

Type: General Purpose

Stand: Bench Top

Mounting Style: Moveable or Fixed Head

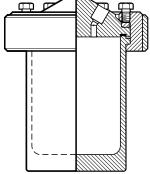
Sizes, mL: 1000 and 2000 970 and 1900 HP

Standard Pressure MAWP Rating, psi (bar): **1900 (131)**

Standard Maximum Operating Temp., °C: 225 w/ FKM 0-ring 300 w/ FFKM 0-ring 350 w/ PTFE Flat Gasket

High Pressure (HP) MAWP Rating, psi (bar): **2900 (200)**

Maximum Operating Temperature, °C at High Pressure (HP): **350** @ **2900 psi**



4600-1L Cross Section

The Series 4600, 1.0 and 2.0 L Vessels are the largest of the Parr Vessels that can be handled on a bench top.

Series 4600 Pressure Vessel Systems, 1 & 2 Liter

These reactors are available with an FKM O-ring seal for operating temperatures to 225 °C, and FFKM O-ring for temperatures to

300 °C, or with a flat, PTFE gasket for operating temperatures up to 350 °C maximum. An optional HP (High Pressure) flat gasket version has been added for maximum allowable working pressure of 2900 psi (200 bar) at 350 °C. Both fixed head and moveable vessel designs are available.

An optional pneumatic lift is available for the heavier 2 liter cylinder and heater. It should be noted, however, that the 2 liter, fixed head model is tall and may not be convenient to operate on a standard height bench top. We recommend using a floor stand.

With their larger diameter, these mid-size reactors have sufficient space for special modifications, such as an internal cooling coil, bottom drain valve (not on 2 liter bench top), ball valve for a solids charging port, catalyst addition devices, condensers, electrical feed-throughs and more.





4600-1L with Rupture Disc Assembly

4600-1L Pressure Vessel with Valve, Gage, Rupture Disc, and Thermowell (VGR) and single inlet valve (-VD)

4600

8

Shaded bar indicates specifications that change within a	561163.	40	00	
Model Number		46		
Approximate Volume, mL	1000	2000	970	1900
Maximum Pressure (MAWP)	1900 psi	(131 bar)	2900 psi	i (200 bar)
Maximum Temperature				
with FKM 0-ring	225 °C N/A		J/A	
with FFKM O-ring	300 °C			
with PTFE Flat Gasket	350 °C			
with Flexible Graphite Flat Gasket		350	°C	
Vessel Details				
Mounting Style		Moveable or	Fixed Head	
Closure	Split-Ring (6 Compression Bolts for Flat Gasket, No Compression Bolts for O-ring) Split-Ring with 12 Compression Bo		Compression Bolts	
Head Opening Options	One head opening (1/8" NPT, 1/4" NPT, "B" socket, or rupture disc assembly port) Ports for valve, gage, rupture disc, and thermowell with thermocouple (VGR) Custom port option (Contact our technical sales department to discuss options)			
Maximum Head Openings	7 (Dependent on opening size, and required fittings)			
Valve Connections		1/8" Ma	le NPT	
Pressure Gage, Size		4.5" Dia	ameter	
Range	0-2000 psi (138 bar) 0-3000 psi (207 bar)		si (207 bar)	
Temperature Measurement	Thermowell			
Cooling Coil (Optional)	Serpentine			
Bottom Drain Valve (optional, requires stand)	3/8" NPT 1/4" NP		" NP	
Stand and Heater (optional)				
Stand Type*	Bench Top Heater with Base Plate (Also Available: Bench Top Stand, Floor Stand, Floor Stand w/ Pneumatic Lift, Floor Cart)			
Heater Style, Bench Top Heater	Calrod			
Heater Power, Watts (115V / 230V)	1000	1350 / 1500	1000	1350 / 1500
Maximum Load, amps, (115V / 230V)	8 / 4	11 / 6	8 / 4	11 / 6
*Heater watts and amps vary between d	ifferent stand with heater	styles, contact Parr Tech	nical Support for more ir	nformation.
Weights & Dimensions				
Cylinder I.D. x Depth, inches	4.0 x 5.4	4.0 x 10.5	3.75 x 5.4	3.75 x 10.5
Vessel Assembly w/Moveable Head Weight, pounds**	22	27	26	34
Vessel Assembly w/Fixed Head Weight, pounds**	25	30	28	35
Cylinder Weight, pounds	8.9	14	11	18

Other options available. See Ordering Guide, visit <u>www.parrinst.com</u>, or call for more information.

