100

PURGE/PRESSURIZATION SYSTEM

SERIES 1000 DATA SHEETS





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Class I (\leq 2 ft³) and Class II (\leq 10 ft³)

Description

Model 1001A is an enclosure pressurization or purging system that operates on a supply of compressed instrument air or inert gas. It regulates and monitors pressure within sealed (protected) enclosure(s), in order to prevent combustible dust accumulation or remove and prevent flammable gas or vapor accumulations. In Class II areas, the system maintains a "safe" (1.0") pressure. In Class I areas, the system accomplishes four air exchanges and maintains a "safe" (0.25") pressure. These processes reduce the hazardous (classified) area rating within the enclosure(s), in accordance with the NEC - NFPA 70, Article 500, NFPA 496 and ISA 12.4.

Operation

In accordance with system instructions, start-up requires air supply to be engaged and enclosure power to be deenergized. In Class II areas, all dust must be removed from the enclosure(s). The enclosure protection vent (if used) must be tested and enclosure(s) must be sealed. The enclosure pressure control regulator is then used to set a safe reading on the enclosure pressure gauge. In Class II areas, power can be energized when safe pressure is stable. In Class I areas, the user must perform an exchange cycle (determined by the safe pressure flow rate—five minutes minimum) before power can be energized. Loss of safe pressure in Class I or II areas requires immediate attention, unless power is deenergized. WPS style systems include an explosion proof differential pressure switch with form "C" contacts for audible or visual alarm systems.

System Specifications

System Dimensions:	See page 4
5	LPS - 5 lb / WPS - 10 lb
Temp. Range:	-20 °F to +120 °F
Supply Pressure Range:	* 5 - 120 psi
Supply Requirements:	Clean air or inert gas
Safe Press. (CI/CII):	0.25"/1.0"
Safe Press. Flow Rate:	** 0.1 - 3.5 SCFH
System Supply Fitting:	1/4" tube fitting
Enclosure Supply Fitting:	1/4" tube fitting
Enclosure Reference Fitting:	1/4" tube fitting
Switch Setting (CI/CII, Decr):	0.15"/0.5" ± 0.02"
Switch Conduit Port Size:	1/2" FPT
Switch Contact Rating	
WPS Style:	120 VAC @ 15 A
WPSA Style: *** 120 VAC @	10 A, 125 VDC @ 50 mA
Switch (WPSA) Power Requireme	ent: 24 VDC @ 3 watts
· · ·	120 VAC @ 4 watts
	240 VAC @ 11 watts

* With EPV-1 Vent - 120 psi max. to 5 psi min. Systems installed without Vent must be equipped with redundant regulator set to 5 psi max.

** Enclosure integrity determines actual flow rate

*** Supply voltages 24 VDC and 240 VAC available upon request.



LPS Style (Less Pressure Switch)





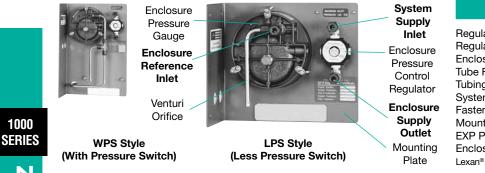
Model 1001A

WPS/WPSA Style (With Pressure Switch)

1000 Series

Standard Model Applications

Model Number:1001A-Cl Type YDesignation:Purging SystemEnclosure Volume:2 ft³ max.	Model Number:1001A-CI Type ZDesignation:Purging SystemEnclosure Volume:2 ft³ max.
LPS Style	
UL & FM Certified: Cl. I, Div. 1,	LPS Style
Group A-D	UL & FM Certified: Cl. I, Div. 2,
	Group A-D
Rating Reduction: Div. 1 to Div. 2	Rating Reduction: Div. 2 to
WPS Style	Nonhazardous
UL & FM Certified: Cl. I, Div. 1,	WPS Style
Group C&D	-
Rating Reduction: Div. 1 to Div. 2	UL & FM Certified: Cl. I, Div. 2,
° °	Group C&D
WPSA Style	Rating Reduction: Div. 2 to
UL & FM Certified: Cl. I, Div. 1,	Nonhazardous
Group A-D	WPSA Style
Rating Reduction: Div. 1 to Div. 2	-
ő	
	Group A-D
	Rating Reduction: Div.2 to
	Nonhazardous
Madel Number 1001A Oll Time V	Model Number: 1001A-CII Type Z
Model Number: 1001A-CII Type Y	
Designation: Pressurization System	Designation: Pressurization System
Enclosure Volume: 10 ft ³ max.	Enclosure Volume: 10 ft ³ max.
LPS Style	LPS Style
UL & FM Certified: Cl. II, Div. 1,	UL & FM Certified: Cl. II, Div. 2,
Group F&G	Group F&G
Rating Reduction: Div. 1 to Div. 2	Rating Reduction: Div. 2 to
5	Nonhazardous
WPS Style	
UL & FM Certified: Cl. II, Div. 1,	WPS Style
Group F&G	UL & FM Certified: Cl. II, Div. 2,
Rating Reduction: Div. 1 to Div. 2	Group F&G
Hading Heddetion. Div. 1 to Div. 2	Gloup rad
Hating Heddetion. Div. 1 to Div. 2	Rating Reduction: Div. 2 to
	•

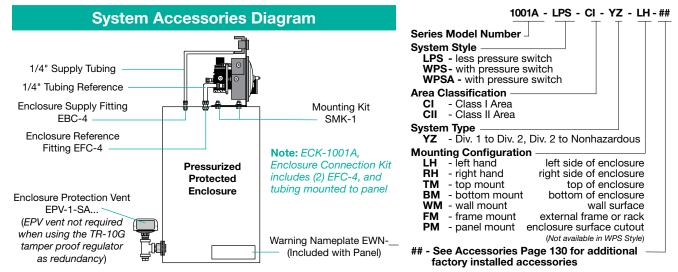


Material Specifications

Regulator Body:	Zinc w/Enamel Finish
Regulator Handle:	Polycarbonate
Enclosure Pressure Gauge:	Alum. w/Enamel Finish
Tube Fittings:	316 SS Forged Body
Tubing:	316 SS 1/4" .035 Welded
System Nameplates:	Silk screened Lexan [®] & SS
Fastener Hardware:	Alum. & Stainless Steel
Mounting Plate:	316 14 Ga #3 Brush SS
EXP Pressure Switch Body:	Anodized Cast Alum.
Enclosure Warning Nameple	ate: Silk screened SS
Lexan [®] is a registered trademark	of the General Electric Company

CONNECTION POINTS SHOWN ABOVE IN BOLD TEXT ON SYSTEM DIAGRAM

Model Number Designations



Model 1001A System Accessories (See accessories page for complete details)

ONE (1) ENCLOSURE WARNING NAMEPLATE & ONE (1) INSTALLATION & OPERATION MANUAL ARE PROVIDED WITH EACH SYSTEM

Overall System Dimensions						
LPS / WPS	LH - left hand	RH - right hand	TM - top mount	BM - bottom mount	WM - wall mount	FM & PM - surface
Height	7 / 12	7 / 12	7 / 8	7 / 8	7 / 12	9 / 14
Width	8/8	8/8	8 / 13.375	8 / 13.375	8/8	10 / 10
Depth	5.5 / 7.25	5.5 / 7.25	5.5 / 7.25	5.5 / 7.25	7.5 / 9.25	5 / 6.5
Dimensions in inches. Mounting dimensions available upon request. FM & PM panel cutout dimensions: LPS - 8h x 9w WPS - 13h x 9w Height & width dimensions reflect mounting plate measurements. Depth dimension reflects overall measurement of system, including components.						



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Class II (\leq 50 ft³)

Description

Model 1001B is an enclosure pressurization system that operates on a supply of compressed instrument air or inert gas. It regulates and monitors pressure within sealed (protected) enclosure(s), in order to prevent combustible dust accumulation by maintaining a "safe" (1.0") pressure. This process reduces the hazardous (classified) area rating within the enclosure(s), in accordance with the NEC - NFPA 70, Article 500, NFPA 496 and ISA 12.4.

Operation

In accordance with system instructions, start-up requires air supply to be engaged and enclosure power to be deenergized. Before start-up, all dust must be removed from the enclosure(s). The enclosure protection vent (if used) must be tested and enclosure(s) must be sealed. The enclosure pressure control regulator is then used to set a safe reading on the enclosure pressure gauge. Power can be energized when safe pressure is stable. Loss of safe pressure requires immediate attention, unless power is deenergized. WPS style systems include an explosion proof differential pressure switch with form "C" contacts for audible or visual alarm systems.

