

CONQUEST SYSTEM SPECIFICATION SHEET

Please complete ALL form information this will assist Akron Brass with creating an accurate quote

Distributor Name:

Client Name:

Plant Location:

Engineering Firm Name:

Contact:

Contact:

Ship to Country:

Contact:

OPERATING INFORMATION

System Application:

Fire Suppression

Cooling

Vapor Mitigation

MECHANICAL CONSTRUCTION

MONITOR INFORMATION

Quantity of Monitors:



Certification Required:	Description of area	Check below boxes that apply only
FM	Class 1/Division 2	
ATEX	Zone 1 EU	
ATEX	Zone 2 EU	
CSA	Canada	

Manual Override Style:	Check below boxes if required only
Standard wrench allen drive	
Tethered removable handwheel	

Standard Akron Brass Red:

or

Customer specified RAL#

Do to certifications we cannot alter Monitor or Nozzle specifications:

Monitor Material: Brass C84400 Only

Monitor Inlet: 4" 150lb flat faced flange on all but ATEX Zone 1, which is a raised face flange.

Monitor Outlet: 3-1/2"NH "Only"

NOZZLE INFORMATION

Quantity of Nozzles: _____

Flow: _____

Pressure: _____

Baffle Type:

Pressure Balanced
(Automatic)

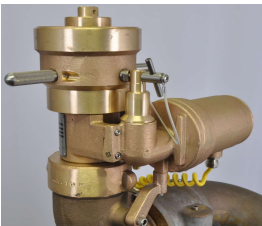
Fixed Gallonage
(Specific Flow)

Discription of Nozzle Style

5097 ☐

2197 ☐

Fire suppression nozzles
flows from 300-1000gpm
1135-3800lpm
approx. reach 260'



5098 ☐

2198 ☐

Vapor mitigation nozzles
flows from 500-2000gpm
1900-7600lpm
approx. reach 280'



5099 ☐

2199 ☐

Fire suppression nozzles
flows from 500-2000gpm
1900-7600lpm
approx. reach 330'



ELECTRICAL CONSTRUCTION

MOTOR CONTROL UNIT INFORMATION

Client supplied power: Voltage/Phase/Hz / /

<u>Certification Required:</u>	<u>Description of area</u>	<u>Check applicable box only</u>
GENERAL PURPOSE <u>(none)</u>	non-classified	<input type="checkbox"/> "Only Check One"
FM	Class 1/Division 2	<input type="checkbox"/> "Only Check One"
ATEX	Zone 1 EU	<input type="checkbox"/> "Only Check One"
ATEX	Zone 2 EU	<input type="checkbox"/> "Only Check One"
CSA	Canada	<input type="checkbox"/> "Only Check One"

Enclosure Type:

NEMA 4X

☐

304 Stainless Steel

☐

316 Stainless Steel

NEMA 7

☐

Cast Aluminum (flameproof)



ATEX (ZN2 Only) Option:

☐

Operator switches in door for Zone 2 enclosures (count as an operator panel)

LOCAL OPERATOR PANEL

Quantity of panels Required-

<u>Enclosure Type-</u>	<u>NEMA 4X</u>	<input type="checkbox"/>	304 Stainless Steel	
		<input type="checkbox"/>	316 Stainless Steel	
	<u>IP66 Increased Safety</u>	<input type="checkbox"/>	304 Stainless Steel	(ATEX Only)
		<input type="checkbox"/>	316 Stainless Steel	(ATEX Only)
	<u>NEMA 4</u>	<input type="checkbox"/>	Carbon Steel	



General purpose or NEC

<u>Certification Required:</u>	<u>Description of area</u>	<u>Check applicable box only</u>
GENERAL PURPOSE <u>(none)</u>	non-classified	<input type="checkbox"/> "Only Check One"
**NEC	Class 1/Division 2	<input type="checkbox"/> "Only Check One"
ATEX	Zone 1 EU	<input type="checkbox"/> "Only Check One"
ATEX	Zone 2 EU	<input type="checkbox"/> "Only Check One"
CSA	Canada	<input type="checkbox"/> "Only Check One"



