

# FUSION P2P

FENCE-MOUNTED  
DUAL-TECH  
INTRUSION  
DETECTION  
SYSTEM



## PRODUCT CATALOGUE 2020

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# FUSION P2P



FENCE-MOUNTED DUAL-TECH INTRUSION DETECTION SYSTEM

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# FUSION P2P



FENCE-MOUNTED DUAL-TECH INTRUSION DETECTION SYSTEM



## INTRODUCTION

**FUSION P2P** is the new generation of DEA fence-mounted intrusion detection systems. It is the first outdoor perimeter system to employ **DEA Sensor Fusion (DSF)**, dual tech detection technology, thanks to which it redefines the current industry standard as far as performance and versatility are concerned.

The system can be mounted on soft, semirigid and rigid fences, and on the most common types of walls.

FUSION P2P senses and analyses the vibrations and the movements of a fence while an intrusion attempt for cutting, breaking through, lifting or climbing is occurring, discriminating all of those noises which could trigger improper alarms.

The detectors employ two different sensitive elements: a well-proven piezoelectric transducer and a MEMS accelerometer. The data coming from the two sources of signal are processed and analysed using adaptive intelligence algorithms able to recognize the intrusion attempts and discriminate them from the environmental and climatic noises.

The system is composed of prewired sensor-strings, preassembled electronic control units, junctions and terminations. The sensor-strings are available with different spacing between the sensors: 5 metres (strings with 5 or 15 sensors) and 3 metres (strings with 5, 15 or 25 sensors).

The control unit manages up to 300 detectors on two communication buses for 1.500 metres of perimeter if the spacing between the sensors is 5 metres and 900 metres of perimeter if the spacing is 3 metres. Besides enabling the configuration of the detectors by means of a service software, the control unit automatically recognizes and sorts the field detectors and raises the alarm signals.

Junctions (beginning of string and intermediate) and terminations are connectorized, therefore they do not need any sealing or welding on site.



FUSION P2P system is designed in accordance with Security Garde 4 (high risk) of Directive EN 50131-1.



### FUSION P2P SENSOR-STRINGS

#### PART NUMBER LN-FSP2P

Prewired connectorized sensor-strings with either 3-metre or 5-metre spacing between the sensors. The versions with 3-metre spacing are available in strings composed of 5, 15 and 25 detectors, the ones with 5-metre spacing are available in strings with 5 and 15 detectors.

#### TECHNICAL DATA

Please see SN-FSP2P sensor on page 20 and CB-FSP2P cable on page 7.



*The first prewired sensor-string of a bus must be connected to the UC-FSP2P control unit by means of CBINL-FSP2P connectorized cable. If the distance between the beginning of the string and the control unit is more than 5 metres, a suitable length of CB-FSP2P cable shall be joined to CBINL-FSP2P cable by means of a JBX-P2P junction case.*



*One communication bus (the control unit manages two of them) supports up to 150 sensors. Consequently, on each single bus can be connected any combination of sensor-strings with 25, 10 and 5 sensors up to the maximum capacity of the bus.*



*DEA Security supplies prewired sensor-strings up to 75 metres long (25 sensors with 3-metre spacing or 15 sensors with 5-metre spacing). If the sensors are installed at less than 3 metres from one another, the distance covered by the prewired string decreases accordingly.*



*The prewired sensor-strings can be easily joined by using JDVP-FSP2P device which, equipped with easy-plug connectors, needs neither welding nor sealing with resin. The termination of a prewired sensor-string is instead executed with TDV-P2P connectorized device. If for any reason the sensor-string has been cut, the junction and/or termination must be executed by using JBX-P2P and TBX-P2P cases.*



PART NUMBER	DESCRIPTION	SENSOR SPACING (M)	NO OF SENSORS EACH STRING	COLOUR
LN25-FSP2P-300	FUSION P2P prewired sensor-string	3	25	BLACK
LN15-FSP2P-300	FUSION P2P prewired sensor-string	3	15	BLACK
LN5-FSP2P-300	FUSION P2P prewired sensor-string	3	5	BLACK
LN15-FSP2P-500	FUSION P2P prewired sensor-string	5	15	BLACK
LN5-FSP2P-500	FUSION P2P prewired sensor-string	5	5	BLACK

## FUSION P2P CABLE

### PART NUMBER CB-FSP2P

Four-wire cable plus shield to be used for the connection of the CU-FSP2P control unit to an unconnectorized sensor-string or to the CBINL-FSP2P initial string connectorized cable. It can be also used to execute repairs along the string or to bypass potential discontinuities along the fence.



#### COMPLIANCE

- CEI 20-29 CL.5, UL 758, CEI 20-11, EN 50363, UL 1581, CEI 20-35/1-2, EN 60332-1-2, IEC 60332-1, VDE 0282-10, 2014/35/EU, Directive RoHS 2011/65/EU.

#### TECHNICAL DATA

- External diameter: 7 mm ( $\pm 0,15$ )
- Wires: Two pairs of flexible stranded tinned copper conductor
- Cross sectional area:
  - 0,75 mm<sup>2</sup> (power supply) red/black
  - 0,22 mm<sup>2</sup> (communication, RS-485 pair) white/blue
- Operating temperature:
  - -40 ÷ +80 °C (fixed installation)
  - -15 ÷ +80 °C (mobile installation)
- Insulation voltage: 0,6/1 kV
- Wire insulation: halogen free polyolefin
- Shield: Aluminium/Polyester foil tape with tinned copper drain wire with cross sectional area of 0,22 mm<sup>2</sup> (24AWG/7)
- Lay up: with filler and polyester protective tape (0,22 mm<sup>2</sup> cross sectional area)
- Final finishing: all of the elements in round shape with optional filler and polyester protective tape
- Jacket: Special flame retardant and oil resistant PVC
- Bending radius: 15 times outer diameter
- Cable nominal weight: 72,14 kg/km
- Colour: black



The overall length of the CB-FSP2P cable, of the CVINL-FSP2P cable (if any) and of the sensor-strings connected to the same bus must be 800 metres maximum.



The junction between the CB-FSP2P cable and the first connectorized sensor-string of a bus is executed by means of the CBVINL-FSP2P connectorized cable.



If the control unit and the first sensor-string of a bus are 5-metre distant or less, they must be connected by means of CBINL-FSP2P initial cable.

FUSION P2P cable is available in 50-metre or 150-metre reels.

PART NUMBER	DESCRIPTION	LENGTH (m)	COLOUR
CB-FSP2P-50	Connection cable for FUSION P2P system	50	BLACK
CB-FSP2P-150	Connection cable for FUSION P2P system	150	BLACK



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### FUSION P2P INITIAL STRING CONNECTORIZED CABLE

**PART NUMBER CBINL-FSP2P**

5-metre connectorized cable for the connection of CU-FSP2P control unit to the first connectorized sensor-string of a bus (LN-FSP2P strings or SN-FSP2P sensors equipped with CN-FSP2P connectors).