Series Number:

Index to Options

Option	Page
Certification	8
Materials of Construction	10 I
Magnetic Drive	14
Gaskets & Seals	18
Stirrer Motor	118
Rupture Disc	124
Pressure Gage	125
Cooling Coil	129
Bottom Drain Valve	131
4848 Reactor Controller	102
4871 Process Controller	109
A2110E Motor Controller	114

Custom Option	Page
Stirrers	120
Heaters	116
External Valves & Fittings	s 138
Solids Charging Ports	128
Condensers	123
Electrical Glands	137
Catalyst Addition Device	128
Catalyst Baskets	122
Relief Valves	125
Windows	136
Gear Drives	119
Explosion Proof Options	134
Liquid Sampling	130

Accessories	Page
Liners	129
Spare Parts Kits	137
Pressure Hoses	133
Check Valves	125
Liquid Pipettes	127
Gas Burettes	126

Series 4600 Pressure Vessel Systems



4600-2L-VGR Vessel with bench top heater (-BTH) and base plate

8

Series 4600 Ordering Guide

An example order number for a vessel in this series is: 4600-1L-T-SS-VGR-2000

A composite identification number to be used when ordering a 4600 Series Pressure Vessel System can be developed by combining individual symbols from the separate sections below. For more information on how to use this ordering guide, please see page 27.

A Vessel Rating		
- No Symbol	Standard rating, 1900 psi at 350 °C (1 & 2 Liter Vessels)	
No bymbol	High pressure rating, 2900 psi at 350 °C	
-HP	(970 & 1900 mL Vessels)	
B Vessel Volu		
-1000mL	1000 mL, 4" ID (standard rating only)	
-2000mL	2000 mL, 4" ID (standard rating only)	
-970mL	970 mL, 3.75" ID (high pressure rating only)	
-1900mL	1900 mL, 3.75" ID (high pressure rating only)	
C Head Moun	ting Style	
-No Symbol	Moveable Head (Standard configuration)	
-FH	Fixed Head	
D Gasket / Ma	aximum Temperature	
-T	PTFE Flat Gasket, 350 °C	
-0V	FKM 0-ring, 225 °C	
-0K	FFKM O-ring, 300 °C	
-FG	Flexible Graphite Flat Gasket, 350 °C	
E Vessel Mat	erial of Construction	
-SS	T316 Stainless Steel	
-C20	Alloy 20	
-M0	Alloy 400	
-IN600	Alloy 600	
-IN625	Alloy 625	
-HB	Alloy B-2 / B-3	
-HC	Alloy C-276	
-NI	Nickel 200	
-TI2	Titanium Grade 2	
-TI4	Titanium Grade 4	
-ZR702	Zirconium Grade 702	
-ZR705	Zirconium Grade 705	
See page 10 or 24 f	for complete list of available alloys.	
F Head Confi	guration	
-RD	Rupture disc port with rupture disc assembly & disc	
-1/8	One head opening, 1/8" NPT port, plugged	
-1/4	One head opening, 1/4" NPT port, plugged	
-B	One head opening, "B" socket	
-VGR	Valve on gage adapter, pressure gage, rupture disc assem- bly, & thermocouple w/thermowell	
-NS	Non-standard, custom head opening	
\sim	ttings & Custom Options (List all needed)	
-VD -DVD	Single valve on head w/ dip tube (VGR Required) Double valve assembly on head w/ dip tube (VGR Required)	
-DVD -SC	Serpentine cooling coil	
-BDV	Bottom drain valve	
-4310B	Gage block assembly (for head with "A" socket opening)	
-CAD	Internal Catalyst Addition Device	
-XCAD	External Catalyst Addition Device	
-SCP	Solids Charging Port (Ball Valve)	
-RC	Reflux Condenser	
-RTC	Reflux/Take-Off Condenser	
-WJ	Welded Jacket	

