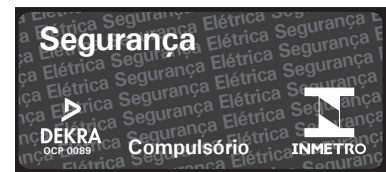


6437A / 6437D



- DK Tilslutninger, UK Connections, FR Connexions, DE Anschlüsse

ADVARSEL Følgende operationer bør kun udføres på modul...

ADVARSEL PR Loop Link programmeringsenheden må ikke benyttes til kommunikation med moduler...

SIKKERHEDSREGLER

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

Miljøforhold

Undgå direkte sollys, kraftigt støv eller varme, mekaniske ry-støjer og stød...

Installation Modulet må kun tilsluttes af kvalificerede teknikere, som er bekendte med de tekniske udtryk...

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 fugtet med destilleret vand.

PC-programmering af SYSTEM 6437 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. Max. intern effekttab ≤ 850 mW pr. kanal.

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

Overholdte myndighedskrav: EMC 2014/30/EU, ATEX 2014/34/EU, RoHS 2011/65/EU, EAC Ex 2011/65/EU, EAC Ex 2012/2011.

Marinegodkendelse: EU RO Mutual Recognition Type Approval MRA0000023.

Funktional sikkerhed: SIL2 certificeret via Full Assessment iht. IEC 61508 : 2010 SFF > 93% - type B-komponent.

Note: Vær opmærksom på at minimum forsyningspændingen måles på 6437-terminalerne...

UK WARNING The following operations should only be carried out on a disconnected device and under ESD safe conditions...

UK ADVARSEL PR Loop Link programmeringsenheden må ikke benyttes til kommunikation med moduler...

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 6437 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. Max. internal power dissipation ≤ 850 mW per channel.

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

Observed authority requirements: EMC 2014/30/EU, ATEX 2014/34/EU, RoHS 2011/65/EU, EAC Ex 2011/65/EU, EAC Ex 2012/2011.

Marine approval: EU RO Mutual Recognition Type Approval MRA0000023.

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 6437...

FR AVERTISSEMENT Les opérations suivantes doivent être effectuées avec le module débranché et dans des conditions d'environnement exempt de décharges électrostatiques (ESD)...

FR ADVERTISSEMENT Ne pas utiliser le kit de programmation "Loop Link" en zone classée dangereuse Ex.

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...

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...

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...

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 nettayer.

Programmation par PC du système 6437 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. Max. internal power dissipation ≤ 850 mW par voie.

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

Compatibilité avec les normes: EMC 2014/30/EU, ATEX 2014/34/EU, RoHS 2011/65/EU, EAC Ex 2011/65/EU, EAC Ex 2012/2011.

Approbation marine: EU RO Mutual Recognition Type Approval MRA0000023.

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

Note: Observez que la tension d'alimentation minimale doit être mesurée aux bornes du 6437...

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

DE ADVERTISSEMENT Benutzen Sie die Programmierschnittstelle Loop Link nicht im Ex-Bereich.

SICHERHEITSREGELN

Empfang und Auspacken Packen Sie das Gerät aus, ohne es zu beschädigen, und kontrollieren Sie beim Empfang...

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 6437 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. Max. Leistung pro Kanal ≤ 850 mW pro Kanal.

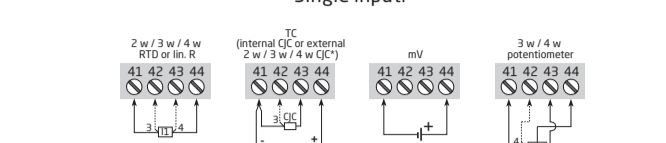
Eintragung für WTH-Typen: B, E, J, K, L, N, R, S, T, U, W3, W5, Lr.

Marine-Zulassung: EU RO Mutual Recognition Type Approval MRA0000023.

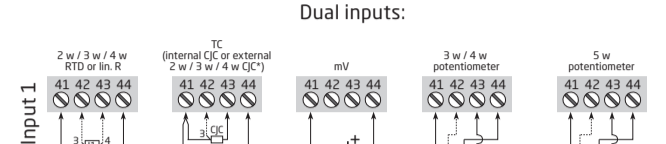
Funktionale Sicherheit: SIL 2 vollständig geprüft und zertifiziert gemäß IEC 61508 : 2010 SFF > 93% - Komponente Typ B.

