5437A / 5437B / 5437D

5437A 5437B 5437D

DK

ADVARSEL

Følgende operationer bør kun udføres på modulet i spændingsløs tilstand og under ESD-sikre forhold. Installation, ledningsmontage og -demontage.
Fejlfinding på modulet. Reparation af modulet må kun foretages af PR electronics A/S.

ADVARSEL

PR Loop Link programmeringsenheden må ikke benyttes til kommunikation med moduler installeret i Ex-område.
Ved Ex-installation må kun godkendt udstyr anvendes. Enhederne skal installeres i henhold til den tilhørende installations vejledning ved montering i eksplosionfarligt 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 omgivelsestemperatur, 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.
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.
Produktionsår 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.
Beskrivelse af indgang / udgang og forsyningsforbindelser findes i produktmanualen, 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 sikkerhedsmæssigt korrekte værktøjer og instrumenter.

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

PC-programmering af SYSTEM 5437
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'ens 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, følerfejlsdetektering og udgangssignal.

Elektriske specifikationer

Driftstemperaturområde:	
Standard	-50°C to +85°C
SIL	-40°C to +80°C
Lagringstemperatur	-50°C to +85°C
Forsyningsspænding:	
5437A	7,5*...48** VDC
5437B & 5437D	7,5*...30** VDC
5437, EU-RO	8,3...33,6 VDC ±10%
Max. internt effekttab	≤ 850 mW
Min. belastningsmodstand v. > 37 V forsyning	(Forsyning - 37)/23 mA
Isolationsspænd., test/oper.	
5437A	2,5 kVAC / 55 VAC
5437B & 5437D	2,5 kVAC / 42 VAC
Kalibreringstemperatur	23...25°
Relativ fugtighed	< 99% RH (ikke kond.)
Kapslingsklasse (kabinet / klemmer)	IP68 / IP00
Mål	Ø44 x 21,45 mm
Centerhulmål	Ø 6,35 mm / ¼ in

Indgang for RTD-type:
Pt100 & Ni100

Indgang for TC-typer:
B, E, J, K, L, N, R, S, T, U, W3, W5, Lr

Lin R:
Ohm & KOhm

Spændingsindgang:
mV

Strømudgang:

Normalområde, programmerbart	3,8...20,5 / 20,5..3,8 mA
Udvidet område (udgangsgrænser), programmerbart	3,5...23 / 23...3,5 mA
Belastning (v. strømudgang)	≤ (Vfor.-7,5)/0,023 [Ω]
Belastningsstabilitet	< 0,01% af span/100 Ω

Overholdte myndighedskrav:

EMC	2014/30/EU
ATEX	2014/34/EU
RoHS	2011/65/EU
EAC	TR-CU 020/2011
EAC Ex	TR-CU 012/2011

Godkendelser:

EU RO Mutual Recognition Type Approval	MRA0000023

Ex- / I.S.-godkendelser:

5437A:	
ATEX	DEKRA 18ATEX0135 X
5437B:	
ATEX	DEKRA 16ATEX0047 X
PESO	P658961/1
5437D:	
ATEX	DEKRA 16ATEX0047 X
5437A og 5437D:	
IECEx	IECEx DEK. 16.0029 X
c FM us	FM16CA0146X / FM16US0287X
c CSA us	16.70066266
INMETRO	DEKRA 23.0002X
NEPSI	GYJ23.1227X
EAC Ex TR-CU 012/2011..	EAEU KZ 7500361.01.01.08756

Funktionel sikkerhed:
SIL 2-certificeret via Full Assessment iht. IEC 61508 : 2010
SFF> 93% - type B-komponent
SIL 3 Muligt via redundant struktur (HFT=0; 1oo2)
FMEDA-rapport - www.prelectronics.com

* Note: Vær opmærksom på at minimum forsyningsspændingen måles på 5437-terminalerne, dvs. alle eksterne spændingsfald skal medregnes.
**Note: Beskyt enheden mod overspænding ved at anvende en spændingsforsyning af god kvalitet eller alternativt monter overspændingsbeskyttelsesudstyr.

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 hazardous area installation, only certified test equipment may be used.
For installation in classified area the devices 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.
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.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 5437
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

Ambient operating temperature range:	
Standard	-50°C to +85°C
SIL	-40°C to +80°C
Storage temperature	-50°C to +85°C
Supply voltage:	
5437A	7.5*...48** VDC
5437B & 5437D	7.5*...30** VDC
5437, EU-RO	8.3...33.6 VDC ±10%
Max. internal power dissipation	≤ 850 mW
Min. load resistance at > 37 V supply	(Supply voltage - 37)/23 mA
Isolation voltage, test/oper.	
5437A	2.5 kVAC / 55 VAC
5437B & 5437D	2.5 kVAC / 42 VAC
Calibration temperature	23...25°
Relative humidity	< 99% RH (non-cond.)
Protection degree, enclosure / terminals	IP68 / IP00
Dimensions	Ø44 x 21.45 mm
Center hole dimensions	Ø 6.35 mm / ¼ in

Input for RTD type:
Pt100 & Ni100

Input for TC types:
B, E, J, K, L, N, R, S, T, U, W3, W5, Lr

Lin R:
Ohm & KOhm

Voltage input:
mV

Current output:

Normal range, programmable	3.8...20.5 / 20.5..3,8 mA
Extended range (output limits), programmable	3.5...23 / 23...3.5 mA
Load (@ current output)	≤ (Vsup.-7.5)/0.023 [Ω]
Load stability	< 0.01% of span/100 Ω

Observed authority requirements:

EMC	2014/30/EU
ATEX	2014/34/EU
RoHS	2011/65/EU
EAC	TR-CU 020/2011
EAC Ex	TR-CU 012/2011

Approvals:

EU RO Mutual Recognition Type Approval	MRA0000023

Ex / I.S. approvals:

5437A:	
ATEX	DEKRA 18ATEX0135 X
5437B:	
ATEX	DEKRA 16ATEX0047 X
PESO	P658961/1
5437D:	
ATEX	DEKRA 16ATEX0047 X
5437A og 5437D:	
IECEx	IECEx DEK. 16.0029 X
c FM us	FM16CA0146X / FM16US0287X
c CSA us	16.70066266
INMETRO	DEKRA 23.0002X
NEPSI	GYJ23.1227X
EAC Ex TR-CU 012/2011..	EAEU KZ 7500361.01.01.08756

Functionel safety:
SIL2 Certified & Fully Assessed acc. to IEC 61508:2010
SFF> 93% - type B component
SIL3 Applicable through redundant structure (HFT=0; 1oo2)
FMEDA report - www.prelectronics.com

* Note: Observe that the minimum Supply Voltage must be as measured at the terminals of the 5437, i.e. all external drops must be considered.
** Note: Make sure to protect the device from overvoltages by using a suitable power supply or by installing overvoltage protecting devices.

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 installation en zone dangereuse, seul un équipement certifié peut être utilisé.
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 réserver le raccordement du module aux techniciens qualifiés qui connaissent les termes techniques, les avertissements et les instructions de ce guide et qui sont capables d'appliquer ces dernières.
Le module sera seulement installé par un personnel qualifié qui est informé des lois, des directives et des normes nationales et internationales qui s'appliquent à ce secteur.
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 connexions des alimentations et des entrées / sorties sont décrites dans le manuel du produit sur www.prelectronics.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 mentionnées dans ce guide. Les techniciens doivent utiliser d es 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 nett oyer.

Programmation par PC du Système 5437
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 doté 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

Température de fonctionnement:	
Standard	-50°C to +85°C
SIL	-40°C to +80°C
Température de stockage	-50°C to +85°C
Tension d'alimentation,	
5437A	7,5*...48** Vcc
5437B & 5437D	7,5*...30** Vcc
5437, EU-RO	8,3...33,6 Vcc ±10%
Puissance dissipée max.	≤ 850 mW
Résistance de charge min. à > 37 Valimentation	(Alimentation - 37)/23 mA
Tension d'isolation, test/opération	
5437A	2,5 kVca / 55 Vca
5437B & 5437D	2,5 kVca / 42 Vca
Température d'étalonnage	23...25°
Humidité relative	< 99% HR (sans cond.)
Degré de protection (boîtier / bornier)	IP68 / IP00
Dimensions	Ø44 x 21,45 mm
Dimensions du trou central	Ø 6,35 mm / ¼ in

Entrée pour types RTD:
Pt100 & Ni100

Entrée pour types TC:
B, E, J, K, L, N, R, S, T, U, W3, W5, Lr

Lin R:
Ohm & KOhm

Entrée tension:
mV

Sortie courant:

Gamme normale, programmable	3,8...20,5 / 20,5..3,8 mA
Gamme étendue (limites de sortie), programmable	3,5...23 / 23...3,5 mA
Charge (à la sortie courant)	≤ (Vali.-7,5)/0,023 [Ω]
Stabilité sous charge	< 0,01% de l'EC/100 Ω

Compatibilité avec les normes:

CEM	2014/30/UE
ATEX	2014/34/UE
RoHS	2011/65/UE
EAC	TR-CU 020/2011
EAC Ex	TR-CU 012/2011

Approbations:

EU RO Mutual Recognition Type Approval	MRA0000023

Approbations Ex / S.I.:

5437A:	
ATEX	DEKRA 18ATEX0135 X
5437B:	
ATEX	DEKRA 16ATEX0047 X
PESO	P658961/1
5437D:	
ATEX	DEKRA 16ATEX0047 X
5437A og 5437D:	
IECEx	IECEx DEK. 16.0029 X
c FM us	FM16CA0146X / FM16US0287X
c CSA us	16.70066266
INMETRO	DEKRA 23.0002X
NEPSI	GYJ23.1227X
EAC Ex TR-CU 012/2011..	EAEU KZ 7500361.01.01.08756

Sécurité fonctionnelle:
Certification complète SIL 2 selon IEC 61508 : 2010
SFF> 93% - Composant type B
Capabilité SIL 3 en structure redondante (HFT=0; 1oo2)
Analyse FMEDA - www.prelectronics.com

*NB: Observez que la tension d'alimentation minimale doit être mesurée aux bornes du 5437, c'est-à-dire que toutes les chute externes doivent être prises en considération.
**NB: Assurez-vous de protéger l'appareil contre les surtensions en utilisant une alimentation électrique appropriée ou en installant des dispositifs de protection contre les surtensions.

