

DATA SHEET

FLOW SWITCH



Model: 33786



SELECTION

Electromechanical device, which upon dropping below the minimum flow rate, opens an electrical control contact used to control the on-off operation of various low amp system components. Choose the appropriate flow switch for the rated flow rate and pressure of the system and for the required intervention of the electric commutation. In any case, the flow rate and maximum pressure of the machine should not exceed the permissible flow rate and pressure rating imprinted on the flow switch.

MAINTENANCE

Standard: Every 400 working hours (circa 10,000 cycles) check the magnet holder (item 5) and clean.

The manufacturer is not responsible for damage as a result of incorrect fitting and maintenance.

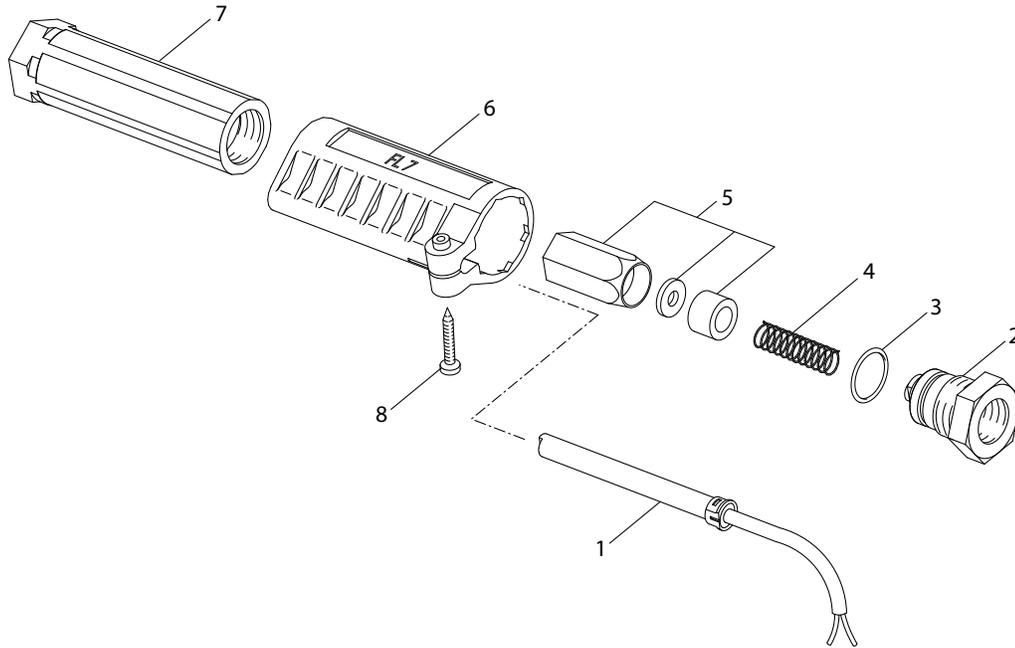
Technical data, descriptions and illustrations are indicative and liable to modification without notice.

FEATURES

- Reed switch with high resistance.
- Electrical insulation: class IP55.
- Magnetic drive obtained by the plunging piston movement.
- Magnetic probe casing made of flame-resistant material.
- Flow-activated control device shuts off burner or other low amp system components.

COMMON SPECIFICATIONS	U.S.	Metric
Flow Range (Vertical Position, Pump Inlet)	2.4 – 7.9 gpm	9 – 30 l/min
Flow Range (Horizontal Position, Pump Inlet)	1.6 – 7.9 gpm	6 – 30 l/min
Flow Range (Vertical Position, Pump Discharge)	2.4 – 15.9 gpm	9 – 60 l/min
Flow Range (Horizontal Position, Pump Discharge)	1.6 – 15.9 gpm	6 – 60 l/min
Maximum System Pressure	5100 psi	350 bar
Voltage	12 – 230 Volts	12 – 230 Volts
Maximum Amperage	3 Amps	3 Amps
Maximum Switch Capacity	60 VA	60 VA
Maximum Temperature	165° F	75° C
Inlet Fitting	3/8" BSP(F)	3/8" BSP(F)
Outlet Fitting	3/8" BSP(F)	3/8" BSP(F)
Weight	15.38 oz.	0.44 kg
Dimensions	4.09 x 1.85 x 1.36"	104 x 46.75 x 34.5 mm
Cable Length	49.2"	1250 mm

EXPLODED VIEW



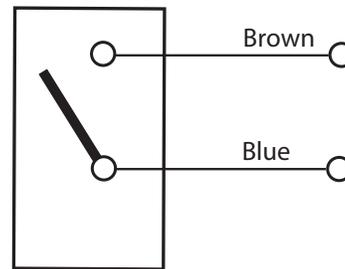
PARTS LIST

ITEM	P/N	MATL	DESCRIPTION	QTY
1	31534	BB	Switch, Reed with Cable	1
2	—	BB	Fitting	1
3	34503	NBR	O-Ring, Seat	1
4	31637	S	Spring	1
5	—	BB	Magnet, Holder	1
6	—	—	Housing, Outer	1
7	—	BB	Housing, Inner	1
8	—	STL	Screw	1

MATERIAL CODES (Not Part of Part Number):

BB=Brass NBR=Medium Nitrile (Buna-N) S=304SS STL=Steel

WIRING DIAGRAM



PROBLEMS AND SOLUTIONS

PROBLEMS	PROBABLE CAUSES	SOLUTIONS
The piston does not move	Insufficient flow	Check for leaks in the circuit
	Incorrect flow direction	Re-assemble, observing the flow direction
	Piston jammed by scale and debris shavings	Check, clean and/or replace
Electrical signal missing	Damaged "reed" electric contacts	Replace electric probe contacts
	Electric connection incorrect or disconnected	Install protective circuit if absent
	Un-phased probe or displace	Check and/or replace

⚠ WARNING

ELECTRICAL SHOCK HAZARD

Do not service pump or electrical equipment while energized. Electricity can cause personal injury, death or property damage.

1. Adhere to "Lock Out" and "Tag Out" procedures for electrical equipment.
2. Before commencing pump service, turn off power supply.
3. Keep water away from electrical outlets and electrical devices.
4. Electrical components must be installed by a qualified electrician to avoid risk of electrocution.

⚠ CAUTIONS AND WARNINGS

All high-pressure systems require a primary pressure regulating device (i.e. regulator, unloader) and a secondary pressure relief device (i.e. pop-off valve, relief valve). Failure to install such relief devices could result in personal injury or damage to pump or property. Cat Pumps does not assume any liability or responsibility for the operation of a customer's high-pressure system.

Read all CAUTIONS and WARNINGS before commencing service or operation of any high-pressure system. The CAUTIONS and WARNINGS are included in each Service Manual and with each Accessory Data sheet. CAUTIONS and WARNINGS can also be viewed online at www.catpumps.com/dynamic-literature/cautions-and-warnings or can be requested directly from Cat Pumps.

WARRANTY

View the Limited Warranty on-line at www.catpumps.com/literature/cat-pumps-limited-warranty