atex delvalle®

HAZARDOUS AREA SOLUTIONS

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INDICATORS AND DISPLAYS ATEX

10 YEARS GUARANTEE

STAINLESS
ANTICORROSIVE

Delvalle, wide experience in manufacturing solutions for hazardous area

WE PUT AT YOUR DISPOSAL

We offer over **45 years** providing hazardous area **solutions** to demanding customers who require very specific characteristics and behaviour according to the sector and their needs.

WHEREVER YOU GO

We are committed to working closely with our customers, providing them with exceptional service and offering an advanced and **extensive range of hazardous area products** with very competitive prices.

CONSULTING & ENGINEERING

Atex Delvalle adapts to our clients' needs by offering hazardous-area systems.
Certified Junction Box Assembly.
Atex-delvalle are the leading certified assembler of Ex junction boxes. With an extensive stock holding of stainless steel enclosures, our workshops are able to provide unrivalled competence, expertise, quality and service to customer specifications.
Our customized services, experienced design and drafting 3D support.

HIGH STANDARD OF QUALITY AND SERVICES

We only use materials provided by companies who offer the very highest quality, suitable and certified products. Our success is due to **top quality** assurance:
ISO 9001, SGS, UL, TÜV, ISO 14000, Ohsas 18001, ATEX, IECEx.

CONTACT US

Confidentiality, reliability & quality

www.atexdelvalle.com
atex@atexdelvalle.com
+34 945 601 381

ALSO ONLINE

Please contact our technical sales department.
A team of professionals with high experience and ability to solve all your queries.

Zones 1, 2, 21 and 22

INDICATORS AND DISPLAYS ATEX

Example screw closure (Geoex)

Example indicator

Example hinged closure (Luxorex)

Products Available as a Portable Device or for Panel Mounting

We have different types of indicators:

- Fieldbus display and Fieldbus indicators: these fieldbus devices can have up to 8 different variables, with which different values will be measured and calculated, and the fieldbus users' status information will be provided in a fieldbus network. In monitoring mode, the device monitors the configured bus addresses and displays their specific values. Also, the values available on the bus can be displayed by interconnecting the function blocks in the case of a fieldbus indicator. The status of the process value is displayed with icons or as text in the indicator itself. The device receives power from the fieldbus and can be used in hazardous areas up to temperature class T6. Compatible with FOUNDATION protocol and PROFIBUS PA protocol.
- Totalizers: they are measuring devices capable of retaining data and quantifying them. And simultaneously, provide information on the accounting of such data. They can also be programmed to act in a certain way when any of the data collected exceeds a previously defined value.
- Serial text displays: these screens provide messages, warnings or suggestions in areas of explosive atmospheres 1 and 21.

These devices are elements of intrinsic safety; which is based on limiting the energy of the possible spark so as to prevent it. This is very interesting in the areas of explosive atmospheres, since in this way, the apparatushave no need of other elements of protection.

FOR MORE INFORMATION CLICK HERE

INDICATORS AND DISPLAYS ATEX

TECHNICAL CHARACTERISTICS

Field bus Displays

These versatile instruments have eleven standard selectable screen formats, which contain one, two, three, four or eight fieldbus process variables, some with graphical bars, along with units of measure and descriptions. Therefore, up to eight fieldbus variables can be viewed simultaneously on a single screen. Front panel pushbuttons allow the operator to move between screens.
This type of viewers has the following characteristics:

- Bus powered
- 11 standard screens with up to 8 variables in each with graphic bars.
- Compatible with all common fieldbus hosts
- Backlight
- Compatible with FOUNDATION protocol and with PROFIBUS PA protocol
- Ex i intrinsically safe applications
- General Purpose Applications
- Portable and panel mount
- Accessories:
  - Alarms
  - Tagging
  - Piping Mounting Kits

Field bus Indicators

- Bus powered
- Large 5-digit display and 31-segment bar graph
- Compatible with most fieldbus hosts
- Selectable node or listening mode
- Models for:
  - Simple Variable
  - 8 variables
- Compatible with FOUNDATION protocol and with PROFIBUS PA protocol
- Intrinsically safe Ex i applications
- Applications "Ex n" in Zone 2
- General purpose applications
- Portable and panel mounting
- Accessories:
  - Scaling and labeling
  - Piping Mounting Kits

Totalizers

This extensive range of speed totalizers includes models for use with pulse meters and 4 / 20mA output flowmeters. The flow rate and total flow are displayed simultaneously in the same or different units. All parameters are easy to set up on the spot, allowing these speed totalizers to be used with almost any flow meter. Instruments can be supplied ready to install with customer-specified settings, scale and marking of the label.