**COMPLIANCE**

Connection cable:

- CEI 20-29 CL.5, UL 758, CEI 20-11, EN 50363, UL 1581, CEI 20-35/1-2, EN 60332-1-2, IEC 60332-1, VDE 0282-10, Directive 2014/35/EU, RoHS 2011/65/EU Directive.

Connector (plug):

- CEI 60512-4 , UL94-V0, UL 1977, MIL-C-26482, MIL-STD1344, RoHS.

**TECHNICAL DATA**

Connection cable: please see CB-FSP2P on page 7.

Connector (plug):

- Connector type: 6-pin female circular plug with bayonet locking
- Dimensions: 26,2 x 63,2 mm (Ø max x L)
- Operating temperature: -40 ÷ +105 °C
- Housing material: thermoplastic resistant to UV rays, mineral oils, hydrocarbons and acids
- IP rating: IP68
- Colour: black



*When the Control Unit is more than 5 metres away from the first sensor-string of a bus, the CBINL-FSP2P cable must be extended by means of CB-FSP2P cable to reach the needed length. The junction between the two cables must be executed with the JBX-P2P case.*



*The overall length of the CBINL-FSP2P cable, of the CB-FSP2P cable (if any) and of the sensor-strings connected to the same bus must be 800 metres maximum.*



PART NUMBER	DESCRIPTION	COLOUR
CBINL-FSP2P	FUSION P2P initial string connectorized cable	BLACK



## FUSION P2P CONNECTORIZED JUNCTION

### PART NUMBER JDVP-FSP2P

Device for the junction of connectorized sensor-strings (LN-FSP2P strings or SN-FSP2P sensors equipped with CN-FSP2P connectors). It is provided with a UV resistant housing, two easy-plug sockets and a fixing support.



#### COMPLIANCE

##### Case:

- Directive 2014/30/EU

##### Connector (socket):

- CEI 60512-4 , UL94-V0, UL 1977, MIL-C-26482, MIL-STD1344, RoHS.

#### TECHNICAL DATA

- Environmental class: IV (in accordance with Directive EN 50130-5)
- Gross weight: 123 g

##### Case (junction):

- Housing dimensions: 90 x 56 x 43 mm (L x H x D)
- Fixing plate dimensions: 90 x 8 mm (Ø x L)
- Operating temperature: -40 ÷ +80 °C
- Relative humidity: <95% non condensing
- Material: glass fiber reinforced polyamide
- IP rating: IP54
- Colour: black

##### Connector (socket):

- Typology: 6-contact circular socket
- Dimensions: 27 x 33,9 mm (Ømax x L)
- Operating temperature: -40 ÷ +80 °C
- Relative humidity: <95% non condensing
- Material: thermoplastic resistant to UV rays, mineral oils, hydrocarbons and acids
- IP rating: IP68
- Colour: black



To be used for the junction of the sensor-strings equipped with easy-plug connectors.



To join unconnectorized sensor-strings, JBX-P2P case must be used.

PART NUMBER	DESCRIPTION	COLOUR
JDVP-P2P	Junction device for P2P connectorized sensor-strings	BLACK



**FUSION P2P CONNECTORIZED TERMINATION**

PART NUMBER **TDV-FSP2P**

Device for the termination of connectorized sensor-strings (LN-FSP2P strings or SN-FSP2P sensors equipped with CN-FSP2P connectors). It is provided with a UV resistant housing, two easy-plug sockets and a fixing support.



**TECHNICAL DATA**

- Gross weight: 132 g

For further technical data, please see JDVP-P2P on page 9.



*To be used for the termination of connectorized sensor-strings.*



*It is provided with a waterproof cap to close one of the two easy-plug sockets unused.*



*For the termination of unconnectorized sensor-strings, TBX-P2P case must be used.*



PART NUMBER	DESCRIPTION	COLOUR
TDV-FSP2P	Termination device for FUSION P2P connectorized sensor-strings	BLACK

## FUSION P2P JUNCTION

### PART NUMBER **JBX-P2P**

UV resistant case for the junction of CB-FSP2P cable with CBINL-FSP2P initial string cable or with other pieces of the same cable (for eg. to perform a bypass or repairs along the sensor-string).

JBX-P2P is also used if one or more SN-FSP2P unconnectorized sensors are to be joined to another sensor-string.

It is supplied with a printed circuit board to simplify the wiring procedures.



#### COMPLIANCE

- Directive 2014/30/EU

#### TECHNICAL DATA

- Environmental class: IV (in accordance with Directive EN 50130-5)
- Dimensions: 30 x 114 x 30 mm (L x H x D)
- Operating temperature: -40 ÷ +80 °C
- Relative humidity: 0 – 100% (after sealing with RP-100 PUR cast resin)
- Material: glass fiber reinforced polyamide
- IP rating: IP68
- Colour: black



To be sealed with RP-100 two-component PUR cast resin.



For the junction of connectorized sensor-strings, JDVP-FSP2P junction device must be used.



PART NUMBER	DESCRIPTION	COLOUR
JBX-P2P	Junction case for unconnectorized sensor-strings	BLACK





## FUSION P2P TERMINATION

**PART NUMBER TBX-P2P**

UV resistant case for the termination of unconnectorized sensor-strings (LN-FSP2P strings or SN-FSP2P sensors not equipped with easy-plug connectors).  
It is supplied with a printed circuit board to simplify the wiring procedures.



**COMPLIANCE**

- Directive 2014/30/EU

**TECHNICAL DATA**

Please see JBX-P2P on page 11.

 To be sealed with RP-100 two-component PUR cast resin.

 For the termination of connectorized sensor-strings, TDV-FSP2P termination device must be used.



PART NUMBER	DESCRIPTION	COLOUR
TBX-P2P	Termination case for unconnectorized sensor-strings	BLACK

## FUSION P2P CONTROL UNIT

### PART NUMBER CU-FSP2P

The control unit manages up to 300 detectors on two communication buses for maximum 1.500 metres of perimeter if the spacing between the sensors is 5 metres and 900 metres of perimeter if the spacing is 3 metres. Besides enabling the configuration of the detectors by means of a service software, the control unit automatically recognizes and sorts the field detectors and raises the alarm signals.