ATEX ZN1 and ZN2

No joystick available
for ATEX versions
pushbutton only

** No certificate supplied. All components are rated for
Class 1, Div.2 Groups C&D hazardous areas

MASTER OPERATOR PANEL

** No certificate supplied. All components are rated for Class 1, Div.2 Groups C&D hazardous areas

Quantity of panels Required- _____

Quantity of Stations Required- _____

Enclosure Type-	NEMA 4X	<input type="checkbox"/>	304 Stainless Steel	
		<input type="checkbox"/>	316 Stainless Steel	
	IP66 Increased Safety	<input type="checkbox"/>	304 Stainless Steel	(ATEX Only)
		<input type="checkbox"/>	316 Stainless Steel	(ATEX Only)
	NEMA 4	<input type="checkbox"/>	Carbon Steel	

Certification Required:	Description of area	Check applicable box only
GENERAL PURPOSE (none)	non-classified	<input type="checkbox"/> "Only Check One"
**NEC	Class 1/Division 2	<input type="checkbox"/> "Only Check One"
ATEX	Zone 1 EU	<input type="checkbox"/> "Only Check One"
ATEX	Zone 2 EU	<input type="checkbox"/> "Only Check One"
CSA	Canada	<input type="checkbox"/> "Only Check One"

No joystick available for ATEX versions pushbutton only



Suitable for NEC Class 1 Div. 2 or General Purpose



ATEX certified

WIRELESS REMOTE CONTROL

Quantity of transmitters Required- _____
"include spares if needed"

Quantity of Recievers (monitors) Required- _____



WRC recievers are mounted to FM and Zone 2 motor control enclosures

Certification Required:	Description of area	Check applicable box only
GENERAL PURPOSE (none)	non-classified	<input type="checkbox"/> "Only Check One"
NEC	Class 1/Division 1	<input type="checkbox"/> "Only Check One"
NEC	Class 1/Division 2	<input type="checkbox"/> "Only Check One"
ATEX	Zone 1 EU	<input type="checkbox"/> "Only Check One"
ATEX	Zone 2 EU	<input type="checkbox"/> "Only Check One"



CONQUEST

Electric Remote Controlled Monitor



AKRON
BRASS COMPANY

CONQUEST

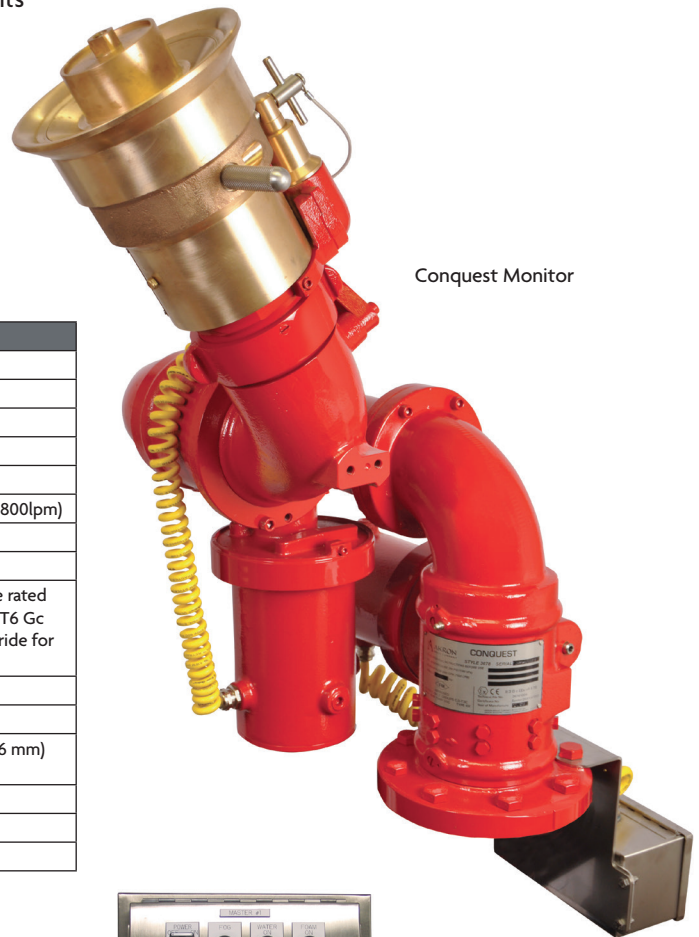
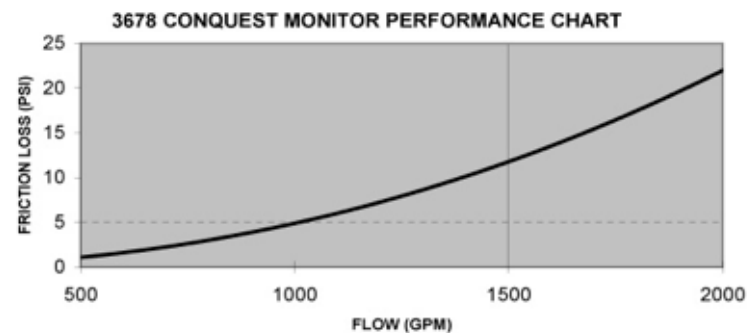
Electric Remote Controlled Monitor

