METRON
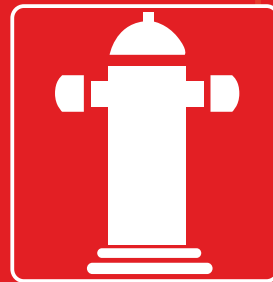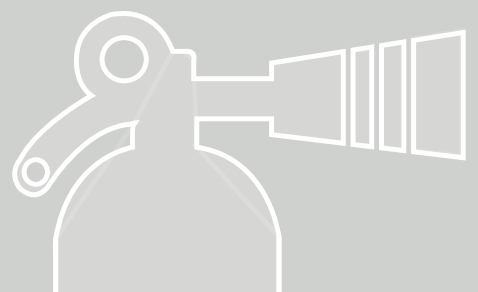## INTERNATIONAL

FIRE FIGHTING & SAFETY CATALOG

ABOUT US

Thank you very much for giving us an opportunity to introduce ourselves. We are one of the leading Fire Safety & Security solution providers in Pakistan.

We designed and executed various types of Fire Protection systems right from the conceptual design till up to commissioning and maintenance. The numerous projects executed by us for Government of Pakistan and foreign contractors for oil fields Power, Energy and Industrial sectors as well as private and Public Sectors are the classic examples for our professional competency. We are specialized in Designing, Supply, Installation, Testing, Commissioning, Servicing and Maintenance of Various Fire Protection and Alarm Systems. Our highly qualified and well experiencedteam of Engineers is able to Design, Install and commission the system to meet the requirement of NFPA, FPAP, and other Local Authorities. Quality is the first of our company motto.

We not only offer the products, but we also back-up what we shall with full servicing, maintenanceand training options. We have a separate department totally dedicated for maintenance of fire fighting systems & security equipment. We offer The service of our Engineers & Technicians 24/7 for emergencyrequirements.Future we also undertake annual and semiannual maintenance contracts, which will ensure the smooth functioning of the various fire fighting & Security equipment throughout the year.

ANALOG SENSORS & BASES

PHOTOELECTRIC SMOkE SENSOR

- Low Profile – Only 2.0" high, including base
- Simple and reliable device addressing method
- Automatic compensation for sensor contamination
- Built-in fire test feature
- Uses the noise immune Digital Communication Protocol (DCP) which utilizes interrupts for fast response to fires
- Two built-in power/alarm LED's
- Non-directional smoke chamber
- Vandal resistant security locking feature
- Removable smoke labyrinth for cleaning or replacement
- Compatible with the ALG-V Photoelectric sensor, ACA-V Multi-Criteria Sensor
- & the ATG-EA heat sensor
- Adjustable threshold temperature 135°F - 150°F (determined by panel)

FIXED TEMP/RATE OF RISE HEAT SENSOR

- Low Profile – Only 2.0" high, including base
- Simple and reliable device addressing method
- Uses the noise immune Digital Communication Protocol (DCP), which utilizes interrupts for fast response to fires
- Rate of Rise temperature threshold - 15°F/Min (determined by panel)
- Adjustable threshold temperature 135°F - 150°F (determined by panel)
- Applicable for indoor (ACB-EA) and outdoor (ACB-EAW) installations

- Designed for use with all NS analog sensors
- Contains a security locking tab for tamper protection
- Available in 4 and 6 inch models

ANALOG ADDRESSABLE MANUAL PULL STATION

- Addressable integrated design
- All metal construction
- Single and dual action models available
- Extremely easy to operate
- Bi-colored status LED indicates Standby and Alarm conditions
- Address is programmable in EEPROM
- Key lock or hex key lock models available
- Terminals accept up to 14AWG wire
- Surface mount back box available