#### Control unit contents:

- BR-FSP2P-CTRL controller board
- AL-P2P-3024 stabilized power-supply unit
- Two BT-P2P-12V backup batteries
- Tamper switch
- BOX-P2P polyester cabinet



#### COMPLIANCE

- Directive 2014/30/EU
- EN 50130-4/A1, EN 61000-6-3/A1, IEC 62208
- IEC 60695-2-10, IEC 60695-2-11, IEC 60695-11-5

#### TECHNICAL DATA

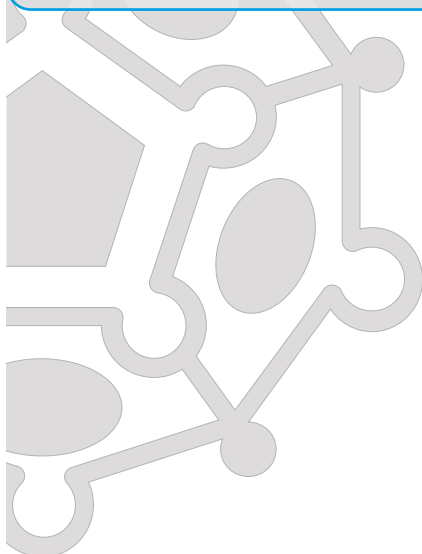
##### Control Unit:

- Environmental class: IV (in accordance with Directive EN 50130-5)
- Dimensions: 300 x 400 x 200 mm (L x H x D)
- Net weight (batteries excluded): 7,6 Kg
- IP rating: IP66 (IP54 with ventilation devices)

For the technical data of the single components (cabinet, controller board, power supply unit and backup batteries), please see the related catalogue entries.



The control unit must be connected to a 115/230 Vac power line.



PART NUMBER	DESCRIPTION
CU-FSP2P	FUSION P2P control unit



## FUSION P2P PERIPHERAL INTERFACE MODULE

PART NUMBER **SC-P2P-IN1**

Peripheral module containing an electronic interface board for the management of a resistive balanced input. It can be connected everywhere along the sensor-string and allows you to integrate into the system signals coming from third-party devices such as magnetic contacts. The printed circuit board is protected by a polyamide housing which provides a very high resistance to UV rays and scratch.



### COMPLIANCE

- Directive 2014/30/EU
- EN 50130-4/A1, EN 61000-6-3/A1

### TECHNICAL DATA

- Environmental class: IV (in accordance with Directive EN 50130-5)
- Dimensions: 133 x 52 x 37 mm (L x H x D)
- Package dimensions: 165 x 90 x 65 mm (L x H x D)
- Gross weight: 187 g
- Operating temperature: -40 ÷ +80 °C
- Relative humidity: 0-100% (after sealing with RP-100 PUR cast resin)
- Material: glass fiber reinforced polyamide
- IP rating: IP68
- Colour: black
- Analog inputs: 1 triple balanced input



*FUSION P2P control unit can manage up to 5 SC-P2P-IN1 modules on each bus. Each module binds 1 of the 64 lines and 1 of the 300 sensors managed by the Control Unit.*



*To be sealed with RP-100 two-component PUR cast resin.*



PART NUMBER	DESCRIPTION	COLOUR
SC-P2P-IN1	Peripheral interface module for P2P systems	BLACK



# **SPARE PARTS**

Spare parts to integrate or replace components in a FUSION P2P system.



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# FUSION P2P

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## FUSION P2P CONTROLLER BOARD

PART NUMBER **BR-FSP2P-CTRL**

The controller board manages up to 300 FUSION P2P sensors on two communication buses (150 sensors per bus). It performs several functions among which the automatic acquisition and sorting of the sensors, the processing of the alarm signals and the native support to the centralization and remote management of the system over IP networks.



### COMPLIANCE

- Directive 2014/30/EU
- EN 50130-4/A1, EN 61000-6-3/A1

### TECHNICAL DATA

- Dimensions: 178 x 130 x 40 mm (L x H x D)
- Package dimensions: 280 x 160 x 70 mm (L x H x D)
- Gross weight: 705 g
- Power supply: 24 Vdc (+/- 25%)
- Current: 0,75 A (max)
- Operating temperature: -25 ÷ +80 °C
- Relative humidity: <95% non condensing
- Analysis capability: up to 150 sensors per bus
- Digital inputs: no 4 optoisolated inputs (service software programmable)
- NC relay outputs (positive security):
  - low battery/power fail
  - general intrusion Alarm
  - general tamper
  - sensor failure
  - bus link loss
  - up to 128 external outputs on optional expansion boards (8 SC-DN-ER16 boards or 8 BR-XS-RE16L boards)
- OC/NC outputs: no 3 programmable outputs
- Communication ports:
  - USB (PC link)
  - Ethernet (RJ45)
- Calibration, settings and event management via service software
- CPU: 32 bits, 168 MHz
- Digital memory: more than 20.000 events
- **Service software licence included**

PART NUMBER	DESCRIPTION
BR-FSP2P-CTRL	FUSION P2P Controller board

## FUSION P2P STABILIZED POWER SUPPLY UNIT

### PART NUMBER AL-P2P-3024

Stabilized switching power supply unit (mark Adelsystem) with 24 Vdc output voltage and 3 A max output current. It provides two relay outputs: one for mains or backup and one for low or discharged battery.

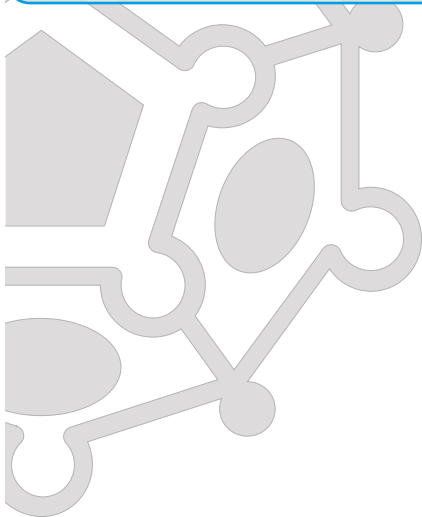


#### COMPLIANCE

- Directive 2006/95/CE, Directive 89/336/CEE, EN 60950, EN 60335-2-29, EN 54-4, EN 60529 (IP20), IEC 61000-6-4, IEC 61000-6-2, DIN 41773, UL 1950

#### TECHNICAL DATA

- Nominal Input Voltage: 115 – 230 Vac
- Input frequency: 47 ÷ 63 Hz
- Current: 1.3 A (max) 230 Vac
- Stabilized output voltage: 24 Vdc
- Max output current: 3 A
- Operating temperature: -25 ÷ +70 °C
- Relative humidity: <95% non condensing
- Dimensions: 65 x 115 x 135 mm (L x H x D)
- SPDT relay outputs (max 30 Vdc 1 A - max 60 Vac 1 A):
  - Discharged or damaged battery
  - Power from mains or from backup



PART NUMBER	DESCRIPTION
AL-P2P-3024	Stabilized power supply unit for P2P systems





### FUSION P2P BACKUP BATTERY

**PART NUMBER BT-P2P-12V**

12 V rechargeable lead-acid backup battery. The 24 V battery pack included inside the Control Unit contains two BT-P2P-12V batteries.