The Conquest Electric Remote Controlled Monitor System was designed as a small compact unit with exceptional performance and value. This System is ideal for use in industrial fire suppression, vapor mitigation, and other fixed site applications.

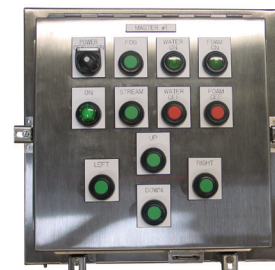
- Brass construction of Monitor and Nozzle for use in severe environments
- Efficient flows up to 2000 gpm (7600 lpm) through a 4" waterway
- FM approved for NEC Class 1, Div. 2, Groups C&D hazardous locations
- ATEX approved Zone 2 hazardous locations, with option of Zone 1
- Electric motors with current limiting and dynamic braking
- Fixed or automatic baffle nozzles with wide angle fog pattern
- Manual overrides

MONITOR SPECIFICATIONS	
Material	Cast brass construction
Max. Flow	2000 gpm (7570 lpm)
Inlet	4" 150# flange
Outlet	3 1/2" NH
Waterway	4" (102mm) diameter internal waterway with turning vanes
Friction Loss	20 psi at 2000gpm (1.4 bar at 7600lpm) 6 psi at 1000gpm (0.42 bar at 3800lpm)
Rotation	340° rotation.
Elevation	175°, +90° above horizontal to -85° below horizontal.
Motors	AC motors with brass housings for elevation and rotation. Motors are rated for NEC Class I, Div. 2, Groups C & D locations and EX II 3 G Ex nR IIC T6 Gc (-40° C < Ta < 60° C) ATEX Zone 2 locations. Motors have manual override for operation during power failures. Specifically designed for marine use.
Operating Temperature	- 40°F to +140°F (-40°C to + 60°C)
Operating Pressure	200 psi max. (14 bar max.)
Dimensions	21 1/2" (546 mm) high, 17" (432 mm) wide (radius of motion), and 14" (356 mm) deep (radius of motion)
Weight	185 lbs. (84 kg)
Max. Reaction	1430 Lbf. (6360 N) Force
Moment At Base Inlet	1907 Lb.-ft. (2585 N-m)

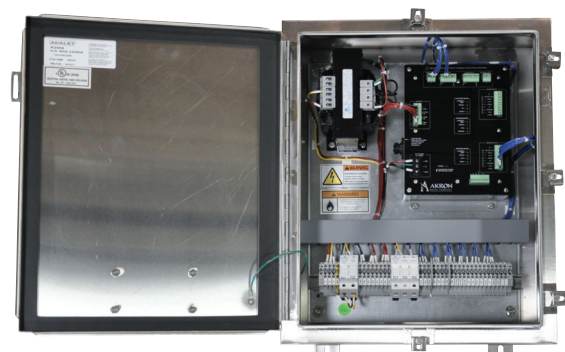
MONITOR/NOZZLE CERTIFICATIONS AVAILABLE	
FACTORY MUTUAL [FM] (UNITED STATES) Class 1, Div. 2, Groups C, D	
ATEX (EUROPE) II 3 G Ex nR IIC T6 Gc (-40° C < Ta < 60° C) Zone 2	
II 2G Ex d IIC T6 Gb (-20°C to +60°C) Zone 1	
CSA (CANADA)	



