Compatible panels and devices Panels. The SIGA-REL is compatible with QuickStart, EST2 and EST3 fire alarm control panels. You may install the SIGA-REL in any of the following enclosures:

- 2-WB(X) series
- 2-CAB series
- 3-CAB series
- RACCR series
- MFC-A

Note: Maintain a 1-inch (25.4 mm) minimum clearance all around the SIGA-REL. The clearance space must also comply with the National Electrical Code.

Power supplies. The SIGA-REL is compatible with the following power supplies:

- 2-PPS(-220)
- 2-PPS/6A(-220)
- SIGA-APS(-220)
- 3-BPS/M
- 3-PPS/M
- BPS6*, BPS10*

*Not compatible with FMRC sprinkler applications that require 90 hours of standby.

Solenoid polarizing relays. Use the RELA-EOL with the SIGA-REL. For more information, see the RELA-EOL installation sheet.

Abort stations. The SIGA-REL is only compatible with normally-open, momentary-action abort stations. Abort stations must be listed with the appropriate agencies in your area. See *Listing agencies*.

Service disconnect stations. The SIGA-REL is only compatible with service disconnect stations that are normally-closed (minimum 2.0 Amps). Service disconnect stations must be listed with the appropriate agencies in your area. See *Listing agencies*.

Releasing solenoid valves. Releasing solenoid valves must be listed with the appropriate agencies in your area. See *Listing agencies*.

Listing agencies. Listing agencies include:

- Factory Mutual Research Corporation (FMRC)
- Underwriters Laboratories, Inc. (UL)
- Underwriters Laboratories Canada (ULC)

Switch Settings

Abort mode and time delay settings are configured by means of dip switches on the module.

Abort mode

	Mode	SW1	SW2	
DEFAULT	1	0	0	*Routines that determine how the abort function interacts with the timers.*
	2	0	1	
	3	1	0	
	4	1	1	

Manual time delay (seconds)

	Delay	SW3	SW4	
	0	0	0	*The length of time that the deluge is inhibited when the releasing function is manually initiated.*
DEFAULT	10	0	1	
	20	1	0	
	30	1	1	

Automatic time delay (seconds)

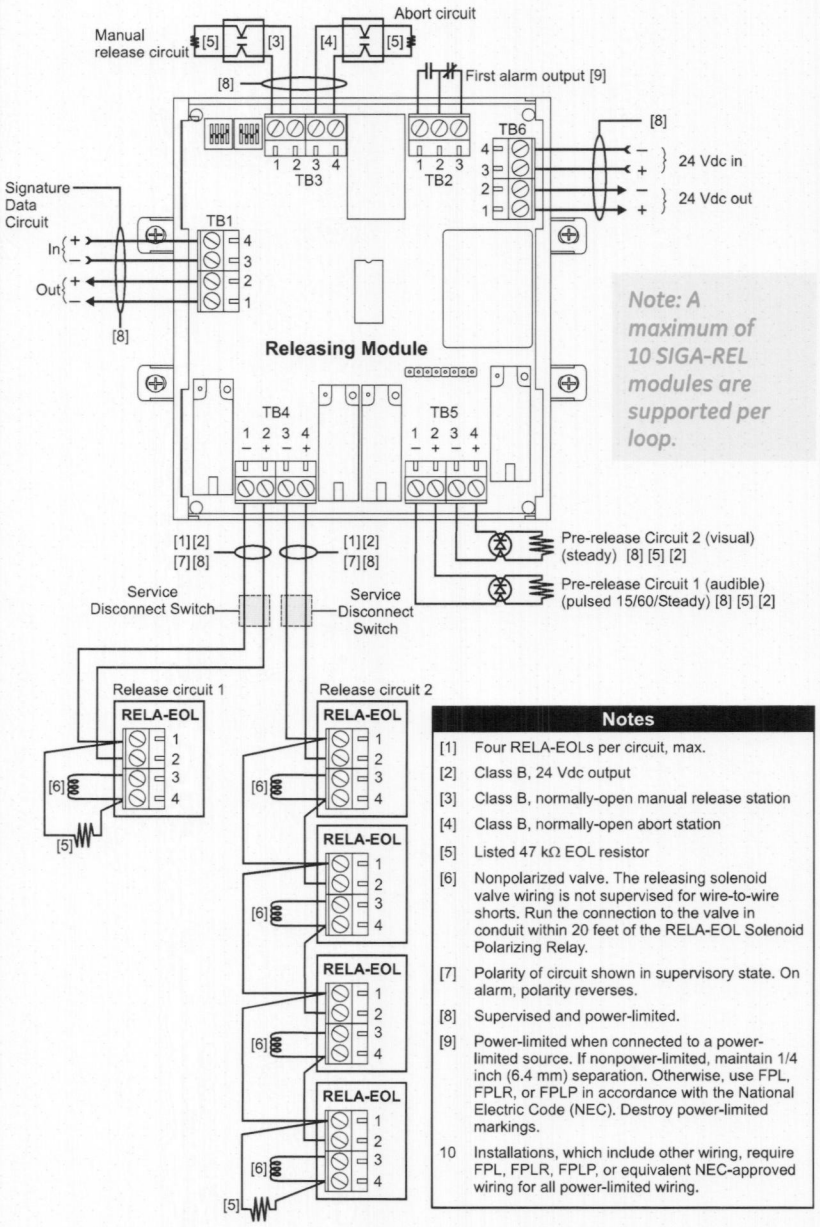
	Delay	SW5	SW6	SW7	
	10	0	0	0	*The length of time that the deluge is inhibited when the releasing function is initiated by the control panel (i.e.: after receiving an alarm).*
	20	0	0	1	
	30	0	1	0	
	40	0	1	1	
DEFAULT	50	1	0	0	

Abort time delay (seconds)

	Delay	SW8	
	0	0	*The length of time that the deluge is inhibited when the abort function is restored (i.e.: cancelled).*
DEFAULT	10	1	

DEFAULT Denotes default settings.

Wiring

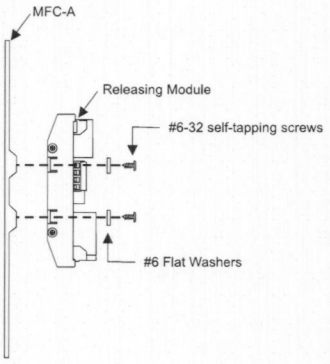


Note: A maximum of 10 SIGA-REL modules are supported per loop.

