DIGI-GAGE PLUS™ *Mini* DATASHEET

Digital Constant Speed Controller

The Digi-Gage Plus™ *Mini* is a single compact SCADA ready system controller designed to automatically start, stop, alternate and precisely monitor & control fluid levels.

- Supports from 1 or 2 pumps from a single controller.
- Fits and functions within the existing Digi-Gage Classic footprint.
- Network capable, scalable, upgradable and an expandable platform for ease of integration into most SCADA packages.

Digi-Gage Plus *Mini* Standard Features

Float or Submersible Transducer Level Controls

Pump Up or Pump Down

Visual Indication
Pump mode (run/auto/fail), lead/lag sequencing, alternation, process level (Use with Level Transducer only), high/low level alarms are displayed.

Level Simulation (Use with Level Transducer only)
Level simulation to test setup function and alarm set points.

Alternation Modes
- Alternation on Stop
- Fixed Alternation
- Alternation based on Day of Week & Time of Day
- Runtime Balance Alternation
- Runtime Alternation Based on an Offset Value
- Runtime Alternation Based on set number of hours between alternations

Pump Status
- Pumps 1-2 Start Status, Auto & Fail
- Panel Alarm Status Output

Wet Well Clean Out (Flush) Mode (Use with Level Transducer only)
The system employs a user adjustable time/cycle set point to allow pumps to run beyond the normal level set points to flush wet well and help prevent buildup.

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Wet Well F.O.G. Buildup Reduction Mode (Use with Level Transducer only)
The system employs a changing level algorithm to help prevent grease buildup at a set level. This feature can be enabled/disabled by user.

Volume (Flow) Calculation (Use with Level Transducer only)
The system employs calculations based on pump characteristics and change of level to provide an estimated flow rate and display.

Color Touch Screens

- Home Screen (Digi-Gage) (Use with Level Transducer only)
- Level & Pump Status Screen (Use with Level Transducer only)
- Configuration/Setup Screens
- Simulation Setup Screen (Use with Level Transducer only)
- Clean Out Feature Setup Screen (Use with Level Transducer only)
- Alarm History Screen
- Active Alarm Popup and Acknowledge Screen

Digi-Gage Plus *Mini* Optional Features

Clog Prevention Mode (Key Shaft Pumps Only)
This optional feature is an open loop process that initiates reversal of pump/s, based on the number of cycles or time of day. This De-matter optional feature requires reversing contactors or VFD.

Data

- Micro SD Card backup/ upload/ logging
- Data logging
- OPC Server compliant
- DDE format read/write

Communications

- Remote access (with optional Network Interface Adaptor)
- TCP/IP Ethernet communications
- Local Level, Alarm Data Logging
- Remote Interface (Requires network connectivity)
- Phone App interface to monitor status (requires smart phone application)
- Web Server features
- Standard status and control address mapping for ease of SCADA integration

Digi-Gage Plus *Mini* Technical Data

Hardware Ratings

- Operating Temperature: 0 to +60°C (32 to 140°F)
- Storage Temperature: -20 to +60°C (-4 to 140°F)
- Relative humidity: (RH) 10% to 95% (non-condensing)
- NEMA/IP Rating: NEMA4X/IP65/66
- Voltage range: 10.2 to 28.8VDC <10% ripple
    - Power consumption: npn inputs 280mA @ 24VDC
    - pnp inputs 190mA @ 24VDC
    - Backlight 20mA @ 24VDC
    - Ethernet card 35mA @ 24VDC
    - Relay Outputs (ea.) 8mA @ 24VDC

System Ratings

- Input / Output Capacity is capable of supporting up to 256 I/O points (8 I/O modules maximum)
- Scan Rate of 15µs per 1kb ladder logic
- Adjustable white LED backlight TFT LCD display
- Up to 1024 displays
- Colors 65,536 (16-bit)
- 3.5” viewing area resistive, analog touchscreen
- 5 pre-programed function keys, sealed membrane

System Processor

- Memory: 1MB Application, 512k Fonts, 3MB Images.
- Removable memory: Standard SD or SDHC (32GB max)
- Real Time Clock
- Battery backup (7 years typical at 25°C), Replaceable, coin type, Lithium battery (CR2450)

Base Features

- Input voltage 24VDC
- 12 Digital inputs rated 24VDC (2 configurable as analog current/ voltage)
- 6 Relay outputs rated 5 amp at 250VAC/ 30VDC
- Comm Port 1: RS232/ RS485 (up to 32 nodes)
- Comm Port 2: Ethernet

Communication Interfaces (optional)

- Comm Port 1
    - RS232/485 baud rates between 300 to 115200 bps
    - RS485 up to 32 nodes/ 1200m (4000’) maximum
    - USB 2.0 compliant; full speed
- Comm Port 2 (Optional)
    - Modbus/TCP / RS232 / CANbus