



Series 302 Active Vacuum Gauge Controller

- ◆ Vacuum gauge readout and power supply for InstruTech active vacuum gauge modules
- ◆ Analog output, RS232, USB and RS485 serial communications
- ◆ Two setpoint relays
- ◆ Space-saving 1/8-DIN panel mount housing easily adapts to instrument or rack-mount panel installations



Description

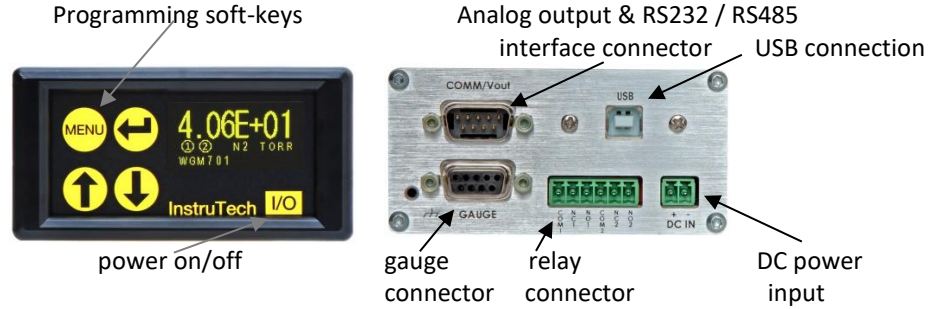
The AGC302 vacuum gauge controller is a power supply and readout instrument offered specifically for the InstruTech active vacuum gauge series WGM701 pirani-cold cathode combination gauge, CCM502 cold cathode gauge, PCM301 pirani-capacitance combination gauge, CDM900 capacitance diaphragm gauge (CDG) and other brands of CDGs. Note that the vacuum gauges listed above do not necessarily require the AGC302 to operate. These gauges provide analog output signals that can be directly interfaced with user's control system. As such, AGC302 is recommended only when a bench top, panel or rack mount display installation is required.

Furthermore, the AGC302 controller can be used to provide two setpoint relays as well as serial communications for these types of devices. If needed, AGC302 can also be used with other InstruTech active gauges such as the CVM201, CVM211 convection or CCM501, IGM401, IGM402 ionization gauges although these gauges are provided with their own integrated displays. The controller is powered by user supplied 20 to 28 Vdc, or by InstruTech PS301 optional power supply. The controller provides power to the InstruTech active gauges operating on 24 Vdc including the CDM900 CDG, however other brands of CDGs operating on ± 15 Vdc power require an external power supply provided by the user.

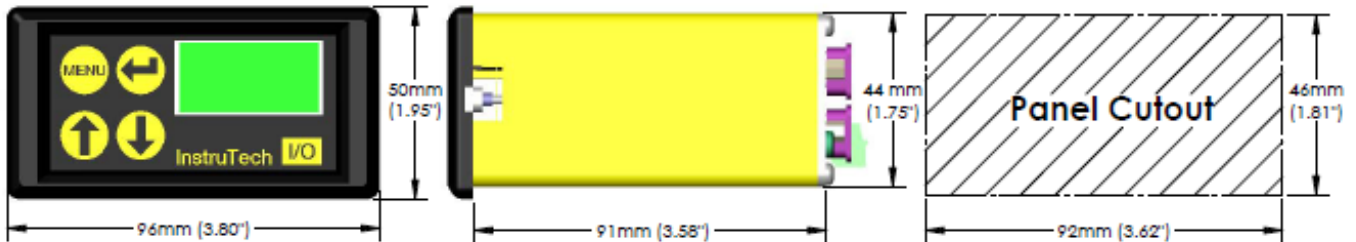
Specifications

measurement range	dependent on active vacuum gauge device connected (see vacuum gauge data sheets)	
display	bright OLED, 3 digit plus 2 digit exponent, user-selectable Torr, mbar or Pa	
display update rate	0.5 sec	
weight	9 oz. (250 g)	
temperature	operating: 0 to +40 °C	storage: -40 to +70 °C
humidity	0 to 95% relative humidity, non-condensing	
input signal	analog input from one of the following active vacuum gauge devices: full range cold cathode-pirani combination gauge: WGM701 cold cathode gauge: CCM502 pirani-capacitance combination gauge: PCM301 capacitance diaphragm gauge: CDM900 or other brands of CDGs	
analog output	retransmit analog input from the active vacuum gauge device connected	
serial communications	RS232 and RS485 - ASCII protocol	
housing	1/8-DIN panel-mount enclosure (aluminum extrusion)	
input power	20-28 Vdc, 2 W plus the wattage required for the active vacuum gauge connected protected against power reversal and transient over-voltages	
setpoint relays	two single-pole double-throw relays (SPDT) / 5 A at 30 Vdc, 5 A at 250 Vac, resistive load	
connectors	gauge: 9-pin D-sub female (mating connector provided as part of the gauge cable) analog output: 9-pin D-sub male RS232 serial communications: 9-pin D-sub male or USB RS485 serial communications: 9-pin D-sub male relay outputs: 6-pin pluggable terminal block (mating connector included) power: 2-pin pluggable terminal block (mating connector included)	
CE compliance	EMC Directive 2014/30/EU, EN55011, EN61000-6-2, EN61000-6-4, EN61326-1, EN61010-1	
environmental	RoHS compliant	

Controls & Connections



Outline Drawing



Ordering Information

Part Numbers

AGC302 Active Vacuum Gauge Controller

AGC302

Optional power supply for AGC302 when used with WGM701, CCM501, CCM502, PCM301, CDM900, CVM201, CVM211 active gauges.

Input: 100 - 240 Vac, 50-60 Hz
Output: + 24 Vdc / 18 W
Cable Length: 6 ft. (2 m)



with North American AC Plug: PS301-A
with universal European AC Plug: PS301-EU
with UK AC Plug: PS301-UK
with China AC Plug: PS301-C
with Australian AC Plug: PS301-SP

Optional power supply for AGC302 when used with the above active gauges as well as IGM401, IGM402 and CDGs requiring power higher than 18 W at 24 Vdc. User supplied AC power cord required.

Input: 100 - 240 Vac, 50-60 Hz
Output: + 24 Vdc / 60 W
Cable Length: 6 ft. (2 m)



PS301-UX
This variation of the PS301 power supply is also used when an AC plug that is not listed above is required. The conventional IEC60320 AC power entry receptacle allows use with any user supplied AC mains power cord set available worldwide.

Vacuum Gauge Cable	For WGM701, CCM502, CCM501, IGM401, IGM402	For PCM301, CVM201, CVM211	For CDM900
10 ft. (3 m)	WRG741-1-10F	PCG341-1-10F	CDG941-1-10F
25 ft. (8 m)	WRG741-1-25F	PCG341-1-25F	CDG941-1-25F
50 ft. (15 m)	WRG741-1-50F	PCG341-1-50F	CDG941-1-50F
>50 ft. consult factory	consult factory	consult factory	consult factory

Note. If you intend to use the CVM201/CVM211 with the AGC302, consider using the more economical CVG101 convection gauge tube with the VGC301 controller instead.

Vacuum Gauges: For vacuum gauge part numbers and specifications see individual data sheets for these devices you intend to connect to the AGC302 controller.



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