Notes

[1]	Four RELA-EOLs per circuit, max.
[2]	Class B, 24 Vdc output
[3]	Class B, normally-open manual release station
[4]	Class B, normally-open abort station
[5]	Listed 47 kΩ EOL resistor
[6]	Nonpolarized valve. The releasing solenoid valve wiring is not supervised for wire-to-wire shorts. Run the connection to the valve in conduit within 20 feet of the RELA-EOL Solenoid Polarizing Relay.
[7]	Polarity of circuit shown in supervisory state. On alarm, polarity reverses.
[8]	Supervised and power-limited.
[9]	Power-limited when connected to a power-limited source. If nonpower-limited, maintain 1/4 inch (6.4 mm) separation. Otherwise, use FPL, FPLR, or FPLP in accordance with the National Electric Code (NEC). Destroy power-limited markings.
10	Installations, which include other wiring, require FPL, FPLR, FPLP, or equivalent NEC-approved wiring for all power-limited wiring.

Mounting



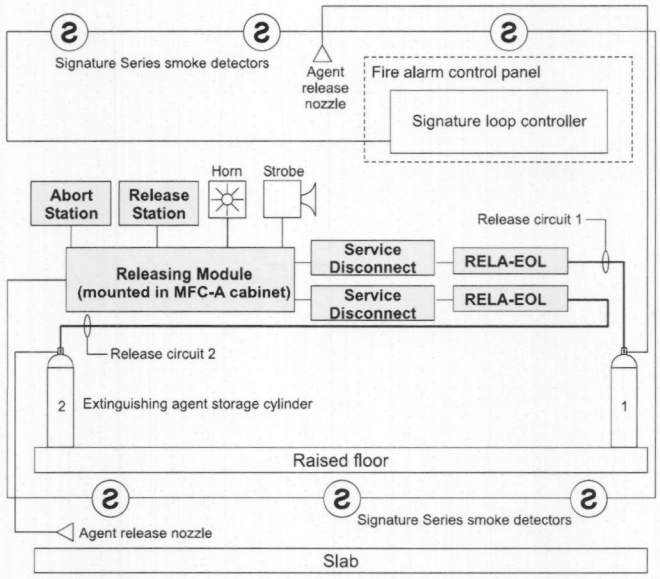
LED Operation

LED	Color	Pattern	Function
DS1	Red	Flashing	Data (alarm conditions)*
DS2	Green	Flashing	Data (normal conditions)*
DS3	Red	Steady	Alarm
DS4	Green	Steady	Power
DS5	Yellow	Steady	Abort
DS6	Yellow	Steady	Trouble
DS7	Red	Steady	Release Active

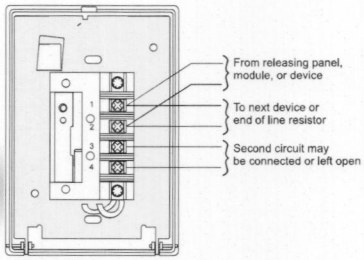
**Note: During a loss of communications, the Releasing Module will go into a standby condition, which will cause DS1 and DS2 to change to a steady pattern during an alarm condition.*

Accessories

Typical application of SIGA-REL accessories (computer room)

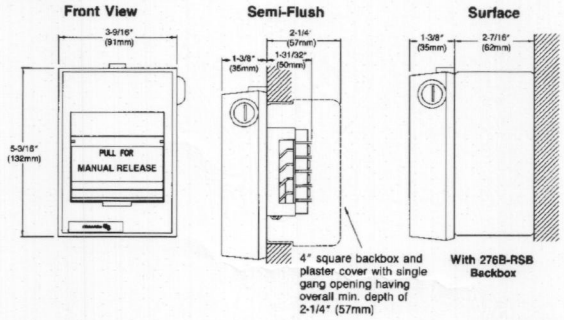


Manual Release Station

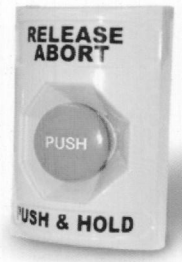


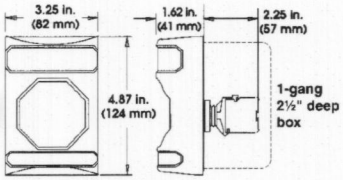
Release Station (rear view)

The manual release station is a normally-open, dry contact signal initiating device. The 276A-REL is a single-action station that requires the user to pull the release handle to initiate the release of a fire suppression agent. The 278A-REL (shown) is a double-action station that requires the user to raise the upper door, then pull the release handle to initiate the release.



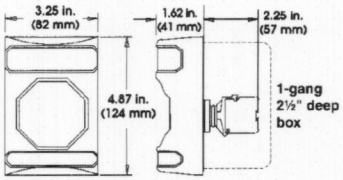
Abort Station





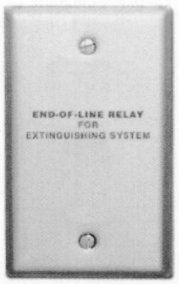
The abort station is a normally-open, non-latching device. It is used to prevent the release of agent into the protected area after the release sequence has begun.

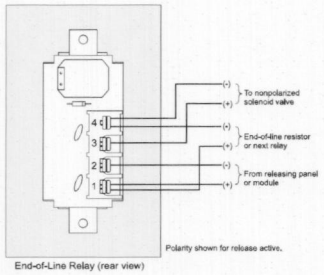
Service Disconnect Switch



The service disconnect switch is used to temporarily disable the fire suppression system. One switch is installed on each of the two release circuits between the SIGA-REL and the RELA-EOL end-of-line relay. Opening the Service Disconnect Switch allows the fire alarm system to be tested without activating the fire suppression system. The operation of this switch causes a trouble signal at the control panel.

End-of-Line Relay

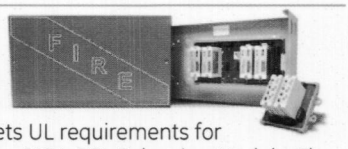




End-of-Line Relay (rear view)

The End-of-Line Relay facilitates the connection of a non-polarized releasing solenoid to a supervised, polarized releasing circuit. One relay is required per release solenoid.

