

TC81021000

Releasing Control Module

Description

The Gamewell-FCI, TC810S1000 Releasing Control Module is specifically designed for fire suppression releasing applications in the E3 Series® System. Power to the release agent solenoid(s) runs through this module to offer superior full-time monitoring and supervision.

The TC810S1000 Releasing Control Module supervises the wiring to the connected load and reports the status to the panel as any of the following events:

- NORMAL
- OPEN
- SHORT CIRCUIT

The releasing module has two pairs of output termination points available for fault-tolerant wiring and a panel-controlled LED indicator. The module may be connected to either one 24VDC solenoid or up to two 12VDC solenoids (in series). To ensure proper operation, this module shall be connected to a compatible, UL Listed Gamewell-FCI E3 Series System control panel only.

For a list of compatible solenoids, refer to the Gamewell-FCI Compatibility Addendum, P/N:9000-0427-L8.

External Supply

Normal Operating Voltage: 24 VDC Nominal

Maximum Line Loss: 2.3 VDC (total allowable loss from power supply to module and from module to solenoid)

Minimum Operating Voltage to Activate Solenoid: 18 VDC (at solenoid)

Standby Current: 6.4 mA

Activation Current: 10 mA

Solenoid

Supervisory Loop Voltage: 3.3 V

Supervisory Loop Current (Normal): 30 mA

Maximum Activation Current: 2 A

Ordering Information

TC810S1000: Releasing Control Module

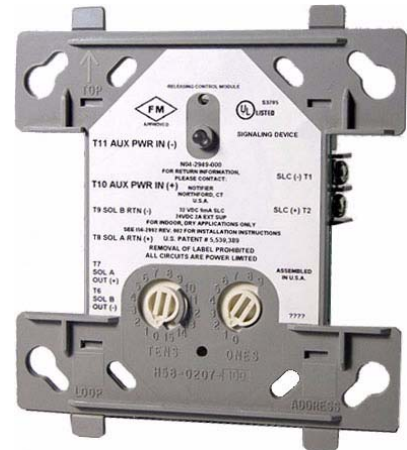
SMB500: Optional Surface-Mount Backbox

CB500: Control Module Barrier

This device is required by UL for separating Class A power-limited and non-power-limited wiring in the same junction box as the TC810S1000 module.

FEATURES & BENEFITS

- UL® Listed and FM approved for Pre-Action/Deluge and Agent Releasing
- Redundant protocol for added protection
- Configurable for Class A or Class B operation
- Supports external supply voltage monitoring
- Can power one 24V or two 12V solenoids
- Includes a panel controlled status LED
- Offers analog communications
- Uses rotary address switches
- Has a low standby current
- Mounts in a standard 4" (10.16 cm) junction box
- Provides the Velocity Series operation



TC81021000

E3 Series, Releasing System Compatible Solenoids

Table 1 lists the UL Approved releasing solenoids that are compatible with the E3 Series System.

Compatible Solenoids with E3 Series Releasing			
Item	Manufacturer	Model/Part Number	Rating
1)	Asco	HV2740607 solenoid	24 VDC, 375 mA
		HV2838521 solenoid	24 VDC, 375 mA
		HV2740608 solenoid	24 VDC, 375 mA
2)	Bambrook System	EA45 solenoid	24 VDC, 200 mA
3)	Honeywell/Skinner	701X7028 solenoid	24 VDC, 917 mA
4)	Kidde Fenwal	486500 solenoid	24 VDC, 290 mA
		890181 solenoid	24 VDC, 2000 mA
		895630 solenoid	24 VDC, 2000 mA
		897494 solenoid	24 VDC, 1500 mA
5)	Minimax	88 5738 solenoid	24 VDC, 1040 mA
		88 7363 solenoid	24 VDC, 1040 mA
		88 9323 solenoid	24 VDC, 500 mA
6)	Nohmi Bosai	R85M10 solenoid	24 VDC, 1200 mA
7)	Parker Haninnif	10610707 solenoid	24 VDC, 417 mA
		70610006 solenoid	24 VDC, 417 mA
8)	Snap-tite	2823A-2NB-A4F5,ORIF, solenoid	11.0 Watts
		2823A-2NB-A4F6,ORIF,solenoid	11.0 Watts
9)	TLX	PA0036-A solenoid	24 VDC, 600 mA
10)	Versa Valves	CGS-4232-NB3-S2, solenoid	24 VDC, 10.5 Watt
11)	Victaulic	753E solenoid	24 VDC, 364 mA
		767 solenoid	24 VDC, 364 mA
12)	Viking	11591 solenoid	24 VDC, 417 mA
		11591 NC solenoid	24 VDC, 417 mA
		11592NC solenoid	24 VDC, 416 mA
		11595 solenoid	24 VDC, 417 mA
		16360 solenoid	24 VDC, 500 mA

