	FM17US0013X	2 / Div 2	6331QF01	1125003	2 / Div 2	6331QC02	DEKRA 23.0009 X	2, 22	6331QB02
6334A	DEKRA 20ATEX0096 X	2, 22	6331QA02	DEK 20.0059X	2, 22	6331QI02							DEKRA 23.0009 X	2, 22	6331QB02
6331B	DEKRA 20ATEX0095 X	0, 1, 2, 21, 22, M1	6331QA01	DEK 20.0059X	0, 1, 2, 21, 22, M1	6331QI01	FM17US0013X	0, 1, 2 / Div 1	6331QF01	1125003	0, 1, 2 / Div 1	6331QC01	DEKRA 23.0009 X	0, 1, 2, 21, 22, M1	6331QB01
6334B	DEKRA 20ATEX0095 X	0, 1, 2, 21, 22, M1	6331QA01	DEK 20.0059X	0, 1, 2, 21, 22, M1	6331QI01							DEKRA 23.0009 X	0, 1, 2, 21, 22, M1	6331QB01

	DK	UK	FR	DE
A	Indgangssignaler	Input signals	Signaux d'entrée	Eingangssignale
B	Udgangssignaler	Output signals	Signaux de sortie	Ausgangssignale
C	RTD	RTD	RTD	WTH
D	TC	TC	TC	TE
E	Spænding	Voltage	Tension	Spannung
F	Lin R - Ω	Lin R - Ω	R lin - Ω	Lin R - Ω
G	6331A & 6334A Forsyning + 7.2..35 VDC	6331A & 6334A Supply + 7.2..35 VDC	6331A & 6334A Alimentation + 7.2..35 Vcc	6331A & 6334A Versorgung + 7.2..35 VDC
H	6331B & 6334B Forsyning + 7.2..30 VDC	6331B & 6334B Supply + 7.2..30 VDC	6331B & 6334B Alimentation + 7.2..30 Vcc	6331B & 6334B Versorgung + 7.2..30 VDC
I	4..20 mA udgang	4..20 mA output	Sortie 4..20 mA	4..20 mA-Ausgang
Ch.1	Kanal 1	Channel 1	Voie 1	Kanal 1
Ch.2	Kanal 2	Channel 2	Voie 2	Kanal 2



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 devices 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. The device 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. 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. Descriptions of input/output and supply connections are shown in the product manual found on www.prellectronics.com.

Calibration and adjustment
Ding calibration and adjustment, the measuring and connection of external electric materials. 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 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, 6331A & 6334A.....	7.2..35 VDC
Supply voltage, 6331B & 6334B.....	7.2..30 VDC
Max. required power, 6331A & 6334A, 1 / 2 channels.....	0.8 W / 1.6 W
Max. required power, 6331B & 6334B, 1 / 2 channels.....	0.7 W / 1.4 W
Internal power dissipation, 6331A & 6334A.....	0.17..0.8 W
Internal power dissipation, 6331B & 6334B.....	0.17..0.7 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:

PI100.....	-200°C..+850°C
NI100.....	-60°C..+250°C
TC input.....	B, E, J, K, L, N, R, S, T.
Lin. R.....	U, W3, W5, Lf
Spænding.....	0.0..5000 V
Strømdugang:	-12..+800 mV
Signalområde.....	4..20 mA
Min. signalområde.....	16 mA
Belastningsmodstand, Ω	$\leq (V_{supply} - 7.2 V) / 0.023$

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:

EAC Ex.....	RU C-DK.HA65.B.00355/19
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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 montés conformément aux plans appropriés et le convient de monter l'appareil SYSTEME 6300 sur un rail DIN en se conformant à la norme DIN EN 60715.

CONSIGNES DE SECURITE
Réception et déballage
Déballer 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 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 derniers. Le module sera seulement installé par un personnel qualifié qui est informé des lois, des directives et des normes nationales et des instructions de ce guide et qui sont capables d'appliquer ces derniers. L'année de la fabrication est indiquée dans les deux premiers chiffres dans le numéro de série. 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. Les conditions des alimentations et des entrées/sorties sont décrites dans le manuel du produit sur www.prellectronics.fr.

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 électriques. Les connexions des alimentations et des entrées/sorties sont décrites dans le manuel du produit sur www.prellectronics.fr.