Module Enclosure



The MFC-A cabinet is UL-listed for use with Signature modules. Shown here with plug-in style I/O modules, the MFC-A also meets UL requirements for spacing and clearance around the SIGA-REL Releasing Module. The cabinet features red epoxy finish with white "FIRE" markings.

Specifications

Power riser	Input voltage	24 Vdc (power limited)
	Supervisory current	25 mA, max.
	Riser input current	4 amps maximum
	Alarm	170 mA min.; 4 A max.
Release circuits	Output rating	2 A @ 24 Vdc (for each circuit)
	Valves per circuit	4 valves, max.
	Max. supervisory current	0.4 mA (short circuit)
	Nominal supervisory current	0.18 mA
	Supervisory voltage	26 Vdc, max. (open circuit)
	End of line device	47k Ohm EOL
Pre-release alarm circuits	Output rating	2 A @ 24 Vdc (for each circuit)
	Max. supervisory current	0.4 mA (short circuit)
	Nominal supervisory current	0.18 mA
	Supervisory voltage	26 Vdc, max. (open circuit)
	End of line device	47k Ohm resistor
Manual release input circuit	Max. supervisory current	0.4 mA (short circuit)
	Nominal supervisory current	0.18 mA
	Supervisory voltage	26 Vdc, max. (open circuit)
	End of line device	47k Ohm resistor
	Circuit type	Class B N.O. latching
	Circuit capacitance	0.1 µF, max
Abort circuit	Max. supervisory current	0.4 mA (short circuit)
	Nominal supervisory current	0.18 mA
	Supervisory voltage	26 Vdc, max. (open circuit)
	End of line device	47k Ohm resistor
	Circuit type	Class B N.O. non- latching
	Circuit capacitance	0.1 µF, max
First alarm output relay	Contact rating	3 A @ 24 Vdc (0.6 power factor) Form C
Signature Data line	Operating voltage	5.2 to 19.95 Vdc
	Supervisory current	1000 µA
	Alarm current	1000 µA
Environmental condiitions	Operating temperature	32° F to 120° F (0° C to 49° C)
	Storage temperature	-4° F to 140° F (-20° C to 60° C)
	Humidity	0 to 93% Non-condensing
Wiring Terminals	Suitable for #18 to #12 AWG (2.5 mm² to .75 mm²)	
Type Code	Factory Set	
Addressing Requirements	Uses six module addresses	
Agency Listings	UL, ULC, and FM	
Compatible Solenoids	Must be both UL/ULC-listed and FM-approved	

Note: *Output circuits are power-limited when the riser circuit is power-limited.*

Line Resistance

Power riser

Total riser current (Amps)	Distance from SIGA-REL to power supply				Wire resistance (Ohms per wire)
	#12 AWG	2.5 mm²	#14 AWG	1.5 mm²	
4.0	29 ft	8.84 m	20 ft	6.10 m	0.050
3.5	34 ft	10.36 m	23 ft	7.01 m	0.057
3.0	39 ft	11.89 m	27 ft	8.23 m	0.067
2.5	47 ft	14.33 m	32 ft	9.75 m	0.080
2.0	59 ft	17.98 m	40 ft	12.19 m	0.100
1.5	78 ft	23.77 m	53 ft	16.15 m	0.133
1.0	118 ft	35.97 m	80 ft	24.38 m	0.200

Pre-release and release circuits (per circuit)

Total riser current (Amps)	Distance from SIGA-REL to power supply				Wire resistance (Ohms per wire)
	#12 AWG	2.5 mm²	#14 AWG	1.5 mm²	
2.00	176 ft	53.64 m	120 ft	36.58 m	0.300
1.75	202 ft	61.57 m	137 ft	41.76 m	0.343
1.50	235 ft	71.63 m	160 ft	48.77 m	0.400
1.25	282 ft	85.95 m	192 ft	58.52 m	0.480
1.0	353 ft	107.59 m	240 ft	73.15 m	0.600
0.50	706 ft	215.19 m	480 ft	146.30 m	1.200

Ordering Information

Model	Description	Ship Wt. lb (kg)
SIGA-REL	Analog addressable releasing module	0.52 (0.23)
276A-REL	Manual releasing station (single-action). English markings, black text on yellow polycarbonate body.	1.0 (0.45)
278A-REL	Manual releasing station (double-action). English markings, black text on yellow polycarbonate body.	1.0 (0.45)
RELA-ABT	Manual Abort Station. English markings, black text on yellow polycarbonate body.	1.0 (0.45)
RELA-SRV	Service Disconnect Switch. English markings, white text on blue polycarbonate body.	1.0 (0.45)
RELA-EOL	Polarized end-of-line relay. English markings on stainless steel cover.	0.2 (0.1)
MFC-A	UL listed cabinet for mounting releasing modules, red with white "FIRE". HWD: 8" x 14" x 3½" (203mm x 356mm x 89mm)	7.0 (3.1)

GE
Security

U.S.
T 888-378-2329
F 866-503-3996

Canada
T 519 376 2430
F 519 376 7258

Asia
T 852 2907 8108
F 852 2142 5063

Australia
T 61 3 9259 4700
F 61 3 9259 4799

Europe
T 32 2 725 11 20
F 32 2 721 86 13

Latin America
T 305 593 4301
F 305 593 4300

www.gesecurity.com/est

Signature Series is a Trademark
of GE Security.

