Submittal Data Information

101-108

Electric Water Feeder

Effective: February 15, 2005 **Supersedes:** NEW

Job: _____ Engineer: _____ Contractor: _____ Rep: _____

ITEM NO.	MODEL NO.	

Features

- Field Adjustable Control
- Three Feed Options:
  LWCO Mode, Fixed Feed, or Manual Feed
- Manual Feed Button
- Internal Excess Feed Reset Button
- Multi-Colored External Indicator Light
- DIP Switch Mode Settings Control:
  Delay Before Feed, Excess Feed, Selectable Feed & Hold After Water OK
- Flood Protection Lockout
- Underfeed Protection
- Available in 24 & 120 VAC
- UL & CUL Approved
- Patent Pending
- 3/8"NPT to 1/2" Copper Fittings Included
- Integral Valve Strainer
- Universal Low Water Cutoff Compatibility

EWF024 & EWF120 Specifications

Input Supply Voltage: 24 VAC (supplied by Class 2 power source) or 120 VAC
Power Consumption: EWF024: 10VA, EWF120: 12 VA (During Feed Only)
Maximum Inlet Water Pressure: 150 PSI (10.5kg/cm2)
Maximum Outlet (Boiler) Steam Pressure: 15 PSI (1kg/cm2)
Maximum Media Temperature: 160°F (71°C)
Maximum Ambient Temperature: 100°F (38°C)
Feed Rate: 1 gpm (3.8 lpm)

DIP Switch Settings

Operation Settings: Low Water Cutoff (LWCO) or Fixed Feed Mode
Delay Before Feed Settings: 0, 0.5, 1, 2, 4, 6, 8, 10 minutes
Excess Feed Mode Settings: Off, 6, 8, 10, 12, 15 gallons
Fixed Feed Amount Settings: Off, 1, 2, 3, 4, 5 gallons
Hold After Water OK Settings: 0, 0.5, 1, 2 minutes
Flood Protection Lockout: After 2 cycles in Fixed Feed Mode or 10 gallons in LWCO Mode

Listings/Approvals

UL Guide (MBPR) for Limit Controls per UL Standard 353 Limit Controls.
CUL per CSA Standard C22.2 No. 24-93 for temperature indicating and regulating equipment.

Materials of Construction

Enclosure: NEMA Type 1 (For indoor use only). Formed sheet metal with powder coat/plated finish. Five knock-outs for 1/2" conduit fittings. Not for use in hazardous locations.
Valve: Brass
Accessories: Two 3/8" NPT x 1/2" copper fittings

Application

The Electric Water Feeder (EWF) monitors the output from a Low Water Cutoff (LWCO). When the LWCO detects a low water condition, it signals the EWF, which initiates a water-feed cycle. Since the EWF is fully programmable, it can feed as long as the Low Water Cutoff detects a low water condition (LWCO Mode) or feed a pre-determined amount. In addition, the EWF allows the user to set Delays Before Feeding (DBF), or Hold After Water OK (HAW) once the low water cutoff signals water level is restored. The EWF also includes a patent pending programmable excess feed indicator. Once the EWF has fed more then the programmed number of gallons into the boiler over the past 30 days, an external LED blinks. This will help identify systems that may need maintenance.

Operation

LWCO Mode: As soon as the Electric Water Feeder receives a low water signal from the LWCO, the EWF starts feeding water to the boiler after the Delay Before Feed expires, if enabled. The EWF continues to feed water to the boiler until the LWCO signals that the water condition is normal and any Hold After Water OK delay settings expire. If the EWF feeds more then 10 gallons, Flood Protection Lockout Occurs and feeding stops immediately and a red LED is illuminated.

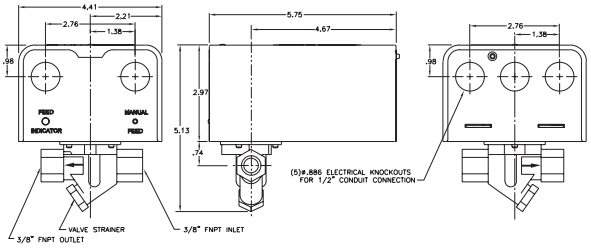
Fixed Feed Mode: When the Electric Water Feeder receives a low water signal from the LWCO, the EWF will feed the number of gallons set by the DIP switches on the control (1, 2, 3, 4, or 5 gallons). Feeding will start after any Delay Before Feed setting expires. After a feed cycle completes, if the LWCO still signals a low water condition, the EWF will start another feed cycle. If the EWF completes the second feed cycle and the LWCO still signals a low water condition, the EWF will enter the Flood Protection Lockout and a red LED is illuminated. Pressing and holding the Manual Feed button for 2 seconds will reset the Flood Protection Lockout.

Manual Feed: By pressing the Manual Feed button, the user can feed water to the boiler system. Up to 5 gallons may be manually fed continuously before the EWF automatically closes the feed valve. Water fed manually counts toward the Excess Feed setting.

Excess Feed: The Excess Feed LED will rapidly blink amber when the EWF has dispensed more water over the past 30 days than the setting of the Excess Feed switch (6, 8, 10, 12, 15 gallons). Unlike other controls where power needs to be removed and reconnected to the control, the Taco EWF has an internal reset button. There is also no need to check, record and reset the feed counter just to determine if too much water has been added. The external LED provides a simple and fast means to determine that the boiler system is consuming excessive amounts of water, so service personnel can repair the piping or boiler before the system sustains more damage or further corrosion.

Hold After Water OK: The Hold After Water OK delay permits the water level to rise above the level of the LWCO probe or float mechanism and provides additional water into the system. This prevents intermittent low water conditions and resulting short cycling of the boiler during calls for heat. Short cycling reduces the boiler's life expectancy and unnecessarily stresses the system.

Dimensions



Do it Once. Do it Right.

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