- Robust housings, including stainless steel panel mounting tool.
- Models:
  - One pulse input, externally powered
  - Pulse inputs, externally supplied
  - 4 / 20mA input, loop-fed
- Portable and panel mounting
- Certifications:
  - Ex ia Intrinsic Injection
  - Ex nA & Ex tc for Zone 0, 2, 20 and 22 applications
  - General purpose for use in safe area
- Accessories:
  - Backlight
  - Isolated double alarms
  - Pulse isolated and outputs of 4 / 20mA
  - Piping Mounting Kits
  - Scaling and labeling

Serial text displays

These serial text displays feature a high-contrast backlit display, push buttons and two solid-state outputs to form a low-cost operator interface that is ideal for simple process and machine control applications.

- Show text and simple graphics
- High contrast backlit display
- It incorporates the buttons of the operator
- Modbus, legacy and BEKA protocols
- RS232 and RS485 ports
- 11 standard screens with up to 8 variables in each
- 2 solid state outputs
- Galvanic isolator for applications in hazardous areas
- Models for:
  - Intrinsically safe Ex i applications
  - General purpose applications
- Portable and panel mounting
- Accessories:
  - Piping Mounting Kits

INDICATORS AND DISPLAYS ATEX

ADVANTAGES

- Specially designed for Atex environments, these devices are intrinsically safe
- Devices capable of measuring and calculating up to 8 variables
- Backlight displays
- RS232 and RS485 ports and two solid state outputs

PROTECTION MODE

Fieldbus display:
- II 1G, Ex ia IIC T4 Ga

Fieldbus indicators:
- II 1G, Ex ia IIC T4 Ga
- II 3G, Ex ic IIC T4 Gc

Totalizers:
- II 1G, Ex ia IIC T5 Ga
- II 1G, Ex ia IIIC T80°C Da
- Ex ia IIC T6
- Ex ia IIC T5

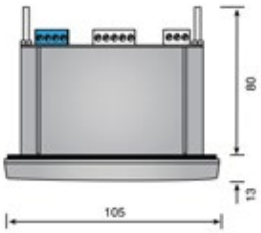
Serial text displays:
- II 1G, Ex ia IIC T5 Ga
- II 2 G, Ex ib IIC T6

10 YEARS GUARANTEE
STAINLESS ANTICORROSIVE

REGULATIONS

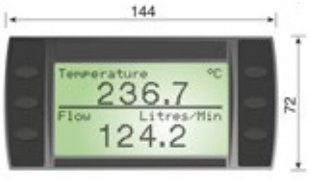
- Comply with the Atex 2014/34 / EU Directive
- EN 60079-0:2009
- EN 60079-7:2007
- EN 60079-11:2012
- EN 60079-31:2009
- II1/2G Ex ia/ib II* T6 Ga/Gb.
- II1/2D Ex ia/ib IIIC T80°C Da/Db
- Atex certificate for zone 0, 20, 1, 21, 2 y 22
- Certificates:
  - As component: LOM 14Atex3028U
  - As equipment: LOM 14Atex2082
- Quality certificate:
  - LOM 14Atex9050
- Degree of protection: depending on model, up to IP66

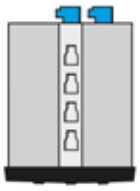
INDICATOR BLUEPRINT AND DIMENSIONS

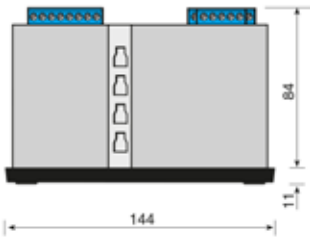


- Indicator BA327E-SS
- Indicator BA327E-SS
- Totalisers BA337E-SS
- Counter BA367E-SS

