

5437A / 5437D



DK ADVARSEL

Følgende operationer bør kun udføres på modulet i spændingsløs tilstand...

ADVARSEL

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

SIKKERHEDSREGLER

Modtagelse og udpakning
Udpak modulet uden at beskadige det. Kontrollér ved modtagelsen...

Miljøforhold

Undgå direkte sollys, kraftigt støv eller varme, mekaniske rykninger...

Installation

Modulet må kun tilsluttes af kvalificerede teknikere, som er bekendt med de tekniske udtryk, advarsler og instruktioner...

Kalibrering og justering

Under kalibrering og justering skal måling og tilslutning af eksterne spændinger udføres i henhold til denne installationsvejledning...

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.

Elektriske specifikationer

- Drifttemperaturområde: Standard -50°C to +85°C
SIL -40°C to +80°C
Lagringstemperatur -50°C to +85°C

Indgang for RTD-type:

- Pt100 & Ni100
Indgang for TC-type: B, E, J, K, L, N, R, S, T, U, W3, W5, Lr

Spændingsindgang:

- mV
Strømodgang: Normalområde, programmerbart 3.8...20.5/20.5...3.8 mA

Godkendelser:

- ATEX 2014/34/EU, IECEx, cFMus, cCSAus, INMETRO, NEPSI, EAC Ex TR-CU 012/2011

Ex / I.S.:

- ATEX 2014/34/EU, IECEx, cFMus, cCSAus, INMETRO, NEPSI, EAC Ex TR-CU 012/2011

Overholdte myndighedskrav:

- EMC, RoHS, EAC

Funktionel sikkerhed:

- SIL 2-certificeret via Full Assessment iht. IEC 61508:2010
SFF> 93% - type B-komponent

* Note: Vær opmærksom på at minimum forsyningsspændingen måles på 5437-terminaleerne...

*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.

ADVARSEL

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

SAFETY INSTRUCTIONS

Receipt and unpacking
Unpack the device without damaging it. The packing should always follow the device until this has been permanently mounted...

Environment

Avoid direct sunlight, dust, high temperatures, mechanical vibrations and shock, as well as rain and heavy moisture.

Mounting

Only qualified technicians who are familiar with the technical terms, warnings, and instructions in this installation guide and who are able to follow these should connect the device.

Calibration and adjustment

During calibration and adjustment, the measuring and connection of external voltages must be carried out according to the specifications of this installation guide.

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.

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

Input for RTD type:

- Pt100 & Ni100
Input for TC types: B, E, J, K, L, N, R, S, T, U, W3, W5, Lr

Voltage input:

- mV
Current output: Normal range, programmable 3.8...20.5/20.5...3.8 mA

Approvals:

- ATEX 2014/34/EU, IECEx, cFMus, cCSAus, INMETRO, NEPSI, EAC Ex TR-CU 012/2011

Ex / I.S.:

- ATEX 2014/34/EU, IECEx, cFMus, cCSAus, INMETRO, NEPSI, EAC Ex TR-CU 012/2011

Observed authority requirements:

- EMC, RoHS, EAC

Functional safety:

- SIL2 Certified & Fully Assessed acc. to IEC 61508:2010
SFF> 93% - type B component

* 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).

ADVARSEL

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

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 déballé...

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.

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 montage et le raccordement du module doivent être conformes à la législation nationale en vigueur pour le montage de matériaux électriques.

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.

Maintenance et entretien

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

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.

Spécifications

- Température de fonctionnement: Standard -50°C to +85°C
SIL -40°C to +80°C
Température de stockage -50°C to +85°C

Entrée pour types RTD:

- Pt100 & Ni100
Entrée pour types TC: B, E, J, K, L, N, R, S, T, U, W3, W5, Lr

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

Approbations:

- ATEX 2014/34/EU, IECEx, cFMus, cCSAus, INMETRO, NEPSI, EAC Ex TR-CU 012/2011

Ex / I.S.:

- ATEX 2014/34/EU, IECEx, cFMus, cCSAus, INMETRO, NEPSI, EAC Ex TR-CU 012/2011

Compatibilité avec les normes:

- EMC, RoHS, EAC

Sécurité fonctionnelle:

- Certification complète SIL 2 selon IEC 61508:2010
SFF> 93% - Composant type B

*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.

