atex delvalle®

HAZARDOUS AREA SOLUTIONS

INDUSTRIAL WORKSTATIONS & HMI´S ATEX

Zones 1, 2, 21 and 22

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atex delvalle®
HAZARDOUS AREA SOLUTIONS

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1.18

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

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ALSO ONLINE

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

Zones 2 and 22

INDUSTRIAL PANEL PC OPERATOR WORKSTATION HMI
ATEX & IECEX

Example Geoex

Example Luxorex

Affordable Electronics

Atex Delvalle PC operated workstations monitor HMI are an extension of control room connectivity out in the field. Every HMI workstation has been engineered to endure the harsh & hazardous environments of the plant floor, fully certified Atex & IECEx.
Access in the field saves time and prevents process upsets. The leveraging of desktop PCs for automation control is very common.
PC operated workstations HMI are a completely enclosed HMI that outperforms the abysmal conditions aboard open sea and land drilling rigs. A virtually indestructible display for monitoring and control, it's suitable for the rig floor or anywhere an extremely rugged panel PC is required. PC operator workstations HMI is a zones 2 and 22 operated workstation.
Its high-bright, LED backlit LCD panel provides high performance with a glove-friendly touchscreen. Rugged HMI´s have replaced many hydraulic gauges, recorders, and counters used for drilling wells. Visualization provides greater detail compared to hydraulic gauges. It's been instrumental in improving the efficiency of the drilling operation and in proliferating drill-by-wire.

FOR MORE INFORMATION CLICK HERE

APPLICATIONS

- PC operator workstations HMI is a zone 2 & 22 operator workstation.
- Production energy exploration, extraction, and refining industries..

OPTIONS

- Flexible mounting options.
- Easily customized to fit your application.

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INDUSTRIAL PANEL PC OPERATOR WORKSTATION HMI ATEX & IECEX

TECHNICAL FEATURES

- Portable and field maintainable.
- Passive liquid cooling dissipates heat without a cooling fan.
- Optically bonded LCD offers clear resolution under any light conditions.
- System prevents data loss in power failure
- High operating temp.
- 7 " screen high resolution and high contrast with screen quality of 16 million colors.
- Sunlight readable display.
- Transfer data using cable standard (Cable Ethernet standard, cable USB standard).
- Communication options: PROFIBUS and PORFINE.
- Flexible adaptation to each individual task and can be integrated in an existing infrastructure.
- Rugged and completely maintenance free for use directly at the machine, even outdoor and in shipbuilding.

NORMATIVE

- Directive 2014/34/UE
- EN 60079-0:2012
- EN60079-15:2013

MARKING

- II 3G Ex nA nC IIC T4 Gc
- II 3D Ex tc IIIC T135°C Dc IP65

CERTIFICATE

- Delvalle 16ATEX0700
- Certificate LOM 14ATEX3028U
- Certificate LOM 14ATEX3026U

ADVANTAGES

- Complex processes can be displayed in much greater detail and laid out more clearly on larger monitors.
- Affordable electronics.
- Better processing speed for high-end graphics desired by machine builders.
- Siemens based open software systems offer the greatest flexibility and integration while improving learning curves.
- We offer dual rated operator workstations for Class I, Div. 2, and Zone 2,22 (Atex).
- The Atex & IECEx HMI workstations are optimized to perform under harsh and difficult conditions with wide temperature ranges, shock and vibration resistance, and overall ruggedness to stand up to the grimy, wet conditions commonly found in oil and gas, food processing, or chemical facilities.

