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UNIK5#00

Pressure Sensors

Hazardous Area Installation Instructions

Equipment Certification – UKEX Ex ia I/IIC, Flameproof and/or Dust-ignition Protection Models



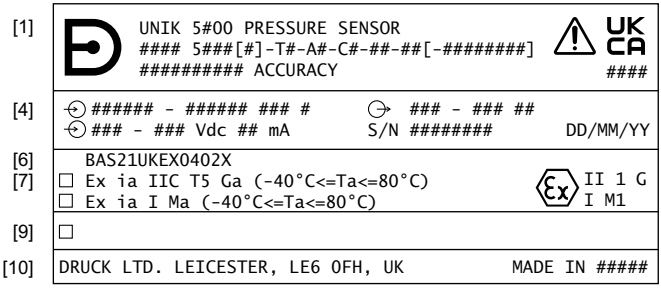
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A1



A2

		Ui (V)	Ii (mA)	Pi (W)	Ci (nF)	Li (H)
PMP	5##3	16	299	1.0	367.4+❶	0+❶
	5##4					
	5##5					
	5##6					
PDCR	5##0	24	261	1.0	3.3+❷	0+❷
	5##1	24	261	1.0	14.3+❸	0+❸
PTX	5##2	28	180	0.7	63.8+❹	0+❹

A3

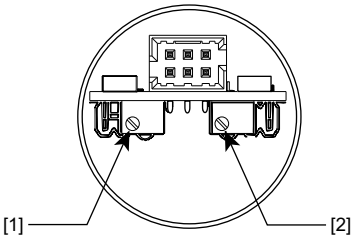
	D	C (pF/m)	L (µH/m)
❶	≤149 m	618	1.37
❷	≤196 m	618	1.37
❸	≤179 m	618	1.37
❹	≤100 m	191	1.37

A4

	C (nF)	L (µH)
❶	92	204
❷	121	269
❸	110	245
❹	19	137

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A5



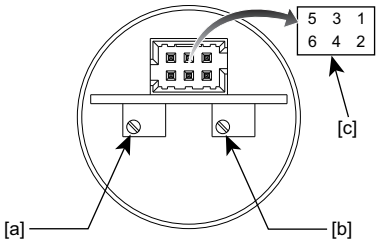
B1

[1]	UNIK 5#00 PRESSURE SENSOR #### 5#0#[#]-T#-A#-C#-##-##[-########] ########## ACCURACY	
[2]	⊖ ### - ### ### # ⊕ ### - ### Vdc ## mA	⊖ ### - ### ## ######## S/N ######## DD/MM/YY [3]
[4]	BAS21UKEX0401U	
[5]	☐ Ex ia IIC Ga ☐ Ex ia I Ma	#### Ex II 1 G [6] I M1 [7]
[8]	☐	
[9]	DRUCK LTD. LEICESTER, LE6 0FH, UK	MADE IN ##### [10]

B2

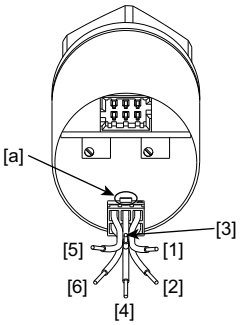
		Ui (V)	Ii (mA)	Pi (W)	Ci (nF)	Li (H)
PMP	5#03 5#04 5#05 5#06	16	299	1.0	367.4	0
PDCR	5#00	24	261	1.0	3.3	0
	5#01	24	261	1.0	14.3	0
PTX	5#02	28	180	0.7	63.8	0

B3



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B4



C1

[1] UNIK 5800 PRESSURE SENSOR [2]
58##[#]-T#-A#-C#-##-##[-########]
########## ACCURACY #### [3]

[4] ###### - ###### ###### ## ### - ### ## ######## [5]
- ### Vdc ## mA S/N ######## DD/MM/YY

[6] DRUCK LTD. LEICESTER, LE6 0FH, UK MADE IN ##### [7]