Note: Beachten Sie, dass die minimale Versorgungsspannung an den Klemmen des 6437 gemessen werden muss...

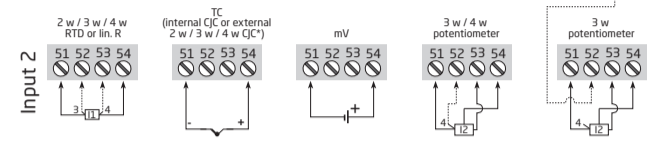
Single input:



Dual inputs:



Output:



2 channels - input:



Output:

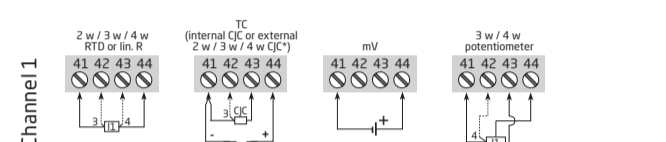
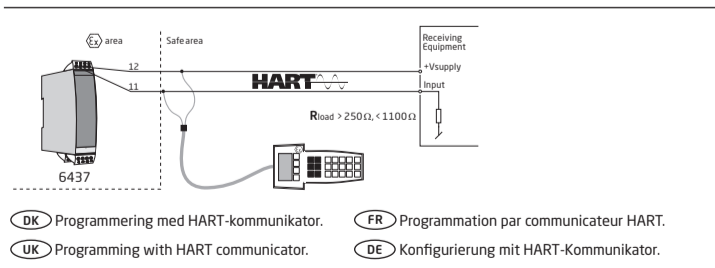


Table with 4 columns: DK, UK, FR, DE. Rows include input types (Enkelt indgang, Dobbelt indgang), output types (Udgang), and hazardous substances (Zulassungen).

- DK Sideskilt, UK Side label, FR Etiquette, DE Typenschild

Product label for HART 7 TEMPERATURE TRANSMITTER showing technical specifications and safety warnings.



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

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

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

EU DECLARATION OF CONFORMITY section with CE mark and manufacturer details for PR electronics A/S.

Additional technical details and diagrams for the device, including connection points and safety notes.

ATEX Installation drawing 6437QA01-V3R0

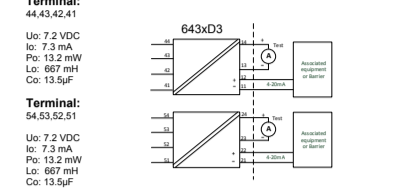
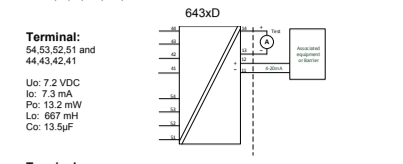
ATEX Certificate DEKRA 16ATEX 0047X
Standards: EN 60079-0:2012, A11:2013, EN60079-11:2012

Ex ia Installation

For safe installation of the 6431Dxxx and 6437Dxxx the following must be observed.

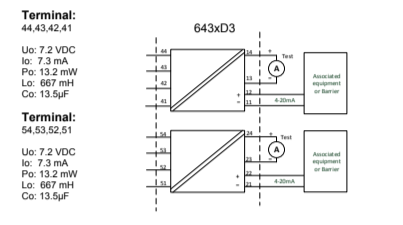
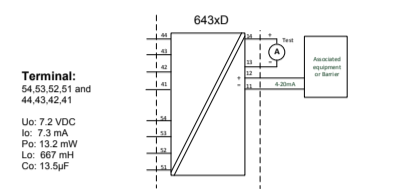
Marking II 1 G Ex ia IIC T6...T4 Ga or II(2)1 G Ex Ib [Ia Ga] IIC T6...T4 Gb
II 1 D Ex ia IIC Da
I M1 Ex ia I Ma

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



Ex ib Installation

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



643xD1: Terminal: 11,12
643xD2: Terminal: 11,12
643xD3: Terminal: Ch1: 11,12 Ch2: 21,22

per channel	Temperature class	Maximum ambient temperature	
		Single and dual input	Two channel
900 mW	T5	+65 °C	+60 °C
	T4	+85 °C	+85 °C
	T6	+55 °C	+50 °C
750 mW	T5	+70 °C	+65 °C
	T4	+85 °C	+85 °C
	T6	+60 °C	+55 °C
610 mW	T5	+75 °C	+70 °C
	T4	+85 °C	+85 °C
	T6	+45 °C	+40 °C

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 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 II), 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.
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.
The front connector and front test pads provides an intrinsically safe extension-point signal and may only be connected to dedicated equipment of FR electronics.