• V GR and Gage Block only) -No Symbol None -3000 3000 psi / 207 bar -2000 2000 psi / 188 bar -1000 1000 psi / 69 bar -600 600 psi / 40 bar -200 200 psi / 14 bar -100 100 psi / 7 bar 1 Stand and Heater Options -No Symbol None -BTH Bench top heater with base plate (moveable head only) -BTS Bench top stand (moveable or fixed head) -FC Floor cart (moveable head only) -FS Floor stand (moveable or fixed head) -FSP Floor stand with pneumatic lift (fixed head only) -No Symbol None PID Control, Ramp & Soak Programming, and Data logging with Software (RS-485 to USB cable not included). For use with one additional display module. -4848 PID Control, Ramp & Soak Programming, and Data logging with Software. (RS-485 to USB cable not included). For use with up to three additional display modules. See Chapter 6 for complete list of Controller options. * Controller Options -PDM Pressure Display Module -HTM High Temperature Limit Module -SVM Solenoid Valve Module (for cooling control	Pressur	Pressure Gage Option	
-30003000 psi / 207 bar-20002000 psi / 138 bar-10001000 psi / 69 bar-600600 psi / 40 bar-200200 psi / 14 bar-100100 psi / 7 bar1Stand and Heater Options-No SymbolNone-BTHBench top heater with base plate (moveable head only)-BTSBench top stand (moveable or fixed head)-FCFloor cart (moveable head only)-FSFloor stand (moveable or fixed head)-FSFloor stand (moveable or fixed head)-FSPFloor stand with pneumatic lift (fixed head only)-SymbolNone-No SymbolNone-No SymbolNone-R4838PID Control, Ramp & Soak Programming, and Data logging with Software (RS-485 to USB cable not included). For use with one additional display module4848PID Control, Ramp & Soak Programming, and Data logging with Software. (RS-485 to USB cable not included). For use with up to three additional display module.See Chapter & for complete list of Controller options.KController Options-PDMPressure Display Module-HTMHigh Temperature Cut Off Module-ETLMExternal Temperature Limit Module-SVMSolenoid Valve Module (for cooling control)-A1925E4RS-485 to USB Converter, isolated-A3504HCSpecView Software Package-No SymbolNone-115115V Heater	(VGR ar	nd Gage Block only)	
20002000 psi / 138 bar-10001000 psi / 69 bar-600600 psi / 40 bar-200200 psi / 14 bar-100100 psi / 7 barI Stand and Heater Options-No SymbolNone-BTHBench top heater with base plate (moveable head only)-BTSBench top stand (moveable or fixed head)-FCFloor cart (moveable head only)-FSFloor stand (moveable or fixed head)-FSFloor stand (moveable or fixed head)-FSPFloor stand with pneumatic lift (fixed head only)-SSFloor stand with pneumatic lift (fixed head only)-SSPID Control, Ramp & Soak Programming, and Data logging with Software (RS-485 to USB cable not included). For use with one additional display module4838PID Control, Ramp & Soak Programming, and Data logging with Software. (RS-485 to USB cable not included). For use with up to three additional display modules.See Chapter 6 for complete list of Controller options.••Controller Options -PDM-PDMPressure Display Module-HTMHigh Temperature Cut Off Module-ETLMExternal Temperature Limit Module-SVMSolenoid Valve Module (for cooling control)-A1925E4RS-485 to USB Converter, isolated-A3504HCSpecView Software Package L Electrical Supply for Heater and/or Controller -No Symbol-No symbolNone -115-115115V Heater	'		
-10001000 psi / 69 bar-600600 psi / 40 bar-200200 psi / 14 bar-100100 psi / 7 barI Stand and Heater Options-No SymbolNone-BTHBench top heater with base plate (moveable head only)-BTSBench top stand (moveable or fixed head)-FCFloor cart (moveable head only)-FSFloor stand (moveable or fixed head)-FCFloor stand (moveable or fixed head)-FSFloor stand (moveable or fixed head)-FSPFloor stand with pneumatic lift (fixed head only)-SN SymbolNone-No SymbolNone-No SymbolNone-4838PID Control, Ramp & Soak Programming, and Data logging with Software (RS-485 to USB cable not included). For use with one additional display module4848PID Control, Ramp & Soak Programming, and Data logging with Software. (RS-485 to USB cable not included). For use with up to three additional display modules.See Chapter 6 for complete list of Controller options. (Controller Options -PDM-PDMPressure Display Module-HTMHigh Temperature Cut Off Module-ETLMExternal Temperature Limit Module-SVMSolenoid Valve Module (for cooling control)-A1925E6RS-485 to USB Converter, isolated-A3504HCSpecView Software Package L Electrical Supply for Heater and/or Controller -No SymbolNone-115115V Heater			