SELECTABLE CANDELA EVACUATION SIGNALS

- Nominal voltage 12VDC and 24VDC
- 24VDC units have field selectable candela options of 15, 30, 60, 75, and 110 candela
- 12VDC units have field selectable candela options of 15, 30, 60, and 75 candela
- Synchronize strobe and/or horn with Hochiki Series Control Module (12VDC product must use the HAVSM Module)
- Input terminals supports 12 to 18 gauge wire
- Switch selection for high or low dBA
- Switch for chime, whoop, mechanical and 2400Hz tone
- Switch for continuous or temporal 3 (not available on whoop tone)
- Surface mount with the HSB (Hochiki ceiling surface mount box)
- Silence horn while strobes remain flashing
- Wide voltage range 8-17.5VDC (12VDC units) 16-33VDC or FWR (24VDC units)
- Faceplate available in Red or Off-White

HAND-HELD PROGRAMMER

- Compact unit; easy to use
- Provides address setting and reading
- Can be used on both sensors and modules
- Has the diagnostic ability to display the sensor analog value

CONVENTIONAL CONTROL PANEL

- Expandable panel selection
- Class A or B initiating circuits
- Indicating circuits with individual trouble indicators
- (1.7 Amp Max. per circuit)
- Each indicating circuit can be silenceable or non-silenceable
- Audibles may be configured as steady, temporal code, California code or march time
- Each initiating circuit can be configured as alarm, supervisory, waterflow or trouble
- Outputs for 4 wire re-settable smoke power supply
- Alarm verification in initiating circuits
- Easy configuration via DIP switches or push button and slide switches on front panel

PHOTOELECTRIC SMOKE DETECTOR

- 2 or 4 wire base compatibility, relay bases available
- Highly stable operation, RF/Transient protection
- Low standby current, 45µA at 24VDC
- Two built-in power/sensitivity supervision/alarm LEDs
- Non-directional smoke chamber
- Built-in magnetic go/no go detector test feature
- Automatic Sensitivity window verification function
- meets outlined requirements in NFPA 72, Chapter 2 & 7,
- Inspection, Testing and Maintenance

FIXED TEMPERATURE AND RATE OF RISE HEAT DETECTOR

- Low profile
- UL Listed spacing up to 60' by 60'
- 2 or 4 wire base compatibility, relay bases available
- Highly stable operation, RF / transient protection (reduces false alarms)

Two built-in power / alarm LED's confirm detector status

CONVENTIONAL BASES

- The conventional bases come in 4" or 6" diameter, and are available with or without a current limiting resistor (depending upon control panel requirements) and are available in either bone or white plastic.

MANUAL NON-CODED PULL STATION

- Metal Construction
- Enclosed switch with glass rod (included)
- 10 Amps @ 120 VAC
- Available in: Single Action, Dual Action and Dual Action in Spanish (HPS-DAH/S)
- UL, CSFM Listed

ALARM SOUNDER WITH FLASHER

- Nominal voltage 12VDC and 24VDC
- 24VDC units have field selectable sounder options of 15, 30, and 60
- 12VDC units have field selectable sounder options of 15, 30, and 60
- Synchronize strobe and/or horn with Hochiki Series Control Module
- Faceplate available in Red or Off-White

FIRE EXTINGUISHERS

WATER FIRE EXTINGUISHERS

Water is still one of the most useful of all available fire extinguishants. It works through its cooling effect on fire, and under pressure from a controllable-discharge extinguisher, can penetrate and knock out deep-seated Class A fires. Fire ratings provide a means of measuring the effectiveness of an extinguisher in terms of the maximum size of fire that can be extinguished.

POWDER FIRE EXTINGUISHER

Dry powder fire extinguishers are a highly versatile Class A, B & C fire-fighting medium suitable for most risks. In addition to dealing with electrical hazards, flammable liquids and gases, powder is also effective for vehicle fires.

CARBON DIOXIDE EXTINGUISHER

Fire ratings provide a means of measuring the effectiveness of an extinguisher in terms of the maximum size of fire that can be extinguished. Class B is related to fire surface area and the rating figure to the quantity of flammable liquid in a ratio of 1/3 water, 2/3 fuel that can be extinguished in a circular tray.
Gas is harmless to delicate equipment and materials. Ideal for modern office environments, all electronic risks, and where oils, spirits, solvents and waxes are in use.

