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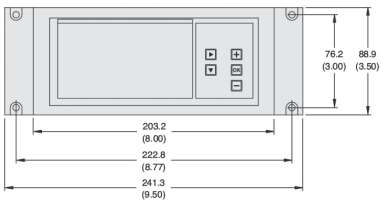
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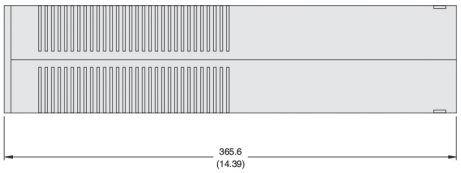
Data Sheet

Agilent
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XGS-600 Vacuum Gauge Controller







Dimensions: millimeters (inches)

The XGS-600 gauge controller allows for simultaneous or independent operation of up to 12 gauges and can display readings for up to 8 gauges at any time. Standard features include 8 collector set points and 8 contact relays. All settings are stored in flash memory, so you do not have to spend time reprogramming after a power outage.

The XGS-600 gauge controller can operate convection gauges, hot filament ion gauges, cold cathode gauges, and all Agilent active gauges. Up to six cards can be installed in the XGS-600 controller, in almost any combination to suit your application.

Features	Benefits
Powerful	A single unit can simultaneously operate up to: • 4 BA and 4 convection gauges (or 4 IMG and 4 convection gauges) • 5 ion gauges (5 IMG gauges or 4 hot filament and 1 IMG) • 12 Convection gauges • 12 Agilent Active gauges 8 Open collector set points 8 Contact relays Standard Features in every unit: • Serial communication (RS-232 and RS-485), universal voltage, Degas
Flexible	Operates hot filament, inverted magnetron (cold cathode), convection gauges and all Agilent Active gauges Can mix and match any gauges in a single unit Can expand or reconfigure easily in the field Optional card supports Profibus DP communications protocol
Easy to Use	Simple screen organization and navigation Drop down gauge selection automatically sets the emission current, sensitivity and overpressure. Displays up to 8 gauges simultaneously on one screen Large font feature allows display of 2 gauges visible from 15-20 feet Capability of programming your own 5 character gauge label Set Point Screen: displays and adjusts set points for up to 8 gauges
Fast	< 20 milliseconds from signal to set point response (Open collector only)
Compact	All in the impressively small half-rack package

Technical Specifications

User interface	LCD monochrome dot matrix, 240 x 128, white LED backlight; 5 button keypad
Display capability	Up to eight simultaneous channels of pressure measurement, up to a 5 character user label for each; up to two channels in a large font; readable from 15 feet; display updates every 200 msec
Gauge capability	Up to 4 Hot Filament BA gauges including metal, glass, and nude UHV types using the HFIG** cards; up to 5 IMGs* using the IMG* cards; up to 12 rough gauges using the Dual Convection Gauge Cards; up to 12 Active Gauges using Dual Analog Input Cards
Measurement range	1 x 10^{-11} Torr to Atm dependent upon card and gauge type selected
Set points - Open collector	Eight normally open setpoints with independently programmable ON and OFF delays, manual override; fast response: 20 msec max (with delay set to 0.0 sec)
Contact relays	Eight normally open or normally closed mechanical relays with 24V @ 2 amp rating, using 25 pin D-sub with same pinout as MultiGauge/SenTorr; 2 set points per relay/channel
Serial communications	RS232 and RS485 (fully programmable)
Analog outputs	1v/dec LOG, 0 – 10 V FS, on each card with 200 msec update rate
I/O control	HFIG** card: Remote gauge ON/OFF, Fil select, DeGAS ON/OFF Inputs, Status Output
	IMG* card: Remote gauge ON/OFF Input, Status Output
	Dual Convection Card: Remote CAL inputs, Status Outputs
	Dual Analog Input Card: Remote CAL Inputs, Status Output
Other	Auto-ON capability for installed ion gauges when at least one convection card is installed Sensitivity, gas correction, emission current (BA gauges only) inputs for ion gauges
	E-BEAM degas, with auto turn off for BA gauges
	Selectable air or argon calibration for rough gauges
	Adjustable atmosphere value for rough gauges
	Text error messages
	All data stored in FLASH non-volatile memory requiring no batteries
Power input/Temperature	Worldwide universal power input, 100-240 VAC, 2 A, 50/60 Hz, IEC inlet; 5-40 °C ambient
Regulatory approvals	CE certified and RoHS compliant, BV certified for USA and Canada