**TECHNICAL DATA**

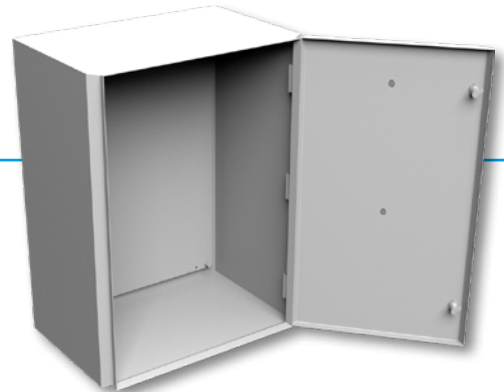
- Nominal voltage: 12 V
- Capacity: 7,2 Ah
- Dimensions: 151 x 94 x 64,5 mm (L x H x D)

PART NUMBER	DESCRIPTION
BT-P2P-12V	Backup battery for P2P systems

### FUSION P2P CABINETS

**PART NUMBER BOX-P2P**

Polyester cabinet for outdoor use in which the components of the Control Unit are assembled.



**COMPLIANCE**

- IEC 62208, IP66(IEC 62208), IK-10(IEC 62208), IEC 60695-2-10, IEC 60695-2-11, IEC 60695-11-5

**TECHNICAL DATA**

- Dimensions: 300 x 400 x 200 (L x H x D)
- Operating temperature: -30 ÷ +70 °C
- Material: glass fiber reinforced polyester, self-extinguishing
- IP rating: IP66
- Insulation: double, halogen free
- Thermal class: 105
- Weight (including backplate): approx. 5 Kg

PART NUMBER	DESCRIPTION
BOX-P2P	Polyester cabinet for P2P systems

## PAIR OF EASY-PLUG FEMALE CONNECTORS

### PART NUMBER CN-FSP2P

Pair of 6-contact easy-plug connectors for SN-FSP2P sensors prewired in a string.



#### COMPLIANCE

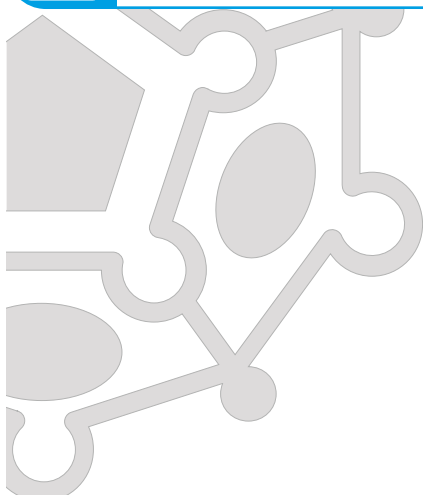
- CEI 60512-4 , UL94-V0, UL 1977, MIL-C-26482, MIL-STD1344, RoHS.

#### TECHNICAL DATA

- Connector type: 6-pin female circular plug with bayonet locking
- Dimensions: 26,2 x 63,2 mm (Ø max x L)
- Operating temperature: -40 ÷ +105 °C
- Housing material: thermoplastic resistant to UV rays, mineral oils, hydrocarbons and acids
- IP rating: IP68
- Colour: black



*The item CN-FSP2P can be sold only in conjunction with a customized string of SN-FSP2P sensors.  
The two connectors will be supplied mounted at the two ends of the string.*



PART NUMBER	DESCRIPTION	COLOUR
CN-FSP2P	Pair of easy-plug female connectors equipped with assembly form	BLACK



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# FUSION P2P

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## FUSION P2P SENSOR



### PART NUMBER SN-FSP2P

Dual-tech sensor with embedded electronics, prewired in an unconnectorized sensor-string. It can be supplied singularly or prewired with other sensors for customized sensor-strings or for the use as spare part.



### COMPLIANCE

Sensor:

- Directive 2014/30/EU, EN 50130-4:2011, EN 61000-6-3:2007+A1:2011

Connection cable:

- Directive 2006/95/CE, CEI 20-11, CEI 20-29 CL.5, CEI 20-35/1-2, EN 50363, EN 60332-1-2, IEC 60332-1, UL 1581, UL 758, VDE 0282-10, RoHS, REACH.

### TECHNICAL DATA

Sensor:

- Environmental class: IV (in accordance with Directive EN 50130-5)
- Dimensions: 98 x 85 x 26 mm (L x H x D)
- Material: glass fiber reinforced polyamide housing
- Fastening system: aluminium nut
- IP rating: IP67
- Colour: black
- Power supply: through BUS (24 Vdc)
- Current: 0,8 mA (stand by) / 1 mA (max)
- Operating temperature: -40 ÷ +80 °C
- Relative humidity: 0 – 100%
- Detection capability: up to 5 x 5 m for each sensor

Connection cable: please see CB-FSP2P on page 7.



The strings composed of SN-FSP2P sensors are unconnectorized, therefore we suggest ordering them together with the pair of CN-FSP2P connectors: in this way the string will be supplied equipped with connectors for an easy junction to JDVP-SP2P and/or TDVP-FSP2P devices. If the easy-plug connectors are not ordered, the JBX-P2P and/or TBX-P2P cases shall be used.



Up to 4 SN-FSP2P connectors can be ordered for each prewired string: as a matter of fact customized strings from 1 to 4 sensors enable you to obtain, by themselves or joined to LN-FSP2P strings, any length different from the standard one.



If the sensors are installed at less than their standard spacing (3 metres or 5 metres), the distance covered by the prewired string decreases accordingly.



PART NUMBER	DESCRIPTION	SENSOR SPACING (M)	COLOUR
SN-FSP2P-300	FUSION P2P sensor prewired in an unconnectorized string	3	BLACK
SN-FSP2P-500	FUSION P2P sensor prewired in an unconnectorized string	5	BLACK



ACCESSORIES

FUSION P2P



FUSION P2P SYSTEM CATALOG

# ACCESSORIES

ACCESSORIES



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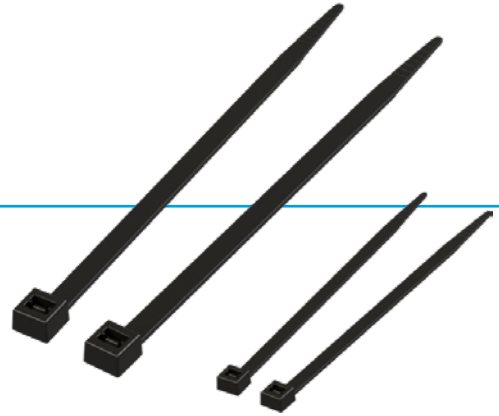
# FUSION P2P

## ACCESSORIES

### SELF-LOCKING TIE-WRAPPS

**PART NUMBER FPM-100**

Tie-wraps with stainless steel locking device, UV resistant.



#### TECHNICAL DATA

- Dimensions: 100 x 2,5 mm (length x width)
- Colour: black



One pack of FPM-100 tie-wraps can fix approx. 25 metres of FUSION P2P sensor-strings.