System Specifications

System Dimensions:	See page 6
Shipping Weight:	LPS - 7 lb / WPS - 12 lb
Temp. Range:	-20 °F to +120 °F
Supply Pressure Range:	* 5 - 120 psi
Supply Requirements:	clean air or inert gas
Safe Press. Setpoint:	1.0"
Safe Press. Flow Rate:	** 0.1 - 3.5 SCFH
System Supply Fitting:	3/8" tube fitting
Enclosure Supply Fitting:	3/8" tube fitting
Enclosure Reference Fitting:	1/4" tube fitting
Switch Setting (Decr):	0.5" ± 0.02"
Switch Conduit Port Size:	1/2" FPT
Switch Contact Rating:	120 VAC @ 15 A

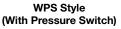
- * With EPV-3 Vent 120 psi max. to 5 psi min. Systems installed without Vent must be equipped with redundant regulator set to 5 psi max.
- ** Enclosure integrity determines actual flow rate



LPS Style (Less Pressure Switch)



Model 1001B

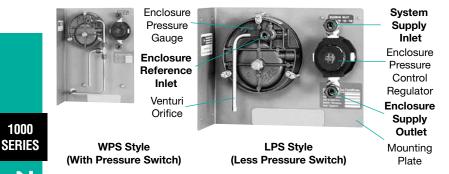


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Standard Model Applications

Model Number: 1001B-CII Type Y Designation: Pressurization System	Model Number: 1001B-CII Type Z Designation: Pressurization System
Enclosure Volume: 50 ft ³ max.	Enclosure Volume: 50 ft ³ max.
LPS Style	LPS Style
UL & FM Certified:Cl. II, Div. 1, Group	UL & FM Certified: Cl. II, Div. 2,
F&G	Group F&G
Rating Reduction: Div.1 to Div. 2	Rating Reduction: Div. 2 to
WPS Style	Nonhazardous
UL & FM Certified: Cl. II, Div.	, WPS Style
Group F&G	UL & FM Certified: Cl. II, Div. 2,
Rating Reduction: Div.1 to Div. 2	Group F&G
	Rating Reduction: Div. 2 to
	Nonhazardous

1000 SERIES

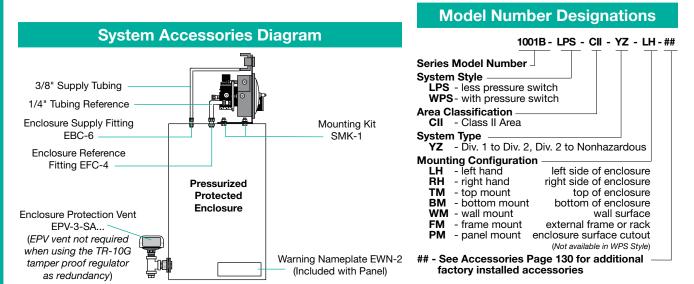


CONNECTION POINTS SHOWN ABOVE IN BOLD TEXT ON SYSTEM DIAGRAM

Material Specifications

Regulator Body:	Zinc w/Enamel Finish
Regulator Handle:	Polycarbonate
Enclosure Pressure Gauge:	Alum. w/Enamel Finish
Tube Fittings:	316 SS Forged Body
Tubing:	316 SS 1/4" .035 Welded
System Nameplates:	Silk screened Lexan [®] & SS
Fastener Hardware:	Alum. & Stainless Steel
Mounting Plate:	316 14 Ga #3 Brush SS
EXP Pressure Switch Body:	Anodized Cast Alum.
Enclosure Warning Nameple	ate: Silk screened SS

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Model 1001B System Accessories (See accessories page for complete details)

ONE (1) ENCLOSURE WARNING NAMEPLATE & ONE (1) INSTALLATION & OPERATION MANUAL ARE PROVIDED WITH EACH SYSTEM

Overall System Dimensions						
LPS/WPS	LH - left hand	RH - right hand	TM - top mount	BM - bottom mount	WM - wall mount	FM & PM - surface
Height	7 / 12	7 / 12	7 / 8	7/8	7 / 12	9 / 14
Width	8.875 / 8.875	8.875 / 8.875	8.75 / 14.25	8.75 / 14.25	8.875 / 8.875	10.875 / 10.875
Depth	6 / 7.25	6 / 7.25	6 / 7.25	6 / 7.25	7.5 / 9.25	4.75 / 6.5
Dimensions in inches. Mounting dimensions available upon request. FM & PM panel cutout dimensions: LPS - 8h x 9.875w WPS - 13h x 9.875w Height & width dimensions reflect mounting plate measurements. Depth dimension reflects overall measurement of system, including components.						



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Class II (\leq 250 ft³)

Description

Model 1001C is an enclosure pressurization system that operates on a supply of compressed instrument air or inert gas. It regulates and monitors pressure within sealed (protected) enclosure(s), in order to prevent combustible dust accumulation by maintaining a "safe" (1.0") pressure. This process reduces the hazardous (classified) area rating within the enclosure(s), in accordance with the NEC - NFPA 70, Article 500, NFPA 496 and ISA 12.4.

Operation

In accordance with system instructions, start-up requires air supply to be engaged and enclosure power to be deenergized. Before start-up, all dust must be removed from the enclosure(s). The enclosure protection vent (if used) must be tested and enclosure(s) must be sealed. The enclosure pressure control regulator is then used to set a safe reading on the enclosure pressure gauge. Power can be energized when safe pressure is stable. Loss of safe pressure requires immediate attention, unless power is deenergized. WPS style systems include an explosion proof differential pressure switch with form "C" contacts for audible or visual alarm systems.

System Specifications

System Dimensions: Shipping Weight:	See page 8 LPS - 7 lb / WPS - 12 lb
Temp. Range:	-20 °F to +120 °F
Supply Pressure Range:	* 5 - 120 psi
Supply Requirements:	clean air or inert gas
Safe Press. Setpoint:	1.0"
Safe Press. Flow Rate:	** 0.1 - 3.5 SCFH
System Supply Fitting:	1/2" tube fitting
Enclosure Supply Fitting:	1/2" tube fitting
Enclosure Reference Fitting:	1/4" tube fitting
Switch Setting (Decr):	0.5" ± 0.02"
Switch Conduit Port Size:	1/2" FPT
Switch Contact Rating:	120 VAC @ 15 A

* With EPV-4 Vent - 120 psi max. to 5 psi min. Systems installed without Vent must be equipped with redundant regulator set to 5 psi max.

** Enclosure integrity determines actual flow rate



LPS Style (Less Pressure Switch)



Model 1001C



WPS Style (With Pressure Switch)

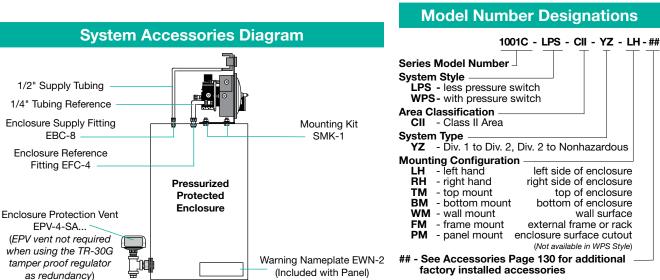
Model Number: 100	••		••
Designation: Pressur	ization System	Designation: Pressur	rization System
Enclosure Volume:	250 ft ³ max.	Enclosure Volume:	250 ft ³ max.
LPS Styl	e	LPS Sty	le
UL & FM Certified:	Cl. II, Div. 1,	UL & FM Certified:	Cl. II, Div. 2,
	Group F&G		Group F&G
Rating Reduction:	Div.1 to Div. 2	Rating Reduction:	Div. 2 to
WPS Sty	le		Nonhazardous
UL & FM Certified:	Cl. II, Div. 1,	WPS Sty	/le
	Group F&G	UL & FM Certified:	Cl. II, Div. 2,
Rating Reduction:	Div.1 to Div. 2		Group F&G
		Rating Reduction:	Div. 2 to
			Nonhazardous

Standard Model Applications

1000 SERIES



CONNECTION POINTS SHOWN ABOVE IN BOLD TEXT ON SYSTEM DIAGRAM



Model 1001C System Accessories (See accessories page for complete details)

EFC-4 EFC-8 EBC-8 EPC-14 ILF-8	N FITTINGS & FILTER 1/4" Flush Connector 1/2" Flush Connector 1/2" Bulkhead Connector 1 1/2" Pipe Connector 1/2" Filter w/Clear Bowl TIONAL ITEMS 1/2" Filter System Mounting Kit	RAB-2 LCK TCK	Explosion Proof Switch Kit General-purpose Switch Kit Div. 1 Remote Alarm Horn Div. 1 Remote Alarm Beacon Div. 2 Remote Alarm Beacon L Fitting Conduit Kit T Fitting Conduit Kit CLOSURE PROTECTION VENTS Straight w/Spark Arrestor	TR-30G EWN-2 ETW	AL HEX KEY REGULATOR HANDLE Tamper Proof Regulator WARNING NAMEPLATES Class II Enclosure Warning Enclosure Temperature Warning LLATION & OPERATION MANUAL Inst. & Operation Manual
SMK-1, -4 or -6	System Mounting Kit	EPV-4-SA-00 EPV-4-SA-90	Straight w/Spark Arrestor Rt Angle w/Spark Arrestor		

ONE (1) ENCLOSURE WARNING NAMEPLATE & ONE (1) INSTALLATION & OPERATION MANUAL ARE PROVIDED WITH EACH SYSTEM

Overall System Dimensions													
LPS / WPS	LH - left hand	RH - right hand	TM - top mount	BM - bottom mount	WM - wall mount	FM & PM - surface							
Height 7 / 12 7 / 12 7 / 8 7 / 8 7 / 12 9 Width 8.875 / 8.875 8.875 / 8.875 8.75 / 14.25 8.75 / 14.25 8.875 / 8.875 10.875 Depth 6 / 7.25 6 / 7.25 6 / 7.25 6 / 7.25 7.5 / 9.25 4.75													
							Dimensions in inches. Mounting dimensions available upon request. FM & PM panel cutout dimensions: LPS - 8h x 9.875w WPS - 13h x 9.875w Height & width dimensions reflect mounting plate measurements. Depth dimension reflects overall measurement of system, including components.						