DE

WARNUNG

Folgende Maßnahmen sollten nur in spannungslosem Zustand des Gerätes und unter ESD-sicheren Verhältnisse durchgeführt werden:
Installation, Montage und Demontage von Leitungen. Fehlersuche 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.
Bei der Installation in Gefahrenbereichen darf nur zertifizierte Testausrüstung verwendet werden.
Zur Montage in klassifizierten Zonen müssen die Geräte nach den dazugehörigen Einbauzeichnungen installiert 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 Staubentwicklung 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 bez. der Installation elektrischer Apparaturen zu erfolgen.
Eine Beschreibung von Eingangs- / Ausgangs- und Versorgungsanschlüssen befindet sich im Produkthandbuch, das unter www.prelectronics.de gefunden und abgerufen werden kann.

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

PC-Programmierung des Systems 5437
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 Einstellung 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, Fühlerfehlererkennung und Ausgangssignal.

Elektrische Daten

Betriebstemperaturbereich:	
Standard	-50°C to +85°C
SIL	-40°C to +80°C
Lagertemperatur	-50°C to +85°C
Versorgungsspannung,	
5437A	7,5*...48** VDC
5437B & 5437D	7,5*...30** VDC
5437, EU-RO	8,3...33,6 VDC ±10%
Max. Verlustleistung	≤ 850 mW
Min. Lastwiderstand bei > 37 V Versorgung	(Versorg. - 37)/23 mA
Isolationsspannung, Test / Betrieb	
5437A	2,5 kVAC / 55 VAC
5437B & 5437D	2,5 kVAC / 42 VAC
Kalibrierungstemperatur	23...25°
Luftfeutigkeit	< 99% RF (nicht kond.)
Schutzart (Gehäuse / Klemme)	IP68 / IP00
Maß	Ø44 x 21,45 mm
Durchmesser Leiterdurchführung	Ø 6,35 mm / ¼ in

Eingang für WTH-Typen:
Pt100 & Ni100

Eingang für TE-Typen:
B, E, J, K, L, N, R, S, T, U, W3, W5, Lr

Lin R:
Ohm & KOhm

Spannungseingang:
mV

Stromausgang:

Normalbereich, prog.	3,8...20,5 / 20,5..3,8 mA
Erweiterter Bereich (Ausgangsgrenzen), prog.	3,5...23 / 23...3,5 mA
Belastung (bei Stromausg.)	≤ (VVersorgung-7,5)/0,023 [Ω]
Belastungsstabilität	< 0,01% d. Sp./100 Ω

Eingehaltene Behördenvorschriften:

EMV	2014/30/EU
ATEX	2014/34/EU
RoHS	2011/65/EU
EAC	TR-CU 020/2011
EAC Ex	TR-CU 012/2011

Zulassungen:

EU RO Mutual Recognition Type Approval	MRA0000023

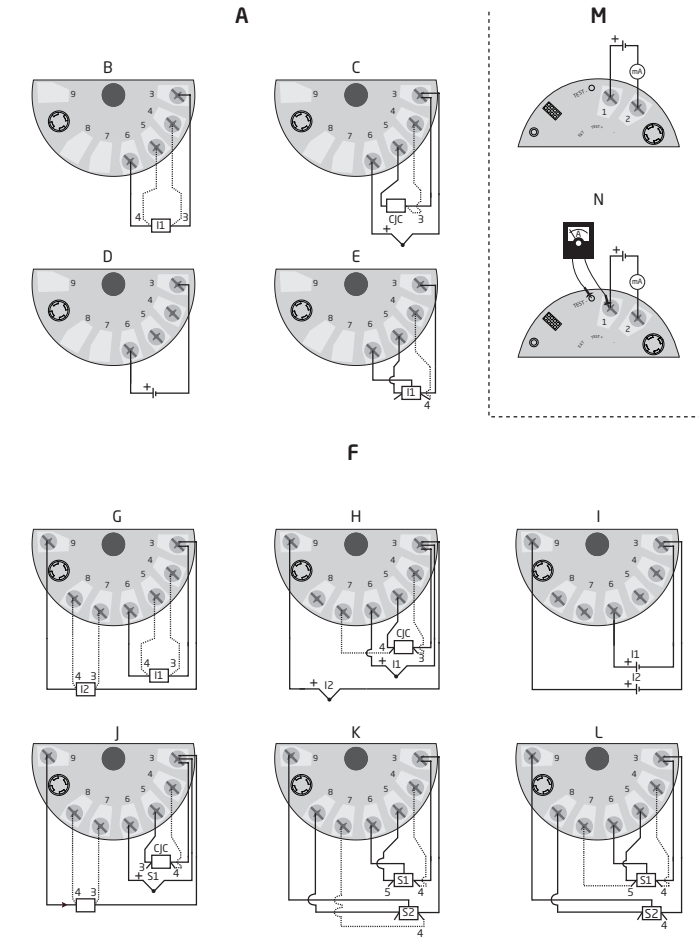
Ex- / I.S.-Zulassungen:

5437A:	
ATEX	DEKRA 18ATEX0135 X
5437B:	
ATEX	DEKRA 16ATEX0047 X
PESO	P658961/1
5437D:	
ATEX	DEKRA 16ATEX0047 X
5437A og 5437D:	
IECEx	IECEx DEK. 16.0029 X
c FM us	FM16CA0146X / FM16US0287X
c CSA us	16.70066266
INMETRO	DEKRA 23.0002X
NEPSI	GYJ23.1227X
EAC Ex TR-CU 012/2011..	EAEU KZ 7500361.01.01.08756

Funktionale Sicherheit:
SIL 2, vollständig geprüft und zertifiziert gemäß IEC 61508:2010
SFF > 93 % - Komponente Typ B
SIL-3-konform dank redundanter Struktur (HFT = 0; 1oo2)
FMEDA-Bericht: www.prelectronics.de

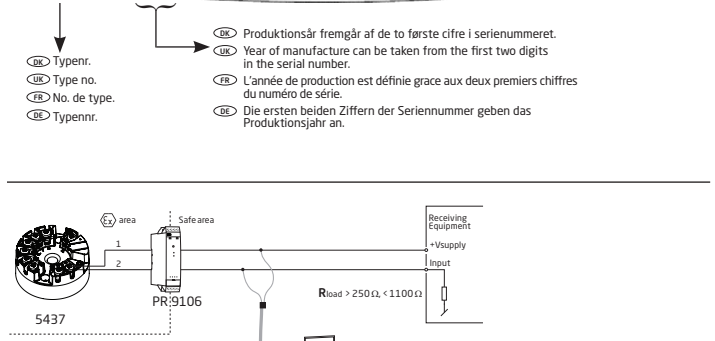
* Hinweis: Beachten Sie, dass die minimale Versorgungsspannung an den Klemmen des 5437 gemessen werden muss. D.h. dass alle externen Spannungsabfälle berücksichtigt werden müssen.
** Hinweis: Achten Sie darauf, das Gerät vor Überspannungen zu schützen, indem Sie ein geeignetes Netzteil verwenden oder Überspannungsschutzgeräte installieren.