PART NUMBER	DESCRIPTION	PACK	DIMENSIONS (mm)
FPM-100	Self-locking tie-wraps for SERIR and Fusion P2P systems	100 pcs	100 x 2,5

### TWO-COMPONENT CAST RESIN FOR JUNCTIONS/TERMINATIONS

**PART NUMBER RP-100**

Hard two-component PUR cast resin for electrical use. It hardens at room temperature.



One pack of resin seals two JBX-P2P or TBX-P2P cases or one SC-P2P-IN1 module.

PART NUMBER	DESCRIPTION
RP-100	100ml PUR cast resin for junction/termination cases

## PEDESTAL FOR BOX-P2P CABINET

PART NUMBER **PD-BOXP2P-S**

Polyester pedestal, 75,5 centimetres high, for BOX-P2P cabinet.

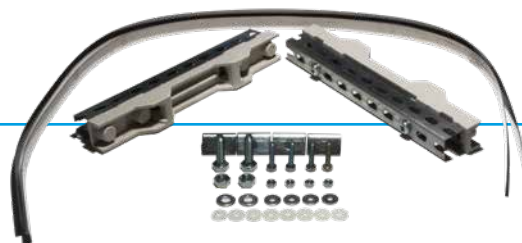


PART NUMBER	DESCRIPTION	DIMENSIONS (mm - L x H x D)
PD-BOXP2P-S	Polyester pedestal for BOX-P2P cabinet	264 x 755 x 170

## POLE MOUNT KIT FOR BOX-P2P CABINET

PART NUMBER **CL-BOXP2P**

Pole mount kit for BOX-P2P cabinet. It includes two metal straps 125 cm long, two brackets and related mounting hardware.