Conquest Monitor



Local Operator Panel



Motor Control Unit

330.264.5678 | 1.800.228.1161 | akronbrass.com | akroncare@idexcorp.com

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Nozzle Specifications

2197/5097

- Fixed orifice baffle/Constant pressure balanced baffle (automatic)
- Inlet 3-1/2" NH
- Brass construction
- Pattern straight stream to 90° wide fog
- Operating pressure maximum 150 psi (10.5 bar)
- Weight 53 lbs.
- 300-1000 gpm (1135-3800 lpm) flow range
- Reach of approx. 265 ft. at 1000 gpm



2198/5098

- Fixed orifice baffle/Constant pressure balanced baffle (automatic)
- Inlet 3-1/2" NH
- Brass construction
- Pattern straight stream to 135° wide fog
- Operating pressure maximum 150 psi (10.5 bar)
- Weight 61 lbs.
- Vapor Mitigation nozzle designed for wide fog application therefore effective reach is slightly reduced.
- 500-2000 gpm (1900-7600 lpm) flow range
- Reach of approx. 230/280 ft. at 2000 gpm



2199/5099

- Fixed orifice baffle/Constant pressure balanced baffle (automatic)
- Inlet 3-1/2" NH
- Brass construction
- Pattern straight stream to 90° wide fog
- Operating pressure maximum 150 psi (10.5 bar)
- Weight 61 lbs.
- 500-2000 gpm (1900-7600 lpm) flow range
- Reach of approx. 340/300 ft. at 2000 gpm



OPERATOR PANELS

- Master operator panels designed to control multiple monitors. Custom engineered to meet the customers operator requirements with respect to size, features and functionality. Available for Hazardous Area locations.
- Local operator panel custom engineered to meet the customers control requirements with respect to size, features and functionality. Available for Hazardous Area locations.
- Wireless handheld controls



ZONE 1



ZONE 2

MOTOR CONTROL UNIT:

- Custom three axis AC Motor Drive
- Forward and reverse operation for each motor
- Motors with current limiting protection and dynamic braking
- Manual overrides
- Master and Slave control inputs
- Two internal relays for operation of up to two valves, with max. switching voltage of 300VAC 5amps
- Operating temperature range of +140° to -40°F (Zone 2)
- FM approved- Class I, Div. 2, Groups C, D
- CE, ATEX Zone 1, II 2 G Ex d IIB T6 Gb, II 2 D Ex tb IIIB T85°C Db (-20° C to +60° C)
- CE, ATEX Zone 2, II 3 G Ex nAnC IIC T6 Gc (-40° C < Ta < 60° C)
- Enclosures NEMA 4X, IP65 (Zone 2) standard enclosure 304SS or optional 316SS, Optional EX flameproof enclosure (Zone 1)
- Input voltage 120-600VAC 50/60Hz 500w
- Optional wireless receiver for wireless remote control with hand held transmitter. (Belly Pack)
- Optional Ethernet I/O Module provides an ethernet network interface for remote operation (ATEX) II 3 G Ex nAnC IIC T4 Gc (-20° C < Ta < 50° C)
- Optional Fiber Optic Media Converter for remote operation via fiber optics (ATEX) II 3 (2) G Ex nAnC [op pr Gb] IIC T4 Gc (-20° C < Ta < 50° C)
- Optional Pushbutton Operators in door for monitor operation (ATEX)
- All systems functionally tested during final factory inspection



Custom
Systems
Available



AKRON[®]
BRASS COMPANY

Akron Brass Company
343 Venture Blvd. | P.O. Box 86
Wooster, OH 44691
Phone: 330.264.5678 | 800.228.1161
E-Mail: akroncare@idexcorp.com
akronbrass.com

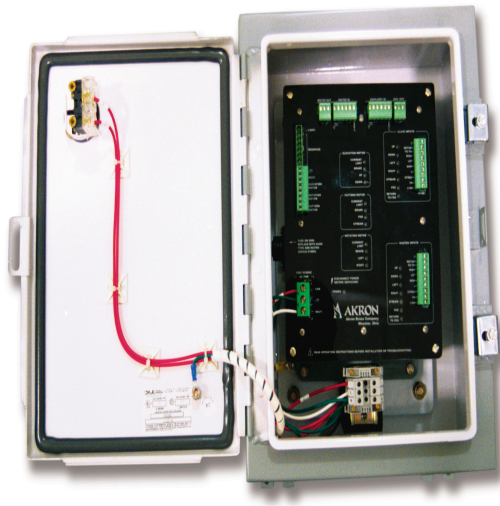


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Conquest Remote Control Monitor System

STYLE 3678



Conquest Remote Control Monitor System

STYLE 3678

The system should consist of the following components, monitor, nozzle and Control system.

