



Boiler Controls

McDonnell & Miller

Low Water Cut-Offs – Electronic Combination Low Water Cut-Off/Pump Controllers for Steam Boilers

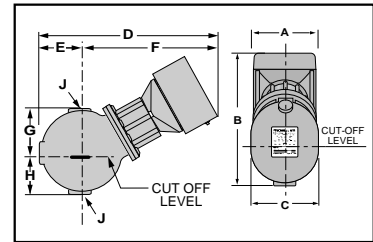
Series 150E



- Primary and secondary low water fuel cut-off protection and pump control for commercial and industrial steam boilers
- Motorized valve controller, low water cut-off, and alarm actuators for boilers, vessels and tanks
- Set points and differentials remain constant throughout pressure range
- Diagnostic features incorporated in the control include:
 - High ambient temperature protection
 - Internal LEDs that indicate water position and condition
 - External LEDs that indicate control activity
- Replacement head assemblies available for Model 150 and 150S Series upgrade
- Control unit can be mounted remotely from probes
- Adjustable 60-second burner-off time delays
- Adjustable 3/4" or 1-3/16" pump differentials
- 1 HP burner and pump relays
- NEMA 1 enclosure
- Maximum ambient temperature 135°F (57°C)
- Maximum operating pressure 150 psi (10.5 kg/cm²)
- Maximum operating temperature 366°F (185°C) at probes
- Manual reset models meet the requirements of **ASME Standard CSD-1**. If the control is in a low water condition when there is an interruption of power, the control will remain in a low water condition when power is restored. The reset button will need to be pressed when the water level is restored to a level above the probe to allow the burner to fire.
- 60,000 ohms probe sensitivity



Series 150E



Series 150E Dimensions, in. (mm)

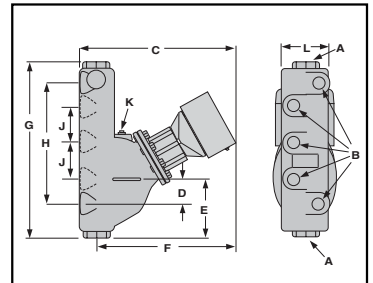
A	B	C	D	E
6 ¹¹ / ₁₆ (169)	11 ⁵ / ₁₆ (286)	6 (152)	14 ³ / ₁₆ (359)	3 ⁵ / ₁₆ (84)
F	G	H	J	
10 ⁷ / ₈ (275)	4 ¹ / ₈ (105)	3 ⁷ / ₁₆ (87)	NPT	1

Ordering Information

Model Number	Part Number	Description	Weight lbs. (kg.)
150E	171600	Combination low water cut-off/pump controller	22.9 (10.4)
150E-M	171610	150E w/manual reset	22.9 (10.4)
157E	171620	150E w/water column	36.9 (16.7)
157E-M	171630	157E w/manual reset	36.9 (16.7)
157E-A	171622	157E w/alternate tappings	39.0 (17.5)
157E-R	171623	157E w/alternate tappings	39.0 (17.5)
157E-RM	171633	157E w/alternate tappings	39.0 (17.5)
157E-RL	171626	157E w/alternate tappings	39.0 (17.5)
157E-RLM	171636	157E w/alternate tappings	39.0 (17.5)



Series 157E



Series 157E Dimensions, in. (mm)

A	B	C	D	E	
NPT	NPT	14 ⁵ / ₁₆ (362)	2 ⁵ / ₁₆ (59)	4 ¹⁵ / ₁₆ (125)	
F	G	H	J	K	L
12 ⁵ / ₈ (319)	16 (406)	11 ¹ / ₂ (292)	3 ¹ / ₂ (89)	3/4	5 ⁷ / ₈ (149)

Electrical Rating and Switch Ratings

Supply Voltage	Probe Voltage	Full load (Amps) NO (NC), (VAC)	Locked Rotor (Amps) NO (NC), (VAC)	Pilot Duty (VA) NO (NC), (VAC)	Motor (HP) NO (NC), (VAC)
120 VAC	5 VAC	16 (5.8), 120	96 (34.8), 120	470 (290), 120	1 (1/4), 120
50/60Hz	Maximum	8 (4.9), 240	48 (17.4), 240	470 (290), 240	2 (1/2), 240

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