The fire pump controller is arguably the most critical and essential component in the fire pump assembly. It ensures that the pump operates when called to start. The pump controller monitors the pressure in the fire protection system, starts and stops the pump, reports problems, and sends alarm signals.

Most commonly the controller is connected to the fire protection system by means of piping know as a sensing line. When pressure loss in the fire protection system occurs, the pressure switch in the controller senses the loss of pressure. The controller then initiates the steps necessary to start and run the fire pump driver. The controller would also relay an alarm message/signal that an event is underway.

Controllers shall be located as close as is practical to the motors they control and shall be within sight of the motors. They shall be located or protected so that they will not be injured by water escaping from pumps or pump connections. In addition, electric current-carrying parts of controllers shall be not less than 12 inches above the floor level.

Each pump, including jockey pumps, shall have its own individual controller and each controller shall have its own individual pressure-sensing line.