DK Tilslutninger · UK Connections · FR Connexions · DE Anschlüsse



	DK	UK	FR	DE
A	Enkelt indgang	Single input	1 entrée	1 Eingang
B	2- / 3- / 4-tråds RTD eller lin. R	2 w / 3 w / 4 w RTD or lin. R	RTD 2- / 3- / 4-fils ou R lin.	2- / 3- / 4-Draht WTH oder lin. R
C	TC (intern CJC eller ekstern 2- / 3-tråds CJC)	TC (internal CJC or external 2 w / 3 w CJC)	TC (CSF int. ou CSF ext. 2- / 3-fils)	TE (int. CJC oder ext. 2- / 3-Draht CJC)
D	mV (unipolar eller bipolar)	mV (unipolar or bipolar)	mV (unipolaire ou bipolaire)	mV (unipolar oder bipolar)
E	3- / 4-tråds potentiometer	3 w / 4 w potentiometer	Potentiomètre 3- / 4-fils	3- / 4-Draht Potentiometer
F	Dobbelt indgang	Dual input	2 entrées	2 Eingänge
G	Indgang 1: 2- / 3- / 4-tråds RTD eller lin. R Indgang 2: 2- / 3- / 4-tråds RTD eller lin. R	Input 1: 2 w / 3 w / 4 w RTD or lin. R Input 2: 2 w / 3 w / 4 w RTD or lin. R	Entrée 1 : RTD ou R lin. 2- / 3- / 4-fils Entrée 2 : RTD ou R lin. 2- / 3- / 4-fils	Eingang 1: 2- / 3- / 4-Draht WTH oder lin. R Eingang 2: 2- / 3- / 4-Draht WTH oder lin. R
H	Indgang 1: TC (int. CJC el. ekst. 2- / 3- / 4-tråds CJC) Indgang 2: TC (int. CJC el. ekst. 2- / 3- / 4-tråds CJC)	Input 1: TC (int. CJC or ext. 2 w / 3 w / 4 w CJC) Input 2: TC (int. CJC or ext. 2 w / 3 w / 4 w CJC)	Entrée 1: TC (CSF int. ou CSF ext. 2- / 3- / 4-fils) Entrée 2: TC (CSF int. ou CSF ext. 2- / 3- / 4-fils)	Eingang 1: TE (int. CJC oder ext. 2- / 3- / 4-Draht CJC) Eingang 2: TE (int. CJC oder ext. 2- / 3- / 4-Draht CJC)
I	Indgang 1: mV Indgang 2: mV	Input 1: mV Input 2: mV	Entrée 1 : mV Entrée 2 : mV	Eingang 1: mV Eingang 2: mV
J	Indgang 1: TC (int. CJC el. ekst. 2- / 3-tråds CJC) Indgang 2: 2- / 3- / 4-tråds RTD	Input 1: TC (int. CJC or ext. 2 w / 3 w CJC) Input 2: 2 w / 3 w / 4 w RTD	Entrée 1 : TC (CSF int. ou CSF ext. 2- / 3-fils) Entrée 2 : RTD 2- / 3- / 4-fils	Eingang 1: TC (int. CJC oder ext. 2- / 3-Draht CJC) Eingang 2: 2- / 3- / 4-Draht WTH
K	Indgang 1: 3- / 4-tråds potentiometer Indgang 2: 3- / 4-tråds potentiometer	Input 1: 3 w / 4 w potentiometer Input 2: 3 w / 4 w potentiometer	Entrée 1 : potentiomètre 3- / 4-fils Entrée 2 : potentiomètre 3- / 4-fils	Eingang 1: 3- / 4-Draht Potentiometer Eingang 2: 3- / 4-Draht Potentiometer
L	Indgang 1: 5-tråds potentiometer Indgang 2: 3-tråds potentiometer	Input 1: 5 w potentiometer Input 2: 3 w potentiometer	Entrée 1 : potentiomètre 5-fils Entrée 2 : potentiomètre 3 -fils	Eingang 1: 5-Draht Potentiometer Eingang 2: 3-Draht Potentiometer
M	Udgang	Output	Sortie	Ausgang
	Forsyning, 5437A 7,5*...48** VDC	Supply, 5437A 7.5*...48** VDC	Alimentation, 5437A 7,5*...48** Vcc	Versorgung, 5437A 7,5*...48** VDC
	Forsyning, 5437B & D 7,5*...30** VDC	Supply, 5437B & D 7.5*...30** VDC	Alimentation, 5437 & D 7,5*...30** Vcc	Versorgung, 5437B & D 7,5*...30** VDC
	Forsyning, 5437 - EU-RO 8,3...33,6 VDC ±10%	Supply, 5437 - EU-RO 8.3...33.6 VDC ±10%	Aliment., 5437 - EU-RO 8,3...33,6 Vcc ±10%	Versorgung, 5437 - EU-RO 8,3...33,6 VDC ±10%
	3,8...20,5 mA-udgang	3.8...20.5 mA output	Sortie 3,8...20,5 mA	3,8...20,5 mA-Ausgang
N	Testterminaler	Test pins	Bornes de test	Testpins

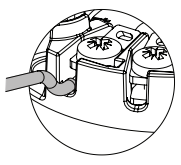
DK Sideskilt · UK Side label · FR Etiquette · DE Typenschild





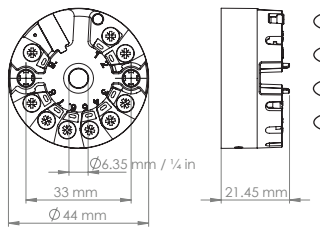
DK **Montering af følerledninger**
Ledninger monteres mellem metalpladerne.
Ledningskvadrat (max.) 1 x 1,5 mm² flerkoret ledning.
Klemskruetilspændingsmoment 0,4 Nm.

UK **Mounting of sensor wires**
Wires must be mounted between the metal plates.
Max. wire size 1 x 1.5 mm² stranded wire.
Screw terminal torque 0.4 Nm.

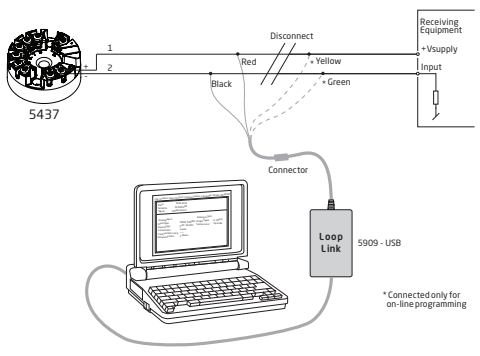


FR **Montage des fils du capteur**
Les fils doivent être montés entre les plaques métalliques.
Taille max. des fils 1 x 1,5 mm² fils multibrins.
Pression max. avant déformation de la vis 0,4 Nm.

DE **Montage von Fühlerleitungen**
Die Leitungen müssen zwischen den Metallplatten montiert werden.
Leitungsquerschnitt (max.) 1 x 1,5 mm² Litzendraht.
Klemmschraubenanzugsmoment 0,4 Nm.



DK Mekaniske specifikationer.
UK Mechanical specifications.
FR Dimensions mécaniques.
DE Abmessungen.

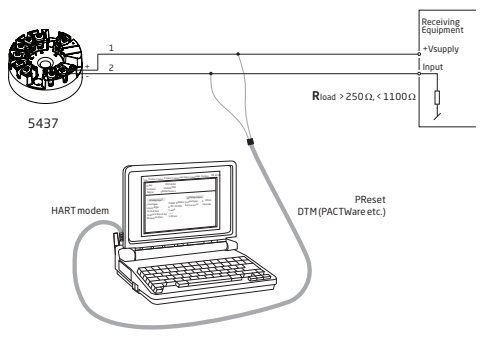


DK Loop Link er et kommunikationsinterface, der er nødvendigt for programmering af 543x. Loop Link må ikke benyttes til kommunikation med moduler installeret i Ex-område.

UK Loop Link is a communications interface that is needed for programming 543x. 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 le 543x. Loop Link ne doit pas être utilisé pour communication avec des modules installés en zone dangereuse.

DE Loop Link ist eine Schnittstelle zur Programmierung des 543x. Loop Link darf nicht zur kommunikation mit Geräten, die in Ex-gefährdeten Bereichen installiert sind, benutz werden.



DK Programmering med HART-modem.

UK Programming with HART modem.

FR Programmation par modem HART.

DE Programmierung mit HART-Modem.

DK Programmering med HART-kommunikator.

UK Programming with HART communicator.

FR Programmation par communicateur HART.

DE Programmierung mit HART-Kommunicator.

DK Dokumentation, godkendelser og yderligere information findes på internettet på **www.prelectronics.dk**

UK Documentation, permits and other information can be found on the internet at **www.prelectronics.com**

FR La documentation et toute autre information peuvent être trouvées sur l'Internet sur notre site: **www.prelectronics.fr**

DE Dokumentationen, Zulassungen und andere Informationen können auf unserer Internet-Seite unter **www.prelectronics.de** gefunden und abgerufen werden.

BR Documentações, licenças e outras informações podem ser encontradas no site **www.prelectronics.com**

ATEX Installation drawing 5437QA01-V8R0

ATEX Certificate DEKRA 16ATEX 0047X
Standards: EN 60079-0:2018, EN 60079-11:2012, EN 60079-15:2010, EN 60079-7:2015 +A1:2018

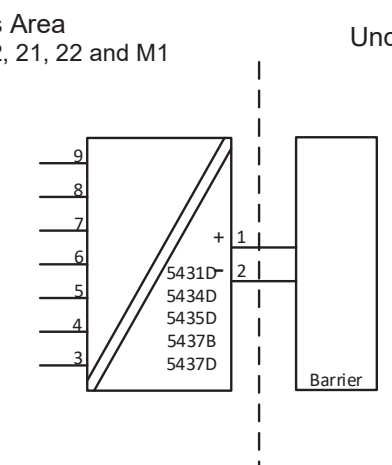
Ex ia Installation

For safe installation of the 5431D..,5434D.., 5435D.., 5437B.. and 5437D.. the following must be observed.

Marking (Ex)
II 1 G Ex ia IIC T6...T4 Ga or
II 2(1) G Ex ib [ia Ga] IIC T6...T4 Gb
II 2 D Ex ia IIIC Db
I M1 Ex ia I Ma

Hazardous Area
Zone 0, 1, 2, 21, 22 and M1

Unclassified Area



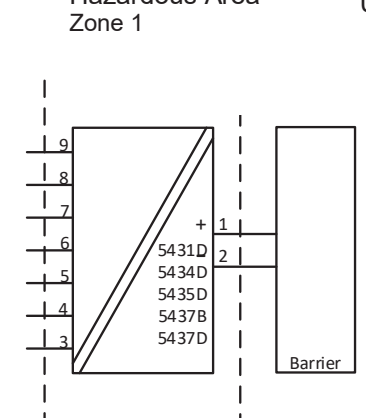
	Terminal 3,4,5,6	Terminal 3,7,8,9	Terminal 3,4,5,6,7,8,9
Uo	7.2 VDC	7.2 VDC	7.2 VDC
Io:	7.3 mA	7.3 mA	12.9 mA
Po	13.2 mW	13.2 mW	23.3 mW
Lo:	667 mH	667 mH	200 mH
Co	13.5 µF	13.5 µF	13.5 µF

Ex ib Installation

Hazardous Area
Zone 0, 1, 2, 21, 22 and M1

Hazardous Area
Zone 1

Unclassified Area



	Terminal 3,4,5,6	Terminal 3,7,8,9	Terminal 3,4,5,6,7,8,9
Uo	7.2 VDC	7.2 VDC	7.2 VDC
Io:	7.3 mA	7.3 mA	12.9 mA
Po	13.2 mW	13.2 mW	23.3 mW
Lo:	667 mH	667 mH	200 mH
Co	13.5 µF	13.5 µF	13.5 µF

Terminal 1,2 Ex ia and Ex ib installation Ui: 30 VDC; Ii: 120 mA; Li: 0 µH; Ci: 1 nF	Temperature Range
Pi: 900 mW	T4: -50 ≤ Ta ≤ 85ºC T5: -50 ≤ Ta ≤ 65ºC T6: -50 ≤ Ta ≤ 50ºC
Pi: 750 mW	T4: -50 ≤ Ta ≤ 85ºC T5: -50 ≤ Ta ≤ 70ºC T6: -50 ≤ Ta ≤ 55ºC
Pi: 610 mW	T4: -50 ≤ Ta ≤ 85ºC T5: -50 ≤ Ta ≤ 75ºC T6: -50 ≤ Ta ≤ 60ºC

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

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

For EPL Ga, if the enclosure is made of aluminum, it must be installed such, that ignition sources due to impact and friction sparks are excluded.