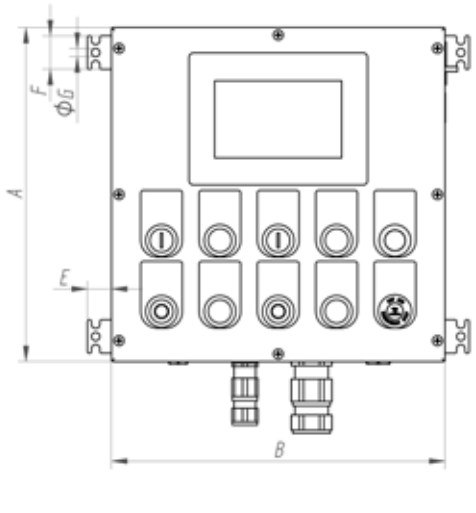
CERTIFICATION

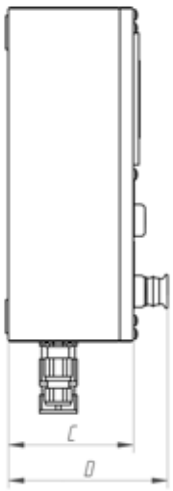
- Marked CE: Yes
- Culus: Yes
- RCM (previus C-TICK): Yes
- Homologation KC: Yes
- Naval certifications
  - Germanischer Lloyd (GL): Yes
  - American Bureau of Shipping (ABS): Yes
  - Bureau Veritas (BV): Yes
  - Det Norske Veritas (DNV): Yes
  - Lloyds Register of Shipping (LRS): Yes
  - Nippon Kaiji Kyokai (Class NK): Yes
- Use in potentially explosive atmospheres>
  - ATEX zone 2: Yes
  - ATEX zone 22: Yes
  - IECEx zone 2: Yes
  - IECEx zone 22: Yes
  - Culus Class I zone 2, division 2: Yes
  - FM Class I Division 2: Yes

INDUSTRIAL PANEL PC OPERATOR WORKSTATION HMI ATEX & IECEX

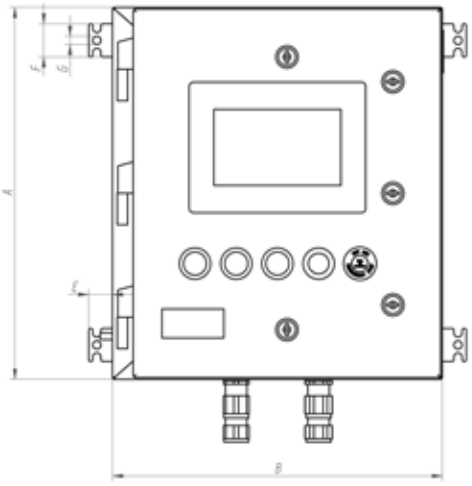
BLUEPRINT AND DIMENSIONS

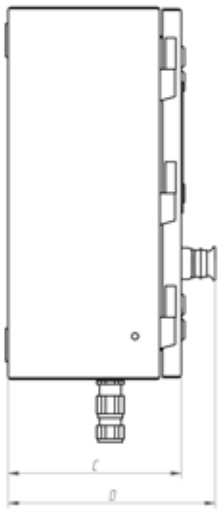
Enclosure Geoex PC without hinges





Enclosure Luxorex PC with hinges and locks





	DIMENSIONS (mm)						
	A	B	C	D	E	F	ØG
Enclosure without hinges	400	400	150	191	29	40	10
Enclosure with hinges and locks	400	450	210	251	29	40	10

INDUSTRIAL PANEL PC OPERATOR WORKSTATION HMI ATEX & IECEX

CRITERIA FOR CHOOSING TOUCH SCREEN HMI (7” - 9” - 12”)

The Perfect Option for Wokstation HMI

Atex Delvalle PC operated workstations monitor HMI Ex can be used directly in hazardous zones 2 and 22 without the need for special measures such as complex and expensive enclosures or additional certification processes. Furthermore the units are capable of withstanding considerable vibrations and shocks and have been certified for use in shipbuilding.

We have various dimensions: SIMATIC HMI TP700 - 7”, SIMATIC HMI TP900 - 9” and SIMATIC HMI TP1200 -12”. There are also three-dimensional SIPLUS HMI TP700 - 7”, SIPLUS HMI TP900 - 9” and SIPLUS HMI TP1200 - 12”, which have a higher resistance to chemical and biological gases and have optimum reliability through a wide temperature range both in the start-up phase and during operation.

Industrial panel PC operator workstations monitor HMI is particularly suitable for operator control and monitoring, measuring and testing as well as for data collection, communication and other applications close to the machine in hazardous zones 2 and 22

With its 7 inch display the PC can handle standard visualization tasks as well as more demanding applications. Unit is also available with a particularly luminous display for use in daylight applications.