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Class I (\leq 15 ft³)

Description

Model 1002 is a Rapid Exchange[®] purging system that operates on a supply of compressed instrument air or inert gas. It regulates and monitors pressure within sealed (protected) enclosure(s), in order to remove and prevent flammable gas or vapor accumulations. The system accomplishes four air exchanges and maintains a "safe" (0.25") pressure. A PepperI+Fuchs Model EPV-2 Enclosure Protection Vent is required for proper operation. This process reduces the hazardous (classified) area rating within the enclosure(s), in accordance with the NEC - NFPA 70, Article 500, NFPA 496 and ISA 12.4.

Operation

In accordance with system instructions, start-up requires air supply to be engaged and enclosure power to be deenergized. The enclosure protection vent must be tested and the enclosure(s) must be sealed. The enclosure pressure control valve is then used to set a safe reading on the enclosure pressure indicator. When safe pressure is stable, the Rapid Exchange control valve must be fully engaged. Upon completion of the Rapid Exchange cycle, (five minutes minimum) the Rapid Exchange control valve must be disengaged to return to a safe enclosure pressure. Power can then be energized to the protected enclosure(s). Loss of safe pressure requires immediate attention, unless power is deenergized. WPS style systems include an explosion proof differential pressure switch with form "C" contacts for audible or visual alarm systems.

System Specifications

System Dimensions:	See page 10
Shipping Weight:	LPS - 10 lb / WPS - 15 lb
Temp. Range:	-20 °F to +120 °F
Supply Pressure Range:	80 - 120 psi
Capacity & Filtration:	1.5 oz @ 20 Micron
Supply Requirements:	clean air or inert gas
Safe Press. Setpoint:	0.25"
Safe Press. Flow Rate:	* 0.1 - 3.5 SCFH
Exchange Pressure:	3" - 5"
Exchange Flow Rate:	** 4 SCFM / 240 SCFH
Exchange Time:	1 min/ft ³
System Supply Port:	1/4" FPT
Enclosure Supply Fitting:	1/4" tube fitting
Enclosure Reference Fitting:	1/4" tube fitting
Switch Setting (Decr):	0.15" ± 0.02"
Switch Conduit Port Size:	1/2" FPT
Switch Contact Rating	
WPS Style:	120 VAC @ 15 A
WPSA Style: *** 120/220 VAC, 24	VDC @ 10 A; 125 VDC @ 50 mA

Switch (WPSA) Power Requirement: 24 / 120 / 240 VDC @ 3 /4 /11 watts

* Enclosure integrity determines actual flow rate

*** Supply voltages 24 VDC and 240 VAC available upon request.



LPS Style (Less Pressure Switch)



Model 1002

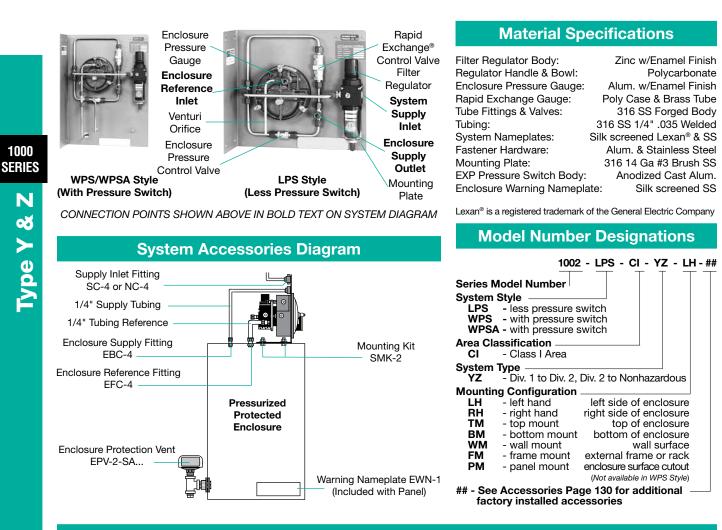
WPS/WPSA Style (With Pressure Switch)

Standard Model Applications

Model Number: Designation: Enclosure Volume:	Purging System	Model Number: Designation: Enclosure Volume:	Purging System
LPS S	Style	LPS S	Style
UL & FM Certified:	Cl. I, Div. 1 Group A-D	UL & FM Certified:	Cl. I, Div. 2, Group A-D
Rating Reduction:	Div.1 to Div. 2	Rating Reduction:	Div. 2 to
WPSS	Style		Nonhazardous
UL & FM Certified:	Cl. I, Div. 1	WPS	Style
	Group C&D	UL & FM Certified:	Cl. I, Div. 2,
Rating Reduction:	Div. 1 to Div.2		Group C&D
WPSA	Style	Rating Reduction:	Div.2 to
UL & FM Certified:	Cl. I, Div. 1,		Nonhazardous
	Group A-D	WPSA	Style
Rating Reduction:	Div. 1 to Div. 2	UL & FM Certified:	Cl. I, Div. 2,
			Group A-D
		Rating Reduction:	Div. 2 to
			Nonhazardous

1000 Series

^{**} With regulator set to 60 psi min. during exchange. Rapid Exchange[®] is a Registered Trademark of Pepperl+Fuchs.



Model 1002 System Accessories (See accessories page for complete details)

CO	NNECTION FITTINGS	RAH	Remote Alarm Horn		WARNING NAMEPLATES
NC-4	1/4" Ninety Connector	RAB-1	Div. 1 Remote Alarm Beacon	EWN-1	Class I Enclosure Warning
SC-4	1/4" Straight Connector	RAB-2	Div. 2 Remote Alarm Beacon	ETW	Enclosure Temperature Warning
EFC-4	1/4" Flush Connector	LCK	L Fitting Conduit Kit	INSTAL	LATION & OPERATION MANUAL
EBC-4	1/4" Bulkhead Connector	TCK	T Fitting Conduit Kit	129-0196	Inst. & Operation Manual
EPC-12	3/4" Pipe Connector				
Α	DDITIONAL ITEMS	ENCLOSUR	E PROTECTION VENTS		
SMK-2 or -8	System Mounting Kit	ONE VENT RE	QUIRED WITH EACH SYSTEM		
EPSK-1	Explosion Proof Switch Kit	EPV-2-SA-00	Straight w/Spark Arrestor		
GPSK-1	General-purpose Switch Kit	EPV-2-SA-90	Rt Angle w/Spark Arrestor		

ONE (1) ENCLOSURE WARNING NAMEPLATE & ONE (1) INSTALLATION & OPERATION MANUAL ARE PROVIDED WITH EACH SYSTEM

Overall System Dimensions							
LPS / WPS	LH - left hand	RH - right hand	TM - top mount	BM - bottom mount	WM - wall mount	FM or PM - flat panel	
Height	10 / 15	12 / 17					
Width	11 / 11	13 / 13					
Depth 6/7.5 6/7.5 6/7.5 6/7.5 5/6.							
Dimensions in inches. Mounting dimensions available upon request. FM & PM panel cutout dimensions: LPS - 11h x 12w WPS - 16h x 12w Height & width dimensions reflect mounting plate measurements. Depth dimension reflects overall measurement of system, including components.							



Class I (\leq 75 ft³)

Description

Model 1003 is a Rapid Exchange® purging system that operates on a supply of compressed instrument air or inert gas. It regulates and monitors pressure within sealed (protected) enclosure(s), in order to remove and prevent flammable gas or vapor accumulations. The system accomplishes four air exchanges and maintains a "safe" (0.25") pressure. A Pepperl+Fuchs Model EPV-3 Enclosure Protection Vent is required for proper operation. This process reduces the hazardous (classified) area rating within the enclosure(s), in accordance with the NEC - NFPA 70, Article 500, NFPA 496 and ISA 12.4.

Operation

In accordance with system instructions, start-up requires air supply to be engaged and enclosure power to be deenergized. The enclosure protection vent must be tested and the enclosure(s) must be sealed. The enclosure pressure control valve is then used to set a safe reading on the enclosure pressure indicator. When safe pressure is stable, the Rapid Exchange control valve must be fully engaged. Upon completion of the Rapid Exchange cycle, (five minutes minimum) the Rapid Exchange control valve must be disengaged to return to a safe enclosure pressure. Power can then be energized to the protected enclosure(s). Loss of safe pressure requires immediate attention, unless power is deenergized. WPS style systems include an explosion proof differential pressure switch with form "C" contacts for audible or visual alarm systems.