PART NUMBER	DESCRIPTION
CL-BOXP2P	Pole mount kit for BOX-P2P cabinet



# APPLICATION EXAMPLES

# APPLICATION





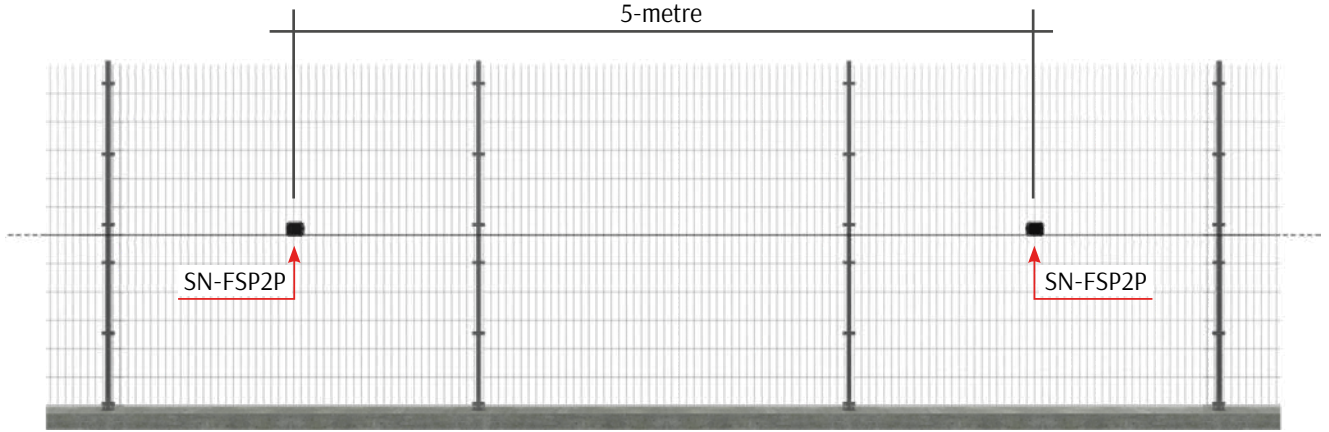
# APPLICATION EXAMPLES

# EXAMPLES



# APPLICATION EXAMPLES

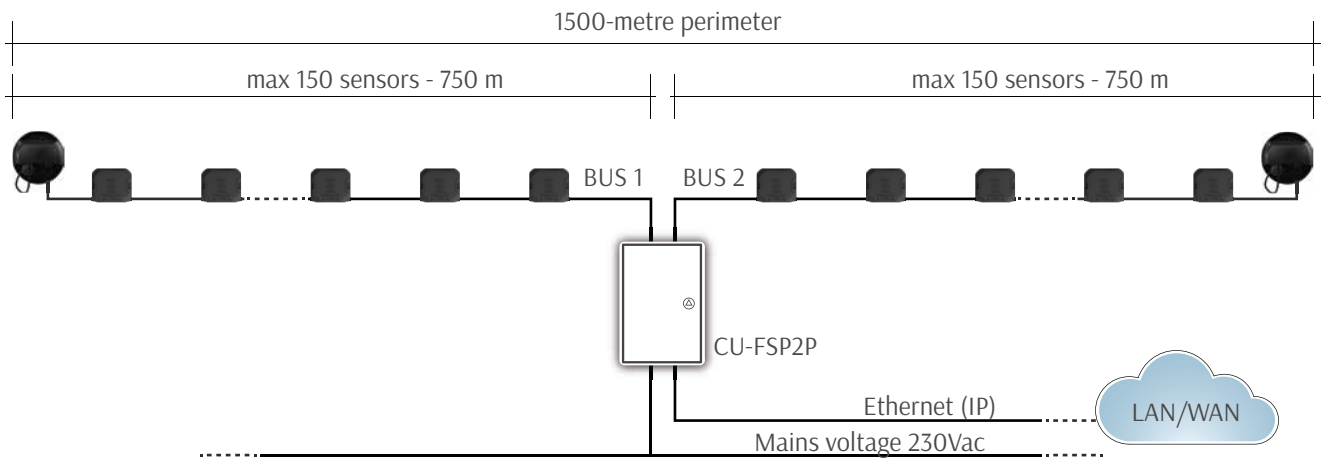
## INSTALLATION OF A FUSION P2P SENSOR-STRING



## HOW TO FIX SN-FSP2P SENSOR TO THE FENCE



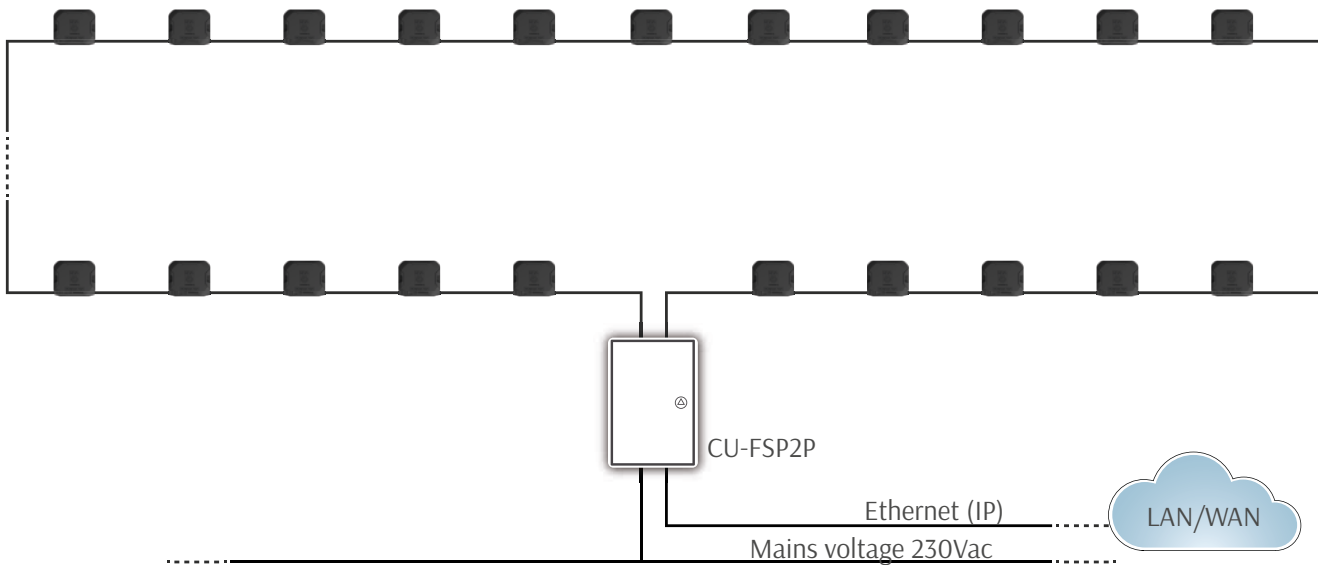
## BUS CONFIGURATION



# APPLICATION EXAMPLES

## LOOP CONFIGURATION

150 sensors 5-metre spacing in loop configuration for 750 metres of perimeter

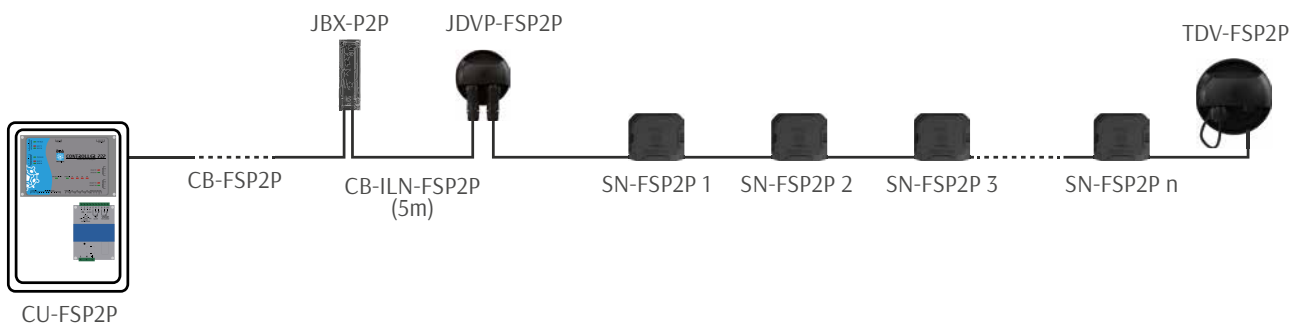


## TYPES OF STRING CONNECTION

**EXAMPLE 1:** CONTROL UNIT PLACED NOT MORE THAN 5 METRES FROM THE FIRST SENSOR-STRING OF THE BUS



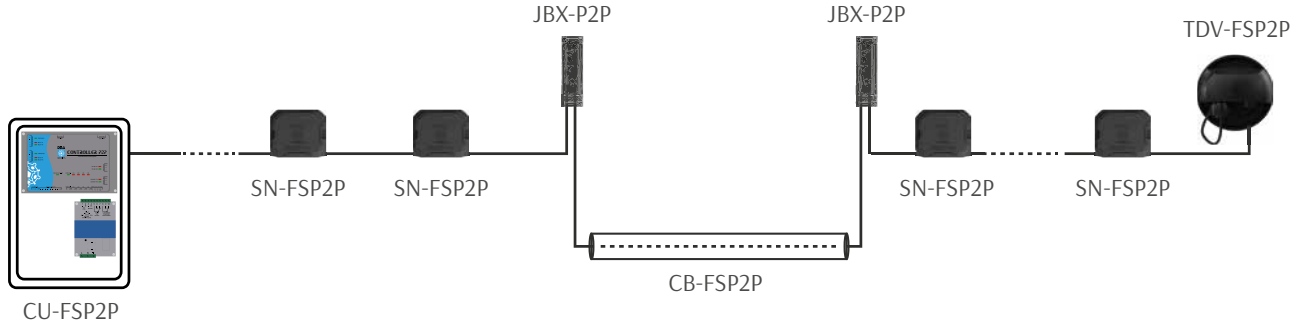
**EXAMPLE 2:** CONTROL UNIT PLACED MORE THAN 5 METRES FROM THE FIRST SENSOR-STRING OF THE BUS





# APPLICATION EXAMPLES

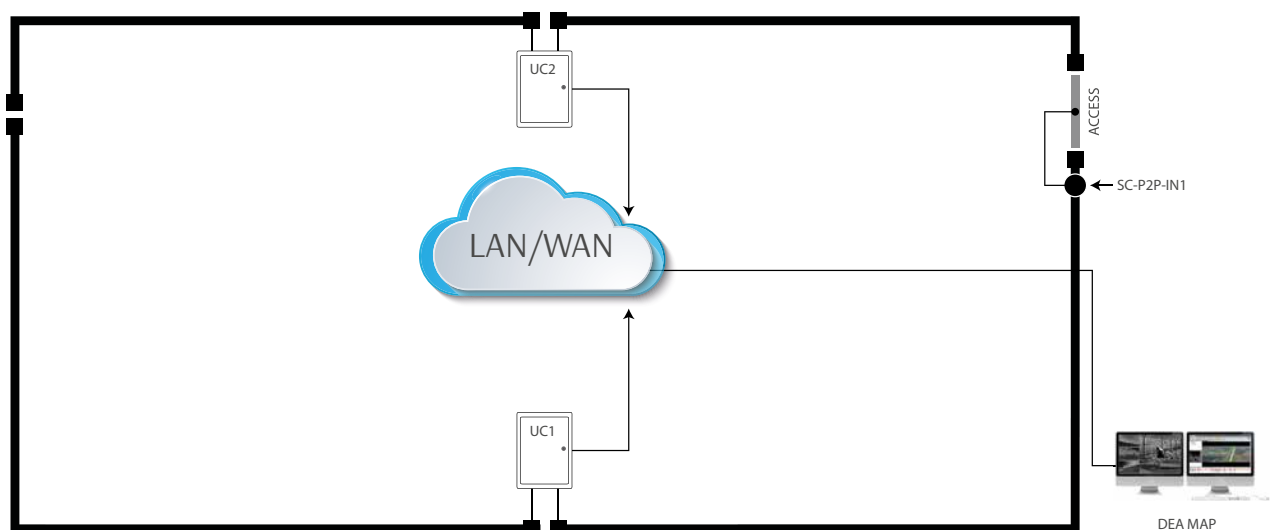
**EXAMPLE 3:** BYPASS IN THE SENSOR-STRING TO OVERCOME AN OBSTACLE OR A DISCONTINUITY ALONG THE FENCE



## EXAMPLE OF PROTECTION OF A 2.650-METRE FENCE

The site to be protected is enclosed on its 4 sides by a 2.650-metre fence composed of welded mesh fence panels with 5-metre spacing from post to post. One sliding gate is present along the perimeter. Both of the control units are placed in the field, less than 5 metres away from the first sensor-string of each bus. The system is centralized over IP network and it is managed by DEA MAP supervision system.

