



## Pressure Switch

### Stainless Steel NPT Models

31615, 31625, 31640

### Stainless Steel BSP Models

39131, 39132, 39133, 39134

### Brass BSP Models

39128, 39129, 39130



### FEATURES

- Stainless steel contact pin for extended life.
- 3-wire construction allows either normally open or normally closed operation.
- Non-adjustable, preset pressure setting for consistent system protection.
- Pressure activated control device shuts off burner or other low amp system components.

**SELECTION:** The Pressure Switch is designed to control the on-off operation of various low amp system components. For example, in hot water equipment the pressure switch is used to turn off the burner when the system is not in operation.

**INSTALLATION:** The Pressure Switch should be installed in the discharge line **before the pressure unloader** or in the auxiliary port of the unloader or in the port opposite the unloader in a dual discharge ported manifold. The pressure switch is wired “normally open” (red and tan wires). When the system is operating, the pressure switch closes and turns the auxiliary accessory on. When the

### SPECIFICATIONS

	U.S. Measure	Metric Measure
Max. System Pressure .....	3650 PSI	(250 BAR)
Switch Engaging Pressure .....	215 PSI	(15 BAR)
.....	360 PSI	(25 BAR)
.....	580 PSI	(40 BAR)
Voltage.....	12-250 Volts	(12-250 Volts)
Max. Amperage.....	6 Amps	(6 Amps)
Max. Temperature .....	194°F	(90°C)
Inlet Fitting .....	1/4" NPTM	(1/4" NPTM)
.....	1/4" BSPM	(1/4" BSPM)
.....	3/8" BSPM	(3/8" BSPM)
Weight .....	6.4 oz.	(0.181 kg)
Dimensions.....	3.0 x 3.0 x 1.0"(76 x 76 x 25 mm)	

system goes into by-pass and the pressure drops, the pressure switch opens and shuts the auxiliary accessory off.

#### CAUTION

On the high pressure side of the regulating device, the Pressure Switch will not see a pressure change and will not shut the accessory off. Install only **before pressure unloader**.

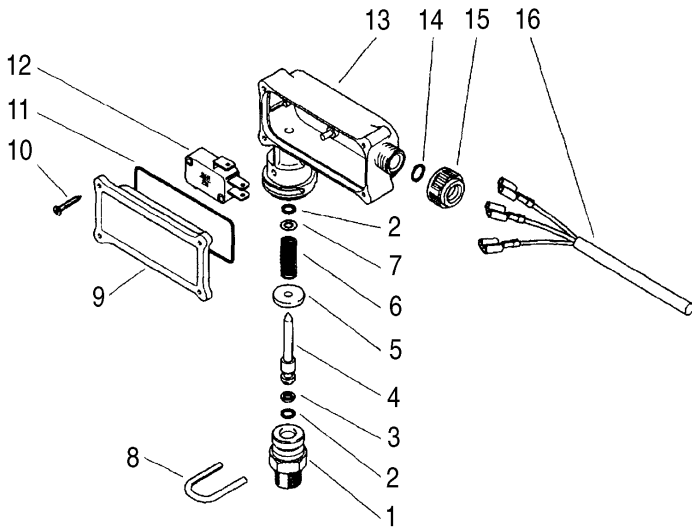
#### CAUTION

The Pressure Switch **cannot be used with a pressure regulator** as a regulator maintains system pressure in the by-pass mode and will not give the required low pressure drop to activate the switch.

