

Valve Star G3 Specifications

A fully computerized Valve and Hydrant Maintenance system

CAPABILITIES:

- Computerized Valve Operation – Valves 4” to 96”
- Computerized Hydrant Operation
- Integrated GPS – WAAS Enabled
- Computerized Hydrant Flushing, Records GPM and Gallons Used.
- Computerized Fire Flow Testing (recommended by the NFPA) Wireless pressure transducer setup sold separately.

FEATURES:

- 4 1/2” x 3 1/2” full color, easy to read, display.
- Waterproof display with push button controls.
- Variable control Joy Stick
- Click and Dial functionality with Alpha and Numeric capabilities.
- Feather Touch Torque control. Helps prevent slamming of the valve.
- Bright Warning Light for Torque and Revolutions.
- Audible Alarms for Torque and Revolutions.
- Feather Touch Torque Control to prevent slamming of valve.
- Capability to open a valve first without complicated key strokes.
- Easy Reset Function.
- Video capability (Optional)
- SD Card data storage.
- Auto download to Microsoft Excel.
- Auto Upload Capabilities eliminating the operator in the field from having to enter data. This means you can bring in a work order with a full list of hydrants and valves ready to use in the field. There is override capability if a field value changes.
- Compatible with any Access based data program.
- Or fully integrated capabilities with Hurco’s Valve Star / Track one software sold separately
- GIS Compatible with most mapping systems.

DATA COLLECTION:

- Date and Time
- Operator ID
- Mode – Valve or Hydrant
- Valve or Hydrant ID – Alpha and Numeric
- Valve Size
- Actuator Type
- Valve Type
- Manufacture
- Access Type
- Bury Depth
- Function
- Normal Position
- Nozzle Size (Hose Monster Size) Used for flushing and Fire Flow Testing
- Pitot Pressure
- Static Pressure
- Residual Pressure
- Gallons Per Minute
- Total Gallons used
- GPS – Longitude, Latitude, Elevation – HDOP and PDOP readings for accuracy determination
- Location Description
- Address Information
- Cross Street
- Set Torque
- Achieved Peak Torque
- Revolutions at Peak Torque
- Set Revolution Speed
- Achieved Revolution Speed
- Set Revolution Count
- Achieved Revolution Count in set direction
- Total number of Revolutions achieved
- Number of Cycles, full open to full close equals one full cycle
- Deficiencies
- Repairs Required – Yes/No

SPECIFICATIONS (Valve Star G3 Computer/Display):

Display:

TFT – Color Display, 5.6”, 320x240 pixels, 16 colors, 400 cd/m², contrast > 400 or FSTN – monochrome display, 5.6”, 320 X 240 pixels, 16 gray scales, contrast > 20, backlight automatically adapts to ambient light, transverse format.

Processor:

16-bit Siemens C1687CR-LM with 20MHz

Memory:

1MB flash for BIOS, 2MB flash for project data, 512 kb SCRAM, serial EEPROM 32 kb, 1 SD memory card slot.

Interfaces:

2 x CAN bus ISO/DIS 11898 2.0B active, 1 x serial interface, not galvanically separated, short-circuit protected.

Digital potentiometer:

1 rotary encoder with input function through pressure, 30 increments per turn.

Housing:

Plastic housing, 220 x 160 x 70 mm, rear anchoring flange, plastic flap in front of memory card slot

Front side:

Silicon keypad with pressure point and 7 backlit keys.

Power supply:

8 – 60 VDC, max. 1A switching regulator, not galvanically separated, reverse polarity protection, closed current max. 100 uA.

Audio converter:

Piezo audio converter, at least. 80 dBA with 80 cm clearance to the rear side.

Real time clock:

2 weeks buffered with Gold Cap capacitor

ENVIRONMENTAL COMPATIBILITY

Operating temperature:

-25° C - +65° C

Protection class:

IP6k5

Vibration:

0.35 mm stroke from 10 to 59 Hz and 5g per axis from 60 to 300 Hz

Impact stress:

30g / 11 ms, 10 times per axis

HF-immunity:

At least 100 V/m

HF-emission:

In accordance with ISO/CD 14982, 75/322/EEC

ESD:

±15 kV air discharge

Vehicle pulses:

In accordance with ISO 7637 -2, -3 (Pulses 1, 2, 3a, 3b, a, b)

SPECIFICATIONS (Other):

Torque: Variable from 0 to 800 ft./lbs (Capability exceeds most manufactures recommended torque values) Operating the valve above the manufactures recommendations can be extremely dangerous and potentially life threatening. Damaged valves can potentially disrupt water supply causing concern in emergency operations such as fire fighting. Always follow the AWWA's recommendations when operating a valve or hydrant.

Compatible with Valve Star G3 Software

WARRANTY:

One year parts and Labor

Patents Pending

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