System Specifications

System Dimensions:	See page 12
Shipping Weight:	LPS - 12 lb / WPS - 17 lb
Temp. Range:	-20 °F to +120 °F
Supply Pressure Range:	80 - 120 psi
Capacity & Filtration:	3.8 oz @ 40 Micron
Supply Requirements:	clean air or inert gas
Safe Press. Setpoint:	0.25"
Safe Press. Flow Rate:	* 0.1 - 3.5 SCFH
Exchange Pressure:	3" - 5"
Exchange Flow Rate:	** 10 SCFM / 600 SCFH
Exchange Time:	1 min / 2.5ft ³
System Supply Port:	3/8" FPT
Enclosure Supply Fitting:	3/8" tube fitting
Enclosure Reference Fitting:	1/4" tube fitting
Switch Setting (Decr):	0.15" ± 0.02"
Switch Conduit Port Size:	1/2" FPT
Switch Contact Rating WPS Style: WPSA Style: *** 120/220 VAC, 2	120 VAC @ 15 A
Switch (WPSA) Power Requirement:	24 / 120 / 240 VDC @ 3 /4 /11 watts



LPS Style (Less Pressure Switch)



WPS/WPSA Style (With Pressure Switch)

Standard Model Applications

Model Number: Designation:		Model Number: Designation:	1003 Type Z Purging System
Enclosure Volume:	00,		
LPS S	tyle	LPS S	Style
UL & FM Certified:	, ,	UL & FM Certified:	, ,
	Group A-D		Group A-D
Rating Reduction:	Div. 1 to Div. 2	Rating Reduction:	Div. 2 to
WPS S	ityle		Nonhazardous
UL & FM Certified:	Cl. I, Div. 1,	WPS S	Style
	Group C&D	UL & FM Certified:	Cl. I, Div. 2,
Rating Reduction:	Div. 1 to Div. 2		Group C&D
WPSAS	Style	Rating Reduction:	Div.2 to
UL & FM Certified:	Cl. I, Div. 1,		Nonhazardous
	Group A-D	WPSA	Style
Rating Reduction:	Div. 1 to Div. 2	UL & FM Certified:	Cl. I, Div. 2,
			Group A-D
		Rating Reduction:	Div. 2 to
			Nonhazardous

Enclosure integrity determines actual flow rate

** With regulator set to 60 psi min. during exchange. Rapid Exchange® is a Registered Trademark of Pepperl+Fuchs.

*** Supply voltages 24 VDC and 240 VAC available upon request.



PEPPERL+FUCHS 11

SERIES

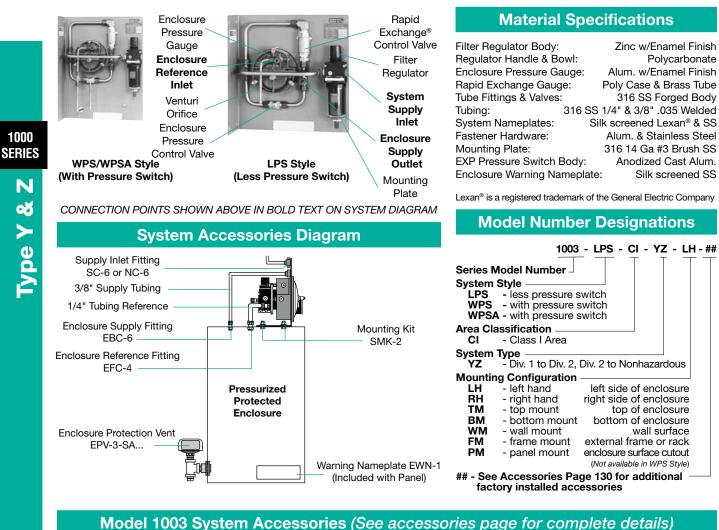
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Model 1003 S	stem Accessories	(See accessories	page for com	ipiete detail

c	CONNECTION FITTINGS	GPSK-1	General-purpose Switch Kit		WARNING NAMEPLATES
NC-6 SC-6	3/8" Ninety Connector 3/8" Straight Connector	RAH RAB-1	Remote Alarm Horn Div. 1 Remote Alarm Beacon	EWN-1 ETW	Class I Enclosure Warning Enclosure Temperature Warning
EFC-4	1/4" Flush Connector	RAB-2	Div. 2 Remote Alarm Beacon	INSTA	LLATION & OPERATION MANUAL
EFC-6	3/8" Flush Connector	LCK	L Fitting Conduit Kit	129-019	5 Inst. & Operation Manual
EBC-6	3/8" Bulkhead Connector	TCK	T Fitting Conduit Kit		
EPC-13	1" Pipe Connector	ENCLOS	JRE PROTECTION VENTS		
	ADDITIONAL ITEMS	ONE VENT	REQUIRED WITH EACH SYSTEM		
SMK-2 or - EPSK-1	8 System Mounting Kit Explosion Proof Switch Kit	EPV-3-SA-0 EPV-3-SA-9			

ONE (1) ENCLOSURE WARNING NAMEPLATE & ONE (1) INSTALLATION & OPERATION MANUAL ARE PROVIDED WITH EACH SYSTEM

Overall System Dimensions							
LPS / WPS	LH - left hand	RH - right hand	TM - top mount	BM - bottom mount	WM - wall mount	FM or PM - flat panel	
Height	12 / 15	12 / 15	12 / 12	12 / 12	12 / 15	14 / 17	
Width	11.5 / 11.5	11.5 / 11.5	11.5 / 15.25	11.5 / 15.25	11.5 / 11.5	13.5 / 13.5	
Depth	6 / 7.5	6 / 7.5	6 / 7.5	6 / 7.5	7.75 / 9.25	5.75 / 7.25	
Dimensions	Dimensions in inches. Mounting dimensions available upon request. FM & PM panel cutout dimensions: LPS - 13h x 12.5w WPS - 16h x 12.5w						

Height & width dimensions reflect mounting plate measurements. Depth dimension reflects overall measurement of system, including components.



Class I (\leq 200 ft³)

Description

Model 1004 is a Rapid Exchange[®] purging system that operates on a supply of compressed instrument air or inert gas. It regulates and monitors pressure within sealed (protected) enclosure(s), in order to remove and prevent flammable gas or vapor accumulations. The system accomplishes four air exchanges and maintains a "safe" (0.25") pressure. A Pepperl+Fuchs Model EPV-4 Enclosure Protection Vent is required for proper operation. This process reduces the hazardous (classified) area rating within the enclosure(s), in accordance with the NEC - NFPA 70, Article 500, NFPA 496 and ISA 12.4.

Operation

In accordance with system instructions, start-up requires air supply to be engaged and enclosure power to be deenergized. The enclosure protection vent must be tested and the enclosure(s) must be sealed. The enclosure pressure control valve is then used to set a safe reading on the enclosure pressure indicator. When safe pressure is stable, the Rapid Exchange control valve must be fully engaged. Upon completion of the Rapid Exchange cycle, (five minutes minimum) the Rapid Exchange control valve must be disengaged to return to a safe enclosure pressure. Power can then be energized to the protected enclosure(s). Loss of safe pressure requires immediate attention, unless power is deenergized. WPS style systems include an explosion proof differential pressure switch with form "C" contacts for audible or visual alarm systems.

System Specifications

System Dimensions:	See page 14
Shipping Weight:	LPS - 15 lb / WPS - 23 lb
Temp. Range:	-20 °F to +120 °F
Supply Pressure Range:	80 - 120 psi
Capacity & Filtration:	8.5oz @ 40 Micron
Supply Requirements:	clean air or inert gas
Safe Press. Setpoint:	0.25"
Safe Press. Flow Rate:	* 0.1 - 3.5 SCFH
Exchange Pressure:	3" - 5"
Exchange Flow Rate:	** 30 SCFM /1800 SCFH
Exchange Time:	1 min / 7.5 ft ³
System Supply Port:	1/2" FPT
Enclosure Supply Fitting:	1/2" tube fitting
Enclosure Reference Fitting:	1/4" tube fitting
Switch Setting (Decr):	0.15" ± 0.02"
Switch Conduit Port Size:	1/2" FPT
Switch Contact Rating	
WPS Style:	120 VAC @ 15 A
WPSA Style: *** 120/220 VAC, 24	VDC @ 10 A; 125 VDC @ 50 mA

Switch (WPSA) Power Requirement: 24 / 120 / 240 VDC @ 3 /4 /11 watts

* Enclosure integrity determines actual flow rate

** With regulator set to 80 psi min. during exchange. Rapid Exchange® is a Registered Trademark of Pepperl+Fuchs.

*** Supply voltages 24 VDC and 240 VAC available upon request.



LPS Style (Less Pressure Switch)





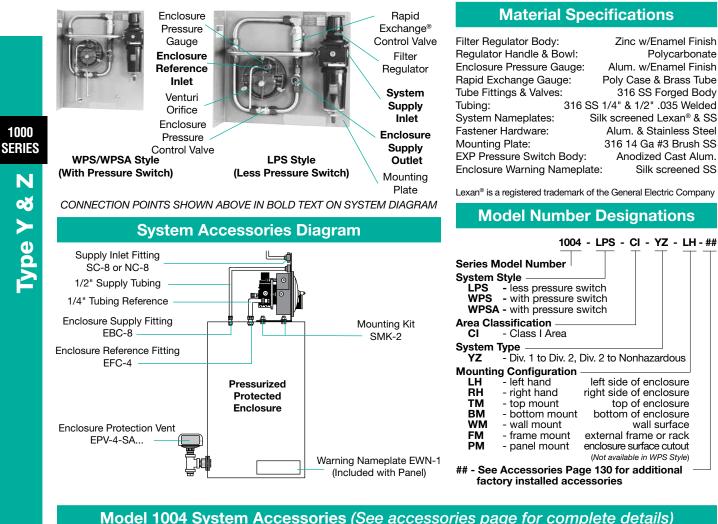
Model 1004

WPS/WPSA Style (With Pressure Switch)