Warning: Do not connect or disconnect plugs and sockets when energized.

For installation in a potentially explosive dust atmosphere, the following instructions apply:
The transmitter shall be mounted in an enclosure, that is providing a degree of protection of at least IP54 according to EN60529. The enclosure shall be suitable for the application and correctly installed.
Cable entry devices and blanking elements shall fulfill the same requirements.
For EPL Da, the surface temperature "T" of the enclosure, for a dust layer with a maximum thickness of 5mm, is the ambient temperature +20 K.

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.

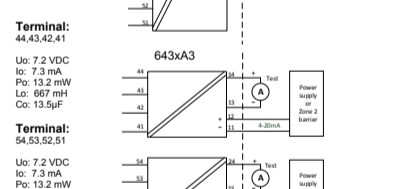
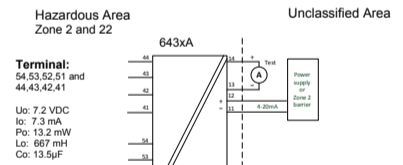
Ex nA / Ex ec / Ex ic Installation

For safe installation of the 6431Axxx and 6437Axxx the following must be observed.

ATEX Certificate DEKRA 16ATEX0135X
Standards: EN 60079-0: 2012/A11:2013, EN 60079-11: 2012, EN 60079-7: 2015/A1:2018, EN 60079-15: 2019

Marking II 3 G Ex nA IIC T6...T4 Gc
II 3 G Ex ec IIC T6...T4 Gc
II 3 D Ex ic IIC Dc

Hazardous Area Zone 2 and 22



643xA1: Terminal 44,43,42,41
643xA2: Terminal In1: 44,43,42,41 In2: 54,53,52,51
643xA3: Terminal Ch1: 44,43,42,41 Ch2: 54,53,52,51

Ex nA & Ex ec

Vmax = 7.2VDC
Uo: 7.2 VDC; Io: 7.3 mA
Po: 13.2 mW; Lo: 667 mH; Co: 13.5µF

643xA1: Terminal: 11,12
643xA2: Terminal: 11,12
643xA3: Terminal: Ch1: 11,12 Ch2: 21,22

Ex nA & Ex ec	Ex ic	Maximum ambient temperature
Uo = 0 mV Li = 0 µF Ci = 1.0 nF	Uo = 48 VDC, Li = 0 µH, Ci = 1.0 nF	Tempereature class Single and dual input Two channel
Vmax = Uo = 37 VDC	Pi = 851 mW per channel	T4 +85 °C +85 °C T5 +70 °C +65 °C T6 +55 °C +50 °C
Vmax = Uo = 30 VDC	Pi = 700 mW per channel	T4 +85 °C +85 °C T5 +75 °C +70 °C T6 +60 °C +55 °C

General installation instructions

If the enclosure is made of non-metallic materials, or if it 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 an ambient temperature ≥ 60°C, 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.
The TEST connection, may only be applied when the area is safe, or if supply / output circuit, and the applied current meter is intrinsically safe.
Warning: Do not connect or disconnect Terminal Blocks when energized.

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 as accordance with EN60079-0, which is suitable for the application and correctly installed, e.g. in an enclosure that is in type of protection Ex n or Ex ec. 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:

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 ec. 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:

If the transmitter is supplied with an intrinsically safe signal "iA", or interfaces an intrinsically safe signal "ic" (e.g. a passive device), the transmitter shall be mounted in an enclosure 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.

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

If the transmitter is supplied with a 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 IP54 according to EN60079-0, and in conformance with type of protection Ex ID, or Ex I.
Cable entry devices and blanking elements shall fulfill the same requirements.

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

If the transmitter is supplied with a 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 IP54 according to EN60079-0, and in conformance with type of protection Ex ID, or Ex I.
Cable entry devices and blanking elements shall fulfill the same requirements.

