

# PC5108FLR v2.0 Installation Instructions

## 8 Zone Expander Module

This Installation sheet shall be used in conjunction with the Installation Manual of the DSC equipment to which PC5108FLR is connected or powered from (e.g. alarm controller, power supply, etc.). The PC5108FLR module can be used to extend up to 8 hardwired fast loop response zones on the compatible DSC Alarm Controllers, models PC5020, PC1864, PC1832 and PC1616. The fast loop response will be approximately 25ms.

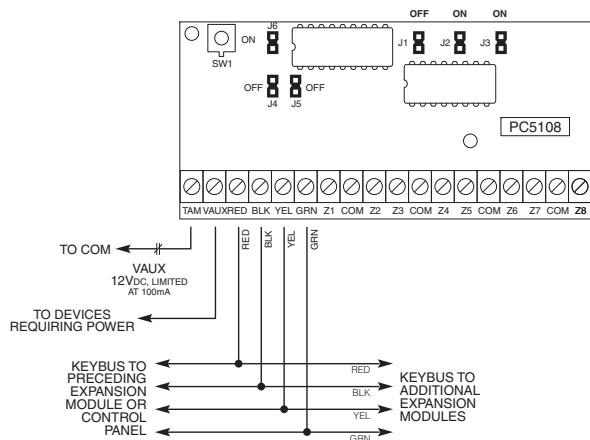
### General

PC5108FLR may be installed in the same metallic cabinet as the alarm controller/power supply (model Power UC1, PC5003C) or in a separate enclosure (PC4003C). Internal and/or external wiring for the PC5108FLR shall be routed, supported, clamped or secured in a manner that reduces the likelihood of (a) excessive strain on wire and terminal connections (b) loosening of terminal connections and (c) damage of conductor insulation.

### Specifications

- Temperature range: -10°C to + 55°C
- Relative Humidity: 93% non condensing
- Input rating: 12Vdc/135mA (provided by the alarm controller or separate power supply)
- Board current draw: 35mA (set and unset state)
- Board dimensions: 45mm x 92mm
- VAUX output ratings: 12Vdc, -15%/ +10% when Input voltage is between 85% to 110% of rated value and output current is between 0mA- 100mA max.
- Resettable fuse (PTC) used on circuit board instead of replaceable fuses

### Terminal Descriptions



**TAM** - Used to tamper the cabinet in which the PC5108FLR is mounted. Connect a normally closed (NC) switch across TAM and BLK. If the tamper is not being used connect a piece of wire across TAM and BLK to remove the trouble condition.

There is a built-in tamper switch on the expander module located in the top left corner of the circuit board. If the cabinet in which the PC5108FLR is mounted has the hardware required to depress this tamper switch, do not connect anything to the TAM terminal.

**VAUX** - Used to provide power for devices. Maximum current draw is not to exceed 100 mA. Connect the positive lead of powered devices to VAUX and the negative to BLK or any COM terminal.

**KEYBUS** - The 4 wire KEYBUS connection is used by the panel to communicate with the module. Connect the RED, BLK, YEL and GRN terminals to the KEYBUS terminals on the PC1616, PC1832, PC1864 & PC5020 main control.

**Z1 to Z8** - Wire the zones according to the description found in the control panel Installation Manual.

### Enclosures

The PC5108FLR can be installed in the metal enclosures listed below. Tamper protection switches can be installed on all enclosures, including door opening protection and/or removal from the mounting position. Doors can be secured using screws or keylock.

- Model PC5003C (removable door) made of 22Ga steel, painted, dimensions: 248mm(L) x 298mm(W) x 76mm(H), weight: 1500g.
- Model PC5003C (hinged door) made of 1.2mm thick steel, painted, dimensions: 248mm(L) x 298mm(W) x 76mm(H), weight: 2500g
- Model Power UC1 made of 18Ga steel, painted, dimensions: 315mm(L) x 319mm(W) x 100mm(H), weight: 3150g.
- Model PC4003C made of 18Ga steel, painted, dimensions: 230mm(L) x 180mm(W) x 75mm(D), weight 1050g.

### Jumper Settings

The PC5108FLR module can be used to add up to 8 additional hardwired fast loop response zones to the PC1616, PC1832, PC1864 or PC5020 control panel (see Installation Manual for complete installation instructions).