Standard Model Applications

Model Number:	1004 Type Y		1004 Type Z
Designation:	Purging System	Designation:	Purging System
Enclosure Volume:	200 ft ³ max.	Enclosure Volume:	200 ft ³ max.
LPS S	tulo	LPS S	tyle
UL & FM Certified:	Cl. I, Div. 1,	UL & FM Certified:	Cl. I, Div. 2,
OL & I M Certilleu.	Group A-D		Group A-D
Dating Reduction:	Div. 1 to Div. 2	Rating Reduction:	Div. 2 to
Rating Reduction:		U U	Nonhazardous
WPS S	tyle		No. 1 a
UL & FM Certified:	Cl. I, Div. 1,	WPS S	
	Group C&D	UL & FM Certified:	
Rating Reduction:	Div. 1 to Div. 2		Group C&D
	Nerta	Rating Reduction:	Div. 2 to
WPSA S	•		Nonhazardous
UL & FM Certified:	Cl. I, Div. 1,	WPSA	Style
	Group A-D	UL & FM Certified:	
Rating Reduction:	Div. 1 to Div. 2		Group A-D
		Rating Reduction:	
		rialing rieddollon.	Nonhazardous
			Nonnazaruous





Model 1004 System Accessories (See accessories page i	for complete details

	CONNECTION FITTINGS	GPSK-1	General-purpose Switch Kit		WARNING NAMEPLATES
NC-8	1/2" Ninety Connector	RAH	Remote Alarm Horn	EWN-1	Class I Enclosure Warning
SC-8	1/2" Straight Connector	RAB-1	Div. 1 Remote Alarm Beacon	ETW	Enclosure Temperature Warning
EFC-4	1/4" Flush Connector	RAB-2	Div. 2 Remote Alarm Beacon	INSTA	LLATION & OPERATION MANUAL
EFC-8	1/2" Flush Connector	LCK	L Fitting Conduit Kit	129-0203	Inst. & Operation Manual
EBC-8	1/2" Bulkhead Connector	TCK	T Fitting Conduit Kit		
EPC-14	1 1/2" Pipe Connector	ENCLOSU	RE PROTECTION VENTS		
	ADDITIONAL ITEMS	ONE VENT RI	EQUIRED WITH EACH SYSTEM		
SMK-2 or EPSK-1	8 System Mounting Kit Explosion Proof Switch Kit	EPV-4-SA-00 EPV-4-SA-90			

ONE (1) ENCLOSURE WARNING NAMEPLATE & ONE (1) INSTALLATION & OPERATION MANUAL ARE PROVIDED WITH EACH SYSTEM

Overall System Dimensions								
LPS / WPS	LH - left hand	RH - right hand	TM - top mount	BM - bottom mount	WM - wall mount	FM or PM - flat panel		
Height	Height 12 / 16.25 12 / 16.25 12 / 12 12 / 12 12 / 15 14 / 18.25							
Width	13.5 / 13.5	13.5 / 13.5	13.5 / 16.75	13.5 / 16.75	13.5 / 13.5	15.5 / 15.5		
Depth	6.75 / 8.25	6.75 / 8.25	6.75 / 8.25	6.75 / 8.25	7.75 / 9.25	6.75 / 8.25		
	Dimensions in inches. Mounting dimensions available upon request. FM & PM panel cutout dimensions: LPS - 13h x 14.5w WPS - 17.25h x 14.5w Height & width dimensions reflect mounting plate measurements. Depth dimension reflects overall measurement of system, including components.							



Class I (\leq 450 ft³)

Description

Model 1005 is a Rapid Exchange[®] purging system that operates on a supply of compressed instrument air or inert gas. It regulates and monitors pressure within sealed (protected) enclosure(s), in order to remove and prevent flammable gas or vapor accumulations. The system accomplishes four air exchanges and maintains a "safe" (0.25") pressure. A Pepperl+Fuchs Model EPV-5 Enclosure Protection Vent is required for proper operation. This process reduces the hazardous (classified) area rating within the enclosure(s), in accordance with the NEC - NFPA 70, Article 500, NFPA 496 and ISA 12.4.

Operation

In accordance with system instructions, start-up requires air supply to be engaged and enclosure power to be deenergized. The enclosure protection vent must be tested and the enclosure(s) must be sealed. The enclosure pressure control valve is then used to set a safe reading on the enclosure pressure indicator. When safe pressure is stable, the Rapid Exchange control valve must be fully engaged. Upon completion of the Rapid Exchange cycle, (five minutes minimum) the Rapid Exchange control valve must be disengaged to return to a safe enclosure pressure. Power can then be energized to the protected enclosure(s). Loss of safe pressure requires immediate attention, unless power is deenergized. WPS style systems include an explosion proof differential pressure switch with form "C" contacts for audible or visual alarm systems.

System Specifications

System Dimensions: Shipping Weight: Temp. Range: Supply Pressure Range: Capacity & Filtration: Supply Requirements: Safe Press. Setpoint: Safe Press. Flow Rate: Exchange Pressure: Exchange Flow Rate: Exchange Flow Rate: Exchange Time: System Supply Port: Enclosure Supply Fitting: Enclosure Reference Fitting: Switch Setting (Decr): Switch Conduit Port Size:	See page 16 LPS - 15 lb / WPS - 25 lb -20 °F to +120 °F 80 - 120 psi 8.5 oz @ 40 Micron clean air or inert gas 0.25" * 0.1 - 3.5 SCFH 3" - 5" ** 60 SCFM / 3600 SCFH 1 min / 15 ft ³ 1/2" FPT 1/4" tube fitting 0.15" ± 0.02" 1/2" FPT
Switch Conduit Port Size:	1/2" FPT
Switch Contact Rating WPS Style: WPSA Style: *** 120/220 VAC, 24	120 VAC @ 15 A VDC @ 10 A; 125 VDC @ 50 mA

Switch (WPSA) Power Requirement: 24 / 120 / 240 VDC @ 3 /4 /11 watts

* Enclosure integrity determines actual flow rate

** With regulator set to 80 psi min. during exchange Rapid Exchange[®] is a Registered Trademark of Pepperl+Fuchs, Inc.

*** Supply voltages 24 VDC and 240 VAC available upon request.



LPS Style (Less Pressure Switch)





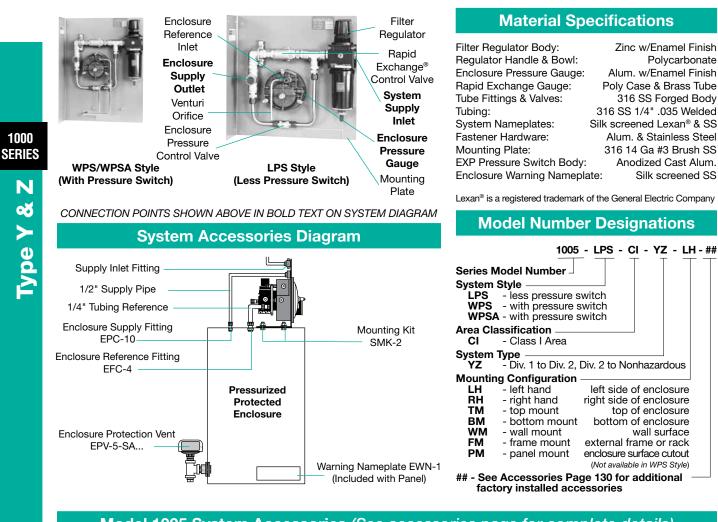
WPS/WPSA Style (With Pressure Switch)

Standard Model Applications

Model Number:		Model Number:	
Designation:	Purging System	Designation:	Purging System
Enclosure Volume:	450 ft ³ max.	Enclosure Volume:	450 ft ³ max.
LPS	Style	LPS S	ityle
UL & FM Certified:	Cl. I, Div. 1,	UL & FM Certified:	Cl. I, Div. 2,
	Group A-D		Group A-D
Rating Reduction:	Div. 1 to Div. 2	Rating Reduction:	Div. 2 to
WPS	Style		Nonhazardous
UL & FM Certified:	Cl. I, Div. 1,	WPS S	Style
	Group C&D	UL & FM Certified:	Cl. I, Div. 2,
Rating Reduction:	Div. 1 to Div. 2		Group C&D
WPSA	Style	Rating Reduction:	Div. 2 to
UL & FM Certified:	Cl. I, Div. 1,		Nonhazardous
	Group A-D	WPSA	Style
Rating Reduction:	Div. 1 to Div. 2	UL & FM Certified:	Cl. I, Div. 2,
			Group A-D
		Rating Reduction:	Div. 2 to
			Nonhazardous

Model 1005

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Model 1005 System Accessories (See accessories page for complete details)

CO	NNECTION FITTINGS	RAB-1	DIV. 1 Remote Alarm Beacon	Í
EFC-4	1/4" Flush Connector	RAB-2	Div. 2 Remote Alarm Beacon	E
EPC-10	1/2" Pipe Connector	LCK	L Fitting Conduit Kit	E
EPC-15	2" Pipe Connector	TCK	T Fitting Conduit Kit	Í
A	DDITIONAL ITEMS			1
SMK-2 or -8	System Mounting Kit	ENCLOS	URE PROTECTION VENTS	
EPSK-1	Explosion Proof Switch Kit	ONE VENT	REQUIRED WITH EACH SYSTEM	Í
GPSK-1	General-purpose Switch Kit	EPV-5-SA-0	00 Straight w/Spark Arrestor	Í
RAH	Remote Alarm Horn	EPV-5-SA-9	00 Rt Angle w/Spark Arrestor	l I

