

Model 2596 Automatic Self-cleaning Strainers

Control Systems

Eaton Automatic Control Systems (ACS) are specifically designed to monitor and operate the backwash cleaning system of Eaton Automatic Strainers. Simple to operate, reliable, and easily maintained. The design allows field adjustments to suit the demands of the service conditions, ensuring effective cleaning with a minimum use of backwash fluid.

STANDARD CONTROL SYSTEM FEATURES

ACS-1 This system features a NEMA 4 rated (water and dust tight) panel box complete with adjustable timer, differential pressure override, 10 amp control relay for backwash valve activation, display lights to indicate Power On, Backwash Valve Open, and High Differential Pressure. A selector switch is also included to manually control the backwash valve functions of Off-On-Auto. The panel also has contact terminals for a motor starter and an external alarm connection. The panel requires 110 VAC input, UL approval is available as an option. The panel has a differential pressure switch and an electrically actuated ball valve that controls the backwash function.

ACS-2 This system has all of the features of the ACS-1 and includes a motor starter in addition to the other standard equipment.

ACS-3 This system has all of the features of the ACS-2 system and includes a 460V/120V step down transformer.

Optional designs to meet specific requirements with special wiring arrangements, panel boxes (NEMA 7, 9), control valves, and air actuation among others, can be furnished.

MODES OF OPERATION

The automatic intermittent mode is adjustable by setting the timer in the panel that controls the frequency of backwashing and the "open" time of the backwash valve. Field adjustments should be made to suit the application. A differential pressure switch to initiate backwashing under high load conditions also can be adjusted.

The continuous backwashing mode is recommended where the backwashing fluid can be recycled to its source or when very high solid loadings are encountered.

In both the automatic intermittent and continuous backwashing modes the backwash arm continuously rotates at a low 2-4 RPM.



COMPONENTS

Motors An electric motor and gear box are furnished as part of the strainer. The standard TEFC motor is 120V/220V, Single phase 60 Hz, or 230V/460V Three Phase 60 Hz, at customer option. Other motors are available.

Differential Pressure Switch A diaphragm-type differential pressure switch is a standard component in all Control Systems. It compensates for sudden high pressure loading by overriding the time cycle and initiating backwashing. The differential pressure setting as well as a delay time setting can be adjusted. Two psid above the clean reading is the differential setting recommended. A delay timer will continue the cleaning to customer's requirement. The time delay can be adjusted from 0.6 seconds to 24 hours, depending on system's needs.

Backwash Valve Electrically actuated (115 VAC/60 Hz) ball valves are also standard in the Control Systems. Materials of construction are suitable for water service. Other materials, valve types and pneumatic actuation are optional.

Backwash Valve Sizes

Strainer Size	Valve Size
2", 3", 4"	1"
6", 8"	1 1/2"
10", 12", 14", 16"	2"
18", 20", 24", 30"	3"
36"	6"
48", 60"	8"



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