[8] BAS21UKEX0326X
[9] ☐ Ex db IIC T6 Gb ☐ Ex tb IIIC T85°C Db II 2 GD [10]
[11] (-40°C<=Ta<=+##°C)

[12] ☐

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D1

[1]

UNIK 5900 PRESSURE SENSOR [2]
59##[#]-T#-A#-C#-##-##[-########]
########## ACCURACY #### [3]

⊖ ###### - ###### ###### ## ⊖ ### - ### ## ######## [4]
⊕ ### - ### Vdc ## mA S/N ######## DD/MM/YY [5]

[9] DRUCK LTD. LEICESTER, LE6 0FH, UK MADE IN UK [10]

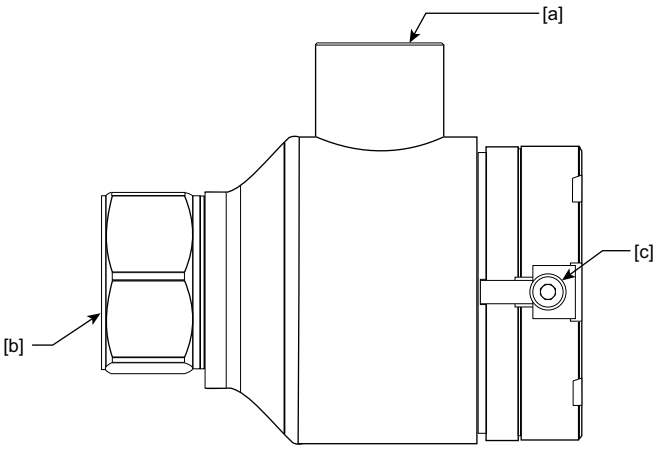
[6] BAS21UKEX0325X
[7] ☐ Ex db IIC T* Gb ☐ Ex tb IIIC T*°C Db Ex II 2 GD
☐ T6/T85°C (-40°C<=Ta<=+70°C)
☐ T5/T100°C (-40°C<=Ta<=+80°C)
☐ T4/T135°C (-40°C<=Ta<=+100°C)

[8] ☐

[11] CABLE ENTRY POINT MAY BE Ta +10°C

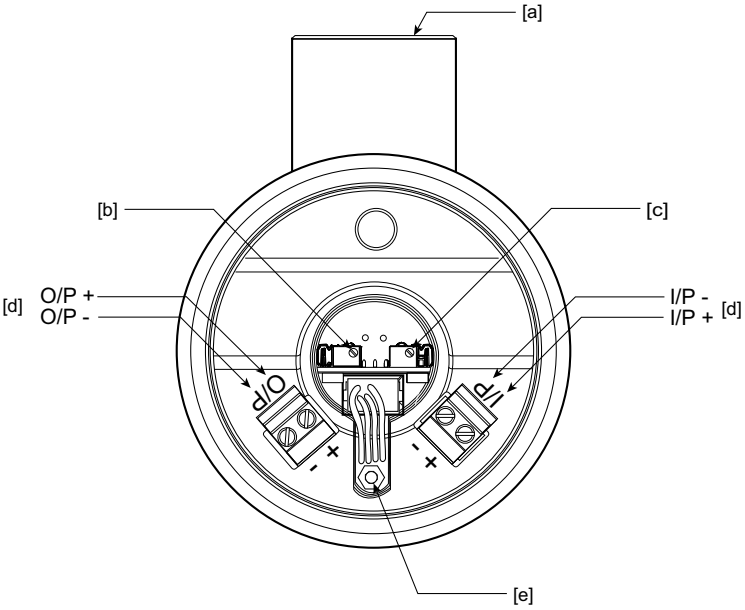
[12] DO NOT OPEN WHEN FLAMMABLE ATMOSPHERE IS PRESENT

D2



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D3



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1. UNIK5000 Ex ia I/IIC (Excluding Model 5#0#)

Requirements in Hazardous Areas

The original language of these instructions is English.

The data that follows is only applicable to equipment with the specified marking details.