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 WARNING NAMEPLATES

 EWN-1
 Class I Enclosure Warning

 ETW
 Enclosure Temperature Warning

INSTALLATION & OPERATION MANUAL 129-0204 Inst. & Operation Manual

ONE (1) ENCLOSURE WARNING NAMEPLATE & ONE (1) INSTALLATION & OPERATION MANUAL ARE PROVIDED WITH EACH SYSTEM

Overall System Dimensions							
LPS / WPS	LH - left hand	RH - right hand	TM - top mount	BM - bottom mount	WM - wall mount	FM or PM - flat panel	
Height	13.5 / 17.75	13.5 / 17.75	14 / 13	14/ 13	15 / 17.75	15.5 / 19.75	
Width	13.5 / 13.5	13.5 / 13.5	13.5 / 16.125	13.5 / 16.125	13.5 / 13.5	15.5 / 15.5	
Depth 6/7.5 6/7.5 6/7.5 7.75/9.25 5/6.5							
Dimensions in inches. Mounting dimensions available upon request. FM & PM panel cutout dimensions: LPS - 14.5h x 14.5w WPS - 18.75h x 14.5w Height & width dimensions reflect mounting plate measurements. Depth dimension reflects overall measurement of system, including components.							



Class I (\leq 2 ft³) and Class II (\leq 10 ft³)

Description

Model 11 is an enclosure pressurization or purging system that operates on a supply of compressed instrument air or inert gas. It regulates and monitors pressure within sealed (protected) enclosure(s), in order to prevent combustible dust accumulation or remove and prevent flammable gas or vapor accumulations. In Class II areas, the system maintains a "safe" (1.0") pressure. In Class I areas, the system accomplishes four air exchanges and maintains a "safe" (0.25") pressure. These processes reduce the hazardous (classified) area rating within the enclosure(s), in accordance with the NEC - NFPA 70, Article 500, NFPA 496 and ISA 12.4.

Operation

In accordance with system instructions, start-up requires air supply to be engaged and enclosure power to be deenergized. In Class II areas, all dust must be removed from the enclosure(s). The enclosure protection vent (if used) must be tested and enclosure(s) must be sealed. The enclosure pressure control regulator is then used to set a safe reading on the enclosure pressure gauge. In Class II areas, power can be energized when safe pressure is stable. In Class I areas, the user must perform an exchange cycle (determined by the safe pressure flow rate-five minutes minimum) before power can be energized. Loss of safe pressure in Class I or II areas requires immediate attention, unless power is deenergized. WPS style systems include an explosion proof differential pressure switch with form "C" contacts for audible or visual alarm systems.

Specifications

* With EPV-1 Vent - 120 psi max. to 5 psi min. Systems installed without Vent must be equipped with redundant regulator set to 5 psi max.

** Enclosure integrity determines actual flow rate



LPS Style (Less Pressure Switch)



Model 11





Model Number:	11-CI Type Y	Model Number:	11-CI Type Z
Designation:	Purging System	Designation:	Purging System
Enclosure Volume:	2 ft ³ max.	Enclosure Volume:	2 ft ³ max.
LPS S	Style	LPS S	ityle
UL & FM Certified:	Cl. I, Div. 1,	UL & FM Certified:	Cl. I, Div. 2,
	Group A-D		Group A-D
Rating Reduction:	Div. 1 to Div. 2	Rating Reduction:	Div.2to
WPS	Style		Nonhazardous
UL & FM Certified:	Cl. I, Div. 1,	WPS S	Style
	Group C&D	UL & FM Certified:	Cl. I, Div. 2,
Rating Reduction:	Div. 1 to Div. 2		Group C&D
		Rating Reduction:	Div.2to
			Nonhazardous
Model Number:	11-CII Type Y	Model Number:	11-CII Type Z
Model Number: Designation: Press	••	Model Number: Designation: Press	••
	••		urization System
Designation: Press	urization System 10 ft ³ max.	Designation: Press	urization System 10 ft ³ max.
Designation: Press Enclosure Volume:	urization System 10 ft ³ max.	Designation: Press Enclosure Volume:	urization System 10 ft ³ max.
Designation: Press Enclosure Volume:	urization System 10 ft ³ max. Style	Designation: Press Enclosure Volume: LPS S	urization System 10 ft ³ max. Style
Designation: Press Enclosure Volume:	urization System 10 ft ³ max. Style Cl. II, Div. 1,	Designation: Press Enclosure Volume: LPS S	urization System 10 ft ³ max. Style Cl. II, Div. 2, Group F&G Div. 2 to
Designation: Press Enclosure Volume: LPS S UL & FM Certified:	urization System 10 ft ³ max. Style Cl. II, Div. 1, Group F&G Div. 1 to Div. 2	Designation: Press Enclosure Volume: LPS S UL & FM Certified:	urization System 10 ft ³ max. Style Cl. II, Div. 2, Group F&G
Designation: Press Enclosure Volume: LPS S UL & FM Certified: Rating Reduction:	urization System 10 ft ³ max. Style Cl. II, Div. 1, Group F&G Div. 1 to Div. 2	Designation: Press Enclosure Volume: LPS S UL & FM Certified:	urization System 10 ft ³ max. Style Cl. II, Div. 2, Group F&G Div. 2 to Nonhazardous
Designation: Press Enclosure Volume: LPS S UL & FM Certified: Rating Reduction: WPS S	urization System 10 ft ³ max. Style Cl. II, Div. 1, Group F&G Div. 1 to Div. 2 Style	Designation: Press Enclosure Volume: LPS S UL & FM Certified: Rating Reduction:	urization System 10 ft ³ max. Style Cl. II, Div. 2, Group F&G Div. 2 to Nonhazardous
Designation: Press Enclosure Volume: LPS S UL & FM Certified: Rating Reduction: WPS S	urization System 10 ft ³ max. Style Cl. II, Div. 1, Group F&G Div. 1 to Div. 2 Style Cl. II, Div. 1,	Designation: Press Enclosure Volume: LPS S UL & FM Certified: Rating Reduction: WPS S	urization System 10 ft ³ max. Style Cl. II, Div. 2, Group F&G Div. 2 to Nonhazardous Style
Designation: Press Enclosure Volume: LPS S UL & FM Certified: Rating Reduction: WPS S UL & FM Certified:	urization System 10 ft ³ max. Style Cl. II, Div. 1, Group F&G Div. 1 to Div. 2 Style Cl. II, Div. 1, Group F&G	Designation: Press Enclosure Volume: LPS S UL & FM Certified: Rating Reduction: WPS S	urization System 10 ft ³ max. Style Cl. II, Div. 2, Group F&G Div. 2 to Nonhazardous Style Cl. II, Div. 2, Group F&G Div. 2 to
Designation: Press Enclosure Volume: LPS S UL & FM Certified: Rating Reduction: WPS S UL & FM Certified:	urization System 10 ft ³ max. Style Cl. II, Div. 1, Group F&G Div. 1 to Div. 2 Style Cl. II, Div. 1, Group F&G	Designation: Press Enclosure Volume: LPS S UL & FM Certified: Rating Reduction: WPS S UL & FM Certified:	urization System 10 ft ³ max. Style Cl. II, Div. 2, Group F&G Div. 2 to Nonhazardous Style Cl. II, Div. 2, Group F&G
Designation: Press Enclosure Volume: LPS S UL & FM Certified: Rating Reduction: WPS S UL & FM Certified:	urization System 10 ft ³ max. Style Cl. II, Div. 1, Group F&G Div. 1 to Div. 2 Style Cl. II, Div. 1, Group F&G	Designation: Press Enclosure Volume: LPS S UL & FM Certified: Rating Reduction: WPS S UL & FM Certified:	urization System 10 ft ³ max. Style Cl. II, Div. 2, Group F&G Div. 2 to Nonhazardous Style Cl. II, Div. 2, Group F&G Div. 2 to

Standard Model Applications

1000 Series

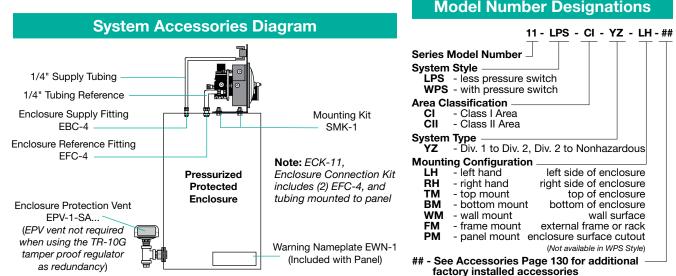


CONNECTION POINTS SHOWN ABOVE IN BOLD TEXT ON SYSTEM DIAGRAM

Material Specifications

Regulator Body:	Zinc w/Enamel Finish
Regulator Handle:	Polycarbonate
Enclosure Pressure Gauge:	ABS Plastic
Tube Fittings:	316 SS Forged Body
Tubing:	316 SS 1/4" .035 Welded
System Nameplates:	Silk screened Lexan® & SS
Fastener Hardware:	Alum. & Stainless Steel
Mounting Plate:	316 14 Ga #3 Brush SS
EXP Pressure Switch Body:	Anodized Cast Alum.
Enclosure Warning Namepla	ate: Silk screened SS