### Jumpers

The PC5108FLR will operate in a single group of eight zones. Refer to the following jumper settings:

Expander Zones	Jumpers			Zones Assigned
Group A (Zones1-8)	J1	J2	J3	
Group B (not used)				
	ON	ON	ON	Zones Disabled
	OFF	ON	ON	Zones 9-16
	ON	OFF	ON	Zones 17-24
	OFF	OFF	ON	Zones 25-32
	ON	ON	OFF	Zones 33-40
	OFF	ON	OFF	Zones 41-48
	ON	OFF	OFF	Zones 49-56
	OFF	OFF	OFF	Zones 57-64

### To Add Hardwired Zones to a Control Panel

1. Connect module to the Keybus (with the panel powered down).
2. Set the jumpers on the module.
3. Power up the system.
4. Enter section [902] and wait 1 minute.
5. Enter section [903] to verify that the module is supervised.
6. Define the zones in sections [002]-[004] for PC1616, PC1832, PC1864 or PC5020.
7. Add the zones to the appropriate partition in sections [202]-[265].

### LIMITED WARRANTY

Digital Security Controls warrants that for a period of twelve months from the date of purchase, the product shall be free of defects in materials and workmanship under normal use and that in fulfillment of any breach of such warranty, Digital Security Controls shall, at its option, repair or replace the defective equipment upon return of the equipment to its factory. This warranty applies only to defects in parts and workmanship and not to damage incurred in shipping or handling, or damage due to causes beyond the control of Digital Security Controls such as lightning, excessive voltage, mechanical shock, water damage, or damage arising out of abuse, alteration or improper application of the equipment.

The foregoing warranty shall apply only to the original buyer, and is and shall be in lieu of any and all other warranties, whether expressed or implied and of all other obligations or liabilities on the part of Digital Security Controls. This warranty contains the entire warranty. Digital Security Controls neither assumes responsibility for, nor authorizes any other person purporting to act on its behalf to modify or to change this warranty, nor to assume for it any other warranty or liability concerning this product. In no event shall Digital Security Controls be liable for any direct or indirect or consequential damages, loss of anticipated profits, loss of time or any other losses incurred by the buyer in connection with the purchase, installation or operation or failure of this product.

**Warning: Digital Security Controls recommends that the entire system be completely tested on a regular basis. However, despite frequent testing, and due to, but not limited to, criminal tampering or electrical disruption, it is possible for this product to fail to perform as expected.**

### FCC COMPLIANCE STATEMENT

**CAUTION: Changes or modifications not expressly approved by Digital Security Controls could void your authority to use this equipment.**

This equipment generates and uses radio frequency energy and if not installed and used properly, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for Class B device in accordance with the specifications in Subpart "B" of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in any residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to television or radio reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient the receiving antenna
- Relocate the alarm control with respect to the receiver
- Move the alarm control away from the receiver
- Connect the alarm control into a different outlet so that alarm control and receiver are on different circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the FCC useful: "How to Identify and Resolve Radio/Television Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington D.C. 20402, Stock # 004-000-00345-4.



## Instrucciones de instalación del PC5108FLR

### Módulo expansor de 8 zonas

Este folleto de instalación debe utilizarse junto con el Manual de Instalación del equipo de DSC al cual se conectará el PC5108FLR o desde donde recibirá alimentación (Ej.: controlador de alarma, fuente de alimentación, etc.). Se puede utilizar el módulo PC5108FLR para ampliar el sistema con hasta ocho zonas de respuesta rápida de circuito con hilo en controladores de alarmas DSC compatibles, que son los modelos PC5020, PC1864, PC1832 y PC1616. La respuesta rápida del circuito será de aproximadamente 25 ms.

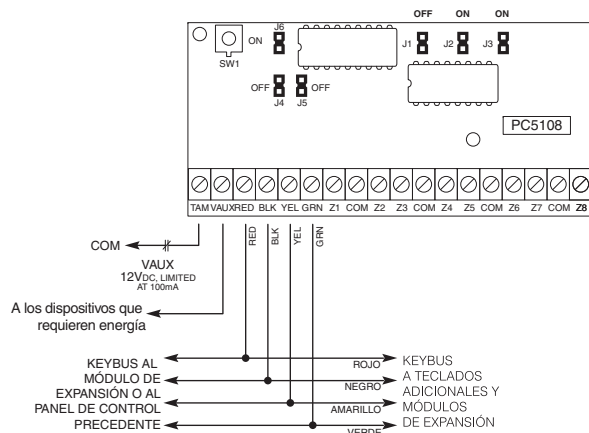
### General

El PC5108FLR puede instalarse en la misma caja metálica del controlador de alarma / fuente de alimentación (modelo Power UCI, PC5003C) o en un compartimiento separado (PC4003C). El cableado interno y/o externo del PC5108FLR debe orientarse, soportarse, fijarse o protegerse de manera en reducir la probabilidad de (a) tensión excesiva bajo los hilos y conexiones de los terminales (b); alojamiento de las conexiones de los terminales y (c) daños al aislamiento de los conductores.