FOAM FIRE EXTINGUISHERS

Spray Foam fire extinguishers provide a fast, powerful means of tackling 'A' and 'B' class fires. Highly effective against petrol and volatile liquids, forming a flame smothering seal over the surface and preventing re-ignition. Ideal for multi-risk usage. Fire ratings provide a means of measuring the effectiveness of a fire extinguisher in terms of the maximum size of fire that can be extinguished

CLEAN AGENT FIRE EXTINGUISHER

The benefits of a clean agent fire extinguisher are speed in suppressing fires, reducing damages, saving on floor space and alllowing visibility. It leaves no residuel and doesn't require costly clean up, unlike sprinklers and other fire extinguishers
Our extinguishers are designed to extinguish a fire quickly and effectively thus allowing businesses to continue operationg with minimal interuptions.

Ceiling Mounted Fire Extinguisher

Ceiling mounted fire extinguisher does not require externat support to operate and works automatically. we provide portable size, easy installation and relocating type fire extinguisher which can be used for local application or total flooding of hazards. These extinguishers works on sprinkler technology which is again accompanied with air tight nozels.

MOBILE TROLLEY UNITS

Designed to protect large industrial and marine risks, wheeled mobile units can be supplied in a choice of sizes and extinguishant to suit the specific risk.
- Foam
- Powder
- CO2

Fire Cabinets

Surface Mounted Cabinets

We provide surface mounted cabinet with a separate compartment for the accommodation of portable extinguisher or similar equipments. Reel has been fastened on a 180° hanged support and installed on the right side of the cabinet.

HOSE		SIZE (mm)
Diameter (mm)	Length (m)	W x H x D
25	30	740 x 840 x 250
25	30	740 x 840 x 200
25	30	740 x 840 x 250

Fire Hose Cabinet

Fire hose cabinet suitable for surface & wall mounting besides fire hydrant. Fire hose pipe with aluminum alloy male and female coupling complete with nozzle.

HOSE		SIZE (mm)
Diameter (mm)	Length (m)	W x H x D
65	30	590x610x340
65	30	510x1163x300

Fire Hose Rack Cabinet

Fire hose rack cabinet suitable for surface mounting. Rack unit with valve has been installed on the right side of the cabinet. Hose rack is located inside building at the wet or dry riser outlet.

HOSE		SIZE (mm)
Diameter (mm)	Length (m)	W x H x D
38	30	740 x 840 x 200
65	30	740 x 840 x 250

HOSE REELS

Cabinet Mounted Hose Reel

Cabinet Mounted hose reels are mounted in a cabinet. Reel is hanged with arm. Thus hose can be extended in any direction easily without requiring any hose rack.

Wall Mounted Hose Reel

Wall mounted hose reels are mounted on a hanged arm. Reel is hanged with 180° slope. Thus hose can be extended in any direction easily without requiring any hose rack.

Fixed Type Hose Reel

The unique feature in the fixed type hose reel design. The design is the slide in wall mounting bracket which is a separate strong and rigid galvanized steel bracket that is initially installed on to the concrete wall without the hose reel

FIRE HYDRANT VALVES

STRAIGHT THROUGH VALVE

Inlet Size
Male BSP Thread 65mm
Female Screw 65mm-NST
ANSI 150 FF Flange 65mm
BS 4504 PN16 65mm
BS 10 Table E Flange 65mm
ANSI 150 FF Flange 80mm

RIGHT ANGLE VALVE

Inlet Size
Male BSP Thread 65mm
BS 10 Table E Flange 65mm
BS 4504 PN16 65mm
ANSI 150 FF Flange 65mm
ANSI 150 FF Flange 80mm

BIB NOSE VALVE

Inlet Size
ANSI 150 FF Flange 65mm
BS4504 PN16 65mm
Male BSP Thread 65mm
BS10 Table E Flange 65mm
ANSI 150 FF Flange 80mm