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Model 11 System Accessories (See accessories page for complete details)

FACTORY I	R EPSK-1 or -2		
ECK-11	Kit GPSK-1 or -2		
CC	DNNECTION FITTINGS	RAH	
EFC-4	1/4" Flush Connec	tor RAB-1	
EBC-4	1/4" Bulkhead Connec	tor RAB-2	
EPC-10			
	TCK		
ILF-4	1/4" Fi	OPTIONAL EN	
SMK-1, -4 oi			

EPSK-1 or -2Explosion Proof Switch KitGPSK-1 or -2General-purpose Switch KitRAHDiv. 1 Remote Alarm HornRAB-1Div. 1 Remote Alarm BeaconRAB-2Div. 2 Remote Alarm BeaconLCKL Fitting Conduit KitTCKT Fitting Conduit KitOPTIONAL ENCLOSURE PROTECTION VENTSEPV-1-SA-00Straight w/Spark ArrestorEPV-1-SA-90Rt Angle w/Spark Arrestor

 OPTIONAL HEX KEY REGULATOR HANDLE

 TR-10G
 Tamper Proof Regulator

 WARNING NAMEPLATES
 WARNING NAMEPLATES

 EWN-1
 Class I Enclosure Warning

 EWN-2
 Class II Enclosure Warning

 ETW
 Enclosure Temperature Warning

 INSTALLATION & OPERATION MANUAL
 129-0207

ONE (1) ENCLOSURE WARNING NAMEPLATE & ONE (1) INSTALLATION & OPERATION MANUAL ARE PROVIDED WITH EACH SYSTEM

Overall System Dimensions						
LPS / WPS	LH - left hand	RH - right hand	TM - top mount	BM - bottom mount	WM - wall mount	FM & PM - surface
Height	6.25 / 10.75	6.25 / 10.75	6.25 / 8.5	6.25 / 8.5	6.25 / 10.75	8.25 / 12.75
Width	6 / 7.5	6 / 7.5	7.5 / 13.375	7.5 / 13.375	6 / 7.5	8 / 9.5
Width Depth	6 / 7.5 5.5 / 7.25	6 / 7.5 5.5 / 7.25	7.5 / 13.375 5.5 / 7.25	7.5 / 13.375 5.5 / 7.25	6 / 7.5 5.5 / 7.25	8 / 9.5 4.5 / 7

Dimensions in inches. Mounting dimensions available upon request. FM & PM panel cutout dimensions: LPS - 7.25h x 7w WPS - 11.75h x 8.5w Height & width dimensions reflect mounting plate measurements. Depth dimension reflects overall measurement of system, including components.



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Class I (\leq 2 ft³) and Class II (\leq 10 ft³)

Model 1011

Description

Model 1011 is an enclosure pressurization or purging system that operates on a supply of compressed instrument air or inert gas. It regulates and monitors pressure within sealed (protected) enclosures, in order to prevent combustible dust accumulation or remove and prevent flammable gas or vapor accumulations. In Class II areas, the system maintains a "safe" (1.0") pressure. In Class I areas, the system accomplishes four air exchanges and maintains a "safe" (0.25") pressure. These processes reduce the hazardous (classified) area rating within the enclosure(s), in accordance with the NEC - NFPA 70, Article 500, NFPA 496 and ISA 12.4.

Operation

In accordance with system instructions, start-up requires air supply to be engaged and enclosure power to be deenergized. In Class II areas, all dust must be removed from the enclosure(s). The enclosure protection vent (if used) must be tested and enclosure(s) must be sealed. The enclosure pressure control regulator is then used to set a safe reading on the enclosure pressure gauge. In Class II areas, power can be energized when safe pressure is stable. In Class I areas, the user must perform an exchange cycle (determined by the safe pressure flow rate-five minutes minimum), before power can be energized. Loss of safe pressure in Class I or II areas requires immediate attention, unless power is deenergized. System installation may be enhanced with a stand-alone Pepperl+Fuchs Model EPSK explosion proof switch kit to provide form "C" contacts for audible or visual alarm systems.

System Specifications

System Dimensions:	See page 20
Shipping Weight:	7 lb
Temp. Range:	-20 °F to +120 °F
Supply Pressure Range:	* 5 - 120 psi
Supply Requirements:	clean air or inert gas
Safe Press. (CI/CII):	0.25" / 1.0"
Safe Press. Flow Rate:	** 0.1 - 3.5 SCFH
System Supply Fitting:	1/4" tube fitting
Enclosure Supply Fitting:	1/4" tube fitting
Enclosure Reference Fitting:	1/4" tube fitting

* With EPV-1 Vent - 120 psi max. to 5 psi min. Systems installed without Vent must be equipped with redundant regulator set to 5 psi max.

** Enclosure integrity determines actual flow rate



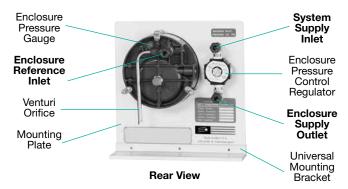
Front View



Standard Model Applications

Model Number:	1011-CI Type Z	Model Number: 1011-CII Type Z
Designation:	Purging System	Designation: Pressurization System
Enclosure Volume:	2 ft ³ max.	Enclosure Volume: 10 ft ³ max.
UL Certified:	Cl. I, Div. 2,	UL Certified: Cl. II, Div. 2
	Group A-D	Group F&G
Rating Reduction:	Div.2to	Rating Reduction: Div. 2 to
	Nonhazardous	Nonhazardous



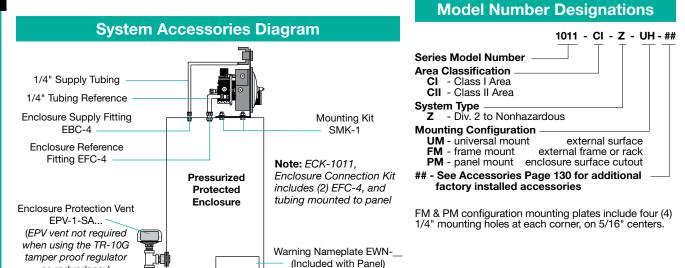


CONNECTION POINTS SHOWN ABOVE IN BOLD TEXT ON SYSTEM DIAGRAM

Material Specifications

Regulator Body:	Brass, Zinc w/Enamel Finish
Regulator Handle:	Polycarbonate
Enclosure Pressure Gauge	e: Alum. w/Enamel Finish
Tube Fittings:	316 SS Forged Body
Tubing:	316 SS 1/4" .035 Welded
System Nameplates:	Silkscreen & Lexan®
Fastener Hardware:	Alum. & Stainless Steel
Mounting Plate & Bracket	: Anodized Aluminum
Enclosure Warning Name	plate: Silk screened SS

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Model 1011 System Accessories (See accessories page for complete details)

CON	NECTION FITTINGS	GPSK-1 o
EFC-4	1/4" Flush Connector	RAH
EBC-4	1/4" Bulkhead Connector	RAB-2
EPC-10	1/2" Pipe Connector	OPTIONAL
AD	DITIONAL ITEMS	EPV-1-SA
ILF-4	1/4" Filter	EPV-1-SA
SMK-1 or -4	System Mounting Kit	OPTIONA
EPSK-1 or -2	Explosion Proof Switch Kit	TR-10G

as redundancy)

 APSK-1 or -2
 General-purpose Switch Kit

 AH
 Div. 1 Remote Alarm Horn

 AB-2
 Div. 2 Remote Alarm Beacon

 PTIONAL ENCLOSURE PROTECTION VENTS

 PV-1-SA-00
 Straight w/Spark Arrestor

 PV-1-SA-90
 Rt Angle w/Spark Arrestor

 OPTIONAL HEX KEY REGULATOR HANDLE
 Tamper Proof Regulator

WARNING NAMEPLATES

EWN-1	Class I Enclosure Warning	
EWN-2	Class II Enclosure Warning	
ETW	Enclosure Temperature Warning	
INSTALLATION & OPERATION MANUAL		
129-0205	Inst. & Operation Manual	

ONE (1) ENCLOSURE WARNING NAMEPLATE & ONE (1) INSTALLATION & OPERATION MANUAL ARE PROVIDED WITH EACH SYSTEM

Overall System Dimensions						
Configuration	UM - left hand	UM - right hand	UM - top mount	UM - bottom mount	FM - frame mount	PM - panel mount
Height	8	8	8.25	8.25	8	8
Width	8.25	8.25	8	8	8	8
Depth	5	5	5	5	5	5
Dimensions in inches. Mounting dimensions available upon request. FM & PM panel cutout dimensions: 7.625h x 7.625w Height & width dimensions reflect mounting plate measurements. Depth dimension reflects overall measurement of system, including components.						



1000

SERIES

Class I (\leq 15 ft³)

Model 1012

Description

Model 1012 is a Rapid Exchange® purging system that operates on a supply of compressed instrument air or inert gas. It regulates and monitors pressure within sealed (protected) enclosure(s), in order to remove and prevent flammable gas or vapor accumulations. The system accomplishes four air exchanges and maintains a "safe" (0.25") pressure. A PepperI+Fuchs Model EPV-2 Enclosure Protection Vent is required for proper operation. This process reduces the hazardous (classified) area rating within the enclosure(s), in accordance with the NEC - NFPA 70, Article 500, NFPA 496 and ISA 12.4.

