



Industrial Systems

Like sentries, Elkhart's industrial systems are designed to stand guard over industrial complexes, refineries, chemical plants, loading docks, tanker berthings, railroad yards, offshore platforms, etc.

A complete Elkhart Brass industrial fire suppression system is composed of hardware (monitor, nozzle, valve, etc.), electrical capabilities (control system, wiring, etc.), programming and integration of the equipment within the facility. Utilizing over 20 years of experience in remote control systems, Elkhart Brass customizes all aspects of our approach to deliver a system suited to your needs. Having Elkhart Brass handle all aspects of your industrial system means your project goes in on schedule, on budget and performs as expected.



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- Design
- Manufacturing
- Commissioning
- After-sales Support
- Programming
- Certification
- Testing



GENERAL SPECIFICATION INFORMATION	
Available Flow (per monitor)	300-2000 GPM (1325- 7571 LPM)
Number of Monitors in System	1 to unlimited
Types of Environmental Conditions System Addresses	Class 1, Division 1 or Division 2
	Marine (Saltwater)
	Caustic Gas Environments
Material Options	Brass – ASTM B-62/ 85-5-5-5 (Marine spec) or ASTM 584/81-3-7-9 (standard)
	Aluminum – (cast alloy #356-A)
	Stainless steel
Types of Operator Controls	Toggle Switch (Electrical)
	Joystick (Electrical)
	Touch screen/digital panel (M-Link™)
	Plant Interface
Actuation Options	Electric
	Hydraulic
Communication Options	Electric (discrete cable)
	Electronic (digital network)
	Wireless (digital network)
Voltage Options	Support for all AC/DC voltages
Communication Protocols	Device Net
	Canbus
	Profibus
	Modbus
	IP/TPC
Common Elective Features	System status and warning notification
	Panic button discharge and oscillation
	Integrated valve
	Automatic power back-up
	Plant supervisory control integration
Redundant control	
Ratings and Certifications	CE (including ATEX), FM Approved, U.L. Listed



ADDITIONAL INFORMATION

The above noted options are only a sample of the available options. As the system will be customized to meet your needs, a wider selection of each option shown is available.



The products designated below are common elements of a complete industrial system. Elkhart Brass has a broad range of components to meet your system needs. Your entire system will be configured, tailored, and programmed to suit your individual requirements. Complete documentation, certification, and installation conformity information is provided with all systems.

HARDWARE

Elkhart Brass' ability to manufacture components on-site allows us to control the manufacturing process. This gives Elkhart Brass accountability for the design as well as total quality control assurance for error-free hardware.



ELECTRIC MONITORS

- Designed for use in Class 1, Div 2 applications
- Electronic drive allows exceptional integration with modern electronic controls
- Low maintenance



HYDRAULIC MONITORS

- Meets Class 1, Div 1 needs
- Modular, self-contained pump units with corrosion resistant actuators



VALVES

- Heavy-duty actuators
- Butterfly, ball, deluge



NOZZLES

- Complete range of nozzles designed for industrial and hazardous applications
- Nozzles are detailed on pages 6-1 and 6-2

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CONTROLS

Modern control systems are designed to increase the efficiency of response, while minimizing overall project expense. The control system itself is individually designed to meet client needs.



OPERATOR CONTROLS

- Flexible control options which can be specified for your application
- Suitable for hazardous classified environments
- Continuous oscillation and/or event-response programming available



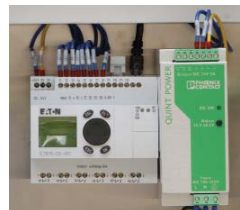
MOTOR CONTROLS

- Suitable for hazardous classified locations
- Modular designs can be scaled for your needs
- CE certified, including ATEX



M-LINK™ – MASTER

- Combines a master control with a graphic user interface
- Convenient interface to plant SCADA
- Merges multiple data streams into one visual format
- Scalable and expandable as needs change



COMMUNICATION INTERFACE

- Reduces complexity and installation cost
- Allows two-way communication of status information
- Hardwire, discrete, network or wireless protocols

PROJECT SUPPORT



- Programming
- Installation
- Commissioning
- Testing / Certification
- Controls Integration
- After Sales Support

NECESSARY INFORMATION FOR AN INDUSTRIAL SYSTEM CONSULTATION:

- Relevant project information (see chart below)
- Functional requirements
- Timeline
- Scope
- Partners
- Budgeting
- All systems are “Price on Application” (POA)