DE WARNUNG

Folgende Maßnahmen sollten nur in spannungslosem Zustand des Gerätes und unter ESD-sicheren Verhältnissen durchgeführt werden.

ADVARSEL

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

SICHERHEITSGEDELN

Empfang und Auspacken
Packen Sie das Gerät aus, ohne es zu beschädigen, und kontrollieren Sie beim Empfang, ob der Gerätetyp Ihrer Bestellung entspricht.

Umgebungsbedingungen

Direkte Sonneneinstrahlung, starke Staubeentwicklung oder Hitze, mechanische Erschütterungen und Stöße sind zu vermeiden.

Installation

Das Gerät darf nur von qualifizierten Technikern angeschlossen werden, die mit den technischen Ausdrücken, Warnungen und Anweisungen in dieser Installationsanleitung vertraut sind.

Die Installation und der Anschluss des Gerätes haben in Übereinstimmung mit den geltenden Regeln des jeweiligen Landes bez. der Installation elektrischer Apparaturen zu erfolgen.

Kalibrierung und Justierung

Während der Kalibrierung und Justierung sind die Messung und der Anschluss externer Spannungen entsprechend dieser Installationsanleitung auszuführen.

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.

Elektrische Daten

- Betriebstemperaturbereich: Standard -50°C to +85°C
SIL -40°C to +80°C
Lagertemperatur -50°C to +85°C

Input for RTD type:

- Pt100 & Ni100
Input for TC types: B, E, J, K, L, N, R, S, T, U, W3, W5, Lr

Voltage input:

- mV
Current output: Normal range, programmable 3.8...20.5/20.5...3.8 mA

Approvals:

- ATEX 2014/34/EU, IECEx, cFMus, cCSAus, INMETRO, NEPSI, EAC Ex TR-CU 012/2011

Ex / I.S.:

- ATEX 2014/34/EU, IECEx, cFMus, cCSAus, INMETRO, NEPSI, EAC Ex TR-CU 012/2011

Marine-Zulassung:

- EU RO Mutual Recognition
Type Approval: MRA0000023

Eingehaltene Behördenvorschriften:

- EMC, RoHS, EAC

Funktionale Sicherheit:

- SIL 2, vollständig geprüft und zertifiziert gemäß IEC 61508:2010
SFF> 93% - Komponente Typ B

* Hinweis: Beachten Sie, dass die minimale Versorgungsspannung an den Klemmen des 5437 gemessen werden muss.

** 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

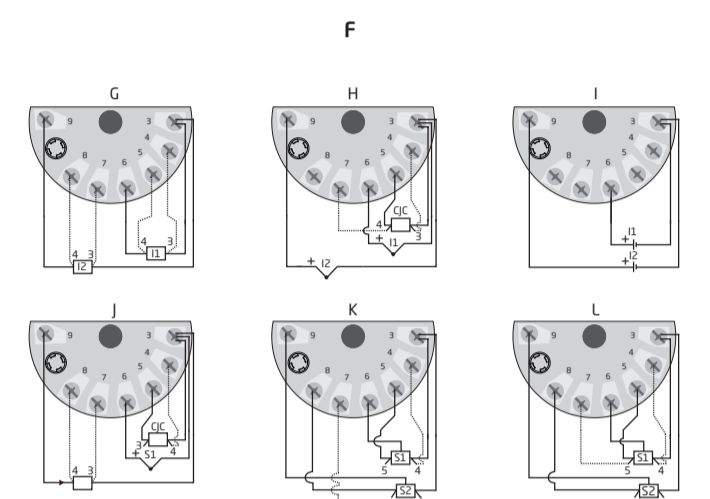
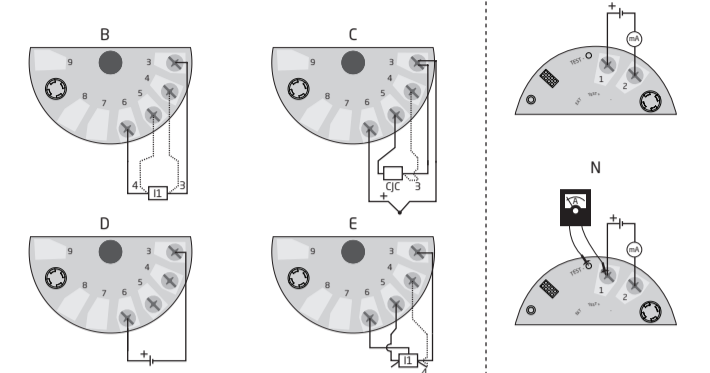
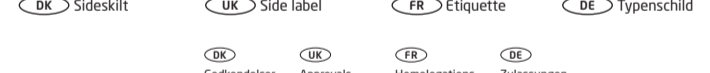


