

MODEL 399-PC MULTI FUNCTION PUMP CONTROLLER

FEATURES

- Σ Din Rail Mounting
- Σ Microprocessor Based
- Σ Two Line Backlit LCD Display
- Σ Three User Function Keys
- Σ 24VDC Supply
- Σ 1 4/20MA Analog Input
- Σ 1 4/20MA Analog Output
- Σ 8 Digital Form 'C' Inputs
- Σ 4 10A Relay Outputs
- Σ Fully User Programmable
- Σ RS485 MODBUS® Data Port
- Σ Simplex, Duplex, or Triplex Applications
- Σ Float or Transducer Control or Both
- Σ Primary or Backup Control
- Σ P.I. Control Option



Sigma Controls, Inc. series of cost effective multi application controllers are based on 25 years of pump control experience. Each module contains all the necessary programs for simplex, duplex and triplex pump controls applications. Program selection via the integral button.

SPECIFICATIONS

- | | |
|---|---|
| <ul style="list-style-type: none"> • Power Supply: 24VDC + 2% @ 4VA • Relay Outputs (4): 10A @ 120VAC;
8A @ 30VDC • Analog Inputs/Outputs: 1 4/20MA Analog Input
1 4/20MA Analog Output • Digital Inputs: 8 Digital Inputs, Form 'C' Dry
Contacts Designed for Intrinsic Safety • Operating Temperature: -20° to 60° C;
Storage -40° to 85° C • Relay Life: 100K Cycles • Termination: Removal Screw Compression
Terminal Strips (2) • Backlit Display: 2 Line Alphanumeric • Data Communication: RS485, MODBUS® • LED Indicators: 6 Multifunction LED Indicators
on Panel Face | <ul style="list-style-type: none"> • Backlit Display: 2 Line Alphanumeric • Data Communication: RS485, MODBUS® • LED Indicators: 6 Multifunction LED Indicators
on Panel Face |
|---|---|

MECHANICAL

- Din Rail Mounting
- Selector Switch Program Selection
- Push Button Data Entry
- Removable Barrier Terminal Strips,
Screw Compression, (2 Ea.)
- Optional Nema 4X FRP Wall Mount
- Enclosure with Back Panel

DUPLEX MODEL 399-DPC

- Designed for the operation of two pumps, requiring alteration to equalize wear, where the primary element is any 4/20MA transmitter.
- The 399-PC offers user selectable pump alternation, based on end of cycle or hours run. Should a pump fault or critical alarm occur, the failed pump is removed from the cycle and the operating pump moved to the 'lead' position, a 'pop up' alarm will be shown on the screen and a pump fault LED will be illuminated. The general alarm relay output will be energized for any system alarm.
- All user setpoints and programming parameters are shown on the alphanumeric screen in 'plain English' prompts, no confusion interpreting numeric LED symbols.
- Pump run times are logged for recording purposes.
- H-O-A in auto, run feedback and critical alarm inputs provided.
- Integral simulator allows a test of the operating sequence.
- All programming is password protected.
- Constant speed or variable speed control is standard with selectable level vs speed setpoints for optimizing pump control.
- Alarm functions include Fail to Run (2), Pump Fault (2), Critical Alarm, High Level Low Alarm, Sensor Fail, etc.
- RS485 MODBUS® dataport is standard for SCADA or Telemetry applications.

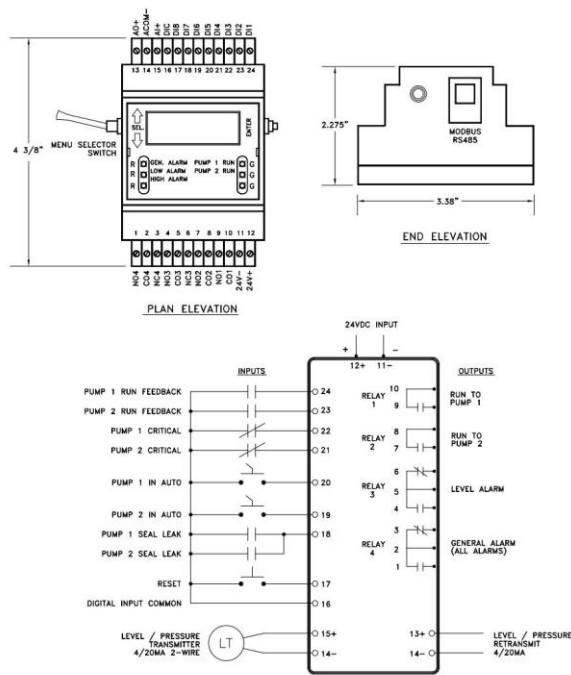
DUPLEX FLOAT OPERATED 399-DPC-F

- The 399-PC is used for the operation of two loads requiring sequencing for the equalization of wear, where floats or pressure switches are the primary sensors.
- The 399-PC is similar to the monitoring functions for hand/off/auto selector position and critical alarm inputs such as pump overtemperature, VFD fault, etc.
- Program operation differs from the 399-PC in that primary level detection is from float switches.
- Additional inputs are provided to allow the controller to monitor each pump's H-O-A in the auto position.

TRIPLEX 399-TPC

- Allows operating 3 loads requiring sequencing and alternation, with 'AUTO' selector switch monitoring.
- The 399-PC in this mode accepts 5 float switch inputs, high level alarm and low alarm in addition to the primary level transmitter.
- Operational status is via the two line alphanumeric display.
- Inputs are provided for monitoring the 'AUTO' position of each pump. If any pump is deselected via its H-O-A, it will be removed from the operational sequence automatically.
- User programmable, sequencing alternation and fixed sequence.
- RS485 MODBUS® data port provides SCADA interface.
- 4/20MA input/output.

NOTE: 399-PC in TPC 'F' utilizes 5 float inputs and no analog level transmitter.



PH: 215-257-3412

FAX: 215-257-3416

EMAIL: sales@sigmacontrols.com

www.sigmacontrols.com