The distance between terminals, inclusive the wires' bare part, shall be at least 3 mm separated from any earthed metal.
The test pins allow measurement of loop current directly while maintaining loop integrity. Power must be connected to the transmitter when using the test pins. For hazardous area installation, only certified test equipment may be used.
If the transmitter was applied in type of protection Ex nA or Ex ec, it may afterwards not be applied for intrinsic safety.

For installation in a potentially explosive gas atmosphere, the following instructions apply:
The transmitter shall be mounted in an enclosure form B according to DIN43729 or equivalent that is providing a degree of protection of at least IP20 according to EN60529.
The enclosure shall be suitable for the application and correctly installed.

For installation in a potentially explosive dust atmosphere, the following instructions apply:
If the transmitter is installed in an explosive atmosphere requiring the use of equipment protection level Db, the transmitter shall be mounted in 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.
Cable entry devices and blanking elements shall fulfill the same requirements.
For EPL Db, the surface temperature of the outer enclosure is +20 K above the ambient temperature, determined without a dust layer.

For installation in mines the following instructions apply:
The transmitter shall be mounted in a metal enclosure that is providing a degree of protection of at least IP54 according to EN60529.
Aluminum enclosures are not allowed for mines.
The enclosure shall be suitable for the application and correctly installed.
Cable entry devices and blanking elements shall fulfill the same requirements.

Ex nA / Ex ec / Ex ic Installation

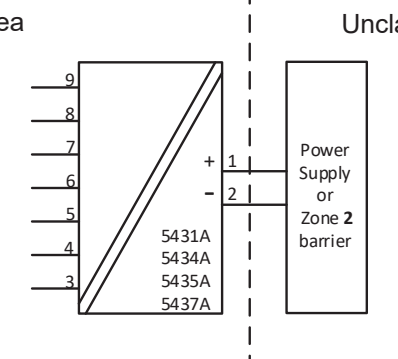
ATEX Certificate DEKRA 18ATEX0135X

For safe installation of the 5431A.., 5434A.., 5435A.. and 5437A.. the following must be observed.

Marking (Ex)
II 3 G Ex nA IIC T6...T4 Gc
II 3 G Ex ec IIC T6...T4 Gc
II 3 G Ex ic IIC T6…T4 Gc
II 3 D Ex ic IIIC Dc

Hazardous Area
Zone 2 and 22

Unclassified Area



Terminal 1,2 Ex nA & ec	Terminal 1,2 Ex ic	Terminal 1,2 Ex ic	Temperature Range
Vmax= 37 VDC	Ui = 37 VDC Li = 0 µH Ci = 1 nF	Ui = 48 VDC Pi = 851 mW Li = 0 µH Ci = 1 nF	T4: -50 ≤ Ta ≤ 85ºC T5: -50 ≤ Ta ≤ 70ºC T6: -50 ≤ Ta ≤ 55ºC
Vmax= 30 VDC	Ui = 30 VDC Li = 0 µH Ci = 1 nF		T4: -50 ≤ Ta ≤ 85ºC T5: -50 ≤ Ta ≤ 75ºC T6: -50 ≤ Ta ≤ 60ºC

Terminal 3,4,5,6,7,8,9 Ex nA & Ex ec	Terminal 3, 4, 5, 6 Ex ic	Terminal 3, 7, 8, 9 Ex ic	Terminal 3,4,5,6,7,8,9 Ex ic
Vmax = 7.2VDC	Uo: 7.2 VDC Io: 7.3 mA Po: 13.2 mW Lo: 667 mH Co: 13.5µF	Uo: 7.2 VDC Io: 7.3 mA Po: 13.2 mW Lo: 667 mH Co: 13.5µF	Uo: 7.2 VDC Io: 12.9 mA Po: 23.3 mW Lo: 200 mH Co: 13.5µF

General installation instructions

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

For an ambient temperature ≥ 60ºC, heat resistant cables shall be used with a rating of at least 20 K above the ambient temperature.

The enclosure shall be suitable for the application and correctly installed
The distance between terminals, inclusive the wires' bare part, shall be at least 3 mm separated from any earthed metal.

'TEST' connection, may only be applied when the area is safe, or if supply / output circuit and the applied current meter are intrinsically safe.

For installation in a potentially explosive gas atmosphere, the following instructions apply:
The transmitter must be installed in an enclosure providing a degree of protection of at least IP54 in accordance with EN60079-0. In addition, the enclosure shall provide an internal pollution degree 2 or better as defined in EN 60664-1.

Cable entry devices and blanking elements shall fulfill the same requirements.

For installation in a potentially explosive dust atmosphere, the following instructions apply:
For EPL Dc, the surface temperature of the outer enclosure is +20 K above the ambient temperature, determined without a dust layer.
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 form B according to DIN 43729 or equivalent that provides a degree of protection of at least IP54 according to EN60079-0.
Cable entry devices and blanking elements shall fulfill the same requirements.

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 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. Cable entry devices and blanking elements shall fulfill the same requirements.

IECEx Installation drawing 5437QI01-V8R0

IECEx Certificate IECEx DEK 16.0029X

Standards: IEC 60079-0:2017, IEC 60079-11:2011, IEC 60079-15:2010, IEC 60079-7:2017

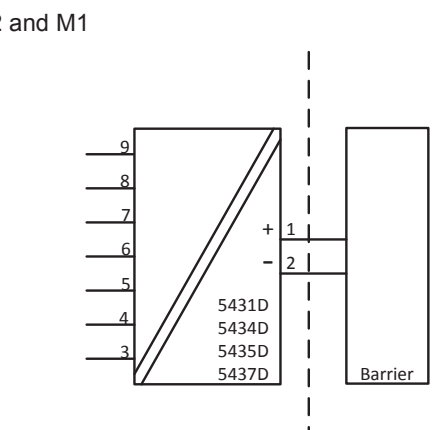
For safe installation of the 5431D..,5434D.., 5435D.. and 5437D.. the following must be observed.

Marking
Ex ia IIC T6...T4 Ga or
Ex ib [ia Ga] IIC T6...T4 Gb
Ex ia IIIC Db
Ex ia I Ma

Ex ia Installation

Hazardous Area
Zone 0, 1, 2, 21, 22 and M1

Unclassified Area



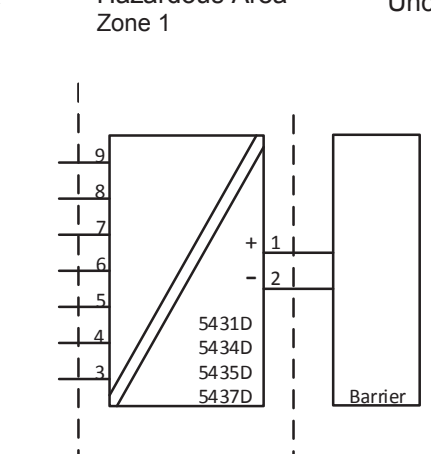
	Terminal 3,4,5,6	Terminal 3,7,8,9	Terminal 3,4,5,6,7,8,9
Uo	7.2 VDC	7.2 VDC	7.2 VDC
Io:	7.3 mA	7.3 mA	12.9 mA
Po	13.2 mW	13.2 mW	23.3 mW
Lo:	667 mH	667 mH	200 mH
Co	13.5 µF	13.5 µF	13.5 µF

Ex ib Installation

Hazardous Area
Zone 0, 1, 2, 21, 22 and M1

Hazardous Area
Zone 1

Unclassified Area



	Terminal 3,4,5,6	Terminal 3,7,8,9	Terminal 3,4,5,6,7,8,9
Uo	7.2 VDC	7.2 VDC	7.2 VDC
Io:	7.3 mA	7.3 mA	12.9 mA
Po	13.2 mW	13.2 mW	23.3 mW
Lo:	667 mH	667 mH	200 mH
Co	13.5 µF	13.5 µF	13.5 µF

Terminal 1,2 Ex ia and Ex ib installation Ui: 30 VDC; Ii: 120 mA; Li: 0 µH; Ci: 1 nF	Temperature Range
Pi: 900 mW	T4: -50 ≤ Ta ≤ 85ºC T5: -50 ≤ Ta ≤ 65ºC T6: -50 ≤ Ta ≤ 50ºC
Pi: 750 mW	T4: -50 ≤ Ta ≤ 85ºC T5: -50 ≤ Ta ≤ 70ºC T6: -50 ≤ Ta ≤ 55ºC
Pi: 610 mW	T4: -50 ≤ Ta ≤ 85ºC T5: -50 ≤ Ta ≤ 75ºC T6: -50 ≤ Ta ≤ 60ºC

General installation instructions

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

For EPL Ga, if the enclosure is made of aluminum, it must be installed such, that ignition sources due to impact and friction sparks are excluded

The distance between terminals, inclusive the wires bare part, shall be at least 3 mm separated from any earthed metal.
The test pins allow measurement of loop current directly while maintaining loop integrity. Power must be connected to the transmitter when using the test pins. For hazardous area installation, only certified test equipment may be used.
If the transmitter was applied in type of protection Ex nA or Ex ec, it may afterwards not be applied for intrinsic safety.

For installation in a potentially explosive gas atmosphere, the following instructions apply:
The transmitter shall be mounted in an enclosure form B according to DIN43729 or equivalent that is providing a degree of protection of at least IP20 according to IEC60529.
The enclosure shall be suitable for the application and correctly installed.