Table with 4 columns: DK, UK, FR, DE. Rows include input types (A, B, C, D, E, F, G, H, I, J, K, L, M), output types, and test terminals (N).

DK Sideskilt UK Side label FR Etiquette DE Typenschild



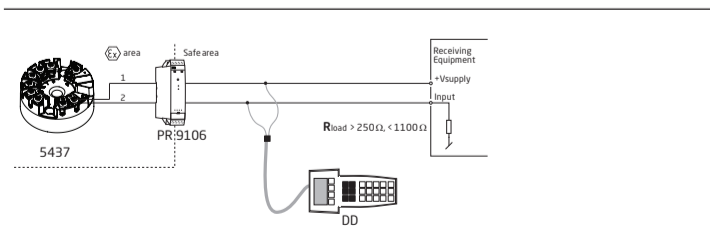
- Typennr.
Produktionsår fremgår af de to første cifre i serienummeret.
Year of manufacture can be taken from the first two digits in the serial number.

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

Table for Hazardous Substances with columns for Lead (Pb), Mercury (Hg), Cadmium (Cd), Hexavalent Chromium (Cr (VI)), Polybrominated biphenyls (PBB), and Polybrominated diphenyl ethers (PBDE).

This table is prepared in accordance with the provisions of SFF/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.

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



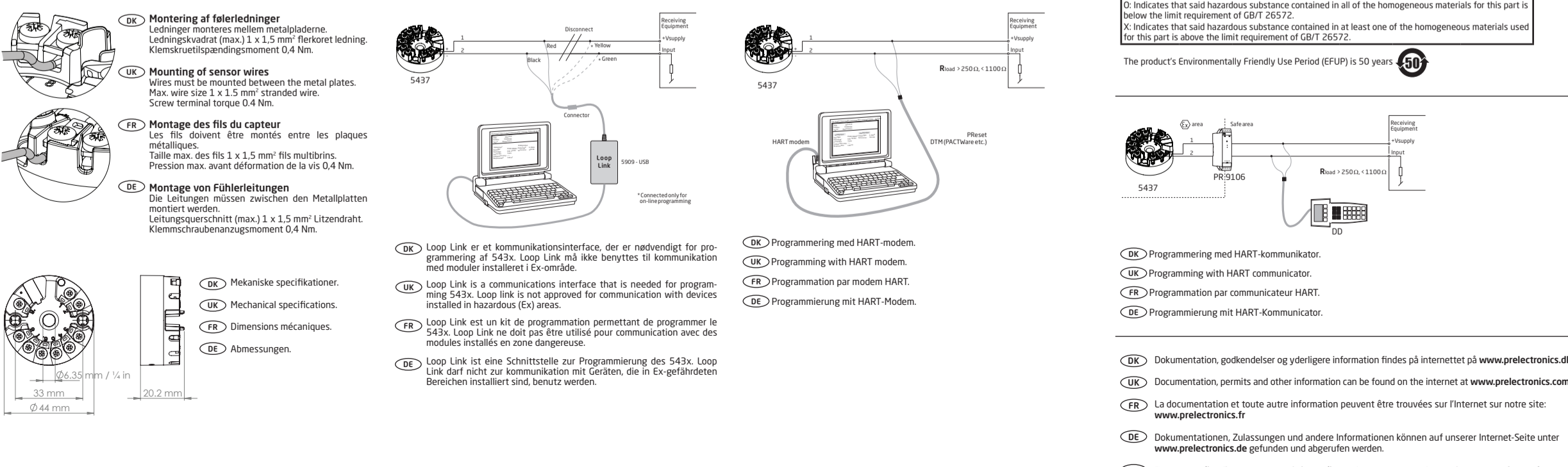
- DK Programmering med HART-kommunikator.
UK Programming with HART communicator.
FR Programmation par communicateur HART.
DE Programmierung mit HART-Kommunikator.