imagination at work

GE
Security

Intelligent

Signature Series Analog Detection

imagination at work

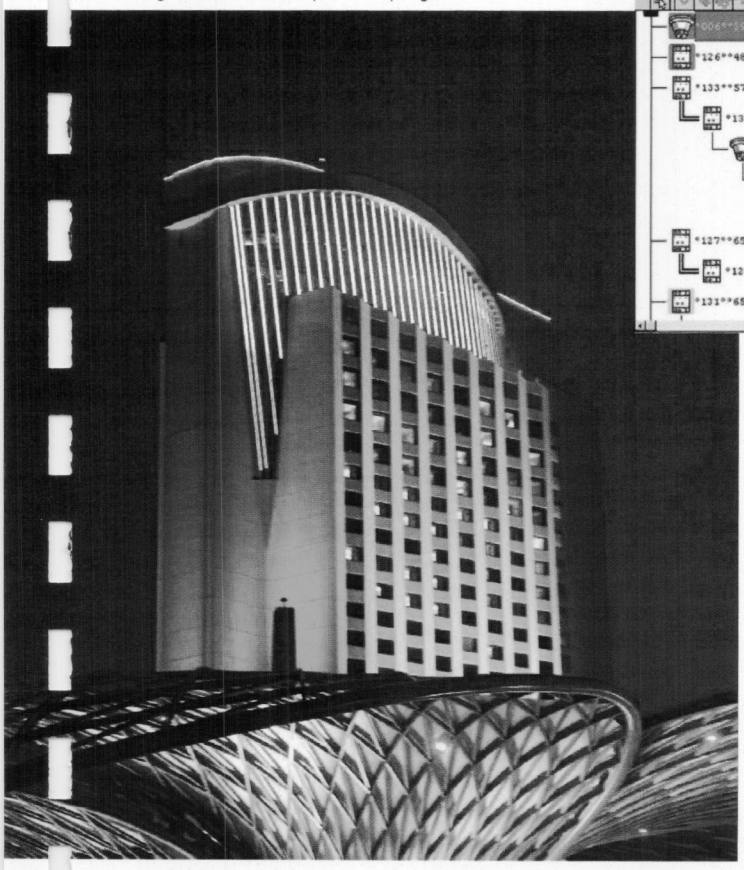
When the unexpected strikes there are no second chances. Your safeguards against disaster have to work flawlessly, reliably – intelligently. That's why there's only one clear choice for life safety and security detection – *Signature Series* from GE Security...

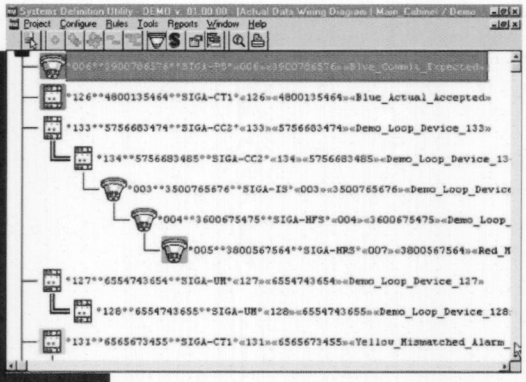
With *Signature Series* intelligence, you're covered by the most advanced detection technology from the world leader in life safety and security innovation. *Signature Series* achieves flawless detector reliability with sophisticated sensing and processing that actually thinks for itself.

Making the best of true multisensor capability, Signature detectors continually monitor the environment with their on-board sensors, each of which is finely tuned to detect a different characteristic of combustion. All this information is gathered and run through a sophisticated algorithm that compares the sensor readings over time to known signatures of fires. When the algorithm finds a match, an alarm condition results. If no match is found, no alarm is sounded.

The key to reliability here is that Signature detectors don't simply react to the conditions – they interpret information from several sources over time to arrive at a carefully "considered" conclusion. This means that a single multisensor detector can distinguish between a harmless puff of dust and a wisp of smoke; between hot, humid weather and a serious life safety condition.

▼ Morongo Casino, Resort & Spa, Palm Springs, CA





Signature Series **intelligence features Automatic Device Mapping – a function of the powerful Signature Loop Controller, which maps where each device is installed relative to other devices on the circuit. This information can be accessed using the *System Definition Utility* program (above), which uses interactive menus and graphic support, and generates layouts or as-built drawings – complete with branch wiring (T-taps), device types and their addresses!**

Signature Series detectors don't simply react to conditions – they interpret information from several sources over time to arrive at a "considered" decision.

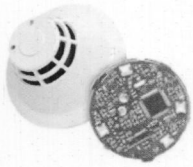
Millions of Signature Series detectors are protecting people and property worldwide. Here's why...

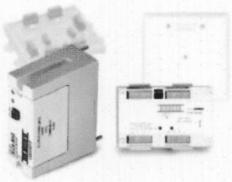
A total solution, a complete product line ...

Signature Series is an entire family of intelligent fire alarm and security devices, as well as detectors and accessories, multiple-function input and output modules, pull stations, fire suppression components, and user-friendly maintenance and service tools. The Signature line provides flexibility that makes it a perfect fit for any application. It is uniquely well-suited for fire-only or mixed fire and security applications with the powerful EST3 control platform, which is designed to meet the needs of any medium to large application. EST2 life safety control brings Signature intelligence and audio capabilities to medium-sized applications, while QuickStart control panels deliver the benefits of *Signature Series* technology to small- and medium-sized applications. Whatever the need, there are easy-to-implement, cost-effective *Signature Series* solutions for your application.

So reliable that NFPA-mandated sensitivity testing is not required...

Signature Series detectors are engineered to prevent nuisance alarms by anticipating normal changes in the environment and by adapting to suit them. With *Signature Series* intelligence, the detector monitors conditions over time and actually adjusts its own sensitivity to compensate for conditions that would easily send other detectors into alarm. When dirt buildup threatens the reliability of a *Signature Series* detector it sends out a signal indicating that it's time for a cleaning. This feature is so reliable that Underwriters Laboratories has singled out *Signature Series* detectors by exempting them from individual calibration sensitivity testing normally required to comply with the benchmark NFPA 72 fire alarm standard. Instead, a simple report generated by the control panel is sufficient to satisfy what otherwise could be an arduous and costly annual task.





So stable that existing wiring can be used for retrofits...

With *Signature Series* intelligence, alarm decisions are made right at the device, thus conserving precious processing power at the control panel for other functions. This strategy, known as Distributed Intelligence, means that high communication speeds are unnecessary because data reaches the control panel already processed. Lower communications speed means that expensive shielded wiring is not necessary. In fact, with *Signature Series* intelligence most retrofit applications can use existing wiring and still deliver superior response times. With the added benefits of electronic addressing and automatic device mapping, these devices are not only the most reliable of their kind, they're also simple to install. That's why millions of Signature detectors can be found protecting buildings all over the planet.

Security devices share wiring with fire alarm components...

The SIGA-MD Motion Detector and the SIGA-SEC2 Security Module bring all the features and performance benefits of *Signature Series* intelligence to security functions. The SIGA-MD is a passive infra-red motion detector that employs advanced adaptive signal processing technology, while the SIGA-SEC2 is an intelligent dual-input module suitable for monitoring doors, windows and other locally powered security components. Both devices share the same wiring and loop controller as *Signature Series* fire alarm devices, and do so without the need for extra risers, associated wiring, or additional power. The SIGA-MD and the SIGA-SEC2 are fully listed to fire alarm *and* security standards. In fact, *Signature Series* is the only line of products in the world that offers this kind of total coexistence among fire and security functions!

