



**FEDERAL SIGNAL**

Safety and Security Systems / Industrial

*Advancing security and well-being.*

# **Models AP5 and AP6 EXi Intrinsically Safe Access Panels**

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## ***Installation Manual***



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## Safety Messages to Installers, Users, and Maintenance Personnel

### **⚠ WARNING**

It is important to follow all instructions shipped with this product. This device is to be installed by trained personnel who is thoroughly familiar with the country electric codes and will follow these guidelines as well as local codes.

The selection of mounting location for the device, its controls and the routing of the wiring is to be accomplished under the direction of the facilities engineer and the safety engineer. In addition, listed below are some other important safety instructions and precautions you should follow:

- Read and understand all instructions before installing or operating this equipment.
- Disconnect the unit from the power supply before any installation or maintenance is performed.
- Establish a procedure to routinely check the installation for integrity and proper operation.
- The product marking, which may contain cautionary or other information of importance to maintenance personnel, should not be obscured in any way.
- Any maintenance to the unit must be performed by properly trained personnel.
- Any maintenance to the unit must be done with the power turned off.
- Do not service the unit when a hazardous atmosphere is present.
- Never alter the unit in any manner. Safety may be endangered if alterations are made to the unit.
- Only factory-provided service parts are to be used. Only these components have been verified and certified for use in hazardous areas.

- No repairs or modifications are to be made to the ACCESS PANELS element as this will invalidate the certification.
- After installing or servicing the unit, test the it to ensure that it is operating properly.
- After testing is complete, provide a copy of this instruction sheet to all operating personnel.
- To reduce the risk of electrostatic discharge, wipe the unit with a damp cloth only.

Failure to follow all precautions may cause property damage, serious injury, or death.

## Product Overview

The Models AP5 and AP6 are intrinsically safe access panels that provide remote audio and alarm initiation when connected to a main communication and alarm system. Both models use a metal enclosure that can be a desk-mounted console or a wall-mounted box. The pushbuttons, indicators, and microphone are fitted to the front panel or lid and connected to the PCBs and output terminals inside the housing.

## Unpacking the Product

After unpacking the product, examine it for damage that may have occurred in transit. If the product has been damaged, do not attempt to install or operate it. File a claim immediately with the carrier stating the extent of the damage. Carefully check all envelopes, shipping labels and tags before removing or destroying them. If any parts are missing, please call Federal Signal at +1 877 289 3246.

## Certification

Models:	AP5, AP6
Certified To:	EN60079-0:2009,EN60079-11:2012
Certified To:	IEC60079-0: 2011,Ed.6, IEC60079-11:2011, Ed.6
Certificate No:	Nemko 03ATEX085X, IECEx NEM 13.0024X
ATEX Coding:	CE  II 2 G
Protection:	Ex ib IIB T4 Gb

**⚠ WARNING**

**SHOCK HAZARD—Do not connect the unit to the system while the power is on. Failure to heed this warning may cause serious injury or death.**

## Data for Connections

### Neuronaes de dados para conexões

AP5 Microphone Connections			
Preamplifier Board Terminals	U <sub>i</sub> (V)	I <sub>i</sub> (mA)	P <sub>i</sub> (W)
TB2	15	150	0.56
J1 3-4	10	203	0.5

AP6				
Terminal ID No.	Connector ID No.	U <sub>i</sub> [V]	I <sub>i</sub> [mA]	P <sub>i</sub> [W]
1-2-3 (TB211, TB212)	A-C	10	203	0.5
4-5 (TB221, TB222)	AY-BD	12	24	0.072
6-7 (TB219, TB220)	AK-AW	12	24	0.072
8-9 (TB214, TB217)	S-AE	15	150	0.56
10-11 (TB215, TB216)	U-W	12	24	0.072
12 (TB213)	E	12	12	0.036
(TB223, TB224)	BF-BT	7	300	0.04

**Note:** Internal inductance (L<sub>i</sub>) and capacitance (C<sub>i</sub>) of access panel external connections are negligible.

## Supply Cables

Permissible cable parameters:

Maximum cable capacitance: C=0.173 μF

Maximum cable inductance: L=1.2 mH

Maximum ratio L/R: 82 μH/Ω

Cable shall be in accordance with the requirements of a multicore cable type A or B as specified in IEC 60079-14

Capacitância máxima do cabo:  $C = 0,173 \mu\text{F}$

Indutância máxima do cabo:  $L = 1.2 \text{ mH}$

Relação máxima L/R:  $82 \text{ OCL mH}/\Omega$

Cabo deve estar em conformidade com os requisitos de um cabo de múltiplos núcleos tipo A ou B como especificado na IEC 60079-14

## Special Conditions for Safe Use

1. Safety barriers according the installation drawings and with values stated in this certificate shall supply the intrinsically safe circuits of the access board. Refer to installation drawings no. 921058 and 921060 for AP5 and 921055, 921056, 921057, and drawing no. 921051 for multi pin connection.
2. The requirements for the supply cable shall be taken into consideration as specified in the installation drawings and this certificate.
3. Access panel AP5 and AP6 are intended for rack mounting or on desktop and necessary connection (bonding) to earth is assumed to be established when readily mounted.

## Condições especiais para o uso seguro

1. De acordo com os desenhos de instalação de barreiras de segurança e com os valores constantes deste certificado deve fornecer os circuitos intrinsecamente seguros do Conselho de acesso. Consulte os desenhos de instalação n ° 921058 e 921060 para AP5 e 921055, 921056, 921057, e desenho n ° 921051 para multi pólos.
2. Os requisitos para o cabo de alimentação devem ter-se em consideração conforme especificado nos desenhos de instalação e este certificado.
3. Painel de acesso AP5 e AP6 são destinados para montagem em rack ou em conexão de desktop e necessário (ligação) para a terra que se presume ser prontamente estabelecido quando montado.

## **Getting Technical Support and Service**

For technical support and service, please call +1 877 289 3246. For instruction manuals and information about related products, please go to <http://www.federal-signal-indust.com> and [www.fs-isys.com](http://www.fs-isys.com).



Industrial Systems

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