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

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

Die Dokumentation, Zulassungen und andere Informationen können auf unserer Internet-Seite unter www.prellectronics.de gefunden und abgerufen werden.

Documentações, licenças e outras informações podem ser encontradas no site www.prellectronics.com



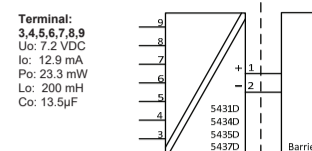
ATEX Installation drawing 5437QA01-V4R0

ATEX Certificate DEKRA 16ATEX 0047X
EN 60079-0:2012, A11:2013, EN60079-11:2012, EN60079-15:2010, EN60079-7:2015

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

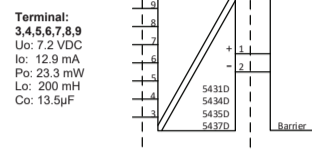
Marking II 1 G Ex ia IIC T6...T4 Ga or II(1) G Ex ib [Ia Ga] IIC T6...T4 Gb II 1 D Ex ia IIC Da I M1 Ex ia I Ma

Hazardous Area Zone 0, 1, 2, 20, 21, 22 and M1
Unclassified Area



Ex ib Installation

Hazardous Area Zone 0, 1, 2, 20, 21, 22 and M1
Hazardous Area Zone 1
Unclassified Area



Terminal 1,2 Ex ia and Ex ib Installation table with columns for supply voltage, power, and temperature range.

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

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.

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.

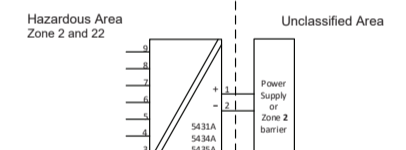
For installation in a potentially explosive dust atmosphere, the following instructions apply:
The transmitter shall be mounted in a metal enclosure form B according to DIN43729 or equivalent, that is providing a degree of protection of at least IP6X according to EN60529.

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 IP6X according to EN60529.

Ex nA / Ex ec / Ex ic Installation

ATEX Certificate PR 17ATEX 0101X
For safe installation of the 5431A, 5434A, 5435A, and 5437A, the following must be observed.

Marking 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 IIC Dc



ATEX Ex nA/Ex ec/Ex ic installation table with columns for terminal type, supply voltage, and temperature range.

ATEX Ex nA/Ex ec/Ex ic installation table with columns for terminal type, supply voltage, and temperature range.

General installation instructions
If the enclosure is made of non-metallic materials or of painted metal, electrostatic charging shall be avoided.

For installation in a potentially explosive gas atmosphere, the following instructions apply:
For "Ex ic" the transmitter must be installed in an enclosure providing a degree of protection of at least IP20 according to EN60529.

For installation in a potentially explosive dust atmosphere, the following instructions apply:
If the transmitter is supplied with an intrinsically safe signal "ic" and interfaces an intrinsically safe signal "ic" (e.g. a passive device), the transmitter shall be mounted in a metal enclosure form B according to DIN 43729 or equivalent that provides a degree of protection of at least IP6X according to EN60529.