➔ **FOR MORE INFORMATION CLICK HERE**

INDUSTRIAL PANEL PC OPERATOR WORKSTATION HMI **ATEX & IECEX**

TOUCH SCREEN HMI 7”

REF: SIMATIC HMI TP700

DISPLAY

- Display: TFT
- Screen diagonal: 7 in
- Display width: 152,4 mm
- Display height: 91,4 mm
- Color number: 16 777 216
- Resolution (pixels):
  - Horizontal image resolution: 800 Pixel
  - Vertical image resolution: 480 Pixel
- Backlighting
  - MTBF Backlighting (with 25 °C): 80 000 h
  - Variable Backlighting: Yes; 0-100 %

OTHER FEATURES

- Operating temperature: 0°C - 50°C
- Protection: IP65
- Use in hazardous areas: Atex zone 2 and 22.
- Certificates and normatives:
  - EN60079-15:2010, EN60079-0:2012+A11:2013 y EN60079-31:2014
  - III 3G Ex nA IIC T4 Gc
  - III 3D Ex tc IIC T70°C Dc

SUPPLY VOLTAGE

- Type of supply voltage: DC
- Permissible range, lower limit (DC): 19,2 V
- Permissible range, higher limit (DC): 28,8 V
- Purchase: 0,5 A
- Intensity of connection I^2t: 0,5 $A^2 \cdot s$

MEMORY

- Flash: Yes
- RAM: Yes
- Capacity of memory: 12 Mbyte

INTERFACES

- N° of interfaces Industrial Ethernet: 1; 2 (switch)
- N° of interfaces RS 485: 1; RS 422/485 combined
- N° of interfaces USB: 2; USB 2.0
  - USB mini-B: 1; 5
- N° of interfaces 20 mA (TTY): 0
- N° of interfaces RS 232: 0
- N° of interfaces RS 422: 0; RS485
- N° of parallel interfaces: 0
- N° other interfaces: 0
- Number of compact flash slots: 2
- Interfaces SW: No
- Industrial Ethernet
  - LED Industrial Ethernet: 2
  - N° switch ports integrated: 2
- Protocols PROFINET: Sí
- Supports protocol for PROFINET IO: Sí
- IRT: Yes; WinCC V12 or higher
- MRP: Yes; WinCC V12 or higher
- PROFIBUS: Yes
- MPI: Yes

INDUSTRIAL PANEL PC OPERATOR WORKSTATION HMI **ATEX & IECEX**

TOUCH SCREEN HMI 9”

REF: SIMATIC HMI TP900

DISPLAY

- Display: TFT
- Screen diagonal: 9 in
- Display width: 195 mm
- Display height: 117 mm
- Color number: 16 777 216
- Resolution (pixels):
  - Horizontal image resolution: 800 Pixel
  - Vertical image resolution:480 Pixel
- Backlighting
  - MTBF Backlighting (with 25 °C): 80 000 h
  - Variable Backlighting: Yes; 0-100 %

OTHER FEATURES

- Operating temperature: 0°C - 50°C
- Protection: IP65
- Use in hazardous areas: Atex zone 2 and 22.
- Certificates and normatives:
  - EN60079-15:2010, EN60079-0:2012+A11:2013 y EN60079-31:2014
  - II 3G Ex nA IIC T4 Gc
  - II 3D Ex tc IIC T70°C Dc

SUPPLY VOLTAGE

- Type of supply voltage: DC
- Permissible range, lower limit (DC): 24V
- Permissible range, higher limit (DC): 19,2 V
- Purchase: 0,5 A
- Intensity of connection I^2t: 0,5 $A^2 \cdot s$

MEMORY

- Flash: Yes
- RAM: Yes
- Capacity of memory: 12 Mbyte

INTERFACES

- N° of interfaces Industrial Ethernet: 1; 2 (switch)
- N° of interfaces RS 485: 1; RS 422/485 combined
- N° of interfaces USB: 2; USB 2.0
  - USB mini-B: 1; 5
- N° of interfaces 20 mA (TTY): 0
- N° of interfaces RS 232: 0
- N° of interfaces RS 422: 0; RS485
- N° of parallel interfaces: 0
- N° other interfaces: 0
- Number of compact flash slots: 2
- Interfaces SW: No
- Industrial Ethernet
  - LED Industrial Ethernet: 2
  - N° switch ports integrated: 2
- Protocols PROFINET: Sí
- Supports protocol for PROFINET IO: Sí
- IRT: Yes; WinCC V12 or higher
- MRP: Yes; WinCC V12 or higher
- PROFIBUS: Yes
- MPI: Yes

INDUSTRIAL PANEL PC OPERATOR WORKSTATION HMI **ATEX & IECEX**

TOUCH SCREEN HMI 12”