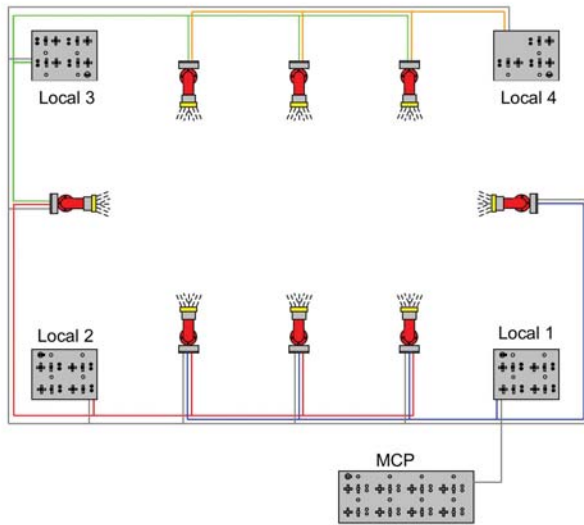
REMOTE CONTROLLED MONITOR PLANNING AND INQUIRY FORM

	Label/identifier	Qty.	Flow	Water only	Water/foam	Elevated	Control style (see chart)	Valve (& size)	Location Classification		
									Monitor	Local Control	Valve
<i>Ex.</i>	<i>storage transfer</i>	<i>2</i>	<i>2000gpm</i>	<i>x</i>		<i>25'</i>	<i>1C</i>	<i>none</i>	<i>cl1 div 2</i>	<i>unclass</i>	<i>N/A</i>
A											
B											
C											
D											
E											
F											
G											
H											
I											
Foam system type (central, local, self-educing nozzle, foam type, etc):											
Valve location (base of monitor, base of riser, central, etc):											
Master control console environment (indoor, outdoor, hazardous, etc):											
Approximate distance – master control to monitors:											
Environmental											
General air temperature range:											
Water supply (fresh, seawater, etc):											
Available power:											
Other environmental concerns:											



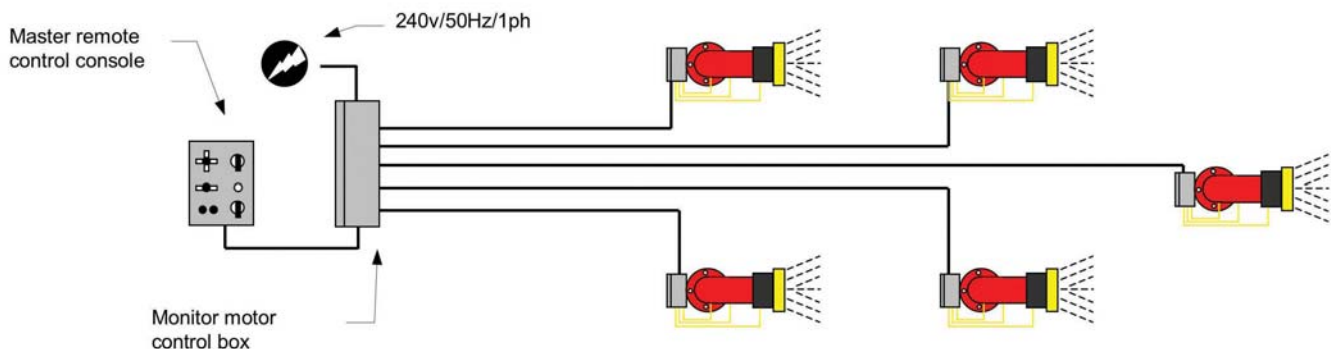
Below are two examples of custom-designed system/site lay-outs. Each system lay-out carefully assesses various factors — application function, site constraints, and risk for optimal design.

EXAMPLE 1



- Single network with redundant control locations
- Challenges: covers multiple areas and functions as a standby for firefighter use
- Ultra high risk location

EXAMPLE 2



- Hardwire with single control location
- Challenges: continuous use and power supply limitations
- No risk location

BENEFITS OF ELKHART BRASS

Leveraging Elkhart Brass' know-how in the industrial system arena gives you a hassle-free experience. Elkhart Brass brings all project aspects from design to manufacturing through programming and support "under one roof" — assuring your project will:

- Maintain project integrity through consistent management
- Achieve more focused cost control
- Realize on-time delivery and installation

Elkhart Brass utilizes proven modular components — including products certified by CE, U.L. listed, and/or FM approved — to build systems tailored to your specific requirements. The Elkhart Brass solution guarantees you receive:

- Maximum performance
- Maximum reliability
- Minimized costs

With Elkhart Brass systems, the instant the system is needed for fire protection or actual firefighting, the "hardware" (monitors, nozzles, valves, etc.) can be activated from a remote location where the operator can: turn on the water supply, direct monitors vertically or horizontally, and change the stream pattern of the nozzle — all from a safe distance. Some standard safety options include:

- An option that allows the monitor to oscillate automatically, freeing the operator to tend other duties
- An option for one or more pre-set automatic oscillation arcs for coverage of highest risk areas
- The option of a secondary control station at another remote location (several monitors can be operated from one control station)

BENEFITS OF ELECTRIC MONITORS

Electronic monitors offer more control options while maintaining a similar price point to hydraulic monitors. Additionally, with electronic monitors, the controls themselves are fully integrated into the system. Some of the highlights of an electric monitor system include:

- Less costly to install than hydraulic or water-powered monitors
- Less maintenance than hydraulic or water-powered monitors through the use of industrial hardened electronics
 - IP68 industrial, over-molded, quick-connect motor cables are fast, error-free, and rugged
- Less complicated interface to modern operator controls

BENEFITS OF NETWORK COMMUNICATIONS

Network communications are adaptable to changing needs while being cost-effective.

- Due to the cable type/size/conduit, cost savings in the installation phase
- Allows advanced two-way communications
- As needs change, the system easily accommodates expansion
- Easier to build-in safety redundancy and reliability through back-up communications



ACCESSORIES



296 HYDRANT BASE

- Inlet: 6" 150# ANSI flange
- Outlet: 4" 150# ANSI flange
- Hydrant outlets: Four 2.5" male outlets with caps and chains (standard) or three 2.5" and one 4.5" male outlet with caps and chains (optional)
- Cast iron construction
- U.L. Listed (only four 2.5" outlet version)
- Finish: red urethane enamel
- Weight: 71 lbs.
- X-86 or B-94 valves may be ordered for any of the 2.5" outlets



702 AUTOMATIC BALL DRIP DRAIN VALVE

- Drains at a rate of 2/3 gpm for up to 20' head of water when pressure drops below 10 psi
- 0.75" male inlet and outlet
- Mounts horizontally
- Cast brass construction
- Length: 3"
- Weight: 0.778 lbs.



84 BUTTERFLY WAFER VALVE

- 84
 - Cast iron body with #316 stainless steel upper and lower stems
 - Pressure rated at 250 psi
 - Seat/seal is EPDM
 - Standard handle features 10 locking positions
 - Optional handle is gear operated
 - Size: 3" (11.3 lbs.) or 4" (14.3 lbs.) – (*specify*)
 - Thickness: 2"
- 84 H
 - Designed for use with 8393-H (page 5-63)
 - Same general specifications as above
 - Size 3"



ANCHOR KITS

- Portable monitor (P/N 81204001)
 - Heavy duty spike
 - 10' steel chain
 - Mallet
 - Self-contained portable bag.
- R.A.M.®/Stinger® RF (P/N 81460001)
 - Heavy duty spike
 - Mallet
 - Self-contained portable bag

Extender for Vulcan® Series

For use with the Elkhart Vulcan® Series of monitors and a range of other compact monitors, the Extender is designed to provide better clearance for the monitor which allows for a wider coverage range and addresses firefighter safety concerns. It is compatible with monitor and nozzle flow ratings of 1250 gpm (max) with 100 psi nozzle pressure (max inlet pressure rating of 200 psi).

The Extender deploys in 10 seconds and extends a full 18 inches. The Extender is designed to flow in both the full up and full down positions.

Safety features of the Extender include:

- An in-cab warning light to alert the driver to incomplete retraction
- Pressure switch to limit the movement when internal pressure exceeds 10 psi
- Automatic drain system on the vertical piping to drain all water from the monitor and piping upon closing the water valve

The Extender is electrically actuated through a pump panel push-button control pad with actuator rated for a static load of up to 2500 pounds. The chassis electrical system provides power for the Extender.

The Extender is compliant with applicable 2003 NFPA #1901 standards.

All mounting and wiring materials are included in the Extender package.



8598 Chart

INCLUDED COMPONENTS		MODEL
Controller	with position indicator	81385001
Harnesses	for primary/secondary controller	36824000
	for caution lamp	36838000
	to chassis (power)	36792000
Power Sensor Harness (select one)	5 ft (<i>specify</i>)	36793300
	10 ft (<i>specify</i>)	36793500
	20 ft (<i>specify</i>)	36793600
	30 ft (<i>specify</i>)	36793700
	40 ft (<i>specify</i>)	36793800