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

Programmation par PC du Système 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 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, 6331A & 6334A.....	7.2..35 Vcc
Tension d'alimentation, 6331B & 6334B.....	7.2..30 Vcc
Puissance maximale requise, 6331A & 6334A, 1/2 voies.....	0.8 W / 1.6 W
Puissance maximale requise, 6331B & 6334B, 1/2 voies.....	0.7 W / 1.4 W
Puissance dissipée, 6331A & 6334A.....	0.17..0.8 W
Puissance dissipée, 6331B & 6334B.....	0.17..0.7 W
Tension d'isolation test/opér.....	1.5 kVca / 50 Vca
Température d'étalonnage.....	20..28°C
Humidité relative.....	< 95% HR (sans cond.)
Dimensions.....	109 x 23,5 x 104 mm
Degré de protection.....	IP20

Types d'entrée:

PI100.....	-200°C..+850°C
NI100.....	-60°C..+250°C
Entrée TC.....	B, E, J, K, L, N, R, S, T.
Humidité relative.....	0.0..5000 V
Tension.....	-12..+800 mV
Strømdugang:	-12..+800 mV
Signalområde.....	4..20 mA
Min. signalområde.....	16 mA
Résistance de charge, Ω	$\leq (V_{alim} - 7.2 V) / 0.023$

Sortie courant:

Gamme de signal.....	4..20 mA
Plage de signal min.....	16 mA
Résistance de charge, Ω	$\leq (V_{alim} - 7.2 V) / 0.023$

Compatibilité avec les normes:

CEM.....	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

Approbation:

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

WARNUNG
Folgende Maßnahmen sollten nur in spannungslosem Zustand des Gerätes und unter ESD-sicheren Verhältnissen durchgeführt werden: Installation, Montage und Demontage von Leitungen, Fehleruche im Gerät. 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 Einbauezeichnungen 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 Sonneneinstrahlung, starke Staubeentwicklung 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.

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. Das Gerät darf nur von qualifiziertem Personal eingebaut werden, das mit den nationalen und internationalen Gesetzen, Richtlinien und Standards auf diesem Gebiet vertraut ist. Das Baujahr kann aus den ersten beiden Ziffern der Seriennummer ersehen werden. 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 bei der Installation elektrischer Apparaturen zu erfolgen. Eine Beschreibung von Eingangs-/Ausgangs- und Versorgungsanschlüssen befindet sich im Produkthandbuch, das unter www.prellectronics.de gefunden und abgerufen werden kann.

Kalibrrierung und Justierung
Während der Kalibrrierung 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 spannungslosem 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 Kommunikationsschnittstelle Loop Link konfiguriert. Es ist möglich, das Gerät sowohl mit als auch ohne angeschlossene Versorgungsspannung zu konfigurieren, da die Kommunikationsschnittstelle die notwendige Versorgung für die Installation 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, Fehlerfehlererkennung und Ausgangssignal.

Elektrische Daten

Spezifikationsbereich.....	-40°C bis +85°C
Versorgungsspannung, 6331A & 6334A.....	7.2..35 VDC
Versorgungsspannung, 6331B & 6334B.....	7.2..30 VDC
Leistungsbedarf, 6331A & 6334A, 1 / 2 Kanäle.....	0.8 W / 1.6 W
Leistungsbedarf, 6331B & 6334B, 1 / 2 Kanäle.....	0.7 W / 1.4 W
Verlustleistung, 6331A & 6334A.....	0.17..0.8 W
Verlustleistung, 6331B & 6334B.....	0.17..0.7 W
Isolationsspannung, Test / Betrieb.....	1.5 kVAC / 50 VAC
Kalibrrierungstemperatur.....	20..28°C
Luftfeuchtigkeit.....	< 95% RF (nicht kond.)
Maß.....	109 x 23,5 x 104 mm
Schutzart.....	IP20

Eingangs-Typen:

PI100.....	-200°C..+850°C
NI100.....	-60°C..+250°C
TE-Eingang.....	B, E, J, K, L, N, R, S, T.
U, W3, W5, Lf.....	0.0..5000 V
Spannung.....	-12..+800 mV

Strömdugang:

Signalbereich.....	4..20 mA
Min. Signalbereich.....	16 mA
Belastungswiderstand, Ω	$\leq (V_{Vers} - 7.2 V) / 0.023$

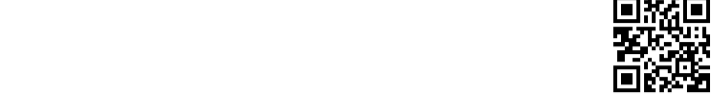
Eingehaltene Behördenvorschriften:

EMV.....	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

Zulassungen:

EAC Ex.....	RU C-DK.HA7500361.01.01.08756
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6331A, 6331B, 6334A & 6334B



- DK** Ledningskvadrat (min...max.) 0.13..2.08 mm² / AWG 26..14 flerkoret ledning. Klemskruetillspændingsmoment 0.5 Nm.
- UK** Wire size (min...max.) 0.13..2.08 mm² / AWG 26..14 stranded wire. Screw terminal torque 0.5 Nm.
- FR** Taille des fils (min...max.) 0.13..2.08 mm² / AWG 26..14 fils multibrins. Pression max. avant déformation de la vis 0,5 Nm.
- DE** Leitungsquerschnitt (min...

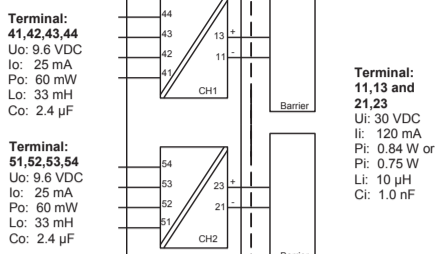
ATEX-installation drawing 6331QA01-V3R0

For safe installation of 6331Bxx or 6334Bxx 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 20ATEX 0095 X
 Marking II 1 G Ex ia IIC T6...T4 Gc
 II 2 D Ex ia IIC Db
 I M1 Ex ia I Ma

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

Hazardous area Zone 0, 1, 2, 21, 22



Temperature Class	Ambient temperature range	
	PI: 0.84 W	PI: 0.75 W
T6	-40°C to +40°C	-40°C to +45°C
T5	-40°C to +55°C	-40°C to +60°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 IEC 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.

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.

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 sensor circuit is not infallibly 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 6331QA02-V3R0

For safe installation of 6331A and 6334A 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 DEKRA 20ATEX 0096 X
 Marking II 3 G Ex nA [ic] IIC T6...T4 Gc
 II 3 G Ex ec [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 60079-7:2015+A1: 2018

Terminal	Terminal	Terminal	Terminal
41,42,43,44	11,12,13,14	21,22,23,24	51,52,53,54
Ex ic IIC, Ex ic IIIC	Ex ic IIC, Ex ic IIIC	Ex nA, Ex ec	Ex nA, Ex ec
Uo: 9.6 V Io: 25 mA Po: 60 mW Lo: 33 mH Co: 2.4 μF	Ui = 35 V Ii = 110 mA Ci = 1 nF Li = 10 μH	Umax \leq 35 VDC or Umax \leq 24 VDC	

Ex ic IIC, Ex ic IIIC 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

Ex ec, Ex nA 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

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 Gc and applied in type of protection Ex ic, the transmitter shall be mounted in an enclosure that provides a degree of protection of at least IP20 according to IEC 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 Dc, the transmitter shall be mounted in a separately certified enclosure that provides a degree of protection of at least IP5X according to IEC 60079-0, and that is suitable for the application and correctly installed. The surface temperature of the outer enclosure is $+20^\circ\text{C}$ above the ambient temperature, determined without a dust layer. Ambient temperature range: -40°C to $+85^\circ\text{C}$.

If the transmitter is installed in an explosive atmosphere requiring the use of equipment protection level Gc and applied in type of protection Ex nA or Ex ec, the transmitter shall be mounted in a separately certified enclosure that provides a degree of protection of at least IP54 according to EN 60079-0, 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 Gc and applied in type of protection Ex nA or Ex ec, the equipment shall only be used in an area of not more than pollution degree 2, as defined in EN 60664-1.