For installation in a potentially explosive dust atmosphere, the following instructions apply:
If the transmitter is supplied with an non-sparking signal "na", or interfaces a non sparking signal, the transmitter shall be mounted in an enclosure, providing a degree of protection of at least IP6X according to EN60529, and in conformance with type of protection Ex ID, or Ex t.

EU DECLARATION OF CONFORMITY

As manufacturer PR electronics A/S, Lerbakken 10, DK-8410 Randø
hereby declares that the following products: Type: 5437 From serial no.: 170954001
is in conformity with the following directives and standards:

EN 61264-1: 2013
Immunity test requirements for equipment intended to be used in an industrial electromagnetic environment.

ATEX Directive 2014/34/EU and later amendments
EN 60079-0: 2012 + A11: 2013, EN 60079-7: 2015, EN 60079-11: 2012 and EN 60079-15: 2010

ATEX certificate: DEKRA 16ATEX0047X (5437D)
ATEX certificate: PR 17ATEX0101X (5437A)

ATEX notified body (type approval) DEKRA Certification B.V. Heander 1051, 6825 MJ Arnhem P.O. Box 5185, 6802 EU Arnhem The Netherlands

The RoHS II Directive 2011/65/EU and later amendments
EN 50581: 2012
Notified body 0344 DEKRA Certification B.V. Heander 1051, 6825 MJ Arnhem P.O. Box 5185, 6802 EU Arnhem The Netherlands

Rendø, 12 April 2018
Slig Lindemann, CTO
Manufacturer's signature

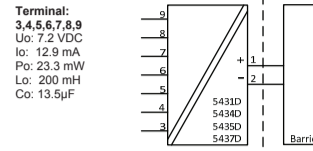
IECEx Installation drawing 5437QI01-V4R0

IECEx Certificate IECEx DEK 16.0029X
EN 60079-0:2012, A11:2013, EN60079-11:2011, IEC60079-15:2010, IEC60079-7:2015

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

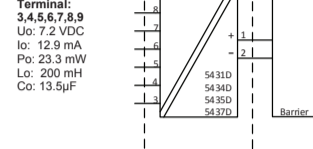
Marking Ex ia IIC T6...T4 Ga or Ex ib [Ia Ga] IIC T6...T4 Gb Ex ia IIC Da Ex ia I Ma

Hazardous Area Zone 0, 1, 2, 20, 21, 22 and M1
Unclassified Area



Ex ib Installation

Hazardous Area Zone 0, 1, 2, 20, 21, 22 and Ma
Hazardous Area Zone 1
Unclassified Area



IECEx Ex ia and Ex ib Installation table with columns for supply voltage, power, and temperature range.

General installation instructions
If the enclosure is made of non-metallic materials or is made of metal having a paint layer thicker than 0.2 mm (group IIC), or 2 mm (group IIB, IIA, I), or any thickness (group III), electrostatic charges 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.

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.

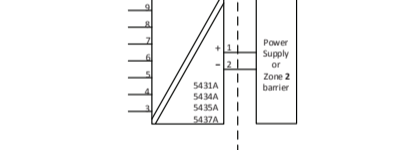
For installation in a potentially explosive dust atmosphere, the following instructions apply:
The transmitter shall be mounted in a metal enclosure form B according to DIN43729 or equivalent that is providing a degree of protection of at least IP6X according to IEC60529.

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 IP6X according to IEC60529.

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 IIC Dc



IECEx Ex nA/Ex ec/Ex ic installation table with columns for terminal type, supply voltage, and temperature range.

IECEx Ex nA/Ex ec/Ex ic installation table with columns for terminal type, supply voltage, and temperature range.

General installation instructions
If the enclosure is made of non-metallic materials or of painted metal, electrostatic charging shall be avoided.

For installation in a potentially explosive gas atmosphere, the following instructions apply:
For "Ex ic" the transmitter must be installed in an enclosure providing a degree of protection of at least IP20 according to IEC60529.