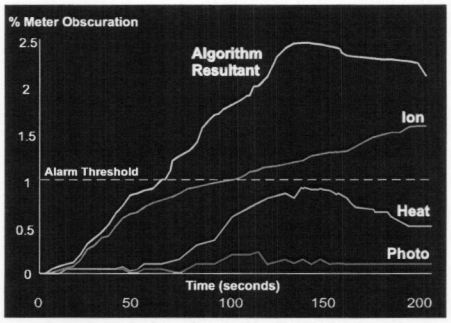
Intelligent user-configured modules of every description...

Signature Series intelligent input/output modules are extremely flexible and powerful devices that gather information from detectors and other devices and convert it into digital signals. They are available in models that mount in standard one- or two-gang electrical boxes, as well as time and wire-saving versions that easily plug into two- or six-module motherboards. The specific function of each module is determined by its installer-selected "personality" code. Because they are intelligent devices, all decisions are made at the module. This allows lower communication speed but very fast control panel response time and less sensitivity to line noise. As a result, twisted or shielded wire is not required, making them – like all Signature devices – ideal for retrofit applications.

Photoelectric and ionization detectors see smoke, but not all fires produce it. Heat detectors spot temperature changes, but these aren't always an indicator of fire. Only *Signature Series* intelligence provides the answer...

Signature Series technology overcomes the detector conundrum by collecting data on several different environmental parameters simultaneously and then weighing the result over time to determine whether or not an alarm should be sent to the control panel. This is a revolutionary concept that represents a radical departure from the way fires used to be detected.

Without *Signature Series* intelligence, detectors need to be tuned to perform reasonably well under an acceptable range of conditions. This compromise results in a device that operates reasonably well, but not optimally.



The example above demonstrates how the combined output from three sensors (resultant) reaches the alarm threshold earlier than any of the single sensors.

The trade-off comes at the expense of reliability: nuisance alarms are frequently an expected inconvenience of single sensor detectors. The problem stems from the fact that detectors sensitive to smoke are also sensitive to dust; those sensitive to heat can also be affected by normal fluctuations in ambient temperature.

Patented *Signature Series* intelligence overcomes this problem with sliding alarm thresholds based on a sophisticated algorithm that defines the signatures of combustion, from slow smoldering fires to fast-burning "invisible" flames.

Signature Series detectors continuously monitor their own sensitivity and "understand" their environment. If dust or humidity levels increase the chance of a nuisance alarm, the device itself is able to compensate automatically by raising its own alarm threshold. There is no danger that the threshold will be pushed so far as to compromise the device's ability to detect fire: before that point is reached the detector sends out a message indicating that it's time for a cleaning.

Signature Series intelligence provides the means of addressing another concern: the nagging problem of choosing the best type of detector for a particular application. *Signature Series* multisensor detectors incorporate photo, ion and heat sensors in a single unit.

Independently, these different types of sensors can sometimes come to conflicting conclusions concerning the same environmental conditions. But, when combined in a single smart detector, they can be monitored over time, thus reducing the chance of the device reacting to the wrong set of circumstances. The net result: uncompromised performance; unparalleled reliability.

True multisensor technology means that a single device can perform optimally under a wider range of conditions than any single-sensor detector.

Fire Type vs. Detector Suitability

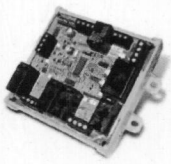
	SIGA-IS Ionization Detector	SIGA-PS Photoelectric Detector	SIGA-HRS/HFS Rate-of-Rise/ Fixed Temp. Heat Detectors	SIGA-PHS Multisensor Photoelectric & Heat Detector	SIGA-IPHS Multisensor Ionization, Photoelectric & Heat Detector
Open Wood	optimum	unsuitable	optimum	very suitable	optimum
Wood Pyrolysis	suitable	optimum	unsuitable	optimum	optimum
Smoldering Cotton	very suitable	optimum	unsuitable	optimum	optimum
Polyurethane Foam	very suitable	very suitable	suitable	very suitable	optimum
n Heptane	optimum	very suitable	suitable	optimum	optimum
Liquid Fire, no smoke	unsuitable	unsuitable	optimum	very suitable	optimum

Signature Series:

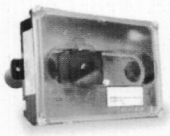
Much more than outstanding detectors and modules...

Accessories
Signature Series is supported by a full range of accessories, including detector bases, duct detectors, pull stations, multi-function modules, remote LEDs mounting plates, trim skirts, amplifiers, and power supplies.

Maintenance & Service Tools
The SIGA-PRO programming and maintenance tool retrieves valuable diagnostic information stored in the non-volatile memory of any *Signature Series* detector, pull station, or module. Under the *Signature Series* refurbishment program, soiled devices can be replaced at a substantial cost saving.



Intelligent Fire Suppression
The SIGA-REL is an intelligent module that controls sprinkler, pre-action and deluge systems, and may also be used to release extinguishing agents such as CO_2, Halon, or foam. Installed as an integral part of the life safety system, the SIGA-REL takes full advantage of *Signature Series* processing, communications power, and intelligence.



Intelligent Duct Smoke Detection
SuperDuct detectors feature a unique design that speeds installation and simplifies maintenance. Removable dust filters, conformally coated circuit boards, and optional water-resistant gaskets keep contaminants away from components, ensuring years of trouble-free service. And at less than two-inches deep, these detectors are ideal for ductwork, where space is tight.

For more information, call 1-888-378-2329, visit us on the web at *www.gesecurity.com*, or contact the GE Security office nearest you.

