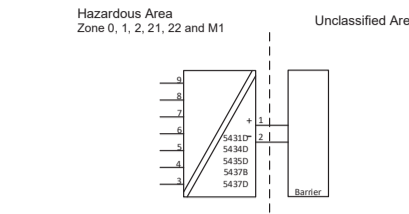


ATEX Installation drawing 5437QA01-V8R0

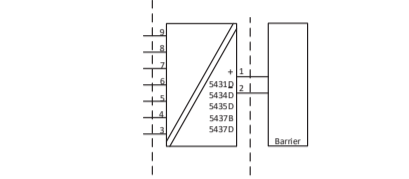
ATEX Certificate DEKRA 16ATEX 0047X
EN 60079-0:2018, EN 60079-11:2012,
EN 60079-15:2010, EN 60079-7:2015 +A1:2018

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



Terminal	Terminal	Terminal
3,4,5,6	3,7,8,9	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 uF	13.5 uF	13.5 uF

Ex ib Installation



Terminal	Terminal	Terminal
3,4,5,6	3,7,8,9	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 uF	13.5 uF	13.5 uF

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

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:

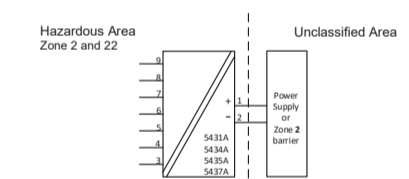
If the transmitter is installed in an explosive atmosphere requiring the use of equipment protection level Db, the transmitter shall be mounted in enclosure that provides a degree of protection of at least IP54 according to EN 60079-0, and that is suitable for the application and correctly installed.

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.

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.



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

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

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 ≥ 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.

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 according to IEC 60079-0, which is suitable for the application and correctly installed e.g. in an enclosure that is in type of protection Ex na or Ex ec.

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 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.

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 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.

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 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.

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 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.

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 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.

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 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.

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 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.

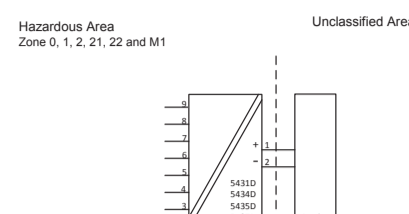
The product's Environmentally Friendly Use Period (EFUP) is 50 years



IECEx Installation drawing 5437QI01-V8R0

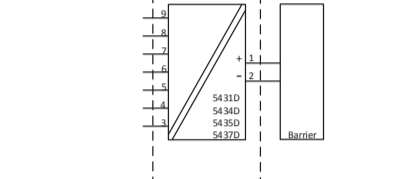
IECEx Certificate IECEx DEK 16.0029X
Standards: IEC 60079-0:2017, IEC 60079-11:2011,
IEC 60079-15:2010, IEC 60079-7:2017

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



Terminal	Terminal	Terminal
3,4,5,6	3,7,8,9	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 uF	13.5 uF	13.5 uF

Ex ib Installation



Terminal	Terminal	Terminal
3,4,5,6	3,7,8,9	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 uF	13.5 uF	13.5 uF

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

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.

For installation in a potentially explosive gas atmosphere, 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.

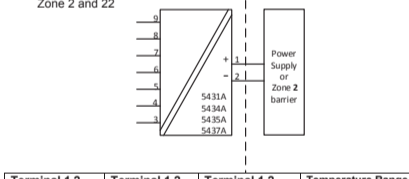
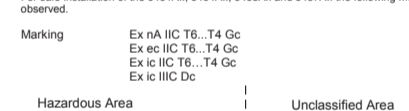
For installation in a potentially explosive dust atmosphere, the following instructions apply:

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 IP54 according to IEC 60079-0, and that is suitable for the application and correctly installed.

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.

Ex na / Ex ec / Ex ic Installation
For safe installation of the 5431A...5434A...5435A... and 5437A... the following must be observed.



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

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

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 ≥ 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.

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 according to IEC 60079-0, which is suitable for the application and correctly installed e.g. in an enclosure that is in type of protection Ex na or Ex ec.

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 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.

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 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.

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 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.

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 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.

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 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.

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 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.

