# MC-1120
# Wireless & wired controller for Automatic Fire Fighting  Monitor

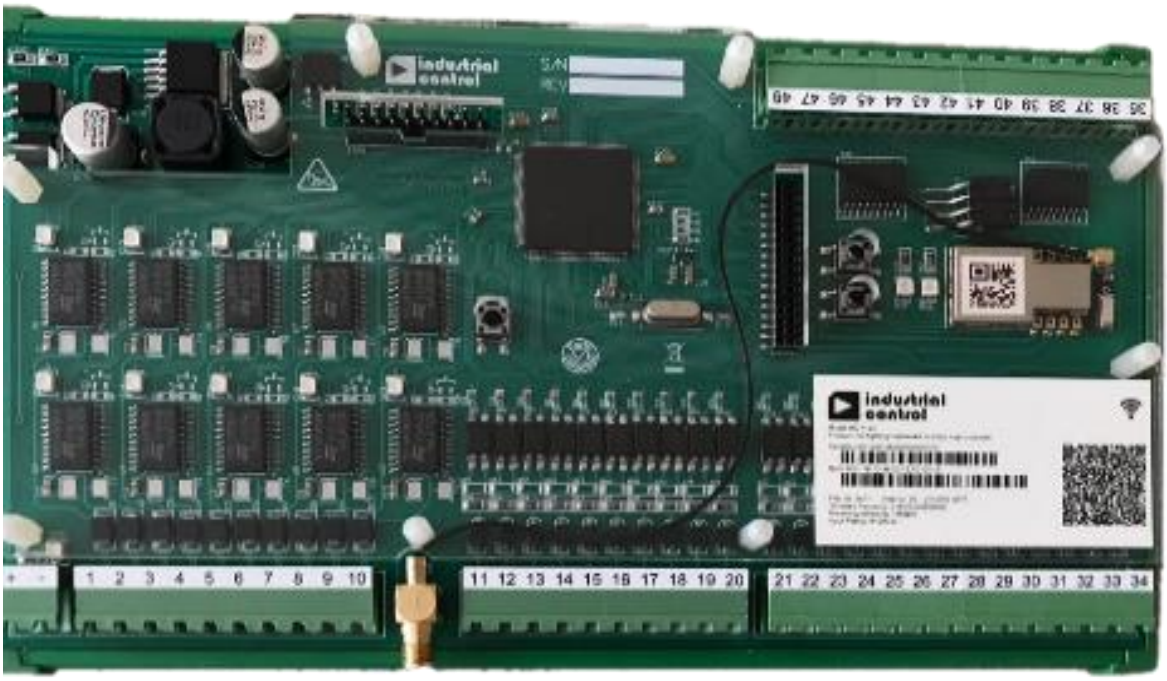
FIRE PROTECTION SOLUTIONS

## Overview

MC-1120 is wireless and wired smart controller application for Automatic fire fighting monitors. It's comprehensive functionality and great ease of use make it a highly cost–efficient solution for virtually any remote foam / water monitor application. This controller can be controlled up to 5 actuators in same time via wireless remote control (RC1120) or fix console joystick. No need any These controller includes:

1- 10Ch. Line monitoring 24Vdc power output switch to connect directly to relay our contactor coil up to 500mA.
2- 10Ch. Opto-Isolation input to receive actuator feedback
3- 14Ch. Opto-Isolation input and 14Ch O/C output to connect joystick, push buttons & indicators in front of fix console
4- 2.4Ghz wireless transducer to communication with RC1120 remote controller.

- Benefit:
- No need programming in the plant (fully programed).
- High reliability and minimal maintenance.
- Small physical size.
- Wireless module included.
- low initial investment cost.



You can find information on terminal wiring in the MC-1120 as below table:

| | Port Description | I/O | Terminal No. | signal type | to/from |
|---|---|---|---|---|---|
| 1 | Left Command | Out | 1 | (+) | to 24vdc contactor |
| 2 | Right Command | Out | 2 | (+) | to 24vdc contactor |
| 3 | Up Command | Out | 3 | (+) | to 24vdc contactor |
| 4 | Down Command | Out | 4 | (+) | to 24vdc contactor |
| 5 | Motor Fog Command | Out | 5 | (+) | to 24vdc contactor |
| 6 | Motor Jet Command | Out | 6 | (+) | to 24vdc contactor |
| 7 | Water MOV Open Command | Out | 7 | (+) | to 24vdc contactor |
| 8 | Water MOV Close Command | Out | 8 | (+) | to 24vdc contactor |
| 9 | Foam MOV Open Command | Out | 9 | (+) | to 24vdc contactor |
| 10 | Foam MOV Close Command | Out | 10 | (+) | to 24vdc contactor |
| 11 | Left Status | In | 11 | (+) | from Actuator limit switch |
| 12 | Right Status | In | 12 | (+) | from Actuator limit switch |
| 13 | Up Status | In | 13 | (+) | from Actuator limit switch |
| 14 | Down Status | In | 14 | (+) | from Actuator limit switch |
| 15 | Motor Fog Status | In | 15 | (+) | from Actuator limit switch |
| 16 | Motor Jet Status | In | 16 | (+) | from Actuator limit switch |
| 17 | Water MOV Open Status | In | 17 | (+) | from Actuator limit switch |
| 18 | Water MOV Close Status | In | 18 | (+) | from Actuator limit switch |
| 19 | Foam MOV Open Status | In | 19 | (+) | from Actuator limit switch |
| 20 | Foam MOV Close Status | In | 20 | (+) | from Actuator limit switch |
| 21 | Left Joystick Command Station | In | 21 | (+) | from joystick on command station |
| 22 | Right Joystick Command Station | In | 22 | (+) | from joystick on command station |
| 23 | Up Joystick Command Station | In | 23 | (+) | from joystick on command station |
| 24 | Down Joystick Command Station | In | 24 | (+) | from joystick on command station |
| 25 | Motor Fog Joystick Command Station | In | 25 | (+) | from joystick on command station |
| 26 | Motor Jet Joystick Command Station | In | 26 | (+) | from joystick on command station |
| 27 | Water MOV Open Joystick Command Station | In | 27 | (+) | from joystick on command station |
| 28 | Water MOV Close Joystick Command Station | In | 28 | (+) | from joystick on command station |
| 29 | Foam MOV Open Joystick Command Station | In | 29 | (+) | from joystick on command station |
| 30 | Foam MOV Close Joystick Command Station | In | 30 | (+) | from joystick on command station |
| 31 | Emergency Stop Command Station | In | 31 | (+) | from joystick on command station |
| 32 | Enable / Disable Command Station | In | 32 | (+) | from joystick on command station |
| 33 | Oscillating | In | 33 | (+) | from joystick on command station |
| 34 | Com. Fault | In | 34 | (+) | from fault contact |
| 35 | Left Indicator Command Station | Out | 35 | open collector (-) | to 24Vdc indicator on command station |

| | | | | | |
|---|---|---|---|---|---|
| 36 | Right Indicator Command Station | Out | 36 | open collector (-) | to 24Vdc indicator on command station |
| 37 | Up Indicator Command Station | Out | 37 | open collector (-) | to 24Vdc indicator on command station |
| 38 | Down Indicator Command Station | Out | 38 | open collector (-) | to 24Vdc indicator on command station |
| 39 | Motor Fog Indicator Command Station | Out | 39 | open collector (-) | to 24Vdc indicator on command station |
| 40 | Motor Jet Indicator Command Station | Out | 40 | open collector (-) | to 24Vdc indicator on command station |
| 41 | Water MOV Open Indicator Command Station | Out | 41 | open collector (-) | to 24Vdc indicator on command station |
| 42 | Water MOV Close Indicator Command Station | Out | 42 | open collector (-) | to 24Vdc indicator on command station |
| 43 | Foam MOV Open Indicator Command Station | Out | 43 | open collector (-) | to 24Vdc indicator on command station |
| 44 | Foam MOV Close Indicator Command Station | Out | 44 | open collector (-) | to 24Vdc indicator on command station |
| 45 | Fault Indicator Command Station | Out | 45 | open collector (-) | to 24Vdc indicator on command station |
| 46 | Enable / Disable Indicator Command Station | Out | 46 | open collector (-) | to 24Vdc indicator on command station |
| 47 | Oscillating indecator command station | Out | 47 | open collector (-) | to 24Vdc indicator on command station |
| 48 | sensor off (if any) | Out | 48 | open collector (-) | to 24vdc relay(if any) |
| 49 | Switching Power Supply Positive Voltage | 24Vdc | + | | |
| 50 | Switching Power Supply Negative Voltage | | - | | |

## Specification

| | |
|---|---|
| **Output signal** | 10 Ch. Line monitoring output (max 500mA output for each channel)<br>14 open collector output |
| **Input signal** | 24 Ch. Opto-Isolation input |
| **Command station operation joystick/switch & indicator which has the ability to connect to MC1120** | Left / Right – Up / Down joystick & feedback indicators<br>Water actuator valve open/close pushbutton & feedback indicators<br>Foam actuator valve open / close pushbutton & feedback indicators<br>Fog & jet pushbutton & feedback indicators<br>Oscillating mode pushbutton & feedback indicator<br>On/off switch with related indicator<br>Fault indicator<br>Emergency shutdown pushbutton |
| **Operation voltage** | Normal 24Vdc (18 ~28Vdc) |
| **Controller Power consumption** | Max 550mA |
| **Dimension** | L:220mm W:150mm H: 42mm |
| **Installation** | Din rail |
| **Weight** | 600 g |
| **Frequency Band / receiver sensitivity** | 2.4GHz / -98dBm |
| **Operating Temperature** | -40 to 60°C |
| **Reaction Time** | < 0.1 Sec |
| **Max Distance coverage area for wireless** | Visual distance 1500 meter in open area with 10dB antenna |