- Text displays BA488C

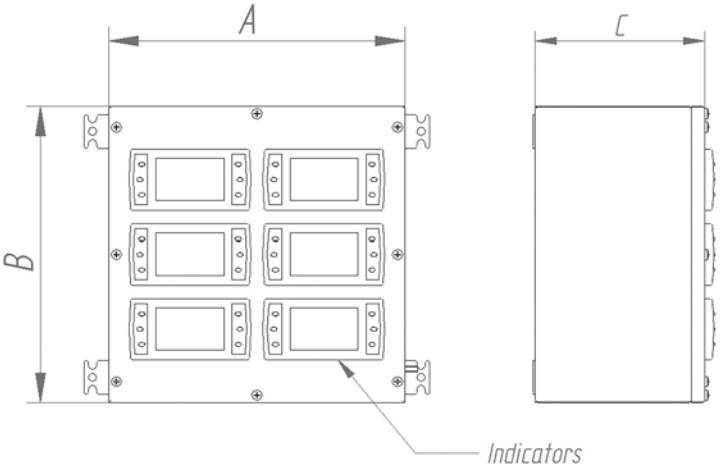






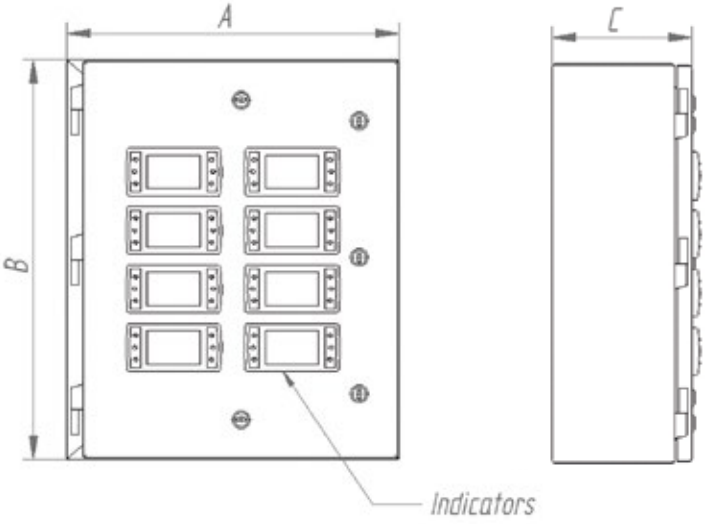
INDICATORS AND DISPLAYS ATEX

BLUEPRINT AND DIMENSIONS GEOEX



REFERENCES	HEIGHT	WIDTH	DEPTH	N° OF INDICATORS
GEOCS202012IEX	200	200	120	2
GEOCS302015IEX	300	200	155	3
GEOCS303520IEX	300	350	200	6
GEOCS353520IEX	350	350	200	6

BLUEPRINT AND DIMENSIONS LUXOREX



REFERENCES	HEIGHT	WIDTH	DEPTH	N° OF INDICATORS
LXCS3830155IEX	380	300	155	3
LXCS504021IEX	500	400	210	4
LXCS605021IEX	600	500	210	8
LXCS1008040IEX	1000	800	400	24

INDICATORS AND DISPLAYS ATEX

CRITERIA FOR CHOOSING INDICATORS WITH INTRINSIC SAFETY

Example indicator BA307E-SS

Example indicator BA327E-SS

Example totalizer BA337E-SS

Example counter BA367E-SS

Example text displays BA488C

Devices Capable of Measuring and Calculating Up to 8 Variables

We have different types of indicators:

- Fieldbus display and Fieldbus indicators: these fieldbus devices can have up to 8 different variables, with which different values will be measured and calculated, and the fieldbus users' status information will be provided in a fieldbus network. In monitoring mode, the device monitors the configured bus addresses and displays their specific values. Also, the values available on the bus can be displayed by interconnecting the function blocks in the case of a fieldbus indicator. The status of the process value is displayed with icons or as text in the indicator itself. The device receives power from the fieldbus and can be used in hazardous areas up to temperature class T6. Compatible with FOUNDATION protocol and PROFIBUS PA protocol.
- Totalizers: they are measuring devices capable of retaining data and quantifying them. And simultaneously, provide information on the accounting of such data. They can also be programmed to act in a certain way when any of the data collected exceeds a previously defined value.
- Serial text displays: these screens provide messages, warnings or suggestions in areas of explosive atmospheres 1 and 21.

FOR MORE INFORMATION CLICK HERE

INDICATORS AND DISPLAYS ATEX

4/20mA LOOP POWERED INDICATORS

There are two products of this type, BA307E and BA327E indicators.

BA307E-SS

These indicators are perfect for placement in panels or envelopes and presenting a larger screen than its predecessors, in addition they offer a very good visualization of data and measurements.