The equipment for use in potentially explosive atmospheres complies with UK Statutory Instruments 2016 No. 1107 regulation (as amended by SI 2019 no. 696).

The applied standards are:

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

Read and understand all the related data before installing and using the equipment. This includes: all local safety procedures and installation standards (for example: IEC/EN 60079-14), this document, and the product datasheet or, if applicable, the specification drawing.

A copy of the UKEX type-examination certificate is available from the manufacturer.

To install and use the equipment in potentially explosive atmospheres ("hazardous areas"), use only approved engineers who have the necessary skills and qualifications.

WARNING Do not use tools on the pressure sensor that might cause incendive sparks - this can cause an explosion.

Do not do live maintenance while an explosive atmosphere is present – this can cause an explosion. Use a safe work procedure. Refer to "Connections to Other Equipment" for permitted work.

Marking Details

Refer to Figure A1, and the explanation below:

1. Product description and details (e.g. range, model number, accuracy specification etc.)
2. 'Caution' / 'Warning' symbol. To install and use this equipment in the specified hazardous area, read, understand and comply with this document.
3. ID number of the approved body responsible for quality assurance.
4. Pressure and electrical ratings.
5. Serial number; date of manufacture.
6. UKEX Certificate number.
7. Hazardous area markings (see note).

   Note: Some models are not available with Group I markings.
8. Equipment group and category.
9. Reserved for other certification markings (if applicable).
10. Certificate holder's name and address.
11. Country of assembly: 'MADE IN UK' or 'MADE IN CHINA'.

Pressure Sensor Materials

The materials used for the primary enclosure and pressure bearing surfaces are identified in the product datasheet or, if applicable, the specification drawing.

Make sure that the materials are applicable for the installation.

Installation

Before using the equipment, remove the plastic/rubber protection cap from the pressure connector.

External Temperature Limits

The permitted ambient temperature range for the equipment is -40°C to +80°C. Make sure the process media also stays within these limits.

Position

Attach the equipment in a safe configuration that prevents unwanted stress (vibration, physical impact, shock, mechanical and thermal stresses). Do not install the equipment where it can be damaged by a material that causes corrosion. Provide additional protection for equipment that may be damaged in service.

Ingress Protection

As specified by the certification, the enclosure has a minimum ingress protection rating (IP) when correctly installed.

Protection Type and Group	Ingress Protection
Intrinsically Safe 'ia', Group II	IP20 minimum
Intrinsically Safe 'ia', Group I	IP54 minimum

Note: The enclosure can have a higher IP rating. Refer to the datasheet or, if applicable, the specification drawing.

When installed, the electrical connectors and wiring must provide the minimum ingress protection (IP) rating indicated above.

Some models feature a white PTFE vent filter in the wall of the enclosure. Make sure the vent filter is correctly installed and flush with the enclosure body.

Identification of Markings Put Into Use

The product may have been provided with markings for more than one method of protection. The method or methods put into use must be indicated, by marking the adjacent box (see Figure A1, items 7 or 9).

The wall of the enclosure (except 59## models) may only be 0.5 mm thick. The method of marking must not dent, pierce or damage the product enclosure. The use of impact stamps and engraving is not permitted.

The wall of the 59## enclosure may only be 2.4 mm thick. The method of marking must not dent, pierce or damage the enclosure. Engraving is allowed. Impact stamps may be used, take care not to crack the enclosure.

Electrical Connections

To identify the electrical connections, refer to the product datasheet or, if applicable, the specification drawing.

The power supply and signal connections to the pressure sensor must be made through a certified intrinsically safe associated apparatus, where the output current is limited by a resistor (R) such that Io = Uo / R.

The circuit must be intrinsically safe, refer to IEC/EN 60079-25.

Table A2 gives the maximum input voltage (Ui), current (Ii), power (Pi), capacitance (Ci) and inductance (Li) values for the pressure sensor.

Table A3 refers to the capacitance (C) and inductance (L) of the factory-fitted cable that may be supplied with the sensor. Any length of cable may be provided, up to a maximum limit specified in column D.