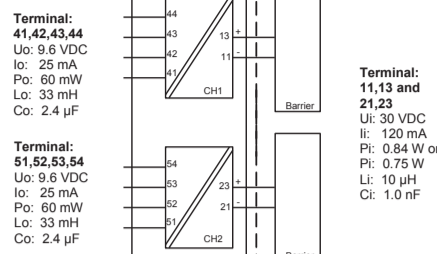
IECEx-installation drawing 6331QI01-V2R0

For safe installation of 6331Bxx or 6334Bxx 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 20.0059X
 Marking Ex ia IIC T6...T4 Ga
 Ex ia IIC Db
 Ex ia I Ma

Standards IEC 60079-0: 2017, IEC 60079-11: 2012

Hazardous area Zone 0, 1, 2, 21, 22



Temperature Class	Ambient temperature range	
	PI: 0.84 W	PI: 0.75 W
T6	-40°C to +40°C	-40°C to +45°C
T5	-40°C to +55°C	-40°C to +60°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 IEC 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 IEC 60079-0, and that is suitable for the application and correctly installed. The surface temperature of the outer enclosure is $+20^\circ\text{C}$ above the ambient temperature, determined without a dust layer. Ambient temperature range: -40°C to $+85^\circ\text{C}$.

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 IEC 60529, and that is suitable for the application and correctly installed. Ambient temperature range: -40°C to $+85^\circ\text{C}$.

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 sensor circuit is not infallibly 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.

IECEx-installation drawing 6331QI02-V3R0

For safe installation of 6331A and 6334A 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 20.0059X
 Marking Ex nA [ic] IIC T6...T4 Gc
 Ex ec [ic] IIC T6...T4 Gc
 Ex ic IIC T6...T4 Gc
 Ex ic IIIC Dc

Standards IEC 60079-0: 2017, IEC 60079-11: 2012, IEC 60079-15: 2010, IEC 60079-7: 2017

Terminal	Terminal	Terminal	Terminal
41,42,43,44	11,12,13,14	21,22,23,24	51,52,53,54
Ex ic IIC, Ex ic IIIC	Ex ic IIC, Ex ic IIIC	Ex nA, Ex ec	Ex nA, Ex ec
Uo: 9.6 V Io: 25 mA Po: 60 mW Lo: 33 mH Co: 2.4 μF	Ui = 35 V Ii = 110 mA Ci = 1 nF Li = 10 μH	Umax \leq 35 VDC or Umax \leq 24 VDC	

Ex ic IIC, Ex ic IIIC 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

Ex ec, Ex nA 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

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 Gc and applied in type of protection Ex ic, the transmitter shall be mounted in an enclosure that provides a degree of protection of at least IP20 according to IEC 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 Dc, the transmitter shall be mounted in a separately certified enclosure that provides a degree of protection of at least IP5X according to IEC 60079-0, and that is suitable for the application and correctly installed. The surface temperature of the outer enclosure is $+20^\circ\text{C}$ above the ambient temperature, determined without a dust layer. Ambient temperature range: -40°C to $+85^\circ\text{C}$.

If the transmitter is installed in an explosive atmosphere requiring the use of equipment protection level Gc and applied in type of protection Ex nA or Ex ec, the transmitter shall be mounted in a separately certified enclosure that provides a degree of protection of at least IP54 according to IEC 60079-0, 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 Gc and applied in type of protection Ex nA or Ex ec, the equipment shall only be used in an area of not more than pollution degree 2, as defined in IEC 60664-1.

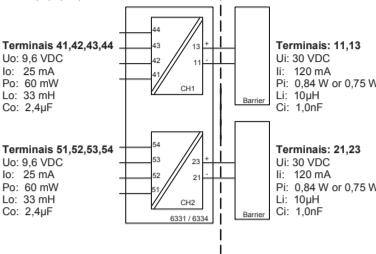
Desenho de Instalação INMETRO 6331B01-V1R0

Para instalação segura do 6331B... ou 6334B... o seguinte deve ser observado. O modelo 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. O ano de fabricação pode ser pegado dos dois primeiros dígitos do número de série.