U.S. SALES:
8985 TOWN CENTER PARKWAY
BRADENTON, FL 34202
PHONE: 888-378-2329
FAX: 866-503-3996

CANADA SALES:
OWEN SOUND, ON
519-376-2430
FAX 519-376-7258

INTERNATIONAL SALES:
(001) 905-270-1711
FAX (001) 905-270-9553

imagination at work

85000-0334, Issue 3

ORIFICE PART NO'S, POS. 32:

1/2"	01-3700-1030/1070
1"	01-3700-3050/3180
1 1/2"	01-3700-4030/4270
2"	01-3700-5200/5360

ADAPTOR FOR FE-BSP PART NO'S POS. 35:

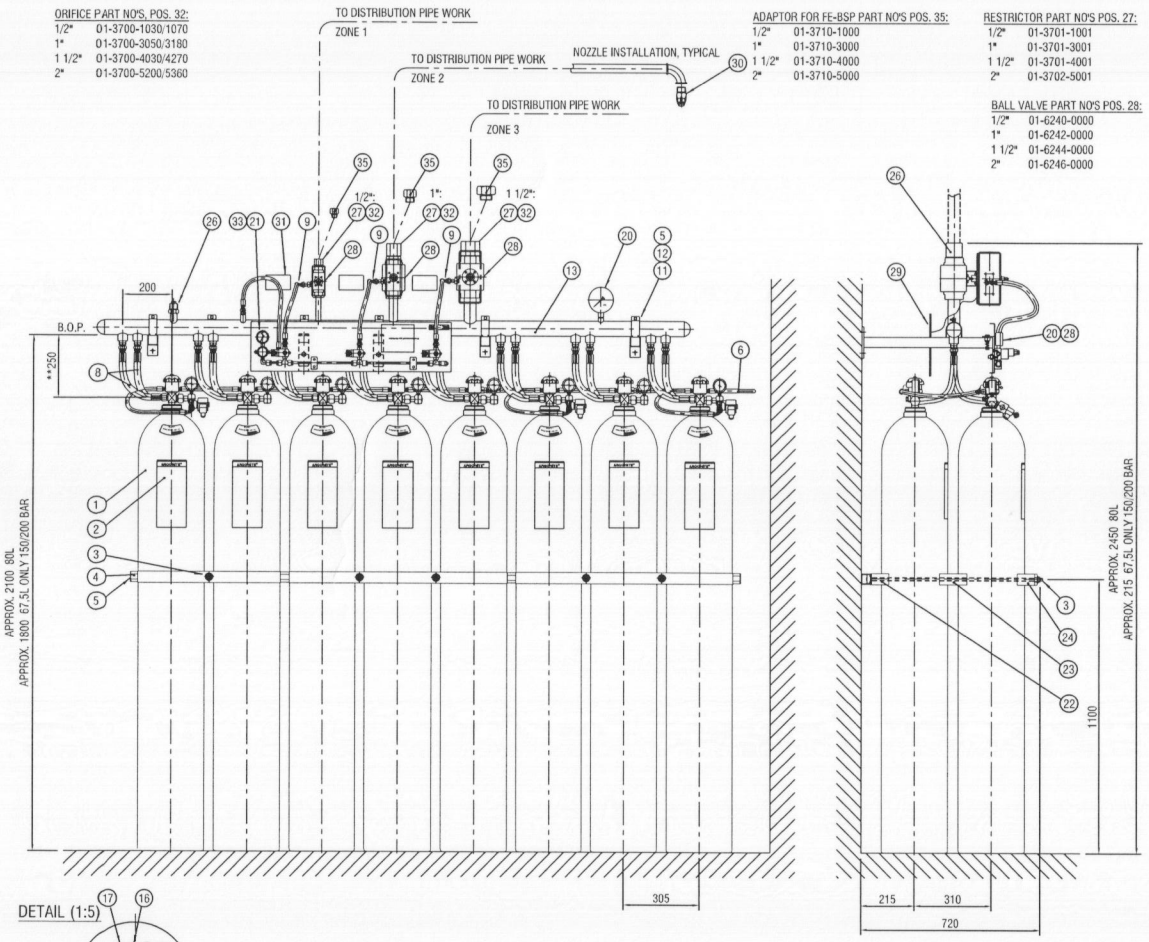
1/2"	01-3710-1000
1"	01-3710-3000
1 1/2"	01-3710-4000
2"	01-3710-5000

RESTRICTOR PART NO'S POS. 27:

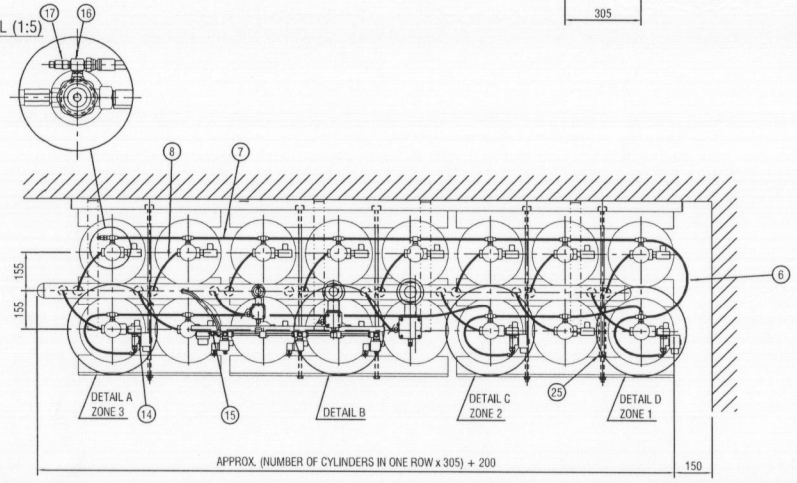
1/2"	01-3701-1001
1"	01-3701-3001
1 1/2"	01-3701-4001
2"	01-3702-5001

BALL VALVE PART NO'S POS. 28:

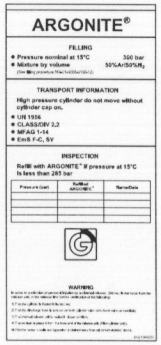
1/2"	01-6240-0000
1"	01-6242-0000
1 1/2"	01-6244-0000
2"	01-6246-0000



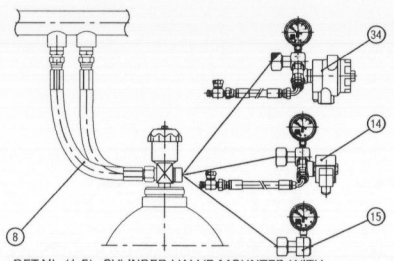
DETAIL (1:5)



POS. 2
1:2

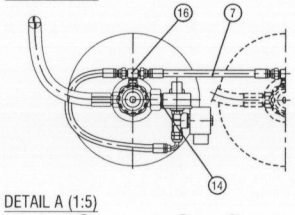


NOTE:
POS. 1 AND 2 PRESSURE AND CYLINDER SIZE RELATED.
POS. 12 NUMBERS ACCT. PIPE SIZE SEE MA-01-9006-0100 CHPT 4.
POS. 14, 15, 26 AND 34 PRESSURE RELATED.