Table A4 refers to the maximum cable capacitance (C) and inductance (L) that may be fitted by the installer to sensors supplied without factory-fitted cable.

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To prevent damage that can affect the protection rating, do not use flat screwdriver blades with tapered edges. Terminate the ends of stranded wire with crimped core sleeves.

Where a 'SHUNT CAL' terminal has been provided for test purposes, it shall only be connected to the '-VE SUPPLY' terminal within the hazardous area.

Where a 'CASE' terminal has been provided, it shall not be used for electrically bonding the enclosure to earth/ground.

Connect the earth / ground connections applicable to the installation. If applicable, make sure the cable screen is isolated from the pressure sensor.

PTX and PDCR variants are resistant to an AC test voltage of 500 V RMS compliant with IEC/EN 60079-11. PMP variants are not resistant to the test voltage, and this must be considered during installation.

Zero and Span Adjustment
For some models, the enclosure can be opened and the zero and span potentiometers adjusted. Use an insulated potentiometer adjustment tool. Do not open the enclosure when an explosive atmosphere is present.

Refer to Figure A5 and the key below:

1. Zero adjustment potentiometer
2. Span adjustment potentiometer

Take care to disassemble and assemble the electrical connector correctly. Make sure items, such as o-rings and gaskets are properly located.

Connections to Other Equipment
To recalibrate these models at the installation, refer to "Zero and Span Adjustment" and "Warning" statements.

Before connecting a pressure calibrator, make sure it is certified "intrinsically safe" and that all the electrical connections are intrinsically safe. Stay within the permitted limits for the electrical system.

Maintenance

Clean the case with a moist, lint-free cloth and a weak detergent. Refer also to "Installation" and "Repair".

Repair
Do not try to do repairs to this equipment. Return the equipment to the manufacturer or an approved service agent.

Specific Conditions of Use

1. Do not rub non-metallic parts with a dry cloth or install in a high velocity dust laden atmosphere.
2. PMP versions will not pass the 500 V RMS dielectric strength test and so this must be taken into account during installation.
3. Types PMP57##, PDCR57## and PTX57## contain light metals which are considered to be a potential frictional ignition risk. They must be mounted such that they are protected from impact or friction.

Declaration Requirements – UK SI 2016/1107 (as amended by SI 2019/696)

This equipment is designed and manufactured to meet the essential health and safety requirements not covered by the UK-Type Examination Certificate BAS21UKEX0402X when installed as detailed above.

2. UNIK5000 Ex ia I/IIC (Model 5#0# Only)

Requirements in Hazardous Areas

The original language of these instructions is English.

The data that follows is only applicable to a sub-assembly ('Ex component') with the specified marking details.

The equipment for use in potentially explosive atmospheres complies with UK Statutory Instruments 2016 No. 1107 regulation (as amended by SI 2019 no. 696).

The applied standards are:

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

This component is designed to be included in an enclosure that may contain additional electronic circuitry. The result is an item of equipment whose own certification must permit the use of this component.

Read and understand all the related data before installing and using the equipment. This includes: all local safety procedures and installation standards (for example: IEC/EN 60079-14), this document, the product datasheet or, if applicable, the specification drawing.

A copy of the UKEX type-examination certificate is available from the manufacturer.

To install and use the equipment in potentially explosive atmospheres ("hazardous areas"), use only approved engineers who have the necessary skills and qualifications.

Marking Details

Refer to Figure B1, and the explanation below:

1. Product description and details (e.g. range, model number, accuracy specification etc.).
2. Pressure and electrical ratings.
3. Serial number; date of manufacture.
4. UKEX Certificate number.
5. Hazardous area markings (see note).

   Note: Dependent on the approval option supplied.
6. Equipment group and category.
7. ID number of the approved body responsible for quality assurance.
8. Reserved for other certification markings (if applicable).
9. Certificate holder's name and address.
10. Country of assembly: 'MADE IN UK' or 'MADE IN CHINA'.