CHARACTERISTICS

- Atex & IECEx certificates or intrinsically safety.
- IP66 protection on the front, which is the one that will be located outside the enclosure.
- Made of stainless steel and designed to be placed in enclosures with "Ex e", "Ex p" and "Ex t" protection.
- Prepared for use in zones 0, 1, 2, 21 and 22.
- Operating in a temperature range from -40 ° C to 70 ° C.
- They also have internal calibrator, root extractor and linearizer as well as a tare function.
- The screen has dimensions of 105x60 and the measurements are displayed by 4 digits of 15mm.
- Electrical parameters / Input Current Voltage:
  - 4 to 20mA
  - Less than 1.2V at 20 ° C
  - Less than 1.3V at -40 ° C
  - Less than 5V with optional backlight display
  - Safety range ± 200mA or ± 30V

OPTIONS

- There are indicators of the same series but of plastic material, which also have IP66 protection on the front, although they are not as resistant as those of stainless steel. In addition, this model made of plastic has a smaller screen (98x48).
- Available with backlight displays, which can be looped or separately powered.
- Optional dual alarm output.

ADVANTAGES

- High water and impact resistance, especially the version made of stainless steel.
- Very visual display with possibility to include backlighting.
- IECEx and Atex certifications with intrinsic safety for use in explosive atmospheres.
- Specific design to be placed in any type of enclosure or panel.
- Wide applicated temperature range.

PROTECTION MODE

- Atex protection mode:
  - II 1G, Ex ia IIC T5 Ga -40°C ≤ Ta ≤ +70°C
  - II 1D Ex ia IIIC T80°C Da IP20 -40°C ≤ Ta ≤ +70°C
- IECEx protection mode:
  - Ex ia IIC T5 Ga -40°C ≤ Ta ≤ +70°C
  - Ex ia IIIC T80°C Da IP20 -40°C ≤ Ta ≤ +70°C
- Degree of protection IP66 on the front and IP20 for the rest.
- Input parameters:
  - V_i = 30V dc
  - L_i = 200mA
  - P_i = 0,84W

INDICATORS AND DISPLAYS ATEX

BA327E-SS

These Indicators are very similar to the BA307E series. They also include a bargraph and one more digit, which allows visualizing measurements with more precision.

CHARACTERISTICS

- Atex & IECEx certificates or intrinsically safety.
- IP66 protection on the front, which is the one that will be located outside the enclosure.
- Made of stainless steel and designed to be placed in enclosures with "Ex e", "Ex p" and "Ex t" protection.
- Prepared for use in zones 0, 1, 2, 21 and 22.
- Operating in a temperature range from -40 ° C to 70 ° C.
- They also have internal calibrator, root extractor and linearizer as well as a tare function.
- The screen has dimensions of 105x60 and the measurements are displayed by 4 digits of 15mm.
- Electrical parameters / Input Current Voltage:
  - 4 to 20mA
  - Less than 1.2V at 20 ° C
  - Less than 1.3V at -40 ° C
  - Less than 5V with optional backlight display
  - Safety range ± 200mA or ± 30V

OPTIONS

- There are indicators of the same series but of plastic material, which also have IP66 protection on the front, although they are not as resistant as those of stainless steel. In addition, this model made of plastic has a smaller screen (98x48).
- Available with backlight displays, which can be loop or separately powered.
- Optional dual alarm output.

ADVANTAGES

- High water and impact resistance, especially the version made of stainless steel.
- Very visual display with possibility to include backlighting.
- IECEx and Atex certifications with intrinsic safety for use in explosive atmospheres.
- Specific design to be placed in any type of enclosure or panel.
- Wide applicated temperature range.

PROTECTION MODE

- Atex protection mode:
  - II 1G, Ex ia IIC T5 Ga -40°C ≤ Ta ≤ +70°C
  - II 1D Ex ia IIIC T80°C Da IP20 -40°C ≤ Ta ≤ +70°C
- IECEx protection mode:
  - Ex ia IIC T5 Ga -40°C ≤ Ta ≤ +70°C
  - Ex ia IIIC T80°C Da IP20 -40°C ≤ Ta ≤ +70°C
- Degree of protection IP66 on the front and IP20 for the rest.
- Input parameters:
  - V_i = 30V dc
  - L_i = 200mA
  - P_i = 0,84W

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INDICATORS AND DISPLAYS ATEX

PULSE INPUT EXTERNALLY POWERED RATE TOTALISERS

BA337E-SS

These indicators are perfect for placement in panels or envelopes and presenting a larger screen than its predecessors, in addition they offer a very good visualization of data and measurements.