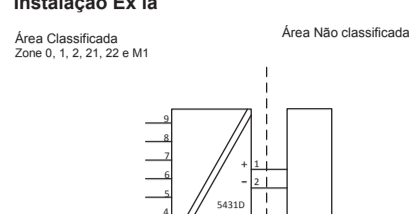
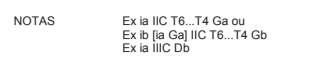
For installation in a potentially explosive dust atmosphere, the following instructions apply:

If the transmitter is installed in an explosive atmosphere requiring the use of equipment protection level 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.

Instalação INMETRO 5437QB01-V4R1

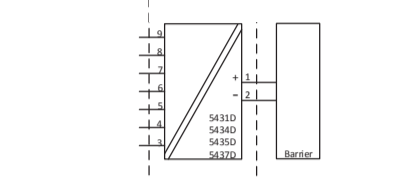
INMETRO Certificado DEKRA 23.0002X
Normas: ABNT NBR IEC 60079-0:2020 Versão Corrigida:2023
ABNT NBR IEC 60079-7:2018 Versão Corrigida:2022
ABNT NBR IEC 60079-11:2013 Versão Corrigida:2017

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



Terminais	Terminais	Terminais
3,4,5,6 e 3,7,8,9	3,7,8,9	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 uF	13.5 uF	13.5 uF

Instalação Ex ib



Terminais	Terminais	Terminais
3,4,5,6 e 3,7,8,9	3,7,8,9	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 uF	13.5 uF	13.5 uF

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

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 IC) ou 2 mm (grupo IIB, IIA, I) ou qualquer espessura (grupo IIB), 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 evitadas.

A distância entre terminais, fios inclusivos não isolados, deve ser separada por pelo menos 3 mm de qualquer metal aterado.

Os pinos de testes para medição devem permitir os testes de todo o corrente mantendo a integridade do loop. A energia deve estar conectada ao transmissor quando for usado os pinos de teste. Para instalações em áreas classificadas deve ser utilizado somente equipamentos certificados.

Se o transmissor for 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 aplicar:

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.

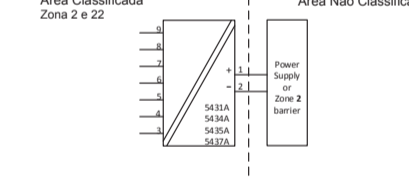
Para instalação em uma atmosfera de poeira potencialmente explosiva, as seguintes instruções se aplicar:

Se o transmissor for instalado em uma atmosfera explosiva que exija o uso de nível de proteção de equipamento Do 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 IP54 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 obtenção de vedação 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 possibilite um grau mínimo de proteção IP54 de acordo com a ABNT NBR IEC60529.

Instalações Ex ec / Ex ic
Para instalação segura dos 5431A...5434A...5435A... e 5437A... as seguintes instruções devem ser observadas:



Terminais 1,2	Terminais 1,2	Terminais 1,2	Faixa de Temperatura
Ex ec	Ex ic	Ex ic	
Vmax= 37 VDC	Ui = 37 VDC Pi = 851 mW Li = 0 uH Ci = 1.0 nF	Ui = 48 VDC Pi = 851 mW Li = 0 uH Ci = 1.0 nF	T4: -50 ≤ Ta ≤ 85°C T5: -50 ≤ Ta ≤ 70°C T6: -50 ≤ Ta ≤ 55°C
Vmax= 30 VDC	Ui = 30 VDC Li = 0 uH Ci = 1.0 nF	T4: -50 ≤ Ta ≤ 85°C T5: -50 ≤ Ta ≤ 75°C T6: -50 ≤ Ta ≤ 60°C	

Terminais	Terminais	Terminais
3,4,5,6,7,8,9	3,4,5,6,8 and 3,7,8,9	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 uF	13.5 uF	13.5 uF

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 IC), ou 2 mm (grupo IIB, IIA, I) ou qualquer espessura (grupo IIB), cargas eletrostáticas devem ser evitadas.

Para uma temperatura ambiente ≥ 60°C, 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 aterado.

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 intrinsecamente seguro.

Para instalações em uma atmosfera de gás potencialmente explosiva, as instruções abaixo se aplicar:

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 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 de obtenção de vedação devem cumprir os mesmos requisitos.