Installation



WARNING The component must not be installed in the presence of a potentially explosive atmosphere, or while it and/or the host circuit is energized - this can cause an explosion.



CAUTION Do not press or pierce the silicone gel around the printed circuit board and electronic components.

The plastic/rubber protection cap should not be removed from the pressure connector until the component is put into use.

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Materials
The materials used for the primary enclosure and pressure bearing surfaces are identified in the product datasheet or, if applicable, on the specification drawing.

Make sure that the materials are applicable for the installation.

External Temperature Limits
The permitted ambient temperature range for the component is -40°C to +80°C. Make sure the process media also stays within these limits.

Position
Attach the component in a safe configuration that prevents unwanted stress (vibration, physical impact, shock, mechanical and thermal stresses). Do not install the component where it can be damaged by a material that causes corrosion. Provide additional protection for the component if it may be damaged in service.

Ingress Protection
The component must be incorporated into an enclosure providing the required degree of ingress protection for Group I or Group II as required by the standards:

Protection Type and Group	Ingress Protection
Intrinsically Safe 'ia', Group II	IP20 minimum
Intrinsically Safe 'ia', Group I	IP54 minimum

Note: The enclosure can have a higher IP rating – Refer to the datasheet or the specification drawing (if applicable).

Identification of Markings Put Into Use

The product may have been provided with markings for more than one method of protection. The method or methods put into use must be indicated, by marking the adjacent box (see Figure B1, items 5 or 8).

The wall of the enclosure may only be 0.5 mm thick. The method of marking must not dent, pierce or damage the product enclosure. The use of impact stamps and engraving is not permitted.

Electrical Connections
The component is fitted with a 6-pin electrical connector. For pin numbering, refer to Figure B3 item c.

The component may be supplied with a mating connector and flying leads. Refer to Figure B4 and key below:

1. Red
2. Yellow
3. Green
4. Blue
5. Orange
6. Black

a. Polarization feature.

The flying leads are 7/0.2 mm insulated copper wire.

To identify the electrical connections, refer to the product datasheet or, if applicable, the specification drawing.

The power supply and signal connections to the pressure sensor must be made through a certified intrinsically safe associated apparatus, where the output current is limited by a resistor (R) such that Io = Uo / R.

The circuit must be intrinsically safe, refer to IEC/EN 60079-25.

Table B2 gives the maximum input voltage (Ui), current (Ii), power (Pi), capacitance (Ci) and inductance (Li) values for the pressure sensor.

Do not use flat screwdriver blades with tapered edges, this could cause damage that affects the protection rating. Terminate the ends of stranded wire with crimped core sleeves.

Where a 'SHUNT CAL' terminal has been provided for test purposes, it shall only be connected to the '-VE SUPPLY' terminal within the hazardous area.

Where a 'CASE' terminal has been provided, it shall not be used for electrically bonding the enclosure to earth/ground.

Connect the earth/ground connections applicable to the installation.

PTX and PDCR variants are resistant to an AC test voltage of 500 V RMS compliant with IEC/EN 60079-11. PMP variants are not resistant to the test voltage, and this must be considered during installation.

Zero and Span Adjustment
As supplied, the component allows access to the zero and span adjustment potentiometers. Refer to Figure B3 and key below:

a. Zero potentiometer.

b. Span potentiometer.

c. Connector pins.

Use an insulated potentiometer adjustment tool.

Maintenance

Clean the case with a moist, lint-free cloth and a weak detergent. Refer also to "Installation" and "Repair".

Repair
Do not try to do repairs to the component. Return the component to the manufacturer or an approved service agent.

The replacement component must have the equivalent certified approval.

Schedule of Limitations

1. The component must be incorporated into an enclosure providing the required degree of ingress protection for group I or group IIC as required by the standards.
2. The PMP versions will not pass the 500 V RMS dielectric strength test and so this must be taken into account during incorporation into a piece of apparatus.
3. The maximum temperature rise for electronic components <20 mm^2 is 60 K.

   The maximum temperature rise for electronic components >1000 mm^2 is 16.3 K.