For installation in a potentially explosive dust atmosphere, the following instructions apply:
If the transmitter is supplied with an intrinsically safe signal "ic" and interfaces an intrinsically safe signal "ic" (e.g. a passive device), the transmitter shall be mounted in a metal enclosure form B according to DIN 43729 or equivalent that provides a degree of protection of at least IP6X according to IEC60529.

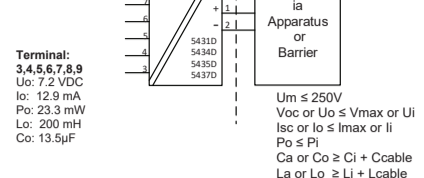
For installation in a potentially explosive dust atmosphere, the following instructions apply:
If the transmitter is supplied with an non-sparking signal "na", or interfaces a non sparking signal, the transmitter shall be mounted in an enclosure, providing a degree of protection of at least IP6X according to IEC60529, and in conformance with type of protection Ex ID, or Ex t.

FM Installation drawing 5437QF01-V5R0

FM Certificates FM16CA0146X and FM16US0287X

Division 1 / Zone 0, Intrinsic Safe Installation
For safe installation of the 5431D, 5434D, 5435D, and 5437D, the following must be observed.

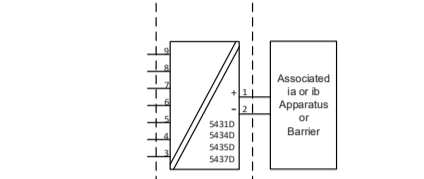
Marking: CL I, Div 1, Gp A,B,C,D CL I, Zone 0 AEx ia IIC T6...T4 CL I, Zone 1 [I] AEx ib [Ia] IIC T6...T4 Ex ia IIC T6...T4 Ga Ex ib [Ia Ga] IIC T6...T4 Gb



FM Division 1/Zone 0 installation table with columns for terminal type, supply voltage, and temperature range.

Zone 0 / Zone 1, Intrinsic Safe Installation

Hazardous Area CL I, Zone 0 IIC
Hazardous Area CL I, Zone 1 IIC
Non Classified Area



FM Zone 0/Zone 1 installation table with columns for terminal type, supply voltage, and temperature range.

General installation instructions
If the enclosure is made of non-metallic materials or is made of metal having a paint layer thicker than 0.2 mm (group IIC), or 2 mm (group IIB, IIA, I), or any thickness (group III), electrostatic charges 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.

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.

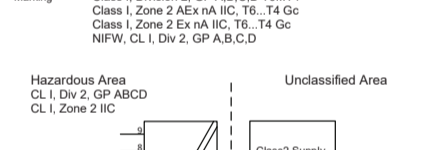
For installation in a potentially explosive dust atmosphere, the following instructions apply:
The transmitter shall be mounted in a metal enclosure form B according to DIN43729 or equivalent that is providing a degree of protection of at least IP6X according to IEC60529.

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 IP6X according to IEC60529.

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 IIC Dc



FM Ex nA/Ex ec/Ex ic installation table with columns for terminal type, supply voltage, and temperature range.

FM Ex nA/Ex ec/Ex ic installation table with columns for terminal type, supply voltage, and temperature range.

General installation instructions
If the enclosure is made of non-metallic materials or of painted metal, electrostatic charging shall be avoided.

For installation in a potentially explosive gas atmosphere, the following instructions apply:
For "Ex ic" the transmitter must be installed in an enclosure providing a degree of protection of at least IP20 according to IEC60529.

For installation in a potentially explosive dust atmosphere, the following instructions apply:
If the transmitter is supplied with an intrinsically safe signal "ic" and interfaces an intrinsically safe signal "ic" (e.g. a passive device), the transmitter shall be mounted in a metal enclosure form B according to DIN 43729 or equivalent that provides a degree of protection of at least IP6X according to IEC60529.

For installation in a potentially explosive dust atmosphere, the following instructions apply:
If the transmitter is supplied with an non-sparking signal "na", or interfaces a non sparking signal, the transmitter shall be mounted in an enclosure, providing a degree of protection of at least IP6X according to IEC60529, and in conformance with type of protection Ex ID, or Ex t.