-600600 psi / 40 bar-200200 psi / 14 bar-100100 psi / 7 barI Stand and Heater Options-No SymbolNone-BTHBench top heater with base plate (moveable head only)-BTSBench top stand (moveable or fixed head)-FCFloor cart (moveable or fixed head)-FSFloor stand (moveable or fixed head only)-SSFloor stand (moveable or fixed head only)-SSFloor stand with pneumatic lift (fixed head only)-SPFloor stand with pneumatic lift (fixed head only)-Vo SymbolNone-No SymbolNone-Na SymbolNone-4838PID Control, Ramp & Soak Programming, and Data logging with Software (RS-485 to USB cable not included). For use with one additional display module4848PID Control, Ramp & Soak Programming, and Data logging with Software. (RS-485 to USB cable not included). For use with up to three additional display module28ee Chapter 6 for complete list of Controller options.*Controller Options-PDMPressure Display Module-HTMHigh Temperature Cut Off Module-SVMSolenoid Valve Module (for cooling control)-A1925E4RS-485 to USB Converter (required for data logging)-A1925E6RS-485 to USB Converter, isolated-A3504HCSpecView Software Package-InstructureNone-115115V Heater		•	
200200 psi / 14 bar-100100 psi / 7 barI Stand and Heater Options-No SymbolNone-BTHBench top heater with base plate (moveable head only)-BTSBench top stand (moveable or fixed head)-FCFloor cart (moveable head only)-FSFloor stand (moveable or fixed head)-FSPFloor stand (moveable or fixed head)-FSPFloor stand (moveable or fixed head)-SPFloor stand with pneumatic lift (fixed head only)J Controller-No SymbolNonePID Control, Ramp & Soak Programming, and Data logging with Software (RS-485 to USB cable not included). For use with one additional display module4848PID Control, Ramp & Soak Programming, and Data logging with Software. (RS-485 to USB cable not included). For use with up to three additional display modulePDMPressure Display Module-HTMHigh Temperature Cut Off Module-SVMSolenoid Valve Module (for cooling control)-A1925E4RS-485 to USB Converter (required for data logging)-A1925E6RS-485 to USB Converter, isolated-A3504HCSpecView Software PackageLetertical Supply for Heater and/or Controller-No SymbolNone-115115V Heater		-	
-100 100 psi / 7 bar I Stand and Heater Options -No Symbol None -BTH Bench top heater with base plate (moveable head only) -BTS Bench top stand (moveable or fixed head) -FC Floor cart (moveable head only) -FS Floor stand (moveable or fixed head) -FSP Floor stand with pneumatic lift (fixed head only) J Controller -No Symbol -No Symbol None -4838 PID Control, Ramp & Soak Programming, and Data logging with Software (RS-485 to USB cable not included). For use with one additional display module. -4848 PID Control, Ramp & Soak Programming, and Data logging with Software. (RS-485 to USB cable not included). For use with up to three additional display module. See Chapter 6 for complete list of Controller options. K K Controller Options -PDM -PTDM Pressure Display Module -HTM High Temperature Cut Off Module -SVM Solenoid Valve Module (for cooling control) -A1925E4 RS-485 to USB Converter (required for data logging) -A1925E6 RS-485 to USB Converter, isolated -A3504HC SpecView Software Package I Electrical Supply for Heater and/or Controller <td></td> <td>• •</td>		• •	
Image: Stand and Heater Options -No Symbol None -BTH Bench top heater with base plate (moveable head only) -BTS Bench top stand (moveable or fixed head) -FC Floor cart (moveable head only) -FS Floor stand (moveable or fixed head) -FSP Floor stand with pneumatic lift (fixed head only) -FSP Floor stand with pneumatic lift (fixed head only) -Ontroller -No Symbol -No Symbol None -4838 PID Control, Ramp & Soak Programming, and Data logging with Software (RS-485 to USB cable not included). For use with one additional display module. -4848 PID Control, Ramp & Soak Programming, and Data logging with Software. (RS-485 to USB cable not included). For use with up to three additional display module. -8ee Chapter 6 for complete list of Controller options. Ecchapter Options -PDM Pressure Display Module -HTM High Temperature Cut Off Module -SVM Solenoid Valve Module (for cooling control) -A1925E4 RS-485 to USB Converter (required for data logging) -A1925E6 RS-485 to USB Converter, isolated -A3504HC SpecView Software Package Image: Limbod staperely for Heater and/or Controller <t< td=""><td></td><td>•</td></t<>		•	