   The component is therefore suitable, for example, for T Class T5 up to +83.7°C maximum ambient or T Class T4 up to +118.7°C maximum ambient.
4. Types PMP57##, PDCR57## and PTX57## contain light metals which are considered to be a potential frictional ignition risk. This must be taken into account during incorporation into a piece of apparatus.

Declaration Requirements – UK SI 2016/1107 (as amended by SI 2019/696)

This component is designed and manufactured to meet the essential health and safety requirements not covered by the UK-Type Examination Certificate BAS21UKEX0401U when installed as detailed above.

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3. UNIK5800 Flameproof and/or Dust-ignition Protection

Requirements in Hazardous Areas

The original language of these instructions is English.

The following data only applies to equipment with the specified marking details.

The equipment for use in potentially explosive atmospheres complies with UK Statutory Instruments 2016 No. 1107 regulation (as amended by SI 2019 no. 696).

The applied standards are:

- EN IEC 60079-0:2018
- EN 60079-1:2014
- EN 60079-31:2014

Read and understand all the related data before installing and using the equipment. This includes: all local safety procedures and installation standards (for example IEC/EN 60079-14), this document, and the product datasheet or, if applicable, the specification drawing.

A copy of the UKEX type examination certificate is available from the manufacturer.

To install and use the equipment in potentially explosive atmospheres ("hazardous areas"), use only approved engineers who have the necessary skills and qualifications.

WARNING Do not use tools on the pressure sensor that might cause incendive sparks. This can cause an explosion.

Do not install or remove the pressure sensor in a hazardous area while explosive atmospheres are present. This can cause an explosion.

Live maintenance should only be done using safe work procedures, and not while explosive atmospheres are present.

Marking Details

Refer to Figure C1, and the explanation below:

1. Product description and details (e.g. range, model number, accuracy specification etc.).
2. 'Caution' / 'Warning' symbol. To install and use this equipment in the specified hazardous area, read, understand and comply with this document.
3. ID number of the approved body responsible for quality assurance.
4. Pressure and electrical ratings.
5. Serial number; date of manufacture.
6. Certificate holder's name and address.
7. Country of assembly: 'MADE IN UK' or 'MADE IN CHINA'.
8. UKEX Certificate number.
9. Hazardous area markings (see note).

   Note: Dependent on the approval option supplied.
10. Equipment Group and Category.
11. Ambient temperature range:
    - Models 585#, 588#, 58M#: -40°C ≤ Ta ≤ +63°C.
    - Models 58S#, 58T#: -40°C ≤ Ta ≤ +53°C.
12. Space reserved for other certification markings (if applicable).

Pressure Sensor Materials

The materials used for the primary enclosure and pressure bearing surfaces are identified in the product datasheet or, if applicable, the specification drawing. Make sure that the materials are applicable for the installation.

Installation

Before using the equipment, remove the plastic/rubber protection cap from the pressure connector.

External Temperature Limits

The permitted ambient temperature range is marked on the equipment, see Figure C1 item 11 and "Marking Details".

While it is considered that the temperature of the associated process media will be localized within its vessel and pipework etc., make sure that this will not affect the local ambient temperature such that it exceeds these limits.

Position

Attach the equipment in a safe configuration that prevents unwanted stress (vibration, physical impact, shock, mechanical and thermal stresses). Do not install the equipment where it can be damaged by a material that causes corrosion. Provide additional protection for equipment that may be damaged in service.

Ingress Protection

When correctly installed and as specified by the certification, the enclosure has a minimum ingress protection rating of IP64.

Note: The enclosure can have a higher IP rating, but this has not been assessed by Baseefa. Refer to the datasheet or, if applicable, the specification drawing.

Some models feature a white PTFE vent filter in the wall of the enclosure. Make sure the vent filter is correctly installed and is flush with the enclosure body.

Identification of Markings Put into Use

The product may have markings for more than one method of explosion protection. The method, or methods, put into use must be shown by marking the label in the appropriate box. See Figure C1, items 9 and 12.