Functional Ratings:
Uo ≤ 30 VDC; Iom ≤ 3.5 - 23 mA

IECEX Installation drawing 6437QI01-V3R0

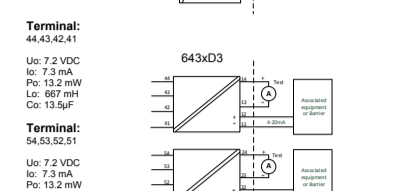
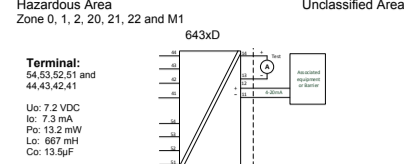
IECEX Certificate IEC DEK 16.0029X
Standards: IEC 60079-0:2011, IEC60079-11:2011, IEC 60079-15:2010, IEC60079-2015

Ex ia Installation

For safe installation of the 6431Dxxx and 6437Dxxx the following must be observed.

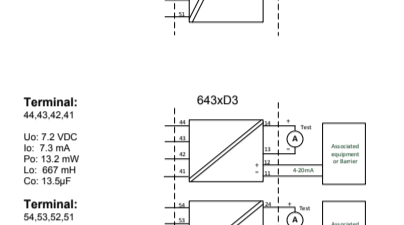
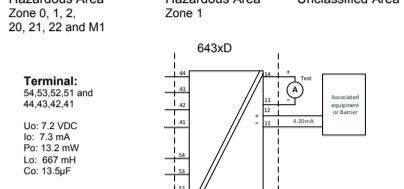
Marking Ex ia IIC T6...T4 Ga or Ex Ib [Ia Ga] IIC T6...T4 Gb
Ex Ia IIC Da
Ex Ia I Ma

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



Ex ib Installation

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



643xD1: Terminal: 11,12
643xD2: Terminal: 11,12
643xD3: Terminal: Ch1: 11,12 Ch2: 21,22

per channel	Temperature class	Maximum ambient temperature	
		Single and dual input	Two channel
900 mW	T5	+65 °C	+60 °C
	T4	+85 °C	+85 °C
	T6	+55 °C	+50 °C
750 mW	T5	+70 °C	+65 °C
	T4	+85 °C	+85 °C
	T6	+60 °C	+55 °C
610 mW	T5	+75 °C	+70 °C
	T4	+85 °C	+85 °C
	T6	+45 °C	+40 °C

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 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.
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.
The front connector and front test pads provides an intrinsically safe extension-point signal and may only be connected to dedicated equipment of FR electronics.

Warning: Do not connect or disconnect plugs and sockets when energized.

For installation in a potentially explosive dust atmosphere, the following instructions apply:
The transmitter shall be mounted in an enclosure, that is providing a degree of protection of at least IP54 according to IEC60529. The enclosure shall be suitable for the application and correctly installed.
Cable entry devices and blanking elements shall fulfill the same requirements.
For EPL Da, the surface temperature of the enclosure, for a dust layer with a maximum thickness of 5mm, is the ambient temperature +20 K.

For installation in mines the following instructions apply:

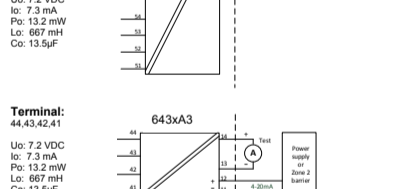
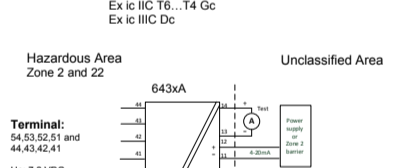
The transmitter shall be mounted in a metal enclosure that is providing a degree of protection of at least IP54 according to IEC60529.
Aluminum enclosures are not allowed for mines.
The enclosure shall be suitable for the application and correctly installed.
Cable entry devices and blanking elements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

Ex nA / Ex ec / Ex ic Installation

For safe installation of the 6431Axxx and 6437Axxx the following must be observed.