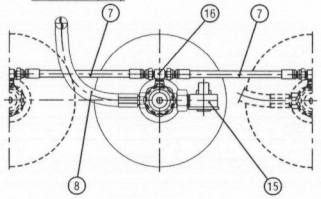


DETAIL (1:5), CYLINDER VALVE MOUNTED WITH RELEASE UNIT OR CONTACT PRESSURE GAUGE UNIT

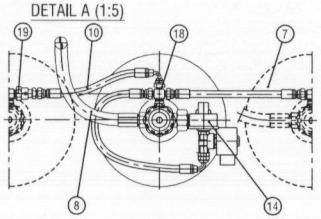
DETAIL A (1:5)



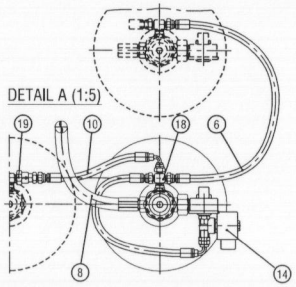
DETAIL A (1:5)



DETAIL A (1:5)



DETAIL A (1:5)



150 BAR:
POS 1: 01-1311-XX00 = 67.5L 01-1321-XX00 = 80L
POS 2: 01-2132-XX00
POS 14: 01-7173-7150
POS 15: 01-7171-7150
POS 26: 01-6653-0001/0101
POS 34: 01-7173-7159 EExd

200 BAR:
POS 1: 01-1312-XX00 = 67.5L 01-1322-XX00 = 80L
POS 2: 01-2133-XX00
POS 14: 01-7173-7200
POS 15: 01-7171-7200
POS 26: 01-6653-0002/0102
POS 34: 01-7173-7209 EExd

300 BAR:
POS 1: 01-1324-XX00 = 80L
POS 2: 01-2134-XX00
POS 14: 01-7173-7300
POS 15: 01-7171-7300
POS 26: 01-6653-0003/0103
POS 34: 01-7173-7309 EExd

*) TO BE SPECIFIED AFTER FINAL TECHNICAL CLARIFICATION.
**) VERIFY 250mm B.O.P. (BOTTOM OF PIPE) ABOVE CENTER VALVE OUTLET OF LOWEST CYLINDER.
***) POS. 25 ONLY TO BE USED IF ODD NUMBER OF CYLINDERS.

POS.	QTY.	DESCRIPTION		PART NO.
35	*	ADAPTOR MA/FE, NPT/BSP	*	01-3710-1000/5000
34	*	RELEASE UNITS EExd N. C.		* NOTE
33	*	PILOT MANIFOLD EExd, ASSEMBLY		*
32	*	ORIFICE FOR RESTRICTOR	*	01-3700-1030/5360
31	*	SIGN FOR DISTRIBUTION VALVE		LOCAL SUPPLY
30	*	NOZZLE BSPT OR NPT	*	01-3465-1200/2500
29	*	HANDLE FOR DISTRIBUTION VALVE		01-6233-0001
28	*	DISTRIBUTION BALL VALVE WITH ACTUATOR	*	01-6240/6246-0000
27	*	RESTRICTOR MA/FE, NPT/NPT	*	01-3701-1001/5001
26	1	PRESSURE RELIEF DEVICE		* NOTE
25	***	ST33 PIPE 3/4" INCL. 2 WASHERS ø17/30		03-8331-0000
24	*	WOODEN SPACER, (1 x 2 OR 1 x 3 CYL.)	*	03-8162/63-0000
23	*	WOODEN SPACER, (2 x 2 OR 2 x 3 CYL.)	*	03-8164/65-0000
22	*	CLAMPING BAR, (1 x 2 OR 1 x 3 CYL.)	*	03-8266/67-0000
21	*	PILOT MANIFOLD, ASSEMBLY	*	01-3508-0002/3/4/5
20	1	PRESSURE GAUGE 0-400 BAR ø100		01-7221-0300
19	*	NON RETURN VALVE, 150/200/300 BAR		01-6363-0000
18	*	CROSS FOR ACTUATOR		01-4130-0000
17	1	LEAK VALVE FOR ACTUATOR		01-3388-0000
16	*	T-PIECE FOR ACTUATOR		01-4131-0000
15	*	CONTACT PRESSURE GAUGE UNIT		* NOTE
14	*	RELEASE UNIT N. C.		* NOTE
13	1	MANIFOLD		* NOTE
12	*	CLAMP FOR MANIFOLD	NOTE *	01-8142/6-0000
11	*	BRACKET FOR MANIFOLD, L = 520		01-8160-0520
10	*	HI-FLEX HOSE 1/4" x 300, 90°	*	01-3273-0100/1100
9	*	HI-FLEX HOSE 1/4" x 700, 90°	*	01-3273-0200/1200
8	*	HI-FLEX HOSE 1/2" x 400, STRAIGHT		01-3284-0100
7	*	HI-FLEX HOSE 1/4" x 270, STRAIGHT	*	01-3272-0120/1120
6	1	HI-FLEX HOSE 1/4" x 500, STRAIGHT	*	01-3272-0200/1200
5	*	ENDCAP FOR UNISTRUT PROFILE		01-8131-0002
4	*	MOUNTING RAIL FOR CYLINDERS	*	01-8121/30-1000
3	*	CLAMPING BOLT, 2 ROWS, INCL. NUT W/SPRING		01-8337-0200
2	*	LABEL FOR ARGONITE CYLINDER		* NOTE
1	*	ARGONITE CYLINDER		* NOTE

Revision		Description	Drawn/Vice	Checked	Approved
	4	UPDATED	MA 03.06.05	TDA	RK
	3	UPDATED	MA 99.01.05	TDA	RK
	2	5456, TITLE CHANGED, **) TEXT ADDED	MA 97.11.06	TDA	RK
	1	5447, UPDATED	MA 73.04.05	TDA	RK
	5	GAUGE UNIT CHANGED	PU 95.10.07		MS

Client:

Subject:

