URS Series Power Supplies

Model 10, 20, 40, 100-5

Applications:

» General process control
» OEM instrumentation
» R&D bench control
» Lab bench control
» Testing facilities
» Calibration bench

Features at a glance

- High reliability
- High resolution 10 turn setpoint potentiometers
- Portable and compact design
- Soft start control
- Control up to 10 Unit™ mass flow instruments
- Valve off and purge capability
- Buffered outputs for flow and valve test point
- Instrumentation packaging
- 3-Digit LCD display for setpoint and flow
- Manual and computer controlled options
- Keyed manual purge switch with safety interlock (model 100-5)
- 110/220VAC—50/60 Hz

Performance advantage

Celerity manufactures a full line of premium power supplies for all types of applications. Our power supplies utilize high resolution 10 turn setpoint potentiometers with valve off and purge capability. The LCD display provides 3 digits of resolution for precise setpoint control.

Design flexibility

The URS Series power supplies are designed to control up to 10 Unit mass flow controllers or meters. They operate from 110 Vac 50/60 Hz with 6 watts input power. Each power supply has three modes of operation: valve control, valve purge and valve off.

The best service and support in the industry

Celerity is unmatched in the industry for service and support. We have worldwide service locations with calibration, application support, and repair capabilities, operating 24 hours a day, 7 days a week. Celerity's website also provides updated application and technical support.

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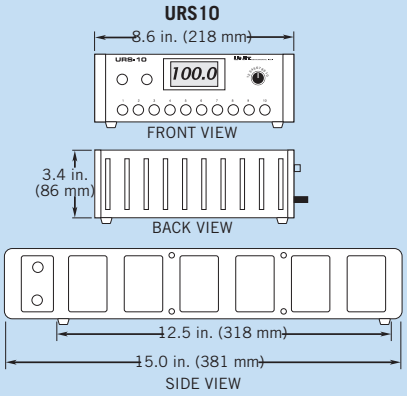
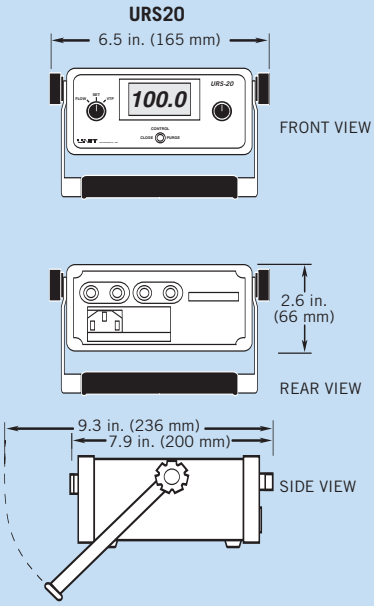




Model URS10

Exclusive features

- Supplies power to 10 Unit mass flow controllers or meters on a continuous basis
- Valve voltage selectable-off, continuous on, cycling on-off
- 3 Digit LCD display of flow for selected channel
- Portable and compact
- Power on LED indicator
- Valve open LED indicator for each channel
- Rack mountable

System advantages

Celerity Model URS10 is designed to supply continuous power and selectable (off, on, cycling) valve voltage to as many as ten Unit mass flow meters, controllers, or transfer standards. The URS10 allows units to be preheated and/or maintained at operating temperature to eliminate warm-up delays when installing and checking out new equipment and when performing calibrations. The valve voltage can be used to facilitate an off-line purge of the instrument and any associated sub-assemblies prior to their installation. The instruments may also be zeroed while powered by the URS10.

Operational features

“Power On” is indicated by a LED. Each channel has a LED to indicate when valve voltage is being applied. The valve voltage mode is selectable by a three-position toggle switch. A ten-position rotary switch allows monitoring the % full scale flow indication on any channel.

Model URS20

Exclusive features

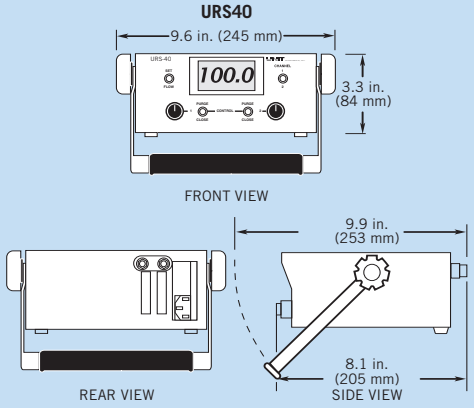
- Supplies power to 1 Unit mass flow controller or meter
- High resolution—10 turn setpoint potentiometers
- 3-Digit LCD display for setpoint and flow
- Portable and compact
- Soft start control
- Valve off and purge capability
- Buffered outputs for flow and valve test point

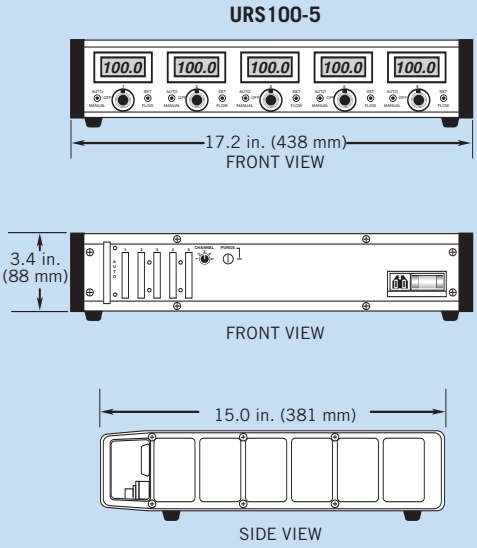
System advantages

The URS20 readout power supply is designed to control one Unit flow controller or meter. Its small size makes it ideal for permanent on-line installation or as preventative maintenance tools for periodic on-line performance tests.