- Fence protection:
  - 35 LN15-FSP2P-500 sensor-strings with 15 detectors each (75 metres);
  - 1 LN5-FSP2P-500 sensor-string with 5 detectors (25 metres);
  - 2 CU-FSP2P control units.
- Gate protection:
  - 1 SC-P2P-IN1 interface module for the integration of magnetic contacts or other third-party devices employed in the protection of the gate.
- Centralization system:
  - over TCP/IP network by means of Ethernet ports aboard the control unit.
- Control and supervision system:
  - DEA MAP BASIC software licence.





# APPLICATION EXAMPLES

Bill of quantity for the execution of the system from the previous example:

## SENSOR-STRINGS AND WIRING ACCESSORIES

Q.TY	PART NUMBER	DESCRIPTION
35	LN15-FSP2P-500	FUSION P2P sensor-string with 15 sensors, 5m spacing
1	LN5-FSP2P-500	FUSION P2P sensor-string with 5 sensors, 5m spacing
4	CBINL-FSP2P	Initial string cable
106	FPM-100	UV resistant, self-locking tie-wraps
36	JDVP-FSP2P	FUSION P2P junction device
4	TDV-FSP2P	FUSION P2P termination device
1	SC-P2P-IN1	Peripheral interface module for P2P systems
1	RP-100	Two-component PUR cast resin for peripheral interface module insulation

## CONTROL UNIT

Q.TY	PART NUMBER	DESCRIPTION
2	CU-FSP2P	FUSION P2P control unit

## SOFTWARE

Q.TY	PART NUMBER	DESCRIPTION
1	SW-DM-BASIC	DEA MAP BASIC supervision software licence

**DEA**

SECURITY®

# INSTRUCTIONS

for the use and the installation of FUSION P2P system

## TOLERANCE TO ANIMALS

Although DEA Security outdoor perimeter intrusion detection systems tolerate the presence of small animals, under certain circumstances they might stress the detection system up to raising an alarm. In case of domestic animals of medium or big size (such as dogs), these shall be kept away from the perimeter intrusion detection systems.

## IMMUNITY AND DETECTION CAPABILITY

Thanks to their sophisticated electronics, DEA Security systems have a high tolerance to environmental disturbances and at the same time a very good detection capability.

These systems may, however, be stressed by persons "simulating an intrusion" (hitting or climbing the protected fence).

Of course in these cases you cannot discriminate a simulation from a real intrusion attempt and the system will correctly signal the event detected as an "alarm event".

FUSION P2P cannot guarantee the detection of cuts carried out by using the blowtorch and the like or when no shock or sudden movement of the fence occurs.

## COMPATIBLE FENCING

FUSION P2P protects rolled metal fences (chainlink mesh or welded) and rigid panels against cut, climb and break through attempts.

If possible, a welded mesh fence should be preferred because it favours a more effective cut detection; however, if a chainlink fence is present, you have to make sure it is well taut. The wire of the meshes (both welded and chainlink) shall have a diameter of not less than 3 mm.

FUSION P2P also protects rigid metal fences against shock, climb and break through. Under this category we find both handmade and industrial fences made up of a sequence of panels supported by posts.

Due to a wide range of rigid fences on the market, it could be necessary to assess the feasibility of a FUSION P2P system by carrying out an on-site survey performed by a professional installer.

To represent an adequate physical barrier and make the system work with the utmost efficiency, the overall height of the fence must not be less than 2.5 m.

## DISTURBING ELEMENTS FOR THE SYSTEM

FUSION P2P system is not compatible with fences covered with woven screening nets: in case of strong wind those nets stress the fence in an anomalous way and can raise improper alarms.

For further information, please see the related "Installation Technical Manual".

## MANAGEMENT SYSTEM

(EXCEPT WHEN SOFTWARE DEA MAP IS USED)

FUSION P2P needs a management system typically represented by a control panel and accessories such as keyboards, electronic keys, sirens, telephone dials, etc. This equipment has to be estimated, supplied and configured by the installation company. The latter has to make sure that the alarm system can collect (as far as the type and the number are concerned) the signals from DEA Security outdoor perimeter intrusion detection system.

The signals are available through non-polarized NC relay contacts or through OC outputs into NC relay contacts. Such a standard guarantees the compatibility with any control panel.

In case of systems over DEA NET, a dynamic library licence (DLL) for Microsoft Windows® environment is available and can be interrogated by third-party software.

# GENERAL SALES CONDITIONS

## INTRODUCTION TO "GENERAL SALES CONDITIONS"

DEA Security s.r.l. address to professional customers selected according to purely qualitative criteria, namely to installers and system integrators working in the intrusion security industry mainly.

Those companies must: a) in DEA Security' judgement, have a good experience in installing DEA Security products or b) have attended the technical training course that DEA Security arrange at their facility in Santo Stefano di Magra (La Spezia - Italy) to show them the procedures to install, manage and configure DEA Security products.

The above companies make projects, assemble the several components present on the market and install the same at the end user's, taking care of the technical assistance and the maintenance service during the warranty and the post warranty period; therefore they purchase DEA Security products to sell them (and also install them) to the end user.

The products marketed by DEA Security, as requested by the law in force, are provided with technical documentation (electrical nameplate – datasheet – schematics – installation technical manual – software user manual) and with the CE Conformity Declarations.

The products are warranted free from defects in materials and workmanship, they comply with the features specified in their technical manuals and are repaired or replaced free of charge during the warranty period, as shown in the "Warranty Clause" contained in the "General Sales Conditions" on the next page.

DEA Security manufacture the products, make them comply with the security industry technical standards and supply them only to professional customers selected on the basis of the following objective criteria of a qualitative nature, as far as new customers are concerned:

- being an installation company working in the security industry mainly;
- having attended the above-mentioned technical training course organized by DEA Security at their facility in Italy.

The technical training course is an essential element for DEA Security to select the installation companies which are going to use DEA Security products for the first time. DEA Security issue a certificate of attendance to the customers which have attended the above-mentioned course.