-No SymbolNone-BTHBench top heater with base plate (moveable head only)-BTSBench top stand (moveable or fixed head)-FCFloor cart (moveable head only)-FSFloor stand (moveable or fixed head)-FSPFloor stand with pneumatic lift (fixed head only)• Controller-No SymbolNone-4838PID Control, Ramp & Soak Programming, and Data logging with Software (RS-485 to USB cable not included). For use with one additional display module4848PID Control, Ramp & Soak Programming, and Data logging with Software. (RS-485 to USB cable not included). For use with up to three additional display module4848PID Control, Ramp & Soak Programming, and Data logging with Software. (RS-485 to USB cable not included). For use with up to three additional display modules.See Chapter & for complete list of Controller options.KController Options-PDMPressure Display Module-HTMHigh Temperature Cut Off Module-ETLMExternal Temperature Limit Module-SVMSolenoid Valve Module (for cooling control)-A1925E4RS-485 to USB Converter, isolated-A3504HCSpec View Software Package-No SymbolNone-115115V Heater	-100	100 psi / 7 bar	
-BTHBench top heater with base plate (moveable head only)-BTSBench top stand (moveable or fixed head)-FCFloor cart (moveable head only)-FSFloor stand (moveable or fixed head)-FSFloor stand with pneumatic lift (fixed head only)JController-No SymbolNone-4838PID Control, Ramp & Soak Programming, and Data logging with Software (RS-485 to USB cable not included). For use with one additional display module4848PID Control, Ramp & Soak Programming, and Data logging with Software. (RS-485 to USB cable not included). For use with up to three additional display modules.See Chapter 6 for complete list of Controller options.KController Options -PDMPressure Display Module-HTMHigh Temperature Cut Off Module-ETLMExternal Temperature Limit Module-SVMSolenoid Valve Module (for cooling control)-A1925E4RS-485 to USB Converter, isolated-A3504HCSpec View Software Package-No SymbolNone-115115V Heater	I Stand a	nd Heater Options	
-BTR (moveable head only) -BTS Bench top stand (moveable or fixed head) -FC Floor cart (moveable or fixed head) -FS Floor stand (moveable or fixed head) -FSP Floor stand with pneumatic lift (fixed head only) J Controller -No Symbol None -4838 PID Control, Ramp & Soak Programming, and Data logging with Software (RS-485 to USB cable not included). For use with one additional display module. -4848 PID Control, Ramp & Soak Programming, and Data logging with Software. (RS-485 to USB cable not included). For use with up to three additional display modules. See Chapter 6 for complete list of Controller options. K Controller Options -PDM -PDM Pressure Display Module -HTM High Temperature Cut Off Module -ETLM External Temperature Limit Module -SVM Solenoid Valve Module (for cooling control) -A1925E4 RS-485 to USB Converter, isolated -A3504HC SpecView Software Package • Lectrical Supply for Heater and/or Controller -No Symbol None -115 115V Heater	-No Symbol	None	
-FC Floor cart (moveable head only) -FS Floor stand (moveable or fixed head) -FSP Floor stand with pneumatic lift (fixed head only) J Controller -No Symbol None -4838 PID Control, Ramp & Soak Programming, and Data logging with Software (RS-485 to USB cable not included). For use with one additional display module. -4848 PID Control, Ramp & Soak Programming, and Data logging with Software. (RS-485 to USB cable not included). For use with up to three additional display modules. See Chapter 6 for complete list of Controller options. (K) Controller Options -PDM Pressure Display Module -HTM High Temperature Cut Off Module -ETLM External Temperature Limit Module -SVM Solenoid Valve Module (for cooling control) -A1925E4 RS-485 to USB Converter, isolated -A3504HC SpecView Software Package -No Symbol None -115 115V Heater	-BTH		