OBLIQUE VALVE

Inlet Size
Male BSP Thread 65mm
ANSI 150 FF 65mm
BS 4504 PN16 Flange 65mm
ANSI 150 FF 80mm
BS 10 Table E Flange 65mm

PRESSURE REGULATIONG VALVE 'E' TYPE

Inlet Size
Male BSP Thread 65mm
BS 10 Table E Flange 65mm
ANSI 150 Flange 65mm
BS 4504 PN16 65mm
ANSI 150 FF Flange 80mm

PILLAR TYPE FIRE HYDRANT

2-Way Fire Hydrant

Outlet	Inlet
2 x (2-1/2") Male Thread NST/BSP	BS 10 Flange
2 x 2-1/2" Control Valve with Female BS Instantaneous Outlet	BS 10 Flange
2 x 2-1/2" Control Valve with Female BS	4" Table E

High Pressure Fire Hydrant

Outlet	Inlet
2 x 2-1/2" Pressure Regulating Control Valve with Female BS Instantaneous Outlet	4" Table E
4 x 2-1/2" Pressure Regulating Control Valve with Female BS Instantaneous Outlet	6" Table E

Fire Hydrant With Pumper Connection

Outlet	Inlet
2 x (2-1/2") Male Thread NST/BSP	BS 10 Flange
2 x 2-1/2" Control Valve with Female BS Instantaneous Outlet	BS 10 Flange
2 x 2-1/2" Control Valve with Female BS	4" Table E

FIRE PUMPS

Fire pumps are needed when the local municipal water system cannot provide sufficient pressure to meet the hydraulic design requirements of the fire sprinkler system. This usually occurs if the building is very tall, such as in high-rise buildings, or in systems that require a relatively high terminal pressure at the fire sprinkler in order to provide a large volume of water, such as in storage warehouses. Fire pumps are also needed if fire protection water supply is provided from a ground level water storage tank.

The fire pump starts when the pressure in the fire sprinkler system drops below a threshold. The sprinkler system pressure drops significantly when one or more fire sprinklers are exposed to heat above their design temperature, and opens, releasing water.

All pumps are designed and supplied in accordance with NFPA 20

Electric:

Capacity Range: 50 - 2500 GPM
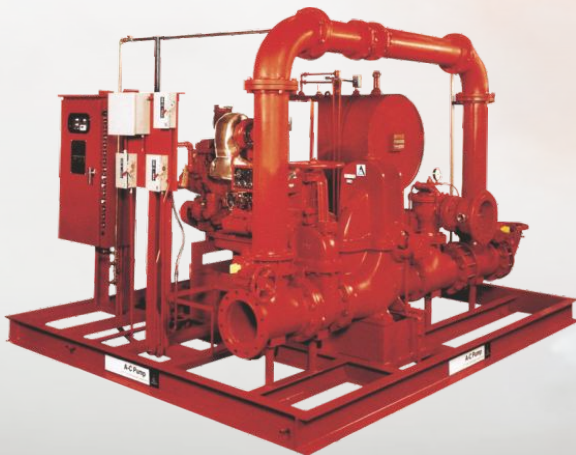
Pressure Range: 40 - 470 PSI

HP: 20 – 1000 HP

Diesel:

Capacity Range: 50 - 2500 GPM

Pressure Range: 40 - 475 PSI

BHP: 20 – 1000 HP

RPM: 1470 – 2900 RPM

SPRINKLERS & VALVES

Sprinklers

Standard Spray Sprinkler
Residential Sprinkler
Extended Coverage Light Hazard Sprinkler
Nozzle & Window Sprinkler
Sprinkler Types:
• Upright Sprinkler
• Conventional
• Pendent
• Vertical Sidewall
• Horizontal Sidewall
Temperature Ratings: 57°C, 68°C, 79°C, 93°C, 141°C, 182°C
Water Working Pressure Rate: 175 Psi (12 Bars)

Alarm Check Valve

Alarm Check Valves used in in wet pipe sprinkler systems.
They primarily serve a dual purpose in that they prevent
a reverse flow of water through their bodies (nonreturn)
and also provide for the use of a hydraulic fire
alarm which is not dependent upon an electrical power
supply for its operation.
Water Working Pressure Rating – 175 Psi (12 Bars)
Sizes: 3" – 4" – 6" – 8"