Certificado DEKRA 23.0009 X
 Marcas Ex ia IIC T6...T4 Ga
 Ex ia IIC Db
 Ex ia I Ma

Normas ABNT NBR IEC 60079-0:2020 Versão Corrigida:2023
 ABNT NBR IEC 60079-11:2013 Versão Corrigida:2017

Áreas classificadas Zona 0, 1, 2, 21, 22



Classe de temperatura	Faixa de temperatura ambiente	
	PI: 0,84W	PI: 0,75W
T6	-40 °C to +40 °C	-40 °C to +45 °C
T5	-40 °C to +55 °C	-40 °C to +60 °C
T4	-40 °C to +85 °C	-40 °C to +85 °C

Notas de instalação
 Se o invólucro for feito de materiais plásticos não metálicos, devem ser evitadas cargas eletrostáticas no invólucro do transmissor.

Se o transmissor for instalado em uma atmosfera explosiva que exija o uso de nível de proteção de equipamento Ga, o transmissor deverá ser montado em um invólucro que forneça um grau de proteção de pelo menos IP20 de acordo com a ABNT NBR IEC 60529, e que seja adequado para a aplicação e corretamente instalado.

Se o transmissor for instalado em uma atmosfera explosiva que exija o uso de nível de proteção de equipamento Ga ou Ma, e se o invólucro for feito de alumínio, ele deve ser instalado de forma que fontes de ignição devido a faíscas de impacto e fricção sejam excluídas.

Se o transmissor for instalado em uma atmosfera explosiva que exija o uso de nível de proteção de equipamento Ma, o transmissor deverá ser montado em um invólucro que forneça um grau de proteção de pelo menos IP54 de acordo com a ABNT NBR IEC 60529, e que seja adequado para a aplicação e corretamente instalado. Faixa de temperatura ambiente: -40°C a $+85^\circ\text{C}$.

Se o transmissor for instalado em uma atmosfera explosiva que exija o uso de nível de proteção de equipamento Db, o transmissor deverá ser montado em um invólucro que forneça um grau de proteção de pelo menos IP54 de acordo com a ABNT NBR IEC 60529, e que seja adequado para a aplicação e corretamente instalado. Faixa de temperatura ambiente: -40°C a $+85^\circ\text{C}$.

Devem ser utilizadas entradas de cabos e elementos de coloração adequados à aplicação e instalados corretamente.

Para uma temperatura ambiente $\geq 60^\circ\text{C}$, devem ser utilizados cabos resistentes ao calor com uma classificação de pelo menos 20 K acima da temperatura ambiente.

O circuito do sensor não é infalivelmente isolado galvanicamente do circuito de entrada. Porém, o isolamento galvanico entre os circuitos é capaz de suportar uma tensão de teste de 500Vca por 1 minuto.

Desenho de Instalação INMETRO 6331B02-V1R0

Para instalação segura do 6331A... ou 6334A... o seguinte deve ser observado. O modelo 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. O ano de fabricação pode ser pegado dos dois primeiros dígitos do número de série.

Certificado DEKRA 23.0009 X
 Marcas Ex ec [ic] IIC T4, T6 Gc
 Ex ic IIC T4, T6 Gc
 Ex ic IIIC Dc

Normas ABNT NBR IEC 60079-0:2020 Versão Corrigida:2023
 ABNT NBR IEC 60079-7:2016 Versão Corrigida:2022
 ABNT NBR IEC 60079-11:2013 Versão Corrigida:2017

Terminais	Terminais	Terminais	Terminais
41,42,43,44	11,12,13,14	21,22,23,24	51,52,53,54
Ex ic IIC, Ex ic IIIC	Ex ic IIC, Ex ic IIIC	Ex ic IIC, Ex ic IIIC	Ex ec
Uo: 9.6 V Io: 25 mA Po: 60 mW Lo: 33 mH Co: 2.4 μF	Ui = 35 V Ii = 110 mA Ci = 1 nF Li = 10 μH	Ui = 24 V Ii = 260 mA Ci = 1 nF Li = 10 μH	Umax \leq 35 VDC or Umax \leq 24 VDC

Ex ic IIC, Ex ic IIIC Classe de temperatura	Faixa de temperatura ambiente	
	Ui=35V	Ui=24V
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

Ex ec Classe de temperatura	Faixa de temperatura ambiente	
	Umax=35V	Umax=24V
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

Notas de instalação
 Se o invólucro for feito de materiais plásticos não metálicos, devem ser evitadas cargas eletrostáticas no invólucro do transmissor.