-FS Floor stand (moveable or fixed head) -FSP Floor stand with pneumatic lift (fixed head only) • Controller -No Symbol None -4838 PID Control, Ramp & Soak Programming, and Data logging with Software (RS-485 to USB cable not included). For use with one additional display module. -4848 PID Control, Ramp & Soak Programming, and Data logging with Software. (RS-485 to USB cable not included). For use with one additional display module. -4848 PID Control, Ramp & Soak Programming, and Data logging with Software. (RS-485 to USB cable not included). For use with up to three additional display modules. See Chapter 6 for complete list of Controller options. K Controller Options PDM -PDM Pressure Display Module -HTM High Temperature Cut Off Module -SVM Solenoid Valve Module (for cooling control) -A1925E4 RS-485 to USB Converter, isolated -A3504HC SpecView Software Package • Electrical Supply for Heater and/or Controller -No Symbol None -115 115V Heater	-BTS	Bench top stand (moveable or fixed head)	
-FSP Floor stand with pneumatic lift (fixed head only) J Controller -No Symbol None -4838 PID Control, Ramp & Soak Programming, and Data logging with Software (RS-485 to USB cable not included). For use with one additional display module. -4848 PID Control, Ramp & Soak Programming, and Data logging with Software. (RS-485 to USB cable not included). For use with one additional display module. -4848 PID Control, Ramp & Soak Programming, and Data logging with Software. (RS-485 to USB cable not included). For use with up to three additional display modules. See Chapter 6 for complete list of Controller options. K Controller Options PDM -PDM Pressure Display Module -HTM High Temperature Cut Off Module -ETLM External Temperature Limit Module -SVM Solenoid Valve Module (for cooling control) -A1925E4 RS-485 to USB Converter, isolated -A3504HC Spec View Software Package • Electrical Supply for Heater and/or Controller -No Symbol None -115 115V Heater	-FC		
Controller -No Symbol None -4838 PID Control, Ramp & Soak Programming, and Data logging with Software (RS-485 to USB cable not included). For use with one additional display module. -4848 PID Control, Ramp & Soak Programming, and Data logging with Software. (RS-485 to USB cable not included). For use with up to three additional display modules. See Chapter 6 for complete list of Controller options. K Controller Options -PDM Pressure Display Module -HTM High Temperature Cut Off Module -ETLM External Temperature Limit Module -SVM Solenoid Valve Module (for cooling control) -A1925E4 RS-485 to USB Converter, isolated -A3504HC SpecView Software Package Lectrical Supply for Heater and/or Controller -No Symbol None -115 115V Heater	-FS	Floor stand (moveable or fixed head)	
-No SymbolNone-4838PID Control, Ramp & Soak Programming, and Data logging with Software (RS-485 to USB cable not included). For use with one additional display module4848PID Control, Ramp & Soak Programming, and Data logging with Software. (RS-485 to USB cable not included). For use with up to three additional display modules4848PID Control, Ramp & Soak Programming, and Data logging with Software. (RS-485 to USB cable not included). For use with up to three additional display modules.See Chapter 6 for complete list of Controller options.KKController Options-PDMPressure Display Module-HTMHigh Temperature Cut Off Module-ETLMExternal Temperature Limit Module-SVMSolenoid Valve Module (for cooling control)-A1925E4RS-485 to USB Converter (required for data logging)-A1925E6RS-485 to USB Converter, isolated-A3504HCSpecView Software Package-No SymbolNone-115115V Heater	-FSP	Floor stand with pneumatic lift (fixed head only)	
-No SymbolNone-4838PID Control, Ramp & Soak Programming, and Data logging with Software (RS-485 to USB cable not included). For use with one additional display module4848PID Control, Ramp & Soak Programming, and Data logging with Software. (RS-485 to USB cable not included). For use with up to three additional display modules4848PID Control, Ramp & Soak Programming, and Data logging with Software. (RS-485 to USB cable not included). For use with up to three additional display modules.See Chapter 6 for complete list of Controller options.KKController Options-PDMPressure Display Module-HTMHigh Temperature Cut Off Module-ETLMExternal Temperature Limit Module-SVMSolenoid Valve Module (for cooling control)-A1925E4RS-485 to USB Converter (required for data logging)-A1925E6RS-485 to USB Converter, isolated-A3504HCSpecView Software Package-No SymbolNone-115115V Heater	J Control	ler	