For installation in a potentially explosive dust atmosphere, the following instructions apply:
If the transmitter is installed in an explosive atmosphere requiring the use of equipment protection level Db or Dc and applied in type of protection Ex ia or Ex ic, the transmitter shall be mounted in 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.
Cable entry devices and blanking elements shall fulfill the same requirements.
The surface temperature of the outer enclosure is +20 K above the ambient temperature, determined without a dust layer.

For installation in mines the following instructions apply:
The transmitter shall be mounted in a metal enclosure that is providing a degree of protection of at least IP54 according to IEC60529.
Aluminum enclosures are not allowed for mines.
The enclosure shall be suitable for the application and correctly installed.
Cable entry devices and blanking elements shall fulfill the same requirements.

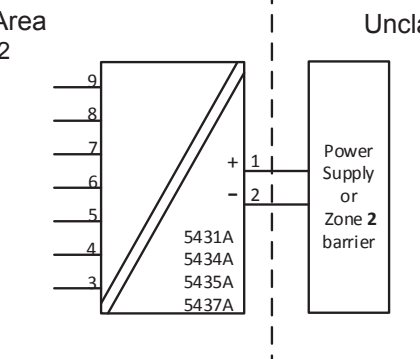
Ex nA / Ex ec / Ex ic Installation

For safe installation of the 5431A.., 5434A.., 5435A.. and 5437A.. the following must be observed.

Marking
Ex nA IIC T6...T4 Gc
Ex ec IIC T6...T4 Gc
Ex ic IIC T6…T4 Gc
Ex ic IIIC Dc

Hazardous Area
Zone 2 and 22

Unclassified Area



Terminal 1,2 Ex nA & ec	Terminal 1,2 Ex ic	Terminal 1,2 Ex ic	Temperature Range
Vmax= 37 VDC	Ui = 37 VDC Li = 0 µH Ci = 1.0 nF	Ui = 48 VDC Pi = 851 mW Li = 0 µH Ci = 1.0 nF	T4: -50 ≤ Ta ≤ 85ºC T5: -50 ≤ Ta ≤ 70ºC T6: -50 ≤ Ta ≤ 55ºC
Vmax= 30 VDC	Ui = 30 VDC Li = 0 µH Ci = 1.0 nF		T4: -50 ≤ Ta ≤ 85ºC T5: -50 ≤ Ta ≤ 75ºC T6: -50 ≤ Ta ≤ 60ºC

Terminal 3,4,5,6,7,8,9 Ex nA & Ex ec	Terminal 3, 7, 8, 9 Ex ic	Terminal 3, 7, 8, 9 Ex ic	Terminal 3,4,5,6,7,8,9 Ex ic
Vmax = 7.2VDC	Uo: 7.2 VDC Io: 7.3 mA Po: 13.2 mW Lo: 667 mH Co: 13.5µF	Uo: 7.2 VDC Io: 7.3 mA Po: 13.2 mW Lo: 667 mH Co: 13.5µF	Uo: 7.2 VDC Io: 12.9 mA Po: 23.3 mW Lo: 200 mH Co: 13.5µF

General installation instructions
If the enclosure is made of non-metallic plastic materials, electrostatic charges on the transmitter enclosure shall be avoided.
For an ambient temperature ≥ 60ºC, heat resistant cables shall be used with a rating of at least 20 K above the ambient temperature.
The enclosure shall be suitable for the application and correctly installed
The distance between terminals, inclusive the wires bare part, shall be at least 3 mm separated from any earthed metal.

'TEST' connection, may only be applied when the area is safe, or if supply / output circuit and the applied current meter are intrinsically safe.

For installation in a potentially explosive gas atmosphere, the following instructions apply:
The transmitter shall be installed in an enclosure providing a degree of protection of not less than IP54 in accordance with IEC 60079-0, which is suitable for the application and correctly installed e.g. in an enclosure that is in type of protection Ex n or Ex e. Additionally, the area inside the enclosure shall be pollution degree 2 or better as defined in IEC 60664-1.
Cable entry devices and blanking elements shall fulfill the same requirements.

For installation in a potentially explosive dust atmosphere, the following instructions apply:
For EPL Dc, the surface temperature of the outer enclosure is +20 K above the ambient temperature, determined without a dust layer.
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 form B according to DIN 43729 or equivalent that provides a degree of protection of at least IP54 according to IEC 60079-0.
Cable entry devices and blanking elements shall fulfill the same requirements.

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 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. Cable entry devices and blanking elements shall fulfill the same requirements.

Instalação INMETRO 5437QB01-V4R1

INMETRO Certificado DEKRA 23.0002X

Normas: **ABNT NBR IEC 60079-0:2020 Versão Corrigida:2023**
ABNT NBR IEC 60079-7:2018 Versão Corrigida:2022
ABNT NBR IEC 60079-11:2013 Versão Corrigida:2017

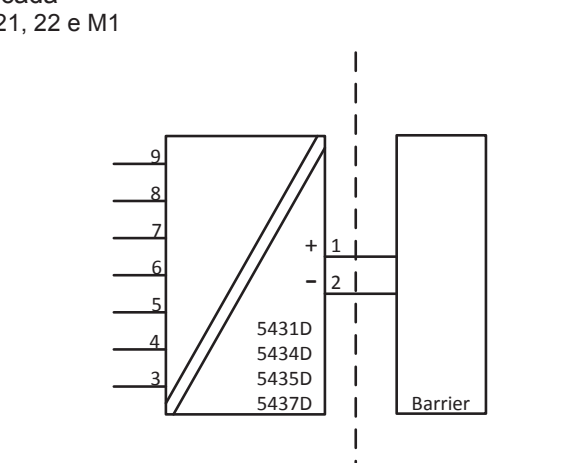
Para a instalação segura do 5431D..,5434D.., 5435D.. e 5437D.. os seguintes pontos devem ser observados:

NOTAS
Ex ia IIC T6...T4 Ga ou
Ex ib [ia Ga] IIC T6...T4 Gb
Ex ia IIIC Db
Ex ia I Ma

Instalação Ex ia

Área Classificada
Zone 0, 1, 2, 21, 22 e M1

Área Não classificada



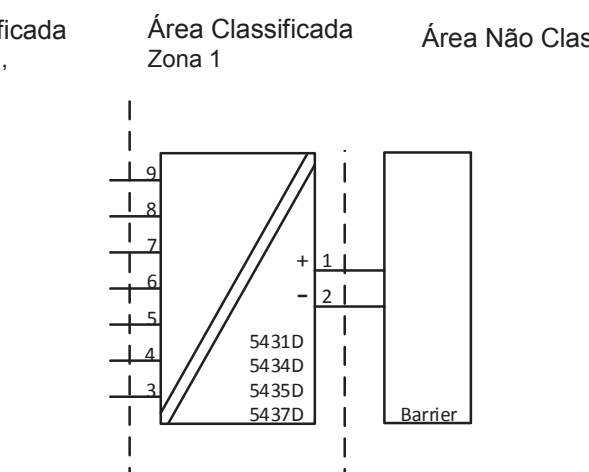
	Terminais 3,4,5,6 e 3,7,8,9	Terminais 3,4,5,6,7,8,9
Uo	7,2 VDC	7,2 VDC
Io:	7,3 mA	12,9 mA
Po	13,2 mW	23,3 mW
Lo:	667 mH	200 mH
Co	13,5 µF	13,5 µF

Instalação Ex ib

Área Classificada
Zonas 0, 1, 2, 21, 22 e M1

Área Classificada
Zona 1

Área Não Classificada



	Terminais 3,4,5,6 e 3,7,8,9	Terminais 3,4,5,6,7,8,9
Uo	7,2 VDC	7,2 VDC
Io:	7,3 mA	12,9 mA
Po	13,2 mW	23,3 mW
Lo:	667 mH	200 mH
Co	13,5 µF	13,5 µF

Terminais 1,2 Instalações Ex ia e Ex ib Ui: 30 VDC; Ii: 120 mA; Li: 0 µH; Ci: 1.0nF	Faixas de Temperaturas
Pi: 900 mW	T4: -50 ≤ Ta ≤ 85ºC T5: -50 ≤ Ta ≤ 65ºC T6: -50 ≤ Ta ≤ 50ºC
Pi: 750 mW	T4: -50 ≤ Ta ≤ 85ºC T5: -50 ≤ Ta ≤ 70ºC T6: -50 ≤ Ta ≤ 55ºC
Pi: 610 mW	T4: -50 ≤ Ta ≤ 85ºC T5: -50 ≤ Ta ≤ 75ºC T6: -50 ≤ Ta ≤ 60ºC

Instruções Gerais de Instalação
Se o invólucro for feito de materiais não metálicos ou de metal com uma camada de tinta mais espessa que 0,2 mm (grupo IIC) ou 2 mm (grupo IIB, IIA, I) ou qualquer espessura (grupo III), cargas eletrostáticas devem ser evitadas.

Para EPL Ga, se o invólucro for de alumínio, ele deve ser instalado de forma que as fontes de ignição devido a faíscas de impacto e fricção sejam excluídas.

A distância entre terminais, fios inclusivos não isolados, deve ser separada por pelo menos 3 mm de qualquer metal aterrado.
Os pinos de testes para medição devem permitir os destes de *loop* de corrente mantendo a integridade do *loop.* A energia deve estará conectada ao transmissor quando for usado os pinos de teste. Para instalações em áreas classificadas deve ser utilizado somente equipamentos certificados.
Se o transmissor foi aplicado no tipo de proteção Ex ec, não pode ser aplicado para segurança intrínseca.

Para instalações com uma atmosfera de gás potencialmente explosiva, a seguinte instrução se aplicará:
O transmissor deverá ser montado em um gabinete de formato tipo B de acordo com a norma DIN43729 ou equivalente que possibilita um grau mínimo de proteção IP20 de acordo com a ABNT NBR IEC60529.
O gabinete deve ser adequado para a aplicação e instalado corretamente.