Operation

In accordance with system instructions, start-up requires air supply to be engaged and enclosure power to be deenergized. The enclosure protection vent must be tested and the enclosure(s) must be sealed. The enclosure pressure control valve is then used to set a safe reading on the enclosure pressure indicator. When safe pressure is stable, the Rapid Exchange control valve must be fully engaged. Upon completion of the Rapid Exchange cycle, (five minutes minimum) the Rapid Exchange control valve must be disengaged to return to a safe enclosure pressure. Power can then be energized to the protected enclosure(s). Loss of safe pressure requires immediate attention, unless power is deenergized. System installation may be enhanced with a stand-alone Pepperl+Fuchs Model EPSK explosion proof switch kit to provide form "C" contacts for audible or visual alarm systems.

System Specifications

System Dimensions: Shipping Weight:	See page 22 10 lb
Temp. Range:	-20 °F to +120 °F
Supply Pressure Range:	80 - 120 psi
11.7	
Capacity & Filtration:	1.5 oz @ 20 Micron
Supply Requirements:	clean air or inert gas
Safe Press. Setpoint:	0.25"
Safe Press. Flow Rate:	* 0.1 - 3.5 SCFH
Exchange Pressure:	3"- 5"
Exchange Flow Rate:	** 4 SCFM/240 SCFH
Exchange Time:	1 min/ft ³
System Supply Port:	1/4" FPT
Enclosure Supply Fitting:	1/4" tube fitting
Enclosure Reference Fitting:	1/4" tube fitting

* Enclosure integrity determines actual flow rate

** With regulator set to 60 psi min. during exchange. Rapid Exchange® is a Registered Trademark of Pepperl+Fuchs.

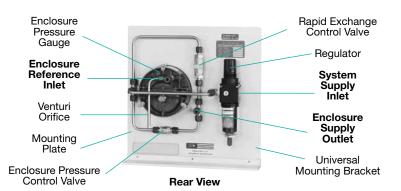


Front View

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Standard Model Applications

Model Number: Designation: Enclosure Volume: UL Certified: Rating Reduction: **1012-CI Type Z** Purging System 15 ft³ max. Cl. I, Div. 2, Group A-D Div. 2 to Nonhazardous Type Z



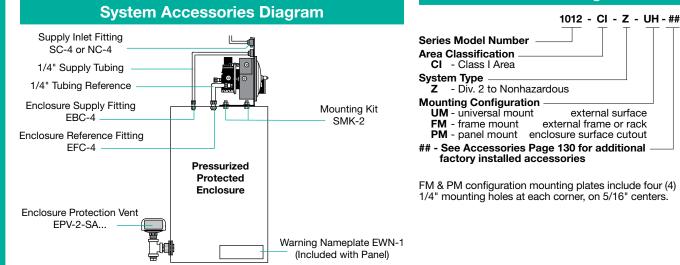
CONNECTION POINTS SHOWN ABOVE IN BOLD TEXT ON SYSTEM DIAGRAM

Material Specifications

Filter Regulator Body:	Zinc w/Enamel Finish
Regulator Handle & Bowl:	Polycarbonate
Enclosure Pressure Gauge:	Alum. w/Enamel Finish
Rapid Exchange Gauge:	Poly Case & Brass Tube
Tube Fittings & Valves:	316 SS Forged Body
Tubing:	316 SS 1/4" .035 Welded
System Nameplates:	Silkscreen & Lexan®
Fastener Hardware:	Alum. & Stainless Steel
Mounting Plate & Bracket:	Anodized Aluminum
Enclosure Warning Nameplat	e: Silk screened SS

Lexan® is a registered trademark of the General Electric Company

Model Number Designations



Model 1012 System Accessories (See accessories page for complete details)

CONNECTION FITTINGS

NC-4	1/4" Ninety Connector
SC-4	1/4" Straight Connector
EFC-4	1/4" Flush Connector
EBC-4	1/4" Bulkhead Connector
EPC-12	3/4" Pipe Connector
A	DDITIONAL ITEMS
SMK-1 or -4	System Mounting Kit
FPSK-1	Explosion Proof Switch Kit

GPSK-1 (RAH RAB-2 D

General-purpose Switch Kit Remote Alarm Horn Div. 2 Remote Alarm Beacon

ENCLOSURE PROTECTION VENTS ONE VENT REQUIRED WITH EACH SYSTEM EPV-2-SA-00 Straight w/Spark Arrestor

EPV-2-SA-90 Rt Angle w/Spark Arrestor

WARNING NAMEPLATES EWN-1 Class I Enclosure Warning ETW Enclosure Temperature Warning INSTALLATION & OPERATION MANUAL 129-0206

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ONE (1) ENCLOSURE WARNING NAMEPLATE & ONE (1) INSTALLATION & OPERATION MANUAL ARE PROVIDED WITH EACH SYSTEM

Overall System Dimensions						
Configuration	UM - left hand	UM - right hand	UM - top mount	UM - bottom mount	FM - frame mount	PM - panel mount
Height	12	12	12.25	12.25	12	12
Width	12.25	12.25	12	12	12	12
Depth	5	5	5	5	5	5
	Dimensions in inches. Mounting dimensions available upon request. FM & PM panel cutout dimensions: 11.625h x 11.625w & width dimensions reflect mounting plate measurements. Depth dimension reflects overall measurement of system, including components					

1000

SERIES

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Pepperl+Fuchs supplies purge/pressurization systems custom built to your specifications. To ensure the integrity of your system, certain accessory items must be factory installed.

The Model Number and Accessories Guide identifies those parts that must be included on your purge/pressurization system order.

11/1000 Series — Model Number Designations and Accessories Guide

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Type Y &

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	11/1000	
Series Mod	el Number	
11, 1001/	A, 1001B, 1001C, 1002, 1003, 1004, 1005, 1011, 1012	
System Sty	ie	
LPS	- Less pressure switch	
WPS	- With pressure switch	
WPSA	- With pressure switch (120 VAC Standard)	
Area Class	fication	
CI	- Class I Area	
CII	- Class II Area	
System Typ	De	
ΥZ	- Div. 1 to Div. 2, Div. 2 to Nonhazardous	
Mounting C	Configuration —	
LH	- Left hand (left side of enclosure)	
RH	- Right hand (right side of enclosure)	
ТМ	- Top mount (top of enclosure)	
	- Bottom mount (bottom of enclosure)	
WM	- Wall mount (wall surface)	
FM	- Frame mount (external frame or rack)	
PM	- Panel mount (enclosure surface cutout, not available in WPS or WPSA Style)	
Enclosure	Connection Kit	
ECK	- Enclosure connection kit	
Cooler Indi	cator Gauge (see page 97)	
VX	- Vortex	
Voltage (for	WPSA switch only)	
24 VDC	- Voltage Direct Currents	

240 VAC - Voltage Alternating Currents



Indicator Gauge

Description

1000 Series

The cooler indicator gauge, sometimes called the Vortex indicator gauge, is used on systems were there is cooling required after purging. Normally after the purging cycle, there is a small flow of protective gas required to compensate for leakages, and to keep a constant pressure within the enclosure so that the ingress of hazardous atmosphere cannot get inside the enclosure. This is known as pressurization. If the equipment inside the pressurized enclosure requires cooling, either a higher flow rate of protective gas is required through the pressurization valve, or a second source of cooling gas is introduced into the enclosure. The standard differential pressure gauge will indicate pressurization only up to 0.5 inches (13 mm) water, which may not be enough for cooling indication. The cooler indicator gauge is installed onto the pressurization/purge panel, and allows monitoring of the system during normal operation of the purge/pressurization system.

Cooler Indicator Gauge



Cooler Indicator Gauge (Vortex Indicator Gauge)

Special Note

TO ORDER PURGE/PRESSURIZATION UNITS EQUIPPED WITH A COOLER INDICATION GAUGE, SPECIFY 'VX' IN THE MODEL NUMBER DESIGNATION.

Specifications

OPERATING RANGE

Full range: Low range red: Safe range green: Cooler/Rapid exchange range yellow: High range red: 0 to 5 " (0 to 127 mm) water 0 to 0.5 " (0 to 13 mm) water 0.5 to 1.5 " (13 to 38 mm) water 1.5 to 4.5 " (38 to 114 mm) water 4.5 to 5 " (114 to 127 mm) water

BODY COMPONENTS

Cover: Housing: acrylic die cast aluminum coated to withstand 168 hour salt spray corrosion test

TECHNICAL DATA

Maximum overload pressure: Accuracy: Weight: Process connection:

re: 15 psig ± 2% of full scale 1.2 lb (510 g) 1/8" Female NPT duplicate high and low pressure taps, one pair side, one pair back





For over a half century, Pepperl+Fuchs has provided new concepts for the world of process automation. Our company sets standards in quality and innovative technology. We develop, produce and distribute electronic interface modules, Human-Machine Interfaces and hazardous location protection equipment on a global scale, meeting the most demanding needs of industry. Resulting from our world-wide presence and our high flexibility in production and customer service, we are able to offer complete individual solutions – wherever and whenever you need us. We are the recognized experts in our technologies – Pepperl+Fuchs has earned a strong reputation by supplying the world's largest process industry companies with the broadest line of proven components for a diverse range of applications.