Table 1 E3 Series System Releasing Solenoids

E3 Series, Releasing System Compatible Solenoids

Table 2 lists the FM Approved Automatic Water Control Valves used for Pre-Action and Deluge Sprinkler Applications that are compatible with the E3 Series System.

Compatible FM Approved Water Solenoids			
Item	Manufacturer	Model/Part Number	Rating
Solenoid Group [A]			
1)	Skinner	Solenoid valve Model: LV2L BX25	24 VDC, 458 mA, 11W
Solenoid Group [B]			
2)	ASCO	Solenoid valve Model: 8210A107	24 VDC, 700 mA, 16.8W
		Solenoid valve Model: R8210A107	24 VDC, 700 mA, 16.8W
		Solenoid valve Model: T8210A107	24 VDC, 700 mA, 16.8W
Solenoid Group [C]			
3)	Star Sprinkler Corp.	Solenoid P/N: 5550	24 VDC, Model D
Solenoid Group [D]			
4)	ASCO	Solenoid valve Model: 8210G207	24 VDC, 440 mA, 10.6 W
Solenoid Group [E]			
5)	Skinner	Solenoid valve Model: 73218BN4UNLVN OC111C2	24 VDC, 420 mA, 10W
Solenoid Group [F]			
6)	Skinner	Solenoid valve Model: 73212BN4TNLVNOC322CS	24 VDC, 920 mA, 22W
Solenoid Group [G]			
7)	Kidde-Fenwal	Solenoid valve Model: 48650001	24 VDC, 2000mA, 48W
		Solenoid valve Model: 890181	24 VDC, 2000mA, 48W
		Solenoid valve Model: 899175	24 VDC, 200mA, 4.8W

Table 2 E3 Series FM Approved Water Solenoids

TC81021000 Technical Specifications

SYSTEM

General Specifications:

Operating Voltage: 15 to 32 VDC

Communication Line Loop Impedance: 40 Ohm max.

Temperature Range: 14°F to 140°F (-10° to 60°C)

Relative Humidity: 10% to 95% non-condensing

Shipping Weight: 5.5 oz (156 g)

Dimensions: 4.275"W×4.675"H×1.400 D

(10.86cm W×11.87cm H×3.56cm D)

SLC:

Average Operating Current: 700 uA max @ 24 VDC
(One communication every 5 seconds with LED enabled).

Maximum Activation Current: 9.0 mA (LED on)

TEMPERATURE AND HUMIDITY RANGES

This system meets NFPA requirements for operation at 0 – 49°C/32 – 120°F and at a relative humidity 93% ± 2% RH (noncondensing) at 32°C ± 2°C (90°F ± 3°F).

However, the useful life of the system's standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and its peripherals be installed in an environment with a normal room temperature of 15 – 27°C/60 – 80°F.

STANDARDS

The TC81021000 Releasing Control Module is designed to comply with the following standard:

UL Standard: UL 864 9th Edition

AGENCY LISTINGS AND APPROVALS

These listings and approvals apply to the modules specified in this document. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

UL: S1949

FM Approved

ISO 9001 Certification

For a complete listing of all compliance approvals and certifications, please visit: <http://www.gamewell-fci.com/en-US/documentation/Pages/Listings.aspx>

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For more information

Learn more about Gamewell-FCI's TC81021000 and other products available by visiting www.Gamewell-FCI.com

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