Para instalação em uma atmosfera de poeira potencialmente explosiva, as seguintes instruções se aplicarão:
Se o transmissor for instalado em uma atmosfera explosiva que exija o uso de nível de proteção de equipamento Db ou Dc e aplicado no tipo de proteção Ex ia ou Ex ic, o transmissor deverá ser montado em gabinete que forneça um grau de proteção de pelo menos IP5X de acordo com IEC 60079-0, e que seja adequado à aplicação e instalado corretamente. Os dispositivos de entrada de cabos e os elementos de obturação devem cumprir os mesmos requisitos. A temperatura da superfície do invólucro externo é +20 K acima da temperatura ambiente, determinada sem camada de poeira.

Para instalações em Minas, as instruções abaixo se aplicam:
O transmissor deverá ser montado em um gabinete de metal que possibilita um grau mínimo de proteção IP54 de acordo com a ABNT NBR IEC60529
Gabinetes de Alumínio não são permitidos para instalações em Minas.
O gabinete deve ser adequado para a aplicação e instalado corretamente.
Os dispositivos de entrada de cabos e os elementos espaçadores devem satisfazer os mesmos requisitos

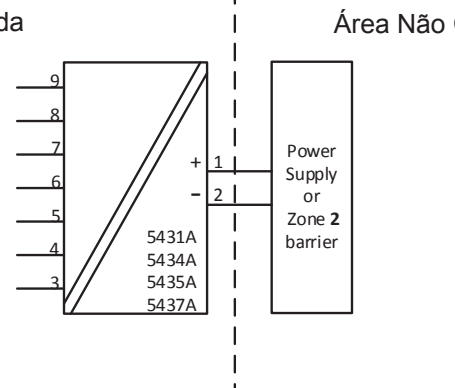
Instalações Ex ec / Ex ic

Para instalações seguras do 5431A.., 5434A.., 5435A.. e 5437A.. as seguintes instruções devem ser observadas

Notas
Ex ec IIC T6...T4 Gc
Ex ic IIC T6…T4 Gc
Ex ic IIIC Dc

Área Classificada
Zona 2 e 22

Área Não Classificada



Terminais 1,2 Ex ec	Terminais 1,2 Ex ic	Terminais 1,2 Ex ic	Faixa de Temperatura
Vmax= 37 VDC	Ui = 37 VDC Li = 0 µH Ci = 1,0 nF	Ui = 48 VDC Pi = 851 mW Li = 0 µH Ci = 1,0 nF	T4: -50 ≤ Ta ≤ 85ºC T5: -50 ≤ Ta ≤ 70ºC T6: -50 ≤ Ta ≤ 55ºC
Vmax= 30 VDC	Ui = 30 VDC Li = 0 µH Ci = 1,0 nF		T4: -50 ≤ Ta ≤ 85ºC T5: -50 ≤ Ta ≤ 75ºC T6: -50 ≤ Ta ≤ 60ºC

Terminais 3,4,5,6,7,8,9 Ex ec	Terminais 3, 4, 5, 6 and 3, 7, 8, 9 Ex ic	Terminais 3,4,5,6,7,8,9 Ex ic
Vmax = 7,2VDC	Uo: 7,2 VDC Io: 7,3 mA Po: 13,2 mW Lo: 667 mH Co: 13,5µF	Uo: 7,2 VDC Io: 12,9 mA Po: 23,3 mW Lo: 200 mH Co: 13,5µF

Instruções gerais de instalação:
Se o invólucro for feito de materiais não metálicos, ou se for feito de metal com uma camada de tinta mais espessa que 0,2 mm (grupo IIC), ou 2 mm (grupo IIB, IIA, I) ou qualquer espessura (grupo III), cargas eletrostáticas devem ser evitadas.
Para uma temperatura ambiente ≥ 60ºC, cabos resistentes a aquecimento deverão ser usados com classificação de no mínimo 20 K acima da temperatura ambiente.
O gabinete deve ser adequado para a aplicação e instalado corretamente.
A distância entre terminais, fios inclusivos não isolados, deve ser separada por pelo menos 3 mm de qualquer metal aterrado.
A conexão TESTE, deve ser utilizado somente quando a área é segura, ou quando a fonte / circuito de saída e o medidor de corrente aplicado seja do tipo intrinsicamente seguro.

Para instalações em uma atmosfera de gás potencialmente explosiva, as instruções abaixo e aplicarão:
O transmissor deverá ser instalado em um gabinete que possibilita um grau de proteção de no mínimo IP54 de acordo com a ABNT NBR IEC 60079-0.
Em adição, o gabinete deverá possibilitar um grau de poluição interna de 2 ou melhor, como definido na ABNT NBR IEC60664-1.
Os dispositivos de entrada de cabos e os elementos espaçadores devem satisfazer os mesmos requisitos

Para a instalação em uma atmosfera de poeira potencialmente explosiva, as seguintes instruções se aplicarão:
Para EPL Dc, a temperatura da superfície do invólucro externo é +20 K acima da temperatura ambiente, determinada sem camada de poeira. Se o transmissor for fornecido com um sinal intrinsecamente seguro "ic" e fizer interface com um sinal intrinsecamente seguro "ic" (por exemplo, um dispositivo passivo), o transmissor deverá ser montado em um invólucro metálico forma B de acordo com DIN 43729 ou equivalente que forneça um grau de proteção de pelo menos IP54 conforme IEC 60079-0. Os dispositivos de entrada de cabos e os elementos de obturação devem cumprir os mesmos requisitos.

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 gabinete que forneça um grau de proteção de pelo menos IP54 de acordo com IEC 60079 -0, e isso é adequado para o aplicativo e instalado corretamente. Os dispositivos de entrada de cabos e os elementos de obturação devem cumprir os mesmos requisitos.

(DK) Kina RoHS (UK) China RoHS (FR) RoHS chinois (DE) China-RoHS

Part Name	Hazardous Substances					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Printed circuit board	X	O	O	O	O	O

This table is prepared in accordance with the provisions of SJ/T 11364
O: Indicates that said hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement of GB/T 26572.
X: Indicates that said hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement of GB/T 26572.

The product's Environmentally Friendly Use Period (EFUP) is 50 years

FM Installation drawing 5437QF01-V6R0

FM Certificates FM16CA0146X and FM16US0287X

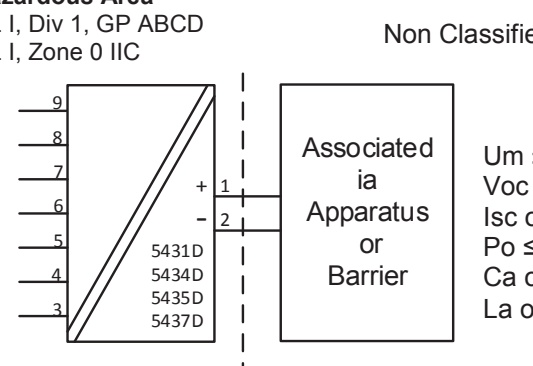
Division1 / Zone 0, Intrinsic Safe Installation

For safe installation of the 5431D..,5434D.., 5435D.. and 5437D.. the following must be observed.

Marking:
CL I, Div 1, Gp A,B,C,D
CL I, Zone 0 AEx ia IIC, T6…T4
CL I, Zone 1 [0] AEx ib [ia] IIC,T6…T4
Ex ia IIC, T6…T4 Ga
Ex ib [ia Ga] IIC, T6…T4 Gb

Hazardous Area
CL I, Div 1, GP ABCD
CL I, Zone 0 IIC

Non Classified Area



Um ≤ 250V
Voc or Uo ≤ Vmax or Ui
Isc or Io ≤ Imax or Ii
Po ≤ Pi
Ca or Co ≥ Ci + Ccable
La or Lo ≥ Li + Lcable

	Terminal 3,4,5,6	Terminal 3,7,8,9	Terminal 3,4,5,6,7,8,9
Uo	7.2 VDC	7.2 VDC	7.2 VDC
Io:	7.3 mA	7.3 mA	12.9 mA
Po	13.2 mW	13.2 mW	23.3 mW
Lo:	667 mH	667 mH	200 mH
Co	13.5 µF	13.5 µF	13.5 µF

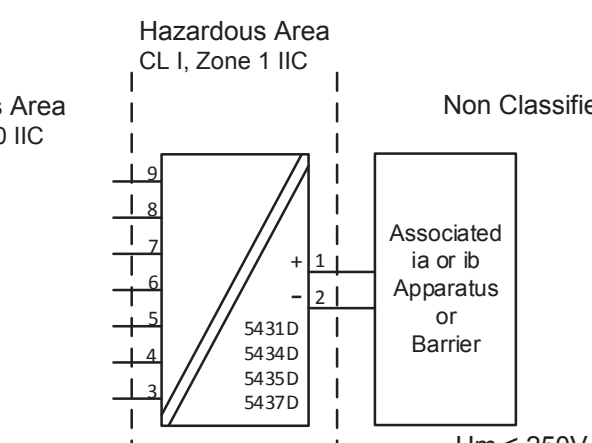
Terminal 1,2 AEx/Ex ia IIC, T6…T4 Ga; CL I, Div 1, Gp ABCD, T6…T4;	Temperature Range
Ui: 30 VDC; Ii: 120 mA Pi: 900 mW Li:0 µH; Ci:1.0nF	T4: -50 ≤ Ta ≤ 85ºC T5: -50 ≤ Ta ≤ 70ºC T6: -50 ≤ Ta ≤ 55ºC
Ui: 30 VDC; Ii: 100 mA Pi: 750 mW Li:0 µH; Ci:1.0nF	T4: -50 ≤ Ta ≤ 85ºC T5: -50 ≤ Ta ≤ 75ºC T6: -50 ≤ Ta ≤ 60ºC