Se o transmissor for instalado em uma atmosfera explosiva que exija o uso de nível de proteção de equipamento Gc e aplicado no tipo de proteção Ex ic, o transmissor deverá ser montado em um gabinete que forneça um grau de proteção de pelo menos IP20 de acordo com a ABNT NBR IEC 60529, e adequado à aplicação e instalado corretamente.

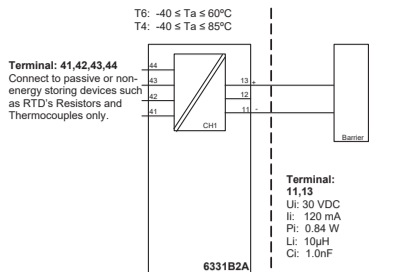
Se o transmissor for instalado em uma atmosfera explosiva que exija o uso de nível de proteção de equipamento Dc, o transmissor deverá ser montado em um invólucro certificado separadamente que forneça um grau de proteção de pelo menos IP54 de acordo com a ABNT NBR IEC 60079-0, e que seja adequado para o aplicativo e instalado corretamente. A temperatura da superfície do invólucro externo é $+20^\circ\text{C}$ acima da temperatura ambiente, determinada sem camada de poeira. Faixa de temperatura ambiente: -40°C a $+85^\circ\text{C}$.

Se o transmissor for instalado em uma atmosfera explosiva que exija o uso de nível de proteção de equipamento Gc e aplicado no tipo de proteção Ex ec, o transmissor deverá ser montado em um invólucro certificado separadamente que forneça um grau de proteção de pelo menos IP54 de acordo com a ABNT NBR IEC 60079-0, e que seja adequado para a aplicação e instalado corretamente.

Se o transmissor for instalado em uma atmosfera explosiva que exija o uso de nível de proteção de equipamento Gc e aplicado no tipo de proteção Ex ec, o equipamento deverá ser usado somente em uma área com grau de poluição não superior a 2, conforme definido na IEC 60664-1.

CSA Installation drawing 6331QC01 – V1R0

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



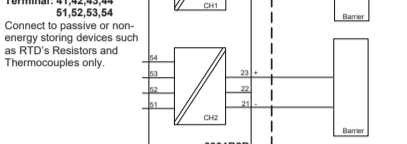
Terminal: 41,42,43,44
 Connect to passive or non-energy storing devices such as RTD's Resistors and Thermocouples only.

Terminal: 11,13 and 21,23
 Ui: 30 VDC
 Ii: 120 mA
 Pi: 0.84 W
 Li: 10 μH
 Ci: 1.0 nF

Terminal: 51,52,53,54
 Uo: 9.6 VDC
 Io: 25 mA
 Po: 60 mW
 Lo: 33 mH
 Co: 2.4 μF

Terminal: 21,23
 Ui: 30 VDC
 Ii: 120 mA
 Pi: 0.84 W or 0.75 W
 Li: 10 μH
 Ci: 1.0 nF

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



Terminal: 41,42,43,44
51,52,53,54
 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: 10 μH
 Ci: 1.0 nF

Terminal: 51,52,53,54
 Uo: 9.6 VDC
 Io: 25 mA
 Po: 60 mW
 Lo: 33 mH
 Co: 2.4 μF

Terminal: 21,23
 Ui: 30 VDC
 Ii: 120 mA
 Pi: 0.84 W or 0.75 W
 Li: 10 μH
 Ci: 1.0 nF

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

Terminal: 41,42,43,44
51,52,53,54
 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: 10 μH
 Ci: 1.0 nF

Terminal: 51,52,53,54
 Uo: 9.6 VDC
 Io: 25 mA
 Po: 60 mW
 Lo: 33 mH
 Co: 2.4 μF

Terminal: 21,23
 Ui: 30 VDC
 Ii: 120 mA
 Pi: 0.84 W or 0.75 W
 Li: 10 μH
 Ci: 1.0 nF

Hazardous Area CL I, Div 2, GP ABCD
 CL I, Zone 2, IIC

Terminal: 41,42,43,44
 Uo: 9.6 VDC
 Io: 25 mA
 Po: 60 mW
 Lo: 33 mH
 Co: 2.4 μF

Terminal: 11-13
 Functional Ratings:
 U nominal \leq 35 VDC,
 I nominal \leq 3.5 - 23 mA