ARGONITE DIVERTER VALVE SYSTEM 150/200/300 BAR TWO ROWS CYLINDERS EXCL. MANUAL RELEASE GENERAL

Ginge-Kerr Danmark A/S
111, Stenhildmen
DK-2650 Hvidovre
Denmark
Tel.: +45 36 77 11 31
Fax: +45 36 77 22 31
E-mail: ginge@ginge-kerr.dk

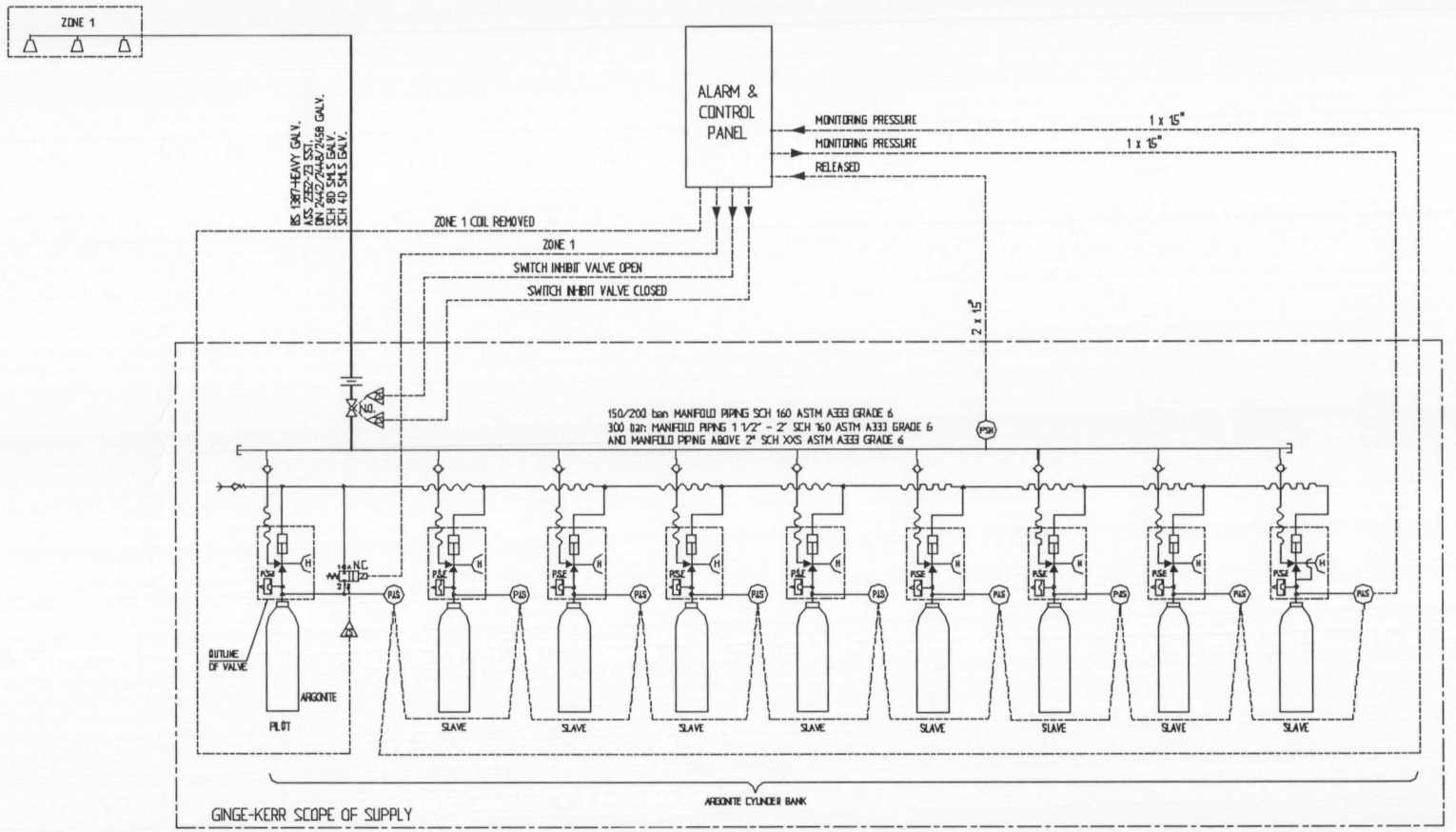
Client no.

Scale 1:10

Dwg. no. 01-9005-0070

Rev. 5

G:\DWGS\01\gang\90050070-4.DWG 03.06.05 08:59 MA



NOTE:
CABLES, JUNCTION BOX, PIPEWORK CONTROLPANEL EXCL. IS STANDARD SYSTEMS SUPPLY.

H HANDLE ONLY FOR FILLING PURPOSE

LEGEND

- CYLINDER VALVE
- N.C. MANUAL RELEASE VALVE (NOT TO BE USED IN VdS SYSTEM)
- 1 or 4 / 2 or 3 2/2 WAY SOLENOID VALVE, 24V DC 14W, MAX. ONE VALVE FOR EACH 80 CYLINDERS
- CHECK VALVE
- LEAK VALVE
- PSH PRESSURE SWITCH HIGH
- PAS PRESSURE INDICATOR SWITCH 240-400 BAR, S/P 240 BAR; 160-315 BAR, S/P 160 BAR; 120-250 BAR, S/P 120 BAR
- PSE BURSTING DISC 405 ± 45 BAR; 270 ± 30 BAR; 225 ± 25 BAR
- RESTRICTOR
- POSITION SWITCH
- BALL VALVE

Revision				
2	UPDATED	30.10.03	TDA	RK
1	5277, BALL VALVE, POSITION SWITCH ADDED	21.10.03	TDA	RK
A	FIRST ISSUE	29.08.03	TDA	RK
	Description	Drawn/Vers.	Checked	Approved

Client

Project

ARGONITE SYSTEM SINGLE AREA
P & I DIAGRAM
GENERAL (GERMANY)

Ginge-Kerr Denmark A/S
11½ Stamholmen
DK-2650 Hvidovre
Denmark
Tel: +45 36 77 11 33
Fax: +45 36 77 22 91
E-mail: gingedenmark@ginge-kerr.dk

Object no.

Scale 1:1

Dwg. no. 01-9005-0074

Rev. 2

G:\DWGS\DRAW\90050074-2.DWG 24.10.03 10:27 MA