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

Hazardous Area Zone 2 and 22



643xA1: Terminal 44,43,42,41
643xA2: Terminal In1: 44,43,42,41 In2: 54,53,52,51
643xA3: Terminal Ch1: 44,43,42,41 Ch2: 54,53,52,51

Ex nA & Ex ec

Vmax = 7.2VDC
Uo: 7.2 VDC; Io: 7.3 mA
Po: 13.2 mW; Lo: 667 mH; Co: 13.5µF

643xA1: Terminal: 11,12
643xA2: Terminal: 11,12
643xA3: Terminal: Ch1: 11,12 Ch2: 21,22

Ex nA & Ex ec	Ex ic	Maximum ambient temperature
Uo = 0 mV Li = 0 µF Ci = 1.0 nF	Uo = 48 VDC, Li = 0 µH, Ci = 1.0 nF	Tempereature class Single and dual input Two channel
Vmax = Uo = 37 VDC	Pi = 851 mW per channel	T4 +85 °C +85 °C T5 +70 °C +65 °C T6 +55 °C +50 °C
Vmax = Uo = 30 VDC	Pi = 700 mW per channel	T4 +85 °C +85 °C T5 +75 °C +70 °C T6 +60 °C +55 °C

General installation instructions

If the enclosure is made of non-metallic materials, or if it 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 an ambient temperature ≥ 60°C, 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.
The TEST connection, may only be applied when the area is safe, or if supply / output circuit, and the applied current meter is intrinsically safe.
Warning: Do not connect or disconnect Terminal Blocks when energized.

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 ec. 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:

If the transmitter is supplied with an intrinsically safe signal "iA", or interfaces an intrinsically safe signal "ic" (e.g. a passive device), the transmitter shall be mounted in an enclosure that provides a degree of protection of at least IP54 according to IEC60079-0.
Cable entry devices and blanking elements shall fulfill the same requirements.

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

If the transmitter is supplied with a 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 IP54 according to EN60079-0, and in conformance with type of protection Ex ID, or Ex I.
Cable entry devices and blanking elements shall fulfill the same requirements.

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

If the transmitter is supplied with a 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 IP54 according to EN60079-0, and in conformance with type of protection Ex ID, or Ex I.
Cable entry devices and blanking elements shall fulfill the same requirements.

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

If the transmitter is supplied with a 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 IP54 according to EN60079-0, and in conformance with type of protection Ex ID, or Ex I.
Cable entry devices and blanking elements shall fulfill the same requirements.

Functional Ratings:
Uo ≤ 30 VDC; Iom ≤ 3.5 - 23 mA

Instalação INMETRO 6437QB01-V3R0

INMETRO Certificado DEKRA 16.0008X

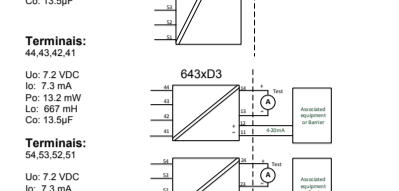
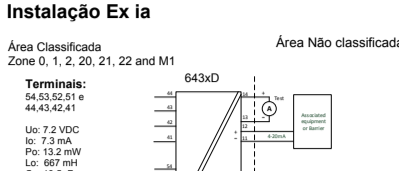
Normas: ABNT NBR IEC60079-0:2013, ABNT NBR IEC60079-11:2013
ABNT NBR IEC60079-15:2012

Para a instalação segura do 6431Dxxx e 6437Dxxx os seguintes pontos devem ser observados

NOTAS Ex Ia IIC T6...T4 Ga or Ex Ib [Ia Ga] IIC T6...T4 Gb
Ex Ia IIC Da
Ex Ia I Ma

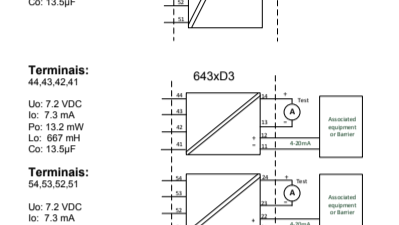
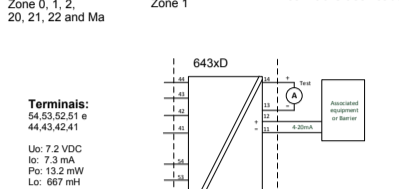
Instalação Ex ia

Área Classificada Zone 0, 1, 2, 20, 21, 22 and M1



Instalação Ex ib

Área Classificada Zone 0, 1, 2, 20, 21, 22 and M1



643xD1: Terminal: 11,12
643xD2: Terminal: 11,12
643xD3: Terminal: Ch1: 11,12 Ch2: 21,22