The wall of the enclosure may only be 0.8 mm thick. The method of marking must not dent, pierce or damage the enclosure. The use of impact stamps and engraving is not permitted.

Electrical Connections

To identify the electrical connections, refer to the product datasheet or, if applicable, the specification drawing.

The cable entry to the electronics housing is M20 x 1.5 (Models 585#, 58M# or 58S#) or 1/2 NPT (Models 588# or 58T#).

With the effects of loop resistance included, make sure that the voltage supplied at the terminals does not exceed the pressure sensor's marked input voltage limit (see Figure C1, item 4).

Connect the earth/ground connections that are applicable to the installation.

Maintenance

Clean the pressure sensor case with a moist, lint-free cloth and a weak detergent. Clean regularly when the pressure sensor is located where there is a risk of the build-up of a layer of combustible dust.

Repair

Do not try to repair this equipment. Return the equipment to the manufacturer or an approved service agent.

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Specific Conditions of Use

1. The integral cable shall be protected from pulling, twisting and mechanical damage.
2. These units have a maximum designed service life of 50 years, based on an average cyclic operation rate of 80 cycles per day.

Declaration Requirements – UK SI 2016/1107 (as amended by SI 2019/696)

This equipment is designed and manufactured to meet the essential health and safety requirements not covered by the UK-Type Examination Certificate BAS21UKEX0326X when installed as detailed above.

4. UNIK5900 Flameproof and/or Dust-ignition Protection

Requirements in Hazardous Areas

The original language of these instructions is English.

The following data only applies to equipment with the specified marking details.

The equipment for use in potentially explosive atmospheres complies with UK Statutory Instruments 2016 No. 1107 regulation (as amended by SI 2019 no. 696).

The applied standards are:

- EN IEC 60079-0:2018
- EN 60079-1:2014
- EN 60079-31:2014

Read and understand all the related data before installing and using the equipment. This includes: all local safety procedures and installation standards (for example: IEC/EN 60079-14), this document, the product datasheet or, if applicable, the specification drawing.

A copy of the UKEX type-examination certificate is available from the manufacturer.

To install and use the equipment in potentially explosive atmospheres (“hazardous areas”), use only approved engineers who have the necessary skills and qualifications.

WARNING Do not use tools on the pressure sensor that may cause incendive sparks. This can cause an explosion.

Do not install, remove, open or adjust the pressure sensor in a hazardous area while explosive atmospheres are present. This can cause an explosion.

Do not do live maintenance while an explosive atmosphere is present. This can cause an explosion. Use a safe work procedure. Refer to “Zero and Span Adjustment” for permitted activities.

Marking Details

Refer to Figure D1, and the explanation below:

1. Product description and details (e.g. range, model number, accuracy specification etc.).
2. ‘Caution’ / ‘Warning’ symbol. To install and use this equipment in the specified hazardous area, read, understand and comply with this document.
3. ID number of the approved body responsible for quality assurance.
4. Pressure and electrical ratings.
5. Serial number; date of manufacture.
6. UKEX Certificate number.
7. Hazardous area markings, Equipment Group and Category. (see note)

   Note: Dependent on the approval option supplied.
8. Reserved for other certification markings (if applicable).
9. Certificate holder’s name and address.
10. Country of assembly: ‘MADE IN UK’.
11. Cable temperature rating information: CABLE ENTRY POINT MAY BE Ta +10°C.
12. Warning marking: DO NOT OPEN WHEN A FLAMMABLE ATMOSPHERE IS PRESENT.

Pressure Sensor Materials

The materials used for the primary enclosure and pressure bearing surfaces are identified in the product datasheet or, if applicable, on the specification drawing.

Make sure that the materials are applicable for the installation.

Installation

Before using the equipment, remove the plastic/rubber protection cap from the pressure connector.

External Temperature Limits

The permitted ambient temperature range for the equipment is -40°C to +100°C. While it is considered that the temperature of the associated process media will be localized within its vessel and pipework etc, make sure that it does not exceed these limits at the pressure sensor.

