M-SERIES II

Bulletins C -4000, C -4001, C -4002

CHASSIS (shown with Programmer Module)

Fireye modular M-Series II Flame Safeguard controls are compact, modular burner management systems. They provide automatic ignition and continuous flame monitoring for commercial-sized heating and process burners using gas and/or light oil fuels.
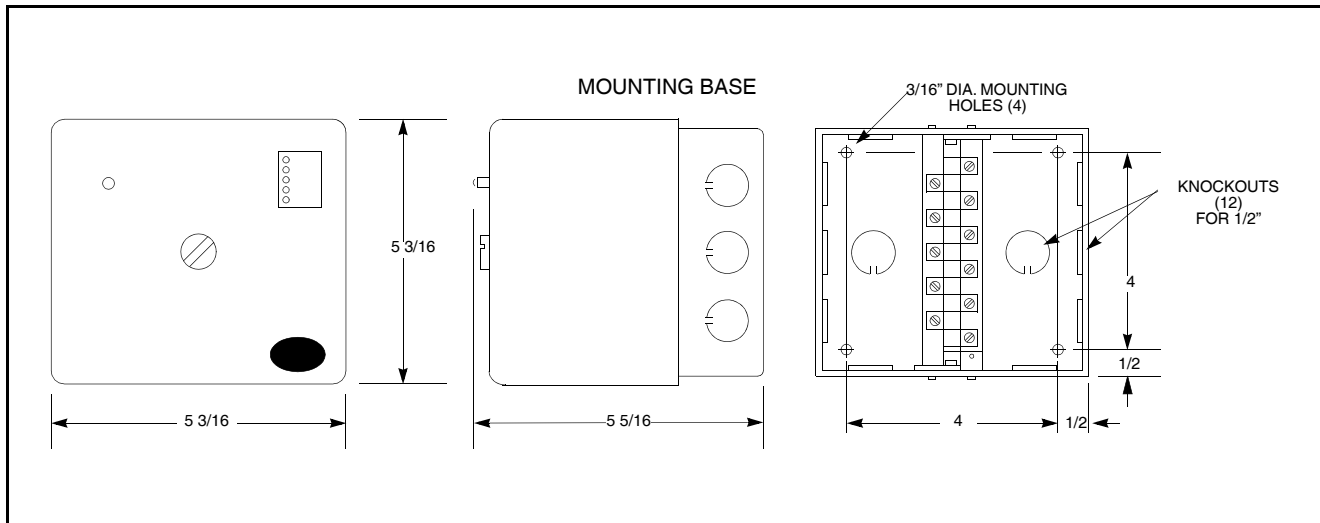
Flame sensing is accomplished by miniature UV scanners or Flame Rod/Photocell detectors and plug-in amplifier and programmer modules connected into a standard chassis and wiring base. Interchangeable programmer and amplifier modules allow complete versatility when selecting control function, timing, and flame scanning means. Functions such as relight, two stage capability, purge timing, and pilot cutoff are determined by the programmer module. Type of flame scanner (UV, flame rod, or photocell) and Flame Failure Response Time (FFRT) are determined by the amplifier module. Some programmer modules have dipswitches for selecting purge timing, pilot trial-for-ignition (PTFI) timing, and recycle or non-recycle operation. LED indicator lights on all programmer modules indicate operating status of the control.

In the event of ignition failure, or after a safety shutdown, the unit locks out, activating an alarm circuit. Manual reset is required. Remote reset (via remote push-button or power interruption) is available on the MC120R chassis. Post purge is available on the MC120P chassis. Test jacks permit flame signal measurement during operation. A "run-check" switch on the MP560, MP561, MP562 programmer module assists in testing size, position, and pilot stabilization.

Modular M-Series II controls incorporate a safety checking circuit that is operative on each start. If flame (real or simulated) is detected before a start or during the purge, the fuel valves will not be energized, and the unit will lock out.

DIMENSIONS

PART NUMBER	DESCRIPTION
MC120	120 VAC 50/60 Hz Chassis.
MC120E	120 VAC 50/60 Hz Chassis. Meets European EN230, EN298 approval.
MC120P	120 VAC 50/60 Hz Chassis with Remote Reset and Post Purge Capability.
MC120R	120 VAC 50/60 Hz Chassis with Remote Reset Capability.
MC120RE	120 VAC 50/60 Hz Chassis with Remote Reset Capability. Meets European EN230, EN298 approval.
MC230	230 VAC Chassis.
MC230R	230 VAC Chassis with Remote Reset Capability.

AMPLIFIER MODULE

PART NUMBER	DESCRIPTION
MP100	Relight function.
MP100E	Relight function. For MC230 only.
MP101	Relight function. Will ignore flame signal during "off" cycle.
MP102	Similar to MP100. Relight feature eliminated, 5 sec. TFI, lockout on flame failure.
MP102E	Same as MP102. For MC230 only.
MP230	Selectable recycle/non-recycle function, T.F.I. and purge timing.
MP230H	Selectable recycle/non-recycle function, T.F.I. and purge timing. Pilot stabilization, two stage capability.
MP560	Selectable recycle/non-recycle function, T.F.I. and purge timing. Pilot cut-off, pilot stabilization, check-run switch.
MP561	Same as MP560 without Pilot Stabilization.
MP562	Same as MP560 with lockout on loss of airflow. Non-recycle.

PROGRAMMER MODULE

PART NUMBER	DESCRIPTION
MAUV1	UV Amp., 2 - 4 sec. FFRT. Use with UV1, UV2, 45UV3.
MAUV1T	UV Amp., .8 sec. FFRT. Use with UV1, UV2, 45UV3.
MAUV3	UV Amp., 3 sec. FFRT. Use with UV1, UV2, 45UV3.
MART1	Flame Rect. Amp., 2 - 4 sec. FFRT. Use with 69ND, 45CM.
MART1T	Flame Rect. Amp., .8 sec. FFRT. Use with 69ND, 45CM.
MART3	Flame Rect. Amp., 3 sec. FFRT. Use with 69ND, 45CM.

PART NUMBER	DESCRIPTION
23-176	Replaceable Fuse. M-Series II programmer modules. Littelfuse 0225008, 2AG 8 amp, 125 V.
23-183	Replaceable Fuse. MP100E programmer module. Littelfuse 022903.5, 3.5 amp 250 V.
57AV7-1000	Tester for M-Series, M-Series II and MicroM.
61-3060	Closed wiring base, surface mounting.
61-5042	Open wiring base, cab. mounting.