TRAPPED PRESSURE

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GENERAL PUMP *A member of the Interpump Group*

PULSAR3KMS2

Pressure Trapping Unloader w/ Microswitch

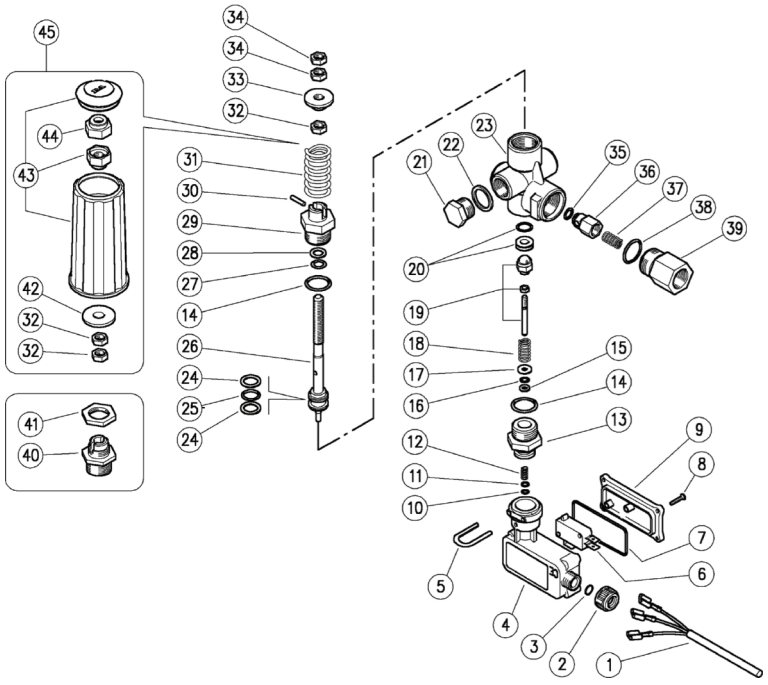
FEATURES

- Sturdy Steel and Brass Construction
- Mechanical Control of the Switch for a Simple & Reliable Function
- Hexagonal Check Valve for Improved Reliablility
- Knob fitted with licknut for min, and max. pressure regulation

SPECIFICATIONS

Part Number		PULSAR3KMS2
Max. Volume		8.0 GPM
Rated Pressure		3200 PSI
Max. Pressure		3650 PSI
Max Temperature		195^0 F
Port Sizes:	Inlet	3/8” NPT-F
	Outlet	3/8” NPT-F
	Bypass	(2) 3/8” NPT-F
Overall Dimensions		9.09” x 2.54” x 2”
Weight		2.0 lbs.
Pressure Switch:	Amperage	10 A
	Volts	250 V

PARTS LIST



ITEM	PART #	DESCRIPTION	QTY
1	Y12500000	Cable, 3 x 1, 47”	1
2	Y29008284	Locknut	1
3*	Y10310992	O-Ring, 2.4 x 7.3 mm	1
4	Y29004184	Casing	1
5	Y29008751	U-Bolt, Stainless Steel	1
6	Y12500100	Microswitch, 16A, 250 V	1
7	Y29008284	O-ring, 2.62 x 42.52 mm	1
8	Y16302000	Self-tapping Screw, 2.5 x 12 mm	4
9	Y29004284	Lid	1

ITEM	PART #	DESCRIPTION	QTY
10*	Y10303800	O-ring, 1.78 x 3.68	1
11	Y14351453	Washer, 4 x 8 x 0.8, SST	1
12	Y60230351	Spring, 1.1 x 8 x 20 mm, SST	1
13	Y60011131	Microswitch Coupler	1
14*	Y10306888	O-ring, 1.78 x 17.17	2
15*	Y10400400	Back-up Ring, 7.9 x 4.2 x 1.2 mm	1
16*	Y10310990	O-ring, 2.4 x 3.66 mm	1
17	Y60016433	Washer, 4.1 x 10.8 x 1 mm	1
18	Y60011551	Spring, 1.4 x 10 x 16 mm	1
19*	Y60011221	Piston & Shutter	1
20*	Y30003120	Spares Kit-Seat & O-ring, 25 pcs.	1
21	Y60002831	Plug, Brass, 3/8, BSP Hex	1
22	Y14404200	Washer, 16.7 x 22 x 1.5 mm	1
23	Y60005135	Housing	1
24*	Y10402100	Back-up Ring, Opn., 11.5 x 9 x 1.2 mm	2
25*	Y10317500	O-ring, 2.62 x 10.77 mm	1
26	Y60006123	Valve Piston, SST	1
27*	Y10317000	O-ring, 2.62 x 7.6	1
28*	Y10402000	Back-up Ring, 8 x 12.6 x 1.2 mm	1
29	Y60006431	Piston Holder, Brass	1
30	Y15102100	Roll Pin, 3 x 14 mm, SST	1
31	Y60001261	Spring, 5 x 25 x 50 mm	1
32	Y11457331	Hex Nut, M8, Brass	3
33	Y60001131	Spring Holder Ring, Brass	1
34	Y11457400	Hex Nut, M8	2
35*	Y10321300	O-ring, 3 x 6 mm	1
36	Y60005231	Shutter Pin, Brass	1
37	Y60005351	Spring, 0.7 x 0 x 20 mm, SST	1
38*	Y10307002	O-ring, 1.78 x 18.77 mm	1
39	Y60005831	Delivery Coupl, 3/8 F BSP, Brass	1
40	Y60018531	Piston Hold. & Panel Fitting	1
41	Y29017131	Nut, Brass, 3/8 F, BSP	1
42	Y14372040	Washer, 9.2 x 24 x 0.5 mm	1
43	Y60000424	Knob & Plug	1
44	Y11458910	Hex, Locknut, M8	1
45	Y60001424	Knob Kit	1
KIT K1	Y60003524	Spares Kit	1