*IMG – Inverted Magnetron Gauge
**HFIG – Hot Filament Ion Gauge

Ordering Information

Description	Part Number
XGS-600 Vacuum Controller, without cards	XGS600H0M0C0
Configure your XGS-600 Controller with cards – constructing your part number: 1 Refer to the Gauge Selection Chart to help determine the gauge you need 2 Choose the number of HFIG** cards you want; place after the "H"; will be 0 to 4 3 Choose the number of IMG* (cold cathode) cards you want; place after the "M"; will be 0 to 5 4 Choose the number of Dual Convection Gauge Cards; place after the "C"; each card runs two convection type gauges, will be 0 to 6	XGS600H X M X C X
5 If ordering Active Gauge (Analog Input) Cards, add "Ax" to the end of the part number, with the number of cards desired (1 to 6). Each card operates two Active Gauges.	XGS600H X M X C X A X

NOTE

- The XGS-600 has 6 gauge card slots permitting a total of 6 cards.
- Up to four slots can be used for HFIG** cards. If four of these are chosen, one IMG* card or up to two Dual Convection Gauge Cards may be selected also.
- Up to five slots can be used for IMG* cards. If five of these are chosen, no additional gauge cards may be selected.
- All six slots may be used for Dual Convection Gauge Cards or Analog Input Cards.
- HFIG, IMG, and Dual Convection Cards can be used with Dual Analog Input Cards.

Cables		Part Number							
Cable Description	Length	3 ft	10 ft	25 ft	50 ft	65 ft	75 ft	90 ft	100 ft
XGS-600 I/O, with flying leads			R32493010	R32493025	R32493050		Special Order (SO)		
ConvecTorr Gauge, non-bakeable			L91223010	L91223025	L91223050	L91223065	L91223075		L91223100
Thermocouple Gauge (531, 536)			L91313010	L91313025	L91313050	SO	L91313075	SO	L91313100
Glass BA Gauge standard, non-bakeable UHV-24/UHV-24p standard, non-bakeable UHV-24/UHV-24p Teflon UHV, bakeable to 250 °C			R32443010 R32453010 R32463010	R32443025 R32453025 R32463025	R32443050 R32453050 R32463050	Not available over 50 feet – with 10 ft. standard cable, it is possible to order extension up to 250 ft.			
Ion Gauge extension – all hot filament			N/A	N/A	N/A	R32473065	R32473075	R32473090	SO
IMG-100 Gauge, non-bakeable – may be used with IMG-300			R03113010	R03113025	R03113050	SO	R03113075	SO	R03113100
IMG-300 Gauge, bakeable			R03413010	R03413025	SO	R03413065	SO	SO	R03413100
FRG-700/PVG/PCG Analog Input Board		R35893003	R35893010	R35893025	R35893050				
CDG Analog Input Board		R35903003	R35903010	R35903025					
FRG720/730 Analog Input Board		R35913003	R35913010	R35913025	R35913050				

Accessories	
Description	**Part Number**
Hot Filament Ion Gauge (HFIG) card, field Install	R3075301
Inverted Magnetron Ion Gauge (IMG) Card, field install	R3080301
Dual Convection Gauge Card, field install	R3084301
Dual Analog Input Card, field install	R3487301
Tilt stand accessory	R3124301
Center rack mount kit	L6423301
Off-Center rack mount kit	L6422301
Dual Mount rack mount kit	L6426301

*IMG – Inverted Magnetron Gauge
**HFIG – Hot Filament Ion Gauge

Power Cord Selection One power cord included with each unit	
Description	**Part Number**
Europe, 10 A / 220-230 VAC, 2.5 meter	656494220
Denmark, 10 A / 220-230 VAC, 2.5 meter	656494225
Switzerland, 10 A / 230 VAC, 2.5 meter	656494235
UK/Ireland, 13 A / 230 VAC, 2.5 meter	656494250
India, 10 A / 220-250 VAC, 2.5 meter	656494245
Israel, 10 A / 230 VAC, 2.5 meter	656494230
Japan, 12 A / 100 VAC, 2.3 meter	656494240
North America, 13 A / 125 VAC, 2.0 meter	656458203

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