Pressure Relief Valve

Factory Mutual Approved
UL Listed Sizes 3" thru 8"
FM Approved Sizes 3" thru 8"
ULC Listed Sizes 2" thru 10"

Pressure Reducing Valve

Globe or Angle Pattern
Grooved Ends (1 ½" – 8")
UL Listed, ULC Listed, MEA Approved

FIRE HOSES

A fire hose is flexible hollow tube designed to carry floods from one location to another. Hose design is based on a combination of application and performance. Common factors are size, pressure rating, weight, length and chemical compatibility.

Applications
• Municipal fire brigades
• Shipboard
• Industrial fire brigades
• Refineries
• Irrigation

Construction
• 100 % high tenacity polyester yarn
• Circular-woven twill weave, warp threads multiple twisted
• High-quality, very light synthetic rubber on the basis of EPDM

Features
• Seawater-resistant, weather-resistant
• Ageing and ozone resistant
• Temperature range from –40 °C up to +100 °C
• Minimum friction loss because of very smooth inner lining
• Light and flexible
• Minimum maintenance
• PU-coating on request

Breeching Inlet

2 way- 4 way breeching inlet are suitable for installation on dry risers only. In a building for firefighting purposes fitted with inlet connection at fire brigade access level and outlet connection at specified points which is normally dry but capable of being charged with water by pumping from the service appliances.

BRANCH PIPE NOZZLS

Jet Nozzle Complete With Branch Pipr

Jet/Spray Nozzle With Control Valve

Diffuser Nozzle (Jet/Spray)

MONITORS

Water Powered Oscillating Monitor

• The monitor and body of the oscillating unit are manufactured of brass. The water drive wheel is bronze with bronze supply gate valve.
• UL Listed
• Capable of flowing foam or water
• Unique water drive wheel design
• Arc of oscillation adjustable via 6 set points
• Manual override capabilities in both horizontal and vertical degree fields
• Double reduction oil bath gearbox
• Grease fittings and two rows of stainless steel ball bearings at all rotation joints on monitor
• All brass and stainless steel construction
• Monitor has one tiller bar control for manual control
• Unit equipped with a garden hose test connection. This allows functional check of the oscillation mechanism without system

DECK/PORTABLE MONITOR

Compact folding base can be stored in any truck compartment or preconnected in the hose bed
• Legs lock in folded and deployed positions
• Safety stop at 30 degree above horizontal
• Stainless steel ball bearings at all rotation joints
• Liquid filled pressure gauge
• Grease fittings for lubrication
• Red paint finish
• Dual application-use as portable monitor or add the top flange for deck mount use

SINGLE WATERWAY MONITOR

Durable, Lightweight Aluminum Construction
• Corrosion resistant brass construction
• Grease fittings at each swivel joint
• Stainless steel ball bearings at each swivel joint
• 360 degree rotation w/positive lock
• Vanes at each elbow to reduce friction loss, improving range of stream

HAND WHEEL MONITOR

Corrosion Resistant Brass Construction
• Single waterway low friction loss
• Full 360 degree rotation with positive twist lock
• Stainless steel ball bearings
• Red epoxy paint finish
• Vertical travel from 90° above to 60° below horizontal

Fire Trucks

METRON international is one of the world's leading Supplier of firefighting aerial platforms with more than 15 years of experience. Apart our aerials we also deliver innovative foam vehicles, pumpers, combined aerial rescue pumpers and industrial vehicles for refineries or airports.

During the last 15 years, METRON fire fighting vehicles saved many lives and gained worldwide reputation. For the future our ambition is the continuous improvement of the quality and reliability of our products to supply the fire brigades around the world with excellent products which deliver maximum performance under every condition while providing optimal safety for the operators at any time

METRON

INTERNATIONAL

FIRE SAFETY AND SECURITY COMPANY