Instalação INMETRO 5437QB01-V2R0

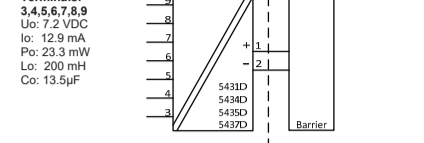
INMETRO Certificado DEKRA 16.0008X

Normas: ABNT NBR IEC60079-0:2013, ABNT NBR IEC60079-11:2013, ABNT NBR IEC60079-15:2012

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 IIC Da Ex ia I Ma

Instalação Ex ia
Área Classificada Zone 0, 1, 2, 20, 21, 22 e M1
Área Não classificada



Instalação Ex ib
Área Classificada Zonas 0, 1, 2, 20, 21, 22 e Ma
Área Não Classificada Zona 1



INMETRO Ex ia and Ex ib installation table with columns for terminal type, supply voltage, and temperature range.

Instruções Gerais de Instalação
Se o gabinete é feito de alumínio, deve ser então instalado desta forma, em eventos de raras incidências, as faíscas oriundas de fontes de ignição devido ao impacto e fricções, são evitadas.

Para instalações em uma atmosfera de gás potencialmente explosiva, a seguinte instrução se aplica:
O transmissor deverá ser montado em um gabinete de formato tipo B de acordo com a norma DIN43729 ou equivalente que possibilite um grau mínimo de proteção IP20 de acordo com a ABNT NBR IEC60529.

Para instalação em uma atmosfera de poeira potencialmente explosiva, as seguintes instruções se aplicam:
O transmissor deverá ser montado em um gabinete de metal de formato B de acordo com a DIN43729 ou equivalente que possibilite um grau mínimo de proteção IP6X de acordo com a ABNT NBR IEC60529.

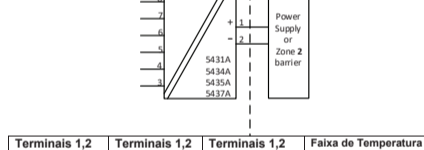
Para instalações em Minas, as instruções abaixo se aplicam:
O transmissor deverá ser montado em um gabinete de metal que possibilite um grau mínimo de proteção IP6X de acordo com a ABNT NBR IEC60529.

Para instalações em áreas de risco de explosão, as instruções abaixo se aplicam:
O transmissor deverá ser montado em um gabinete de metal que possibilite um grau mínimo de proteção IP6X de acordo com a ABNT NBR IEC60529.

Instalações Ex nA / Ex ic

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

Notas Ex nA IIC T6...T4 Gc Ex ic IIC T6...T4 Gc Ex ic IIC Dc



INMETRO Ex nA/Ex ic installation table with columns for terminal type, supply voltage, and temperature range.

INMETRO Ex nA/Ex ic installation table with columns for terminal type, supply voltage, and temperature range.

Instruções gerais de instalação:
Se o gabinete é feito de material não-metálico ou metal pintado, carga eletrostática deve ser evitada.

Para instalações em uma atmosfera de gás potencialmente explosiva, as instruções abaixo se aplicam:
Para "Ex ic" o transmissor deverá ser instalado em um gabinete que possibilite um grau de proteção de no mínimo IP20 de acordo com a ABNT NBR IEC60529.

Para "Ex nA" o transmissor deverá ser instalado em um gabinete que possibilite um grau de proteção de no mínimo IP54 de acordo com a ABNT NBR IEC 60079-0. Em adição, o gabinete deverá possuir um grau de poluição interna de 2 ou melhor, como definido na ABNT NBR IEC60666-1.

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 aplicam:
A temperatura da superfície do invólucro é igual à temperatura ambiente mais 20 K, para uma camada de pó, com uma espessura de até 5 mm.

Os dispositivos de entrada de cabos e os elementos espaçadores devem satisfazer os mesmos requisitos.