Pi por canal	Classe de temperatura	Faixa de Temperaturas	
		Entrada simples e dupla	Dois canais
900 mW	T6	+50 °C	+45 °C
	T5	+65 °C	+60 °C
	T4	+85 °C	+85 °C
750 mW	T6	+60 °C	+55 °C
	T5	+70 °C	+65 °C
	T4	+85 °C	+85 °C
610 mW	T6	+70 °C	+65 °C
	T5	+75 °C	+70 °C
	T4	+85 °C	+85 °C

Instruções Gerais de Instalação

O ano de fabricação pode ser obtido a partir dos dois primeiros dígitos do número de série. 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 deverá ser instalado de forma que as fontes de ignição devido a falhas de impacto e fricção sejam excluídas.
A distância entre os terminais, inclusive a parte nua dos fios, deve ser pelo menos 3 mm separados de qualquer metal aterrado.
Os pinos de teste permitem medir a corrente do loop diretamente, mantendo a integridade do loop. A energia deve estar conectada ao transmissor ao usar os pinos de teste. Para instalação em áreas classificadas, somente equipamentos de teste certificados podem ser utilizados.
Se o transmissor for aplicado no tipo de proteção Ex nA ou Ex ec, pode não ser aplicado posteriormente para segurança intrínseca.
O conector frontal e os pads de teste frontal fornecem um sinal de porta de extensão intrínseca segura e só podem ser conectados a equipamentos dedicados da FR Electronics.

Aviso: Não conecte ou desconecte as fichas e as tomadas quando energizadas.

Para instalação em uma atmosfera potencialmente explosiva de poeira, as seguintes instruções se aplicam:
O transmissor deverá ser montado em um gabinete de metal que possibilite 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 de supressão devem cumprir os mesmos requisitos.
Para EPL Da, a temperatura da superfície do gabinete, para uma camada de poeira com uma espessura máxima de 5 mm, é a temperatura ambiente de +20 K.

Para instalações em Minas, as instruções abaixo se aplicam:

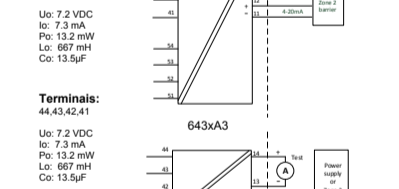
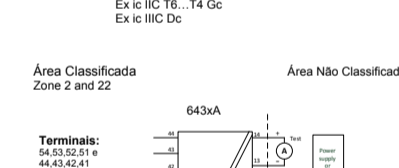
O transmissor deverá ser montado em um gabinete de metal que possibilite um grau mínimo de proteção IP54 de acordo com a ABNT NBR IEC60529.
Gabinetes de Alumínio não são permitidos para instalações em Minas.
O gabinete deve ser adequado para a aplicação e instalado corretamente.
Os dispositivos de entrada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

Instalações Ex nA / Ex ec / Ex ic

Para instalações seguras do 6431Axxx e 6437Axxx as seguintes instruções devem ser observadas

NOTAS Ex nA IIC T6...T4 Gc
Ex ec IIC T6...T4 Gc
Ex ic IIC Dc

Hazardous Area Zone 2 and 22



643xA1: Terminal 44,43,42,41
643xA2: Terminal In1: 44,43,42,41 In2: 54,53,52,51
643xA3: Terminal Ch1: 44,43,42,41 Ch2: 54,53,52,51

Ex nA & Ex ec

Vmax = 7.2VDC
Uo: 7.2 VDC; Io: 7.3 mA
Po: 13.2 mW; Lo: 667 mH; Co: 13.5µF

643xA1: Terminal: 11,12
643xA2: Terminal: 11,12
643xA3: Terminal: Ch1: 11,12 Ch2: 21,22

Ex nA & Ex ec	Ex ic	Maximum ambient temperature
Uo = 0 mV Li = 0 µF Ci = 1.0 nF	Uo = 48 VDC, Li = 0 µH, Ci = 1.0 nF	Tempereature class Single and dual input Two channel
Vmax = Uo = 37 VDC	Pi = 851 mW per channel	T4 +85 °C +85 °C T5 +70 °C +65 °C T6 +55 °C +50 °C
Vmax = Uo = 30 VDC	Pi = 700 mW per channel	T4 +85 °C +85 °C T5 +75 °C +70 °C T6 +60 °C +55 °C

Instruções gerais de instalação:

O invólucro for feito de materiais não metálicos, ou se for feito de metal com uma camada de