REF: SIMATIC HMI TP1200

DISPLAY

- Display: TFT
- Screen diagonal: 12,1 in
- Display width: 261,1 mm
- Display height: 163,2 mm
- Color number: 16 777 216
- Resolution (pixels):
  - Horizontal image resolution: 1280 Pixel
  - Vertical image resolution: 800 Pixel
- Backlighting
  - MTBF Backlighting (with 25 °C): 80 000 h
  - Variable Backlighting: Yes; 0-100 %

OTHER FEATURES

- Operating temperature: 0°C - 50°C
- Protection: IP65
- Use in hazardous areas: Atex zone 2 and 22.
- Certificates and normatives:
  - EN60079-15:2010, EN60079-0:2012+A11:2013 y EN60079-31:2014
  - III 3G Ex nA IIC T4 Gc
  - III 3D Ex tc IIC T70°C Dc

SUPPLY VOLTAGE

- Type of supply voltage: DC
- Permissible range, lower limit (DC): 24V
- Permissible range, higher limit (DC): 19,2 V
- Purchase: 0,5 A
- Intensity of connection I^2t: 0,5 $A^2 \cdot s$

MEMORY

- Flash: Yes
- RAM: Yes
- Capacity of memory: 12 Mbyte

INTERFACES

- N° of interfaces Industrial Ethernet: 1; 2 (switch)
- N° of interfaces RS 485: 1; RS 422/485 combined
- N° of interfaces USB: 2; USB 2.0
  - USB mini-B: 1; 5
- N° of interfaces 20 mA (TTY): 0
- N° of interfaces RS 232: 0
- N° of interfaces RS 422: 0; RS485
- N° of parallel interfaces: 0
- N° other interfaces: 0
- Number of compact flash slots: 2
- Interfaces SW: No
- Industrial Ethernet
  - LED Industrial Ethernet: 2
  - N° switch ports integrated: 2
- Protocols PROFINET: Sí
- Supports protocol for PROFINET IO: Sí
- IRT: Yes; WinCC V12 or higher
- MRP: Yes; WinCC V12 or higher
- PROFIBUS: Yes
- MPI: Yes

Zones 1, 2, 21 and 22

WORKSTATIONS ATEX **PCEX SERIES**

Designed Especially for High Risk Areas

Example

➔ FOR MORE INFORMATION CLICK HERE

The Atex Delvalle wokstation is manufactured to be used in hazardous areas zones 1, 2, 21 and 22.
It easily passes even the strictest tests of hitting, overpressure, rusting, thermal effects... we have been able to put it to.

The floor processing conditions can be very adverse.
Industrial monitors can be exposed to high humidity, extreme temperature changes as well as come into contact with chemical products solvents, and pressurised cleaning systems.

For our workstation all these are easily overcome by installing in the operating area only the most essential components and using data cables to establish connections between the secure area and the equipment.

This separation reduces contact between the components and the problematic conditions reducing any chances of error.

WORKSTATION ATEX PCEX SERIES

TECHNICAL FEATURES

- Intel® Atom processor
- Compact flash: 512MB memory
- 24 V DC Voltaje
- Consumption max. 75 W

ADVANTAGES

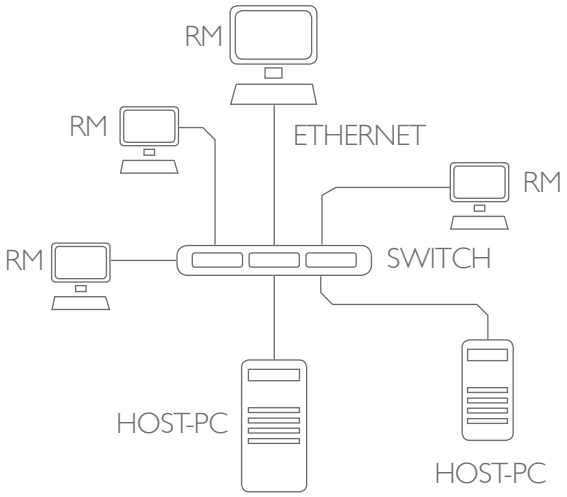
- Designed especially for high risk areas.
- Higher security giving cost savings.
- Long lasting solution thus cost saving over time connecting the conventional equipment (RJ45) in a secure area to the remote control equipment in the Atex area using the Ethernet standard network server connection without expensive convertibles.
- Less TI infrastructure: Linked to various servers from one sole workstation.
- Compatible with RDP aplications: Servicing to Microsoft, Citrix, ICA o VNC RFB.
- Compressed video transmission: Only transfering changes in graphs.
- No need to install software: System can be modernised, the equipment replaced without infrastructure changes
- Low energy consumption: Allows the unit to save energy and not heat up at rest.