- Monitor – Shall be ATEX approved for all gas groups II 3 G Ex nR IIC T6 Gc. Also FM approved for Class 1, Div. 2, Group C & D locations. Cast Brass construction with a maximum flow of 7600 LPM (2000GPM), 4" FF 150 lb. Flange inlet x 3 1/2" NH outlet with a 4" internal water way with cast in turning vanes, 340° rotation and +90° above horizontal to -85° below horizontal. Monitor shall have hard wired AC drive motors to be enclosed in a cast brass housing with manual override.

Temperature range from -40C to +60 C (-40F to 140F)

- Nozzle – Shall be a pressure balanced or fixed flow nozzle (Must specify). Shall be ATEX approved for all gas groups II 3 G Ex nR IIC T6 Gc. Also FM approved for Class 1, Div. 2, Group C & D locations. Cast Brass construction with flows between 1900 -7600 LPM (500 - 2000GPM). Nozzle to have hard wired AC drive motor to be enclosed in cast brass housing with manual override.
- Motor Control Unit – Shall be 120-600VAC 50/60 Hz and have three axis motor drive, line filter and terminal strip. It should have the following operator inputs, Left/Right, Up/Down, Stream /Fog from master or slave control inputs. It should have the following features, 120VAC LED power indicator, LED input and output indicators on drive, LED status for trouble shooting, 120VAC Line filter, 5 Amp slow blow fuse, internal hermetically sealed relays for water on/off, foam (Aux) on/off. Axis drive unit is a self-contained unit for easy repair or replacement. FM approved for: Class 1, Div. 2, Group C&D locations.

Also rated: ATEX Zone 2, II 3 G Ex nAnC IIC T6 Gc.

- Master Control Panel - The Master Control Panel will contain (Must Specify Qty. of stations) monitor control stations and use 24VDC control voltage supplied from the motor control unit.

Controls include: Power on/off selector switch with pilot light, Joystick for left/right and up/down operation, Set of fog/straight stream pushbutton switches, set of water on/off pushbutton switches (for Class 1, Div. 2, Group C & D locations). Power on/off selector switch with pilot light, pushbuttons for left/right and up/down operation, Set of fog/straight stream pushbutton

switches, Set of water on/off pushbutton switches (for ATEX Zone 2, II 3 G Ex nAnC IIC T6 Gc. The enclosure will be, NEMA 4X, (Increased Safety for ATEX) and made of stainless steel.

Panel is pre-wired to a numbered terminal strip. Rated for Class 1, Div.2, Group C&D locations. Rated for: ATEX Zone 2 Locations

- Single Station Control Panel - The Local Control Panel will contain (1) monitor control station and use 24VDC control voltage supplied from the motor control unit. Controls include: Power on/off selector switch with pilot light, Joystick for left/right and up/down operation, Set of fog/straight stream pushbutton switches, set of water on/off pushbutton switches (for Class 1, Div. 2, Group C & D locations).

Power on/off selector switch with pilot light, pushbuttons for left/right and up/down operation, Set of fog/straight stream pushbutton switches, Set of water on/off pushbutton switches (for ATEX Zone 2, II 3 G Ex nAnC IIC T6 Gc. The enclosure will be, NEMA 4X, (Increased Safety for ATEX) and made of stainless steel.

Panel is pre-wired to a numbered terminal strip. Rated for Class 1, Div.2, Group C&D locations. Rated for: ATEX Zone 2 Locations

Deliverables

<u>ITEM</u>	<u>QUAN.</u>	<u>DESCRIPTION</u>
A	1	Conquest Monitor

The Style 3678 Conquest Monitor is a fixed site, electrically operated, vapor mitigation and firefighting device, designed to flow water up to 2000 gpm. Unlike many competitors that adapt existing products intended for truck applications the Conquest Monitor is specifically designed for industrial applications and the harsh environments they are located in. Painted RAL 3000.