continued on back

*“Customer confidence is our greatest asset”*

## EXPLODED VIEW



## PARTS LIST

ITEM	P/N	MATL	DESCRIPTION	QTY
1	—	SS	Fitting, Inlet (1/4") (3/8")	1
	—	BB	Fitting, Inlet (3/8")	1
2	—	PTFE	Back-up-Ring, Piston	2
3	—	NBR	O-Ring, Piston	1
4	—	BB	Piston	1
5	—	BB	Washer, Piston	1
6	—	SS	Spring (215 PSI, 15 BAR)	1
	—	SS	Spring (360 PSI, 25 BAR)	1
	—	SS	Spring (580 PSI, 40 BAR)	1
7	—	BB	Washer, Spring	1
8	—	S	U-Clip, Fitting	1
9	—	NY	Cover	1
10	—	STZP	Screw (M2.6 x 11.5)	4
11	—	NBR	O-Ring, Square Cover	1
12	32861	—	Switch, Micro	1
13	—	NY	Case	1
14	43287	NBR	O-Ring, Nut	1
15	—	NY	Nut, Red (360 PSI, 25 BAR)	1
	—	NY	Nut, Black (580 PSI, 40 BAR)	1
	—	NY	Nut, Blue (215 PSI, 15 BAR)	1
16	—	—	Cable*, 3-wire, M1200	1
—	31530	NBR	Kit, O-Ring (Incls: 2, 3, 11, 14)	1

\*Normally closed: red and blue. Normally open: red and tan.

*Italics are optional items.*

MATERIAL CODES (Not Part of Part Number): BB=Brass  
 NBR=Medium Nitrile (Buna-N) NY=Nylon PTFE=Pure Polytetrafluoroethylene  
 S=304SS SS=316SS STZP=Steel/Zinc Plated

**OPERATION:** The Pressure Switch is pre-wired to be in a **normally open** mode during high pressure operation. When the shut-off gun is closed (trigger released) the unloader will drop the system pressure below the preset Pressure Switch pressure. This low pressure signal will activate the switch, interrupt the electric current and shut off the burner or other system component.

When the gun is triggered again, system pressure will return to high pressure, the switch will return to the closed position completing the electrical current flow and the burner or other system component will resume operation.

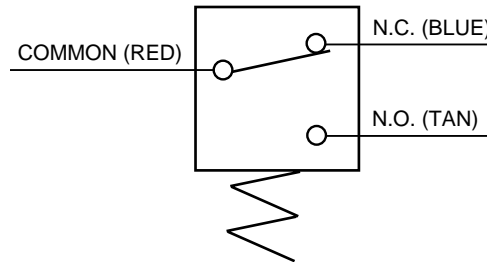
## PRESSURE SWITCH SELECTION CHART

Inlet Fitting	SWITCHING PRESSURE		
	215 PSI (15 BAR)	360 PSI (25 BAR)	580 PSI (40 BAR)
SS 1/4" NPTM	31615	31625	31640
SS 1/4" BSPM	—	39134	39132
SS 3/8" BSPM	—	39133	39131
Brass 1/4" BSPM	—	39130	39129
Brass 3/8" BSPM	—	—	39128

## WARNING

**This product must be installed by a qualified electrician to avoid risk of electrocution.**

## WIRING DIAGRAM



## TROUBLESHOOTING

Water leaking from switch	• Worn or cut O-Ring.
Burner won't shut off	• Switch located incorrectly in high pressure line.
	• Micro switch malfunction.

## WARRANTY

### 90 Day Warranty

Refer to complete CAT PUMP Warranty for further information.

Products described hereon are covered by one or more of the following U.S. patents 3558244, 3652188, 3809508, 3920356, 3930756 and 5035580

### World Headquarters

#### CAT PUMPS

1681 - 94th Lane N.E. Minneapolis, MN 55449-4324

Phone (763) 780-5440 — FAX (763) 780-2958

e-mail: techsupport@catpumps.com

www.catpumps.com

### International Inquiries

FAX (763) 785-4329

e-mail: intl@catpumps.com



*The Pumps with Nine Lives*

### CAT PUMPS (U.K.) LTD.

1 Fleet Business Park, Sandy Lane, Church Crookham

FLEET, Hampshire, GU52 8BF, England

Phone Fleet 44 1252-622031 — Fax 44 1252-626655

e-mail: sales@catpumps.co.uk

### N.V. CAT PUMPS INTERNATIONAL S.A.

Heiveldkens 6A, B-2550 Kontich, Belgium

Phone 32-3-450.71.50 — Fax 32-3-450.71.51

e-mail: cpi@catpumps.be www.catpumps.be

### CAT PUMPS DEUTSCHLAND GmbH

Buchwiese 2, D-65510 Idstein, Germany

Phone 49 6126-9303 0 — Fax 49 6126-9303 33

e-mail: catpumps@t-online.de www.catpumps.de