Zone 0 / Zone 1, Intrinsic Safe Installation

Hazardous Area
CL I, Zone 0 IIC

Hazardous Area
CL I, Zone 1 IIC

Non Classified Area



Um ≤ 250V
Voc or Uo ≤ Vmax or Ui
Isc or Io ≤ Imax or Ii
Po ≤ Pi
Ca or Co ≥ Ci + Ccable
La or Lo ≥ Li + Lcable

	Terminal 3,4,5,6	Terminal 3,7,8,9	Terminal 3,4,5,6,7,8,9
Uo	7.2 VDC	7.2 VDC	7.2 VDC
Io:	7.3 mA	7.3 mA	12.9 mA
Po	13.2 mW	13.2 mW	23.3 mW
Lo:	667 mH	667 mH	200 mH
Co	13.5 µF	13.5 µF	13.5 µF

Terminal 1,2 Ex ib [ia Ga] IIC T6…T4 Gb;	Temperature Range
Ui: 30 VDC; Ii: 120 mA Pi: 900 mW Li:0 µH; Ci:1.0nF	T4: -50 ≤ Ta ≤ 85ºC T5: -50 ≤ Ta ≤ 70ºC T6: -50 ≤ Ta ≤ 55ºC
Ui: 30 VDC; Ii: 100 mA Pi: 750 mW Li:0 µH; Ci:1.0nF	T4: -50 ≤ Ta ≤ 85ºC T5: -50 ≤ Ta ≤ 75ºC T6: -50 ≤ Ta ≤ 60ºC

IS installation instructions
• Install in accordance with the US the National Electrical Code (NEC) or for Canada the Canadian Electrical Code (CEC).

• 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 (Uo or Voc or Vt) and current (Io or Isc or It) and the power Po which can be delivered by the barrier.

• The sum of the maximum unprotected capacitance (Ci) for each intrinsically device and the interconnect-ing 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 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 It, and Ca and La for barriers are provided by the barrier manufacturer.

• The transmitter must be installed in a suitable enclosure to meet installation codes stipulated in the Canadian Electrical Code (CEC) or for US the National Electrical Code (NEC).
• If the enclosure is made of non-metallic materials or of painted metal, electrostatic charging shall be avoided.

• Use supply wires with a rating of at least 5 K above the ambient temperature.

WARNING: Substitution of components may impair intrinsic safety
AVERTISSEMENT: la substitution de composants peut nuire à la sécurité intrinsèque

Division 2 / Zone 2, Non Sparking Installation

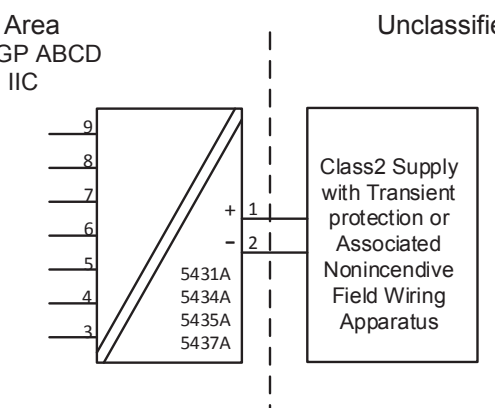
For safe installation of the 5431A.., 5434A.., 5435A.. and 5437A.. the following must be observed.

Marking
Class I, Division 2, GP A,B,C,D T6...T4
Class I, Zone 2 AEx nA IIC, T6...T4 Gc
Class I, Zone 2 Ex nA IIC, T6...T4 Gc
NIFW, CL I, Div 2, GP A,B,C,D

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

Unclassified Area

Terminal:
3,4,5,6,7,8,9
Vmax: 7.2 VDC



Terminal 1,2 AEx/Ex nA IIC T6..T4 Gc	Temperature Range
Supply voltage: max 37 VDC	T4: -50 ≤ Ta ≤ 85ºC T5: -50 ≤ Ta ≤ 70ºC T6: -50 ≤ Ta ≤ 55ºC
Supply voltage: max 30 VDC	T4: -50 ≤ Ta ≤ 85ºC T5: -50 ≤ Ta ≤ 75ºC T6: -50 ≤ Ta ≤ 60ºC

NI Installation instructions
• The transmitter must be installed in an enclosure providing a degree of protection of at least IP54 according to IEC60529 that is suitable for the application and is correctly installed.Cable entry devices and blanking elements shall fulfill the same requirements.
• If the enclosure is made of non-metallic materials or of painted metal, electrostatic charging shall be avoided.
• Use supply wires with a rating of at least 5 K above the ambient temperature.

WARNING: Substitution of components may impair suitability for Class I, Division 2
AVERTISSEMENT: la substitution de composants peut nuire à la sécurité intrinsèque

WARNING: Do not disconnect equipment unless power has been switched off or the area is known to be safe.
AVERTISSEMENT: Ne débranchez pas l'équipement sauf si l'alimentation a été coupée ou si la zone est connue pour être sûre.

Non Incendive Field Wiring installation

The non incendive field Wiring Circuit concept allows interconnection of Nonincendive Field wiring Apparatus with Associated Nonincendive Field Wiring Apparatus or Assosicated Intrinsically Safe Apparatus or Associated Apparatus not specially examined in combination as a syatem using any of the wiring methods permitted for unclassified locations, Voc < Vmax, Ca ≥ Ci + Ccable , La ≥ Li + Lcable.

Terminal 1,2 Non Incendive Field Wiring parameters	Temperature Range
Vmax= 30 VDC, Ci=1nF, Li=0	T4: -50 ≤ Ta ≤ 85ºC T5: -50 ≤ Ta ≤ 75ºC T6: -50 ≤ Ta ≤ 60ºC

Functional Ratings:
Unom ≤ 30 VDC; Inom ≤ 3.5 - 23 mA

EU DECLARATION OF CONFORMITY

(5437DoC_103)

CE

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

hereby declares that the following product:
Type: **5437**
Name: **2-wire HART 7 temperature transmitter**
From serial no. **211346810**
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 IEC 60079-0 : 2018, EN 60079-7 : 2015 + A1 : 2018,
EN 60079-11 : 2012 and EN 60079-15 : 2010
ATEX certificate: DEKRA 16ATEX0047 X (5437B and 5437D)
ATEX certificate: DEKRA 18ATEX0135 X (5437A)
ATEX notified body (type approval)
DEKRA Certification B.V.
Meander 1051, 6825 MJ Arnhem
P.O. Box 5185, 6802 ED Arnhem
The Netherlands

The RoHS2 Directive 2011/65/EU and later amendments
EN IEC 63000 : 2018

Notified body 0344
DEKRA Certification B.V.
Meander 1051, 6825 MJ Arnhem
P.O. Box 5185, 6802 ED Arnhem
The Netherlands

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Rønde, 23 September 2022

Stig Lindemann, CTO
Manufacturer's signature

CSA Installation drawing 5437QC01-V7R0

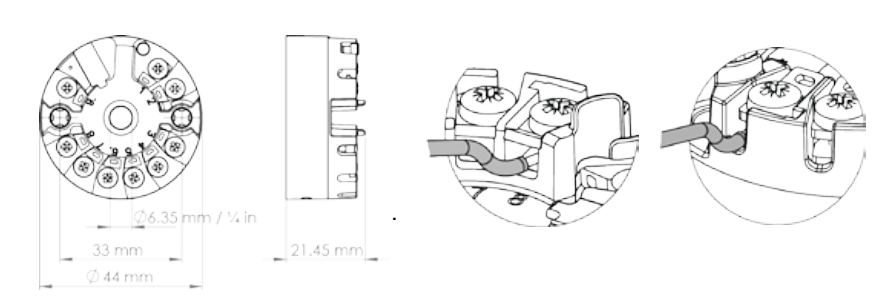
CSA Certificate 16CA70066266

General installation instructions:
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.

Check at the receipt of the device whether the type corresponds to the one ordered. Installation, connection and disconnection of wires should only be carried out on a disconnected device and under ESD safe conditions.

For hazardous area installation, only certified test equipment may be used and - the device must be installed according to the appropriate installation drawings.

Loop Link programming interface may be used only to program the device outside the classified area or when the area is known to be safe.



Wires must be mounted between the metal plates.
Max. wire size 1 x 1.5 mm2 stranded wire.
Screw terminal torque 0.4 Nm

Repair of the device must be done by PR electronics A/S only.

Should there be any doubt as to the correct handling of the device please contact your local distributor or alternatively:

PR electronics A/S, Lerbakken 10, 8410 Roende, Denmark.
Phone : +45 86372677, www.prelectronics.com.

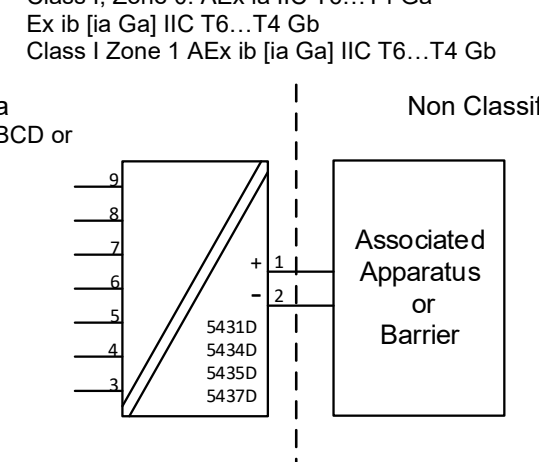
Division1 / Ex ia, Intrinsic Safe Installation

For safe installation of the 5431D..,5434D.., 5435D.. and 5437D.. the following must be Observed.