OPTIONS

- There are indicators of the same series but of plastic material (Noryl), which also have IP66 protection on the front, although they are not as resistant as those of stainless steel. In addition, this model made of plastic has a smaller screen (98x48).
- Available with backlight displays, which can be loop or separately powered.
- Alarms.
- Isolated synchronous pulse output
- Isolated 4/20mA output

ADVANTAGES

- High water and impact resistance, especially the version made of stainless steel.
- Very visual display with possibility to include backlighting.
- IECEx and Atex certifications with intrinsic safety for use in explosive atmospheres.
- Specific design to be placed in any type of enclosure or panel.
- Wide applicated temperature range.

CHARACTERISTICS

- Atex & IECEx certificates or intrinsically safety.
- IP66 protection on the front, which is the one that will be located outside the enclosure.
- Made of stainless steel and designed to be placed in enclosures with "Ex e", "Ex p", "Ex n" and "Ex t" protection.
- Prepared for use in zones 0, 1, 2, 21 and 22.
- Two display modes. The primary has a screen of 8 digits of 9mm and the secondary one with 6 digits of 6mm.
- They also have linearizer as well as proximity sensor, magnetic pickup, voltage impulse or switch contact input.
- The screen has dimensions of 105x60 in the version made of stainless steel.
- Electrical parameters / Power Supply:
  - Voltage » 10 to 28V from a Zener barrier or galvanic isolator
  - Current » 16mA max plus 22.5mA for optional backlight

INPUT	LOWER	UPPER
Switch contact	100Ω	1kΩ
Proximity detector (NAMUR)	1,2mA	2,1mA
Open collector	2kΩ	10kΩ
Magnetic pick-off	0	+40mV
Voltage pulse (low)	1V	3V 28V max
Voltage pulse (high)	3V	10V 28V max

PROTECTION MODE

- Atex protection mode:
  - II 1G, Ex ia IIC T5 Ga -40°C ≤ Ta ≤ +60°C
  - II 1D Ex ia IIIC T80°C Da IP20 -40°C ≤ Ta ≤ +60°C
- IECEx protection mode:
  - Ex ia IIC T5 Ga -40°C ≤ Ta ≤ +60°C
  - Ex ia IIIC T80°C Da IP20 -40°C ≤ Ta ≤ +60°C
- Degree of protection IP66 on the front and IP20 for the rest.

INDICATORS AND DISPLAYS ATEX

COUNTERS

BA367E-SS

These indicators are perfect for placement in panels or envelopes and presenting a larger screen than its predecessors, in addition they offer a very good visualization of data and measurements.

OPTIONS

- There are indicators of the same series but of plastic material (Noryl), which also have IP66 protection on the front, although they are not as resistant as those of stainless steel. In addition, this model made of plastic has a smaller screen (98x48).
- Available with backlight displays, which can be loop or separately powered.
- Alarms.
- Isolated synchronous pulse output
- Isolated 4/20mA output

ADVANTAGES

- High water and impact resistance, especially the version made of stainless steel.
- Very visual display with possibility to include backlighting.
- IECEx and Atex certifications with intrinsic safety for use in explosive atmospheres.
- Specific design to be placed in any type of enclosure or panel.
- Wide applicated temperature range.

CHARACTERISTICS

- Atex & IECEx certificates or intrinsically safety.
- IP66 protection on the front, which is the one that will be located outside the enclosure.
- Made of stainless steel and designed to be placed in enclosures with "Ex e", "Ex p", "Ex n" and "Ex t" protection.
- Prepared for use in zones 0, 1, 2, 21 and 22.
- Two display modes. The primary has a screen of 8 digits of 9mm and the secondary one with 6 digits of 6mm.
- They also have linearizer as well as proximity sensor, magnetic pickup, voltage impulse or switch contact input.
- The screen has dimensions of 105x60 in the version made of stainless steel.
- Electrical parameters / Power Supply:
  - Voltage » 10 to 28V from a Zener barrier or galvanic isolator
  - Current » 16mA max plus 22.5mA for optional backlight

INPUT	LOWER	UPPER
Switch contact	100Ω	1kΩ
Proximity detector (NAMUR)	1,2mA	2,1mA
Open collector	2kΩ	10kΩ
Magnetic pick-off	0	+40mV
Voltage pulse (low)	1V	3V 28V max
Voltage pulse (high)	3V	10V 28V max

PROTECTION MODE

- Atex protection mode:
  - II 1G, Ex ia IIC T5 Ga -40°C ≤ Ta ≤ +60°C
  - II 1D Ex ia IIIC T80°C Da IP20 -40°C ≤ Ta ≤ +60°C
- IECEx protection mode:
  - Ex ia IIC T5 Ga -40°C ≤ Ta ≤ +60°C
  - Ex ia IIIC T80°C Da IP20 -40°C ≤ Ta ≤ +60°C
- Degree of protection IP66 on the front and IP20 for the rest.