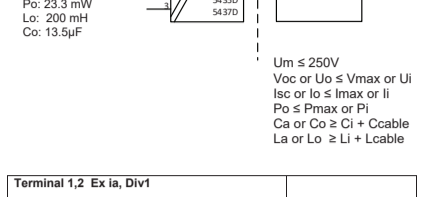
CSA Installation drawing 5437QC01-V4R0

CSA Certificate 70066286

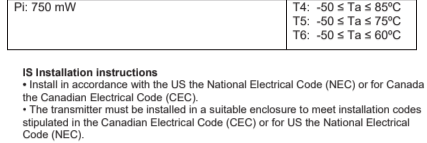
Division 1 / Ex ia, Intrinsic Safe Installation
For safe installation of the 5431D, 5434D, 5435D, and 5437D, the following must be observed.

Marking Class I Division 1, Group A,B,C,D Class I, Zone 0; Ex/AEx ia IIC T6...T4 Ex/AEx ia IIC T6...T4 Ex/AEx ib [Ia] IIC T6...T4

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



Instalação Ex ia
Área Classificada Zonas 0, 1, 2, 20, 21, 22 e M1
Área Não Classificada Zona 1



CSA Ex ia and Ex ib installation table with columns for terminal type, supply voltage, and temperature range.

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

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.

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.

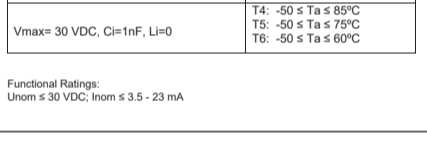
For installation in a potentially explosive dust atmosphere, the following instructions apply:
The transmitter shall be mounted in a metal enclosure form B according to DIN43729 or equivalent, that is providing a degree of protection of at least IP6X according to EN60529.

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 IP6X according to EN60529.

Division 2 / Ex nA, Non Incendive 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 Class I, Zone 2; Ex/AEx nA IIC T6...T4 Ex nA IIC T6...T4 Class I, Zone 2; Ex/AEx nA [Ic] IIC T6...T4 Ex nA [Ic] IIC T6...T4



CSA Division 2/Ex nA installation table with columns for terminal type, supply voltage, and temperature range.

CSA Division 2/Ex nA installation table with columns for terminal type, supply voltage, and temperature range.

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 not specially examined in combination as a system using any of the wiring methods permitted for unclassified locations, Voc < Vmax, Ca >= Ci + Ccable, La >= Li + Lcable.

For installation in a potentially explosive gas atmosphere, the following instructions apply:
For "Ex ic" the transmitter must be installed in an enclosure providing a degree of protection of at least IP20 according to EN60529.

For installation in a potentially explosive dust atmosphere, the following instructions apply:
If the transmitter is supplied with an intrinsically safe signal "ic" and interfaces an intrinsically safe signal "ic" (e.g. a passive device), the transmitter shall be mounted in a metal enclosure form B according to DIN 43729 or equivalent that provides a degree of protection of at least IP6X according to EN60529.

For installation in a potentially explosive dust atmosphere, the following instructions apply:
If the transmitter is supplied with an non-sparking signal "na", or interfaces a non sparking signal, the transmitter shall be mounted in an enclosure, providing a degree of protection of at least IP6X according to EN60529, and in conformance with type of protection Ex ID, or Ex t.

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 aplicam:
A temperatura da superfície do invólucro é igual à temperatura ambiente mais 20 K, para uma camada de pó, com uma espessura de até 5 mm.

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 aplicam:
A temperatura da superfície do invólucro é igual à temperatura ambiente mais 20 K, para uma camada de pó, com uma espessura de até 5 mm.

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 aplicam:
A temperatura da superfície do invólucro é igual à temperatura ambiente mais 20 K, para uma camada de pó, com uma espessura de até 5 mm.

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 aplicam:
A temperatura da superfície do invólucro é igual à temperatura ambiente mais 20 K, para uma camada de pó, com uma espessura de até 5 mm.