

DIGI-GAGE PLUS™ “RETRO” DATASHEET

Digital Constant Speed Controller

The Digi-Gage Plus™ RETRO configuration is a single compact SCADA ready system controller designed to directly replace Digi-Gage 2300, 2400, 2600.

- Drop-in replacement for Digi-Gage 2300, 2400, 2600.
- Fits and functions within the existing Digi-Gage Classic footprint.
- Combines all current Digi-Gage models functions into one easy-to-use intuitive interface and single part number.
- Includes easy-to-wire kit and instructions made specifically for your EG Controls built panel.
- Support 1 to 6 pumps from a single controller.
- Networkable, scalable, upgradable, and expandable platform for integration into most SCADA packages.
- RETRO configuration is compatible with panels not built by EG Controls. Consult factory for details.



Digi-Gage Plus Standard Features

Visual Indication

Pump mode (run/auto/fail), lead/lag sequencing, alternation, process level, high/low level alarms are displayed.

Level Simulation

Level simulation to test setup function and alarm set points.

Maximum Number of Pumps

Configure the maximum number of pumps to run at the same time.

Color Touch Screens

- Home Screen (Digi-Gage)
- Level & Pump Status Screen
- Configuration/Setup Screens
- Simulation Setup Screen
- Clean Out Feature Setup Screen
- Alarm History Screen
- Alarm Popup and Acknowledge Screen
- Reverse Pump function Setup Screen (Optional with addition of reversing contactors, pressure feedback and expanded input module)

Communications & Data

- 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

Status

- Pumps 1-6 Start Status
- Panel Alarm Status Output

Volume (Flow) Calculation

The system employs calculations based on pump characteristics and change of level to provide an estimated flow rate and display.

Advanced Alternation

The controller can alternate up to 6 pumps/blowers in the automatic operation mode and include the capability of selecting any pump/blower for the lead position(s) with or without alternation.

Digi-Gage Plus Technical Data

Outputs

Pump run, lead/lag sequencing, alternation, process level, high/low level alarms.

Level Simulation

Level simulation to test setup function and alarm set points.

Maximum Number of Pumps

Configure the maximum number of pumps to run at the same time.

Color Touch Status

Panel Alarm Status Output

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 can support up to 256 I/O points (8 I/O modules maximum)
- Scan Rate of 15 μ s 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-programmed function keys, sealed membrane

Other Features

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

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)
 - Ethernet
 - RS232/485
 - CANbus

Modbus

- Use ethernet port connection.
- Communicates over TCP.
- Unit is a Modbus slave

Typical wiring for a Digi-Gage Plus Retro in an existing EG Controls built panel

*EG Controls will provide an updated panel print showing exactly how to wire your EG Controls built panel.