MATERIALS

- AISI304 L and AISI316 L
- Protection IP66 and Type 4X

MOUNTINGS

The conventional PC is taken out of the secure area, in Zones 1, 2, 21 and 22 the workstation is set up connecting the PC through ethernet and a special box of cable connections CAT 7 with entry RJ45 is placing next to the PC in the secure area.
A workstation network can be connected to PC servers.



REMOTE CONTROL FEATURES

Following our tradition in high manufacturing resistant industrial monitors all models are manufactured using only quality components.

The workstation has certificates recognised worldwide for areas 1, 2, 21 and 22 and areas of type I and II, as well as division 2. Optional touch screen using anti reflective hardened transflective glass.

All the industrial monitors are manufactured under the strictest mechanical and security requirements used in chemical, pharmaceutical and petrochemical industries.

WORKSTATION ATEX **PCEX SERIES**

OPTIONS

1. FLOOR MOUNTING

2. CEILING MOUNTING

3. TABLE MOUNTING

4. WALL MOUNTING

CHOOSE YOUR MOUNTING OPTION AND PERSONALISE YOUR WORKSTATION PCEX WITH DIFFERENT ACCESSORIES

KEYBOARD

- Joystick mouse
- Ball mouse
- Touchpad
- Language (US international, German, French)

BAR CODE READER

Interface:

- 1 x Ethernet, 1 x USB (Ex e), 2 x USB (IS)
- 1 x Ethernet, 1 USB (Ex e), 3 USB (IS), 1 RS232 (Ex e).
- Only works on special screens

INTERFACES

Zones 2 and 22:

- 2 x 1GB Ethernet y 2 x USB
- Audio
- RS232
- Power

Zones 1 and 21:

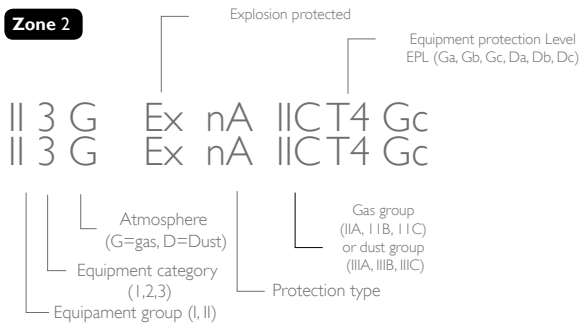
- Keyboard and mouse (Ex i)
- 1x Ethernet (Ex e) y 1 x USB (Ex e)

SCREENS 15", 19" AND 22"

- Antireflective glass
- Type: TFT, LCD
- Resolution: 1280x1024 pixels
- Colours: 24 bits. 16,7 million
- Contrast: 1000:1
- Brightness: 400 nit
- Visual angle: 160° in all directions
- Optional touch screen

WORKSTATION ATEX **PCEX SERIES**

CE CERTIFICATE



NORMS AND CERTIFICATES

- Zones 2 and 22:
- Certificacion Ex:
  - II 3G Ex nA IIC T4 Gc
  - II 3G Ex nA IIC T4 Gc
- Norme UL:
  - Clase I/ División 2, A – D
  - Clase II Divisón 2, F&G, T4
- Norme IECEx:
  - II 3G Ex nA IIC T4 Gc
  - II 3G nA IIC T4 Gc
- Directive 2014/34/UE :
  - EN 60079-15:2010
  - EN 60079-0:2009
  - IECEx 60079-14
  - IECEx 60079-0
- Zones 1 and 21:
- Certificate Ex:
  - IECEx y Atex (II 2G, II 2D)
  - Ex e mb q [ib] IIC T4 Gb.
  - Ex tb [ib] IIIC T85°C Db.