Marking
Class I Division 1, Group A,B,C,D
Ex ia IIC T6…T4 Ga
Class I, Zone 0: AEx ia IIC T6…T4 Ga
Ex ib [ia Ga] IIC T6…T4 Gb
Class I Zone 1 AEx ib [ia Ga] IIC T6…T4 Gb

Hazardous Area
CL I, Div 1 GP ABCD or
CL I, Zone 0

Non Classified Area



	Terminal 3,4,5,6	Terminal 3,7,8,9	Terminal 3,4,5,6,7,8,9
Uo	7.2 VDC	7.2 VDC	7.2 VDC
Io:	7.3 mA	7.3 mA	12.9 mA
Po	13.2 mW	13.2 mW	23.3 mW
Lo:	667 mH	667 mH	200 mH
Co	13.5 µF	13.5 µF	13.5 µF

Um ≤ 250V
Voc or Uo ≤ Vmax or Ui
Isc or Io ≤ Imax or Ii
Po ≤ Pmax or Pi
Ca or Co ≥ Ci + Ccable
La or Lo ≥ Li + Lcable

Terminal 1,2 Ex ia, Div1	Temperature Range
Pi: 900 mW Ui: 30 VDC; Ii: 120 mA Li:0 µH; Ci:1.0nF	T4: -50 ≤ Ta ≤ 85ºC T5: -50 ≤ Ta ≤ 70ºC T6: -50 ≤ Ta ≤ 55ºC
Pi: 750 mW Ui: 30 VDC; Ii: 100 mA Li:0 µH; Ci:1.0nF	T4: -50 ≤ Ta ≤ 85ºC T5: -50 ≤ Ta ≤ 75ºC T6: -50 ≤ Ta ≤ 60ºC

IS Installation instructions
• Install in accordance with the US the National Electrical Code (NEC) or for Canada the Canadian Electrical Code (CEC).
• The transmitter must be installed in a suitable enclosure to meet installation codes stipulated in the Canadian Electrical Code (CEC) or for US the National Electrical Code (NEC).
• To establish Class II and Class III, Division 1 or IIIC ratings, the equipment shall be installed in an enclosure that is approved for use in Class II and Class III hazardous (classified) locations.
• If the enclosure is made of non-metallic materials or of painted metal, electrostatic charging shall be avoided.

• Use supply wires with a rating of at least 5 K above the ambient temperature.

WARNING: Substitution of components may impair intrinsic safety
AVERTISSEMENT: la substitution de composants peut nuire à la sécurité intrinsèque

Division 2 / Ex ec, Installation

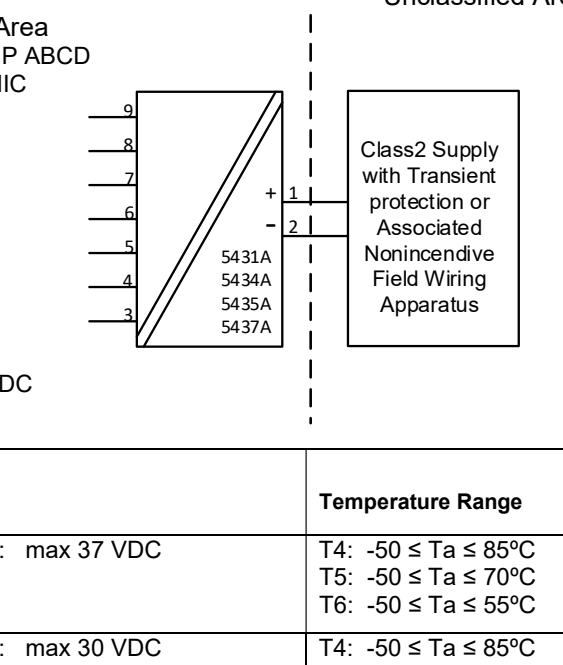
For safe installation of the 5431A.., 5434A.., 5435A.. and 5437A.. the following must be observed.

Marking
Class I, Division 2, Groups A, B, C, D
Ex ec IIC T6…T4 Gc
Class I, Zone 2: AEx ec IIC T6…T4 Gc

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

Unclassified Area

Terminal:
3,4,5,6,7,8,9
Vmax: 7.2 VDC



Terminal 1,2 Ex ec	Temperature Range
Supply voltage: max 37 VDC	T4: -50 ≤ Ta ≤ 85ºC T5: -50 ≤ Ta ≤ 70ºC T6: -50 ≤ Ta ≤ 55ºC
Supply voltage: max 30 VDC	T4: -50 ≤ Ta ≤ 85ºC T5: -50 ≤ Ta ≤ 75ºC T6: -50 ≤ Ta ≤ 60ºC

NI Installation instructions
• The transmitter must be installed in an enclosure providing a degree of protection of at least IP54 according to IEC60529 that is suitable for the application and is correctly installed. Cable entry devices and blanking elements shall fulfill the same requirements.
• Additionally, the area inside the enclosure shall be pollution degree 2 or better as defined in IEC 60664-1.
• If the enclosure is made of non-metallic materials or of painted metal, electrostatic charging shall be avoided.
• Use supply wires with a rating of at least 5 K above the ambient temperature.
• For an ambient temperature ≥ 60ºC, heat resistant cables shall be used with a rating of at least 20 K above the ambient temperature.

WARNING: Substitution of components may impair suitability for Class I, Division 2
AVERTISSEMENT: la substitution de composants peut nuire à l'aptitude à la Classe I, Division 2

WARNING: Do not connect or disconnect equipment unless power has been switched off or the area is known to be safe.
AVERTISSEMENT: Ne connectez ou ne débranchez pas l'équipement sauf si l'alimentation a été coupée ou si la zone est connue pour être sûre.

Non Incendive field wiring installation
The non incendive field Wiring Circuit concept allows interconnection of Nonincendive Field wiring Apparatus with Associated Nonincendive Field Wiring Apparatus or Assosicated Intrinsically Safe Apparatus or Associated Apparatus not specially examined in combination as a syatem using any of the wiring methods permitted for unclassified locations, Voc < Vmax, Ca ≥ Ci + Ccable , La ≥ Li + Lcable.

Terminal 1,2 Non Incendive Field wiring parameters	Temperature Range
Vmax= 30 VDC, Ci=1nF, Li=0	T4: -50 ≤ Ta ≤ 85ºC T5: -50 ≤ Ta ≤ 75ºC T6: -50 ≤ Ta ≤ 60ºC

Functional Ratings: Unom ≤ 30 VDC; Inom ≤ 3.5 - 23 mA

NEPSI Installation drawing 5437QN01-V2R0

NEPSI 证书 GYJ23.1227X

防爆标志为
Ex ia IIC T4…T6 Ga
Ex ib [ia Ga] IIC T4…T6 Gb
Ex ic IIC T4…T6 Gc
Ex ec [ic Gc] IIC T4…T6 Gc
Ex ia IIIC T80°C/T95°C/T130°C Db
Ex ib [ia Da] IIIC T80°C/T95°C/T130°C Db

二、产品使用注意事项

2.1 变送器的使用环境温度范围、温度组别与安全参数的关系如下表所示:

接线端子	防爆等级	环境温度	温度组别	安全参数
1 ~ 2	ia, ib iaDb ibDb	(-50~+50)°C	T6/T80°C	U_i=30 V C_i=1 nF I_i=120 mV P_i=900 mW L_i≈0
		(-50~+65)°C	T5/T95°C	
		(-50~+85)°C	T4/T130°C	
		(-50~+55)°C	T6/T80°C	U_i=30 V C_i=1 nF I_i=120 mV P_i=750 mW L_i≈0
		(-50~+70)°C	T5/T95°C	
		(-50~+85)°C	T4/T130°C	
		(-50~+60)°C	T6/T80°C	U_i=30 V C_i=1 nF I_i=120 mV P_i=610 mW L_i≈0
		(-50~+75)°C	T5/T95°C	
		(-50~+85)°C	T4/T130°C	
	ic	(-50~+55)°C	T6	U_i=37 V L_i≈0 C_i=1 nF U_i=48 V P_i=851 mW L_i≈0 C_i=1 nF
		(-50~+70)°C	T5	
		(-50~+85)°C	T4	
		(-50~+60)°C	T6	U_i=30 V L_i≈0 C_i=1 nF
		(-50~+75)°C	T5	
		(-50~+85)°C	T4	
1 ~ 2	ec	(-50~+55)°C	T6	U_{max}=37 V
		(-50~+70)°C	T5	
		(-50~+85)°C	T4	
		(-50~+60)°C	T6	U_{max}=30 V
		(-50~+75)°C	T5	
		(-50~+85)°C	T4	
3 - 4 ~ 9	ia, ib, ic	(-50~+85)°C	T4 ~ T6	U_o=7.2 V L_o=200 mH I_o=12.9 mA C_o=13.5 μF Po=23.3 mW
3 - 4 ~ 6 3 - 7 ~ 9				U_o=7.2 V L_o=667 mH I_o=12.9 mA C_o=13.5 μF Po=13.2 mW

2.2 变送器必须与已经通过防爆认证的关联设备配套/传感器共同组成本安防爆系统方可使用于爆炸性危险场所。其系统接线必须同时遵守本产品、所配关联设备和传感器的使用说明书要求,接线端子不得接错。
2.3 用户不得自行更换该产品的零部件,应会同产品制造商共同解决运行中出现的故障,以杜绝损坏现象的发生。
2.4 用户在安装、使用和维护变送器时,须同时严格遵守产品使用说明书和下列标准:

GB 3836.13-2021 爆炸性环境 第 13 部分: 设备的修理、检修、修复和改造

GB 3836.15-2017 爆炸性气体环境用电气设备 第 15 部分: 危险场所电气安装 (煤矿除外)

GB 3836.16-2022 爆炸性气体环境用电气设备 第 16 部分: 电气装置的检查和维护 (煤矿除外)

GB 3836.18-2017 爆炸性环境第 18 部分: 本质安全系统

GB 50257-2014 电气装置安装工程爆炸和火灾危险环境电气装置施工及验收规范

GB 12476.2-2010 可燃性粉尘环境用电气设备 第 2 部分: 选型和安装

GB 15577-2007 粉尘防爆安全规程