Position

Attach the equipment in a safe configuration that prevents unwanted stress (vibration, physical impact, shock, mechanical and thermal stresses). Do not install the equipment where it can be damaged by a material that causes corrosion. Provide additional protection for the equipment if it may be damaged in service.

Ingress Protection

As specified by the certification, the enclosure has a minimum ingress protection rating of IP64 when correctly installed.

Note: The enclosure can have a higher IP rating, but this has not been assessed by Baseefa. Refer to the datasheet or, if applicable, the specification drawing.

Note: Some models feature a white PTFE vent filter in the wall of the enclosure. Make sure the vent filter is correctly installed and is flush with the enclosure body.

End-cap and Bonding Facility

Refer to Figure D2, and the explanation below:

a. Cable entry/Equi-potential bonding facility.
b. Pressure connector/Equi-potential bonding facility.
c. M4 x 0.7 Hexagon cap screw and clip locking mechanism.

An end-cap retainer clip and screw prevents the accidental removal of the end-cap. See Figure D2, item c.

Before energizing the pressure sensor for use in a potentially explosive atmosphere, always install the end-cap, engage the retainer and fully tighten the screw.

Facilities for equi-potential bonding are provided either through the process connection or the cable entry facility.

Identification of Markings Put into Use

The product may have been provided with markings for more than one method of explosion protection and more than one temperature class, surface and ambient temperature. The method, or methods, put into use must be

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indicated by marking the adjacent box. See Figure D1, items 7 and 8.

The wall of the enclosure may only be 2.4 mm thick. The method of marking must not dent, pierce or damage the enclosure. Engraving is allowed. Impact stamps may be used, take care not to crack the enclosure.

Electrical Connections
Refer to Figure D3, and the explanation below:

a. M20 x 1.5 female conduit entry.
b. Span adjustment potentiometer.
c. Zero adjustment potentiometer.
d. Electrical terminals: refer to the product datasheet or, if applicable, the specification drawing.
e. Internal earth (ground) connection: crimp terminal, screw and shake proof washer (not shown).

The cable entry to the electronics housing is M20 x 1.5 (Model 59B#). Units can be supplied with a 1/2 NPT thread adapter (Model 59J#) – refer to the manufacturer's installation instructions.

Use an appropriate cable or conduit system and a suitably certified enclosure if the cable is to be terminated in a hazardous area.

Note: The cable entry point may reach 10°C above ambient temperature. Use a suitably rated cable.

With the effects of loop resistance included, make sure that the voltage supplied at the terminals does not exceed the pressure sensor's marked input voltage. See Figure D1, item 4.

Connect the earth/ground connections that are applicable to the installation. Tighten the internal earth connection screw to 50 cNm.

Zero and Span Adjustment
Refer to the calibration certificate for instructions. Do not open the enclosure and perform adjustment when an explosive atmosphere is present.

Maintenance

Clean the pressure sensor case with a moist, lint-free cloth and weak detergent. Make sure that there is no damage to the enclosure/end-cap threads and o-ring, and that they are free of corrosion, grit and other obstructions.

Clean regularly when the pressure sensor is located where there is a risk of the build-up of a layer of combustible dust.

Repair
Do not try to repair this equipment. Return the equipment to the manufacturer or an approved service agent.

Specific Conditions of Use

1. When used in dust atmospheres the cable entry devices utilised with unit are to be sealed in accordance with EN 60079-14 to maintain the IP6X ingress protection level.
2. These units have a maximum designed service life of 50 years, based on an average cyclic operation rate of 80 cycles per day.
3. External equipotential earth bonding may be made either through the process (pressure) connection or the cable entry facility. Electrical continuity between the equipment body and earth (ground) shall be confirmed by test.

Declaration Requirements – UK SI 2016/1107 (as amended by SI 2019/696)

This equipment is designed and manufactured to meet the essential health and safety requirements not covered by the UK-Type Examination Certificate BAS21UKEX0325X when installed as detailed above.

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