INDICATORS AND DISPLAYS ATEX

TEXT DISPLAYS

BA488C

These screens provide messages, warnings or suggestions in areas of explosive atmospheres 0, 1 and 2.

OPTIONS

- Screen available with backlighting.
- Standard or customized format: 1, 2, 3, 4 or 8 variables
- If larger industrial switches are required, they can be connected to the rear terminals.
- It allows you to design and store custom screen formats in memory using a wide selection of lines, charts, bars and fonts.

PROTECTION MODE

- Atex protection mode:
  - 1G Ex ia IIC T5 Ga -40°C ≤ Ta ≤ +60°C
- IECEx protection mode:
  - Ex ia IIC T5 Ga -40°C ≤ Ta ≤ +60°C
- Degree of protection IP66 on the front and IP20 for the rest.

CHARACTERISTICS

- Atex & IECEx certificates or intrinsically safety.
- IP66 protection on the front, which is the one that will be located outside the enclosure.
- Made of stainless steel and designed to be placed in enclosures with "Ex e", "Ex p", "Ex n" and "Ex t" protection.
- Prepared for use in zones 0, 1, and 2.
- Operating temp -40°C hasta los 60°C.
- Six push buttons which can be software interrogated. Each button function may be displayed on the screen. Buttons may be disabled.
- Display size 86.5x45 mm - 120x64 pixel.
- 11 standard screen formats.
- Atex & IECEx certificates or intrinsically safety.
- Intrinsic safety parameters
  - Ron less than 5Ω + 0.7V
  - Roff greater than 1MΩ
  - Ui = 28Vdc
  - Ii = 200mA
  - Pi = 0.85W

ADVANTAGES

- High water and impact resistance, especially the version made of stainless steel.
- Very visual display with possibility to include backlighting.
- IECEx and Atex certifications with intrinsic safety for use in explosive atmospheres.
- Specific design to be placed in any type of enclosure or panel.
- Wide applicated temperature range.

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CONNEX SERIES

FLAMEPROOF CONNECTION BOXES
EJB SERIES

EX LIGHTING FIXTURE
ATEX

PRESSURIZED ENCLOSURE EX P
PEPPEX SERIES

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EX 19" RACK
ATEX

HAZARDOUS WIRELESS & ANTENNA SYSTEMS
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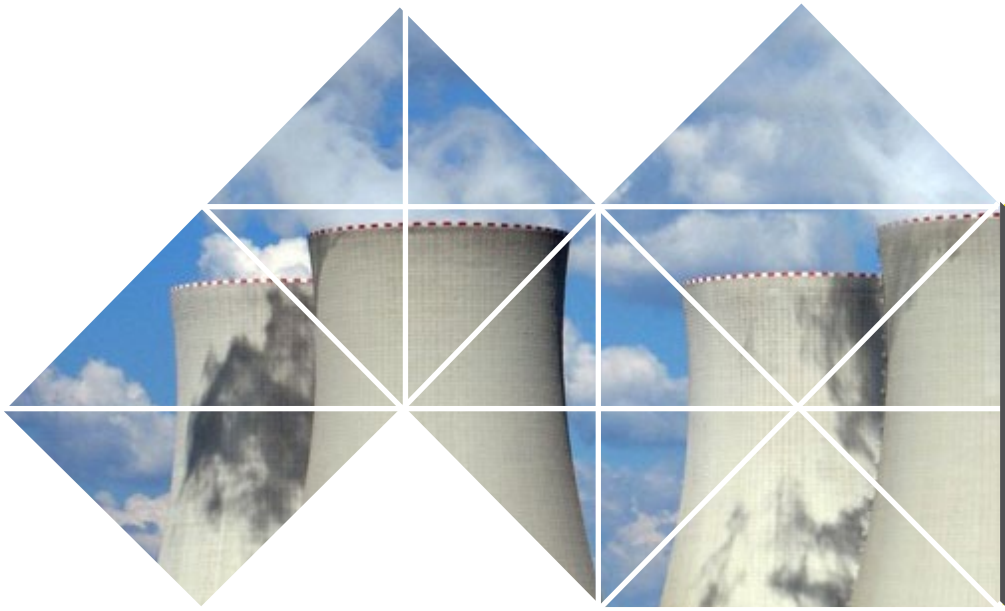

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Contact us, we will be available at any time