ATEX approved Zone 1 II 2 G Ex d IIC T6 Gb

Conquest Nozzle

The Style 5099 Conquest Nozzle is an electrically adjustable fog nozzle. The nozzle comes equipped with a pressure balanced baffle designed to flow 500 to 2000 gpm at an approximate pressure of 100 psi. The nozzle is also equipped with a manual override system.



ATEX approved Zone 1 II 2 G Ex d IIC T6 Gb

Conquest Motor Control Unit

The Conquest Control Unit contains a custom engineered, three axis motor drive module, control transformer, auxiliary relays and terminal strips for easy field connections. All components are housed in a cast aluminum flameproof enclosure.



Power 230V, 60Hz, 2.5 Amps

ATEX approved Zone 1 II 2 G Ex d IIB T6 Gb.
 Approved by Intertek

**Wiring between Motor Control Unit and Monitor not included. Must be provided by installer.
 Akron Brass Co. will supply wire specifications.**

B 1 Local Operator Panel

The Local Control Panel will contain (1) monitor control station and use 24 VDC control voltage supplied from the motor control unit.

Controls include:

- (1) Power on/off switch with pilot light
- (1) Pushbuttons for left/right and up/down operation
- (1) Set of fog/straight stream pushbutton switches
- (1) Set of water on/off pushbutton switches
- (1) Set of foam on/off pushbutton switches



The enclosure will be Increased Safety IP66 and made of stainless steel. Panel is pre-wired to a numbered terminal strip

ATEX approved: II 2 G Ex d e IIC T6X Gb
Zone 1 & 2 (T5:Ta ≤ +55°C)

Power and control penetrations and final electrical connections by others. Control scheme for water and or foam valve by others.

Wiring between Local Operator Panel and Motor Control Unit not included. Must be provided by installer. Akron Brass Co. will supply wire specifications.

Standard Documentation Provided for Remote Controlled Monitor Systems

Title	Description
AC Conquest – Assembly & Fab	Includes BOM, approximate weight, mounting dimensions, external dimensions, mounting plate details showing mounted components and terminals, panel tags & hazardous identification plates, if applicable, and enclosure fabrication.
Motor Control Unit – Wiring	Internal wiring with applicable notes and procedures.
Operator Panel – Assembly & Fab (If Supplied)	Includes BOM, approximate weight, mounting dimensions, external dimensions, mounting plate details showing mounted components and terminals, panel tags & hazardous identification plates if applicable, and enclosure fabrication.
Operator Panel – Wiring (If Supplied)	Internal wiring with applicable notes and procedures.
Operator Panel – Assembly, Wiring, & Fab (If Supplied)	Includes BOM, weight, mounting dimensions, external dimensions, mounting plate details showing terminals, panel tags & ATEX hazardous identification plate, internal wiring, & enclosure fabrication (including hole for customer supplied cable gland).
Connection Diagram	Shows connections between: <ul style="list-style-type: none"> • Motor Control Unit and Monitor/Nozzle • Connection to water valve (if known) • Connection to foam valve (if known, if applicable) • Motor Control Unit & Operator Panel(s) Includes: <ul style="list-style-type: none"> • Suggested conductor gauge and No. of conductors • AC Power requirements
Monitor Assembly & BOM	Assembly Details
Nozzle Assembly & BOM	Monitor BOM

Manual

Title	Description
AC Conquest Monitor System Installation, Maintenance, & Operation	Standard AC Conquest Manual w/ electrical drawings.

Certificates

Title	Description
Certificate Of Conformance – Paint, Preparation, & Coating	Paint Certificate (If applicable)
Certificate Of Conformance – Testing Log	Testing Certificate For Monitors and Nozzles
Certificate Of Conformance – Functional Test	Test Certificate For Motor Control Units and Operator Panels Passed Functional Testing which includes: <ul style="list-style-type: none"> • All operator panel indicators • All operator panel pushbuttons & switches • All operator panel I/O • All Motor Control Unit I/O
Certifications	ATEX Certificates Monitor/Nozzle, Motor Control Unit and LCP