### Especificaciones

- Rango de temperatura: -10°C a + 55°C
- Humedad Relativa: 93% sin condensación
- Tensión nominal: 12 Vcc/135 mA (proveída por el controlador de alarma o fuente de alimentación en separado)
- Consumo de corriente de la tarjeta: 35 mA (ajustado y no ajustado)
- Dimensiones de la tarjeta: 45 mm x 92 mm
- Tensión de salida VAUX: 12 Vcc, -15%/ +10% cuando la tensión de entrada esté entre 85% y 110% del valor nominal y la corriente de salida esté entre 0 mA y 100 mA como máximo.
- Fusible posible de reiniciar (PTC) utilizado en la tarjeta de circuitos en vez de fusibles sustituibles

### Descripciones de los terminales



**TAM** - Utilizado para violar la caja en la cual está instalado el PC5108FLR. Conecte un interruptor normalmente cerrado (NC) a los terminales TAM y BLK. Si la violación no es utilizada, conecte un pedazo de hilo a los terminales TAM y BLK para eliminar la condición de problema. Hay un interruptor antiviolación integrado en el módulo de expansión ubicado en la esquina superior izquierda de la tarjeta de circuitos. Si la caja en que está instalado el PC5108FLR tiene el equipo necesario para presionar ese interruptor antiviolación, no conecte cualquier elemento al terminal TAM.

**VAUX** - Utilizado para proveer alimentación a los dispositivos. El consumo máximo de corriente no puede exceder 100 mA. Conecte el polo positivo de los dispositivos alimentados al VAUX y el negativo al BLK o a cualquier terminal COM.

**KEYBUS** - La conexión del bus KEYBUS de cuatro hilos es utilizada por el panel para la comunicación con el módulo. Conecte los terminales RED, BLK, YEL y GRN a los terminales KEYBUS del panel de control principal de los modelos PC1616, PC1832, PC1864 y PC5020.

**Z1 a Z8** - Conecte los hilos de las zonas según la descripción detallada en el Manual de Instalación del panel de control.

### Cajas de protección

El PC5108FLR puede instalarse en las cajas de protección metálicas listadas a continuación. Los interruptores antiviolación pueden instalarse en todas las cajas de protección, incluyendo la protección contra apertura de la puerta y/o renovación de la posición de instalación. Las puertas pueden protegerse por tornillos o cerraduras.

- Modelo PC5003C (puerta amovible) hecho de acero de 22Ga, pintado, dimensiones: 248 mm (L) x 298 mm (A) x 76 mm (P), peso: 1.500 g.
- Modelo PC5003C (puerta pivotante) hecho de acero con 1,2 mm de espesor, pintado, dimensiones: 248 mm (L) x 298 mm (A) x 76 mm (P), peso: 2.500 g.
- Modelo Power UCI hecho de acero de 18 Ga, pintado, dimensiones: 315 mm (L) x 319 mm (A) x 100 mm (P), peso: 3.150 g.
- Modelo PC4003C hecho de acero de 18Ga, pintado, dimensiones: 230 mm (L) x 180 mm (A) x 75 mm (P), peso: 1.050 g.

### Configuraciones de los puentes

Se puede utilizar el módulo PC5108FLR para agregar hasta ocho zonas de respuesta rápida de circuito con hilo al panel de control PC1616, PC1832, PC1864 ó PC5020 (consulte el Manual de Instalación para lograr instrucciones completas acerca de la instalación).

### Puentes

El PC5108FLR funcionará en un único grupo de ocho zonas. Consulte las configuraciones de puentes a continuación:

Zonas de exp.	Puentes			Zonas atrib.
Grupo A (Zonas 1-8)	J1	J2	J3	
Grupo B (no utilizado)				
	ACT.	ACT.	ACT.	Zonas deshab.
	DES.	ACT.	ACT.	Zonas 9-16
	ACT.	DES.	ACT.	Zonas 17-24
	DES.	DES.	ACT.	Zonas 25-32
	ACT.	ACT.	DES.	Zonas 33-40
	DES.	ACT.	DES.	Zonas 41-48
	ACT.	DES.	DES.	Zonas 49-56
	DES.	DES.	DES.	Zonas 57-64

### Para agregar zonas con hilo a un panel de control

1. Conecte el módulo al terminal Keybus (con el panel apagado).
2. Configure los puentes en el módulo.
3. Encienda el sistema.
4. Entre en la sección [902] y espere 1 minuto.
5. Entre en la sección [903] para verificar si el módulo está supervisado.
6. Defina las zonas en las secciones [002]-[004] para el panel de control PC1616, PC1832, PC1864 ó PC5020.
7. Agregue las zonas a la partición apropiada en las secciones [202]-[265].

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