Operational features

The power supply incorporates 10 turn high resolution potentiometers to control the desired flow or pressure setpoints. The valve switch on the front panel provides three modes of operation: function switch provides visual reading of flow, setpoint, and valve voltage on both units. Two buffered output jacks on the back of the URS20 provide flow meter and valve test point outputs for strip chart recorders and other monitoring devices. Indicated readouts are in percentage of full scale for the URS20.





Model URS40

Exclusive features

- Supplies power and readout capability to 2 Unit mass flow controllers or meters
- High resolution–10 turn setpoint potentiometers
- 3-Digit LCD display for setpoint and flow
- Portable and compact
- Soft start control
- Valve off and purge capability
- Buffered outputs for flow and valve test point
- Instrumentation packaging

System advantages

The URS40 readout power supply is designed to control any combination of two Unit flow controllers or meters. Its small size makes it ideal for permanent on-line installation or as preventative maintenance tool for periodic on-line performance tests. A 3-digit LCD displays the setpoint or flow for any of the 2 channels in percentage of full scale. The buffered output of the valve test point can be used for on-line dynamic response maintenance checks. Its size and dual channel capabilities make the URS40 more convenient and versatile than competitive models.

Operational features

Each channel has its own 10-turn precision potentiometer to set the external setpoint. The LCD readout provides visual monitoring of the setpoint when the selector switch is in the set position, and individual channel monitoring in the flow position. Off, control, and purge modes of flow are selectable with a three-position toggle switch for each channel. Soft start for Unit flow controllers is initiated when the flow mode is switched from off to control.

Model URS100-5

Exclusive features

- Supplies power to 5 Unit mass flow controllers or meters
- 5 Readouts allow for simultaneous viewing of up to 5 instruments
- High resolution10 turn locking setpoint potentiometers
- Five 3-Digit LCD display for setpoint and flow
- Keyed manual purge with safety interlock
- Manual or computer control of each channel
- Portable and compact
- Buffered steeping prevents loading in computer operation
- Computer connector on back panel
- Power supply outputs for computer auto test

System advantages

The URS100-5 readout power supply is designed to control up to five Unit flow controllers or meters simultaneously. The URS100-5 allows the user to simultaneously monitor up to 5 set points or flows during either computer or manual control. Each channel displays set point or flow on a 3-digit LCD readout. It is portable and rack-mountable, making it easy to use and operate. With each channel fully operational in manual or computer mode, this power supply provides greater flexibility than conventional models.

Operational features

Computer interfacing is accomplished with a 34 pin connector which accepts a 0-5 VDC setpoint signal and a TTL level switch closure on each channel. Power supply voltages are available to the computer for diagnostic purposes. A switch closure which indicates when a channel is in manual mode and is not under computer control is available. An additional signal is provided to the computer to indicate manual purge mode. Under manual control, each channel setpoint is adjusted by its own 10-turn precision locking potentiometer. Indicated readout are in percentage of full scale or engineering units.

URS Series Power Supplies specifications

Model URS-20

Power input:	110 Vac ±10% between 47/420 Hz Optional input voltage available Accepts pressure transducer ranges up to 10 VDC
Output:	+15 VDC ±0.15 VDC, 100 mV ripple -15 VDC ±0.15 VDC, 100 mV ripple
Over current protection:	Fixed @ 120% of rated output current
Temperature ratings:	32˚F to 122˚F (0˚C to +50˚C)
DVM:	Zero input reading ±000.0 (zero voltage in) Linearity ±.2 counts Noise 15 µV Zero reading drift ±2 µV/˚C

Model URS-40

Power input:	110 Vac ±10% between 50/60 Hz Optional 220 Vac voltage available
Output:	+15 VDC ±0.15 VDC, 100 mV ripple -15 VDC ±0.15 VDC, 100 mV ripple
Over current protection:	Fixed @ 120% of rated output current
Temperature ratings:	32˚F to 122˚F (0˚C to +50˚C)
DVM:	Zero input reading ±000.0 (zero voltage in) Linearity ±.2 counts Noise 15 µV Zero reading drift 0.2 µV/˚C

Model URS-100-5

Power input:	110 Vac ±10% between 50/60 Hz Optional 220 Vac voltage available
Output:	+15 VDC ±0.15 VDC, 100 mV ripple -15 VDC ±0.15 VDC, 100 mV ripple
Over current protection:	Fixed @ 120% of rated output current
Temperature ratings:	32˚F to 122˚F (0˚C to +50˚C)
DVM:	Zero input reading ±000.0 (zero voltage in) Linearity ±.2 counts Noise 15 µV Zero reading drift 0.2 µV/˚C

Model URS-10

Power input:	110 Vac ±10% between 50/60 Hz Optional 220 Vac voltage available
Output:	+15 VDC ±0.15 VDC, 100 mV ripple -15 VDC ±0.15 VDC, 100 mV ripple
Over current protection:	Fixed @ 120% of rated output current
Temperature ratings:	32˚F to 122˚F (0˚C to +50˚C)
DVM:	Zero input reading ±00.0 (zero voltage in) Linearity ±.2 counts Noise 15µV Zero reading drift 0.2 µV/˚C

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