-4838Data logging with Software (RS-485 to USB cable not included). For use with one additional display module4848PID Control, Ramp & Soak Programming, and Data logging with Software. (RS-485 to USB cable not included). For use with up to three additional display modules.See Chapter 6 for complete list of Controller options.K Controller OptionsK Controller OptionsPDM Pressure Display Module-HTMHigh Temperature Cut Off Module-ETLMExternal Temperature Limit Module-SVMSolenoid Valve Module (for cooling control)-A1925E4RS-485 to USB Converter (required for data logging)-A1925E6RS-485 to USB Converter, isolated-A3504HCSpecView Software PackageLectrical Supply for Heater and/or Controller-No SymbolNone-115115V Heater			
-4848logging with Software. (RS-485 to USB cable not included). For use with up to three additional display modules.See Chapter 6 for complete list of Controller options.KController Options-PDMPressure Display Module-HTMHigh Temperature Cut Off Module-ETLMExternal Temperature Limit Module-SVMSolenoid Valve Module (for cooling control)-A1925E4RS-485 to USB Converter (required for data logging)-A3504HCSpec View Software PackageLElectrical Supply for Heater and/or Controller-No SymbolNone-115115V Heater	-4838	Data logging with Software (RS-485 to USB cable not included). For use with one additional display	
K Controller Options -PDM Pressure Display Module -HTM High Temperature Cut Off Module -ETLM External Temperature Limit Module -SVM Solenoid Valve Module (for cooling control) -A1925E4 RS-485 to USB Converter (required for data logging) -A1925E6 RS-485 to USB Converter, isolated -A3504HC SpecView Software Package L Electrical Supply for Heater and/or Controller -No Symbol None -115 115V Heater	-4848	logging with Software. (RS-485 to USB cable not included). For use with up to three additional display	
-PDM Pressure Display Module -HTM High Temperature Cut Off Module -ETLM External Temperature Limit Module -SVM Solenoid Valve Module (for cooling control) -A1925E4 RS-485 to USB Converter (required for data logging) -A1925E6 RS-485 to USB Converter, isolated -A3504HC SpecView Software Package L Electrical Supply for Heater and/or Controller -No Symbol None -115 115V Heater	See Chapter 6	for complete list of Controller options.	
-HTM High Temperature Cut Off Module -ETLM External Temperature Limit Module -SVM Solenoid Valve Module (for cooling control) -A1925E4 RS-485 to USB Converter (required for data logging) -A1925E6 RS-485 to USB Converter, isolated -A3504HC SpecView Software Package L Electrical Supply for Heater and/or Controller -No Symbol None -115 115V Heater	K Control	ler Options	
-ETLM External Temperature Limit Module -SVM Solenoid Valve Module (for cooling control) -A1925E4 RS-485 to USB Converter (required for data logging) -A1925E6 RS-485 to USB Converter, isolated -A3504HC SpecView Software Package • Electrical Supply for Heater and/or Controller -No Symbol None -115 115V Heater	-PDM	Pressure Display Module	
SVM Solenoid Valve Module (for cooling control) -A1925E4 RS-485 to USB Converter (required for data logging) -A1925E6 RS-485 to USB Converter, isolated -A3504HC SpecView Software Package L Electrical Supply for Heater and/or Controller -No Symbol None -115 115V Heater	-HTM	High Temperature Cut Off Module	
-A1925E4 RS-485 to USB Converter (required for data logging) -A1925E6 RS-485 to USB Converter, isolated -A3504HC SpecView Software Package L Electrical Supply for Heater and/or Controller -No Symbol None -115 115V Heater	-ETLM	External Temperature Limit Module	
-A1925E6 RS-485 to USB Converter, isolated -A3504HC SpecView Software Package L Electrical Supply for Heater and/or Controller -No Symbol None -115 115V Heater	-SVM	Solenoid Valve Module (for cooling control)	
-A3504HC SpecView Software Package L Electrical Supply for Heater and/or Controller -No Symbol None -115 115V Heater	-A1925E4	RS-485 to USB Converter (required for data logging)	
Electrical Supply for Heater and/or Controller -No Symbol None -115 115V Heater	-A1925E6	RS-485 to USB Converter, isolated	
-No Symbol None -115 115V Heater	-A3504HC	SpecView Software Package	
-No Symbol None -115 115V Heater	Electrical Supply for Heater and/or <u>Controller</u>		
	\sim $-$		
-230 230V Heater	-115	115V Heater	
	-230	230V Heater	
M Certifications	M Certifications		
-ASME ASME Documentation			
-CE CE Documentation	-CE		
-P Parr Certification	-P	Parr Certification	