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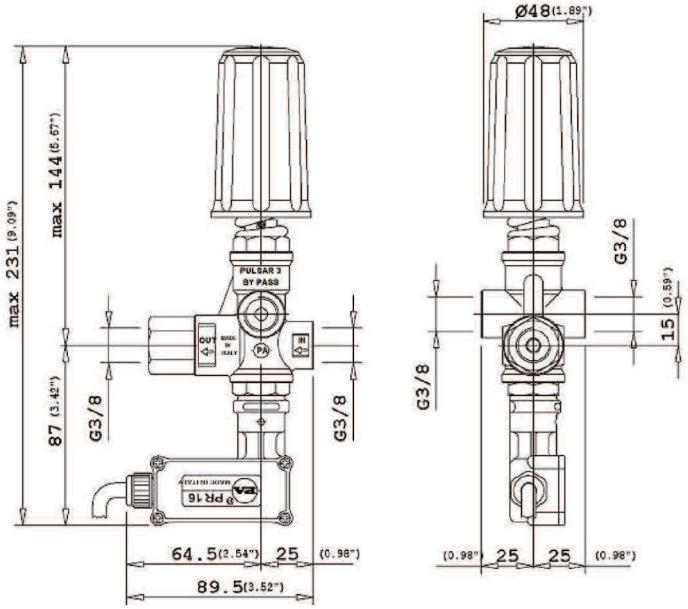
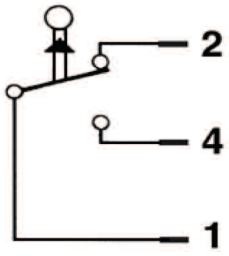
DIMENSIONS



WIRING DIAGRAM



1) Red Wire
2) Blue Wire
4) Brown Wire

ELECTRICAL CONNECTION
N.O.: Red + Brown - Normally Open

N.C.: Red + Blue - Normally closed

OPERATION: The valve regulates the max pressure of the system through a piston, which acts on a ball correctly positioned, that closes the bypass opening. A check valve cuts out the delivery section, the pressure of which controls the drive of the piston. Each regulation should be made when the system is operational and the nozzle open.

Lock the two nuts (32) to fix the max pressure and set the locknut (44) ti define the min. pressure

APPLICATION AND INSTALLATION

APPLICATION
This product is to be used with clean, fresh water.

For different or corrosive liquids, contact GP Companies Inc. technical support department. With not clean liquids, appropriate filtration should be installed.

Select the valve based on the nominal operating rating: system rated pressure, max flow and max temperature.

Under no circumstances should the pressure of the system exceed the maximum rated pressure of any component.

When installed on hot water cleaners, this valve is to be installed before the boiler.

INSTALLATION
On a system that produces hot water, consider installing safety devices which limit the accidental increase of the fluid temperature.

Always install a safety valve to protect the operator and system.

Choose a correct nozzle size, able to discharge regularly, on bypass, at least 5% of the total flow of the system, in order to achieve a constant pressure, and avoid troublesome pressure spikes.

When the nozzle wears, the pressure drops. After installing a new nozzle, re-adjust the system to the original pressure setting.

TROUBLESHOOTING

PROBLEMS	PROBABLE CAUSES	SOLUTIONS
Unloader Cycles	Damaged discharge check valve Leaking fittings or gun Restricted bypass	Replace Check and renew Clean or adapt
Unloader does not come up to pressure	Unloader not properly sized Debris lodged in unloader Unloader piston o-ring worn Worn nozzle	Select proper unloader Clean unloader Replace Replace
Excessive pressure spikes	Unloader improperly adjusted There is not a minimum of 5% flow in bypass	Adjust unloader Adjust unloader
Unloader won't go into bypass	Discharge check valve jammed Worn discharge check valve o-ring Debris in unloader valve	Clean or replace Replace Clean unloader

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