REFERENCES

PCEX SERIES • WORKSTATION	
REFERENCES	DESCRIPTION
WS1001T	Keyboard and mouse - Ex 1 for workstation
WS2001T	Keyboard and mouse - Ex 2 for workstation
WS1001T	Screen Ex 1 and 21 IECEx19"
WS2001T	Screen Ex 2 and 22 IECEx19"
WSF001E	Enclosure floor mounting workstation
WSF001E	Enclosure ceiling mounting workstation
WSW001E	Enclosure wall mounting workstation
WST001E	Enclosure table mounting workstation

10 YEARS GUARANTEE
STAINLESS ANTICORROSIVE

CUSTOM MADE

5 YEARS GUARANTEE
MECHANICAL PARTS

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

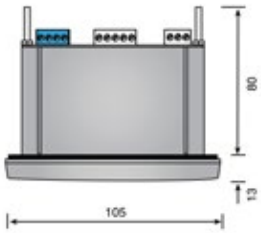
Serial text displays:
- II 1G, Ex ia IIC T5 Ga
- II 2 G, Ex ib IIC T6

10 YEARS GUARANTEE
STAINLESS ANTICORROSIVE

REGULATIONS

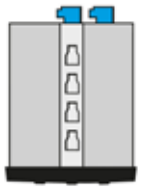
- Comply with the Atex 2014/34 / EU Directive
- EN 60079-0:2009
- EN 60079-7:2007
- EN 60079-11:2012
- EN 60079-31:2009
- II1/2G Ex ia/ib II*T6 Ga/Gb.
- II1/2D Ex ia/ib IIIC T80°C Da/Db
- Atex certificate for zone 0, 20, 1, 21, 2 y 22
- Certificates:
  - As component: LOM 14Atex3028U
  - As equipment: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

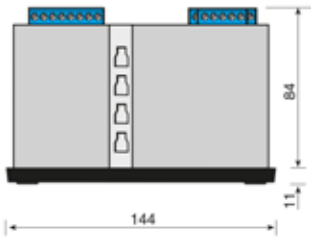
INDICATOR BLUEPRINT AND DIMENSIONS



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

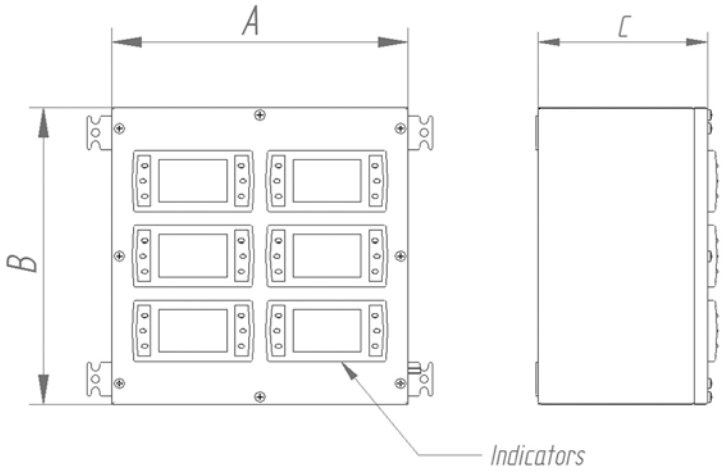
- Text displays BA488C





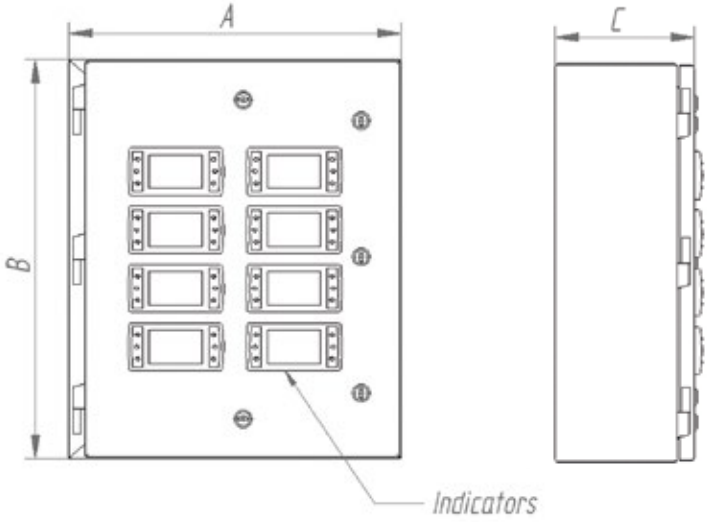
INDICATORS AND DISPLAYS ATEX

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 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

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

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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