DEA Security additional technical services purely aim at transferring the installation company the technical knowledge on Dea Security products and their installation procedures to obtain from them the best performance and the highest reliability.

Consequently, the feasibility project of DEA Security perimeter intrusion detection system and the installation of the latter pertain to and are under the responsibility of the installation company purchasing the products.

DEA Security have no other responsibility than the one relating to construction defects of DEA Security products, as specified in the "Warranty Clause" contained in the "General Sales Conditions" on the next page.

## GENERAL SALES CONDITIONS

The Products and/or the Services offered by company

**DEA SECURITY S.r.l.**  
**Via Bolano, snc – 19037 Santo Stefano di Magra (SP)**  
**VAT No IT00291080455**

are provided according to the conditions below.

### 1. PREMISE

These General Sales Conditions shall be applicable to each purchase order, unless otherwise agreed in writing between the Parties. Should the Buyer present in his order provisions which conflict with DEA SECURITY S.R.L.'s General Sales Conditions, the latter shall prevail even in case DEA SECURITY S.R.L. fails to object to such provisions. By placing an order the Purchaser agrees with these General Sales Conditions.

### 2. DELIVERY AND TRANSPORT

Unless otherwise agreed in writing between the parties, the delivery of the Products shall be carried out pursuant to the Incoterm EXW (Exworks) as defined in the INCOTERMS 2010 ICC. Therefore, DEA SECURITY S.R.L.'s delivery obligations shall be limited to placing the Products, duly packed, at the customer's disposal at DEA SECURITY S.R.L.'s warehouse located at Via Bolano snc – 19037 Santo Stefano di Magra (SP) - Italy.

Duties and costs related to the dispatch, carriage, insurance and customs clearance of the Products shall be entirely sustained by the customer, being the Products at the customer's risk and peril from the date of the placement by DEA SECURITY S.R.L. of the Products duly packed, and at the customer's disposal, in the above mentioned warehouse. The customer shall select at its own discretion the method and type of carriage which it shall, moreover, notify DEA SECURITY S.R.L. in writing in order to enable the same to suitably pack the goods.

Unless otherwise agreed in writing, delivery times are purely indicative.

DEA SECURITY S.R.L. shall not be liable for possible delays due to force majeure or not directly depending on them.

For delays in delivering the goods, no penalty or claim for damages shall be applied to DEA SECURITY S.R.L.

### 3. PRICES AND TECHNICAL FEATURES

All prices contained in our price lists can be varied by DEA SECURITY S.R.L. at any moment without notice. Prices are gross prices (EXW S. Stefano di Magra - La Spezia – Italy) in Euro and they are in force as of the official date of the latest edition of DEA SECURITY S.R.L.'s Price List.

Any revision of DEA SECURITY S.R.L.'s Price List annuls the previous editions.



# GENERAL SALES CONDITIONS

## 4. USE OF THE PRODUCTS

The Products purchased must be used in accordance with the instructions contained in the relevant technical manuals and the laws in force.

## 5. CONDITIONS AND LIMITATIONS OF WARRANTY

The products manufactured by DEA SECURITY S.R.L. having operational defects under warranty shall be sent to DEA SECURITY's warehouse at Via Bolano, snc - 19037 Santo Stefano di Magra - La Spezia (Italy) at the customer's charge, where, upon verification of the existence of the claimed defect, they will be repaired or replaced under warranty with costs of shipment at the customer's charge. Please contact DEA SECURITY S.R.L.'s technical department to obtain an RMA number prior to returning the goods.

The warranty shall not cover shortcomings due to mechanical breakdown also indirectly caused by a third party, short circuits, fires, lightnings, electrical and electrostatic discharges and any other event not depending on a physical defect of the Products.

The warranty shall not include those defects caused by improper handling, unauthorised modification or improper installation and/or use.

The warranty is not valid if payment has not been made in full within the agreed dates.

Any product defect shall be notified to DEA SECURITY S.R.L. by registered mail or by fax within 8 (eight) days from the discovery of the same, anyhow not beyond 12 (twelve) months from the delivery date.

The warranty is valid in all EU countries.

### 5.1 WARRANTY PERIOD

The Products manufactured by DEA Security which should have operational defects will be repaired or replaced under warranty pursuant to the following conditions:

- period of warranty of 5 (five) years as of the dispatch date shown on the delivery note for FUSION P2P sensors and sensor-strings;
- period of warranty of 3 (three) years, as of the dispatch date shown on the delivery note for all the electronic boards contained in the price list "DEA Apparatus";
- period of warranty of 1 (one) year as of the dispatch date shown on the delivery note for all of the products contained in the price list "Accessories";
- period of warranty of 1 (one) year as of the dispatch date shown on the delivery note for the polyester cabinets, the backup batteries, the wiring kits and the stabilized power supply units (mark Adelsystem) contained in the price list "DEA Apparatus".

## 6. PAYMENTS AND PROPERTY

The property of the products sold is transferred to the Buyer only when payment has been made in full within the agreed dates.

If the buyer fails to pay within the agreed date, DEA SECURITY S.R.L. shall be entitled to either suspend further deliveries or to cancel the order or part thereof, without prejudice to DEA

SECURITY S.R.L.'s entitlement to demand full payment for the goods already delivered at the time of cancellation and without prejudice to its right of compensation for loss and damage arising from cancellation.

In the event of late payment, DEA SECURITY S.R.L. shall be entitled to debit default interests in compliance with the provisions set forth by Legislative Decree 192/2012 and subsequent amendments and integrations.

## 7. DATA PROTECTION

In compliance with EU Regulation 2016/679, the Buyer's personal data shall be collected for purposes related to the supply of goods and to the provision of a service, and treated in accordance with the information available at [www.info196.it/00291080455](http://www.info196.it/00291080455).

## 8. TECHNICAL ASSISTANCE

Unless otherwise agreed in writing between the Parties, on site technical assistance performed by DEA SECURITY S.R.L.'s staff will be invoiced in compliance with the fares published by ANIE (Italian Association of Electrotechnical and Electronic Industries).

## 10. DISPUTE RESOLUTION

This agreement is governed by Italian Law. Any legal dispute which may arise from the execution and/or interpretation of this agreement shall be under the exclusive competence of the court of La Spezia (Italy).

# GENERAL SALES CONDITIONS



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# FUSION P2P

FENCE-MOUNTED  
DUAL-TECH  
INTRUSION  
DETECTION  
SYSTEM



## PRODUCT CATALOGUE 2020

DEA Security S.r.l.  
Via Bolano, snc - 19037 Santo Stefano di Magra (SP) - Italy  
tel. +39 0187 699233 - fax +39 0187 697615  
VAT No IT00291080455  
[www.deasecurity.com](http://www.deasecurity.com) - [dea@deasecurity.com](mailto:dea@deasecurity.com)

