

# TYPE 623B VERY LOW FLOW SWITCH

## - DETECTS LOW FLOWS WITHOUT CAUSING HIGH PRESSURE DROPS -

TS 623D

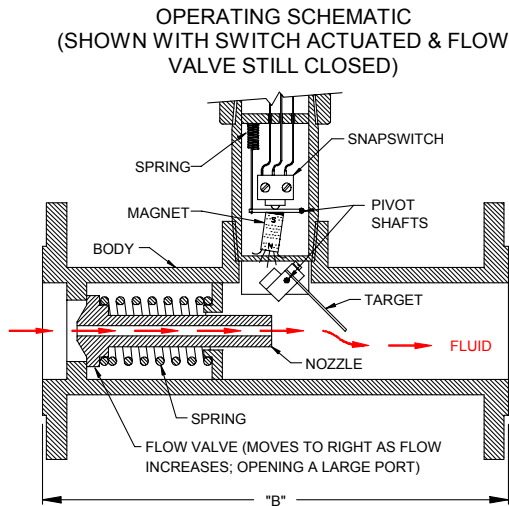
### APPLICATION

- Reactor cooling water loss alarm
- Low rate alarm in high velocity lines
- Batch Process Completion

### OPERATING PRINCIPLE

The Model 623B is a dual stage flow switch that actuates at low flow rates yet does not produce unacceptably high-pressure drops at 50 times the actuation rate. The Model 623B consists of two sections; a flow sensing target and a pressure operated flow bypass valve.

As the flow rate begins to increase from zero, the fluid flows only through a restriction nozzle and impinges against a target, which rotates at the specified flow rate. A switch is magnetically coupled to the target and actuates when the rotation occurs. The switch output is used for alarm or control. The flow valve opens when the flow rate exceeds the actuation rate. This allows the additional fluid flow to bypass the restriction nozzle. The pressure drop is thus limited to a low value at high flow rates.



-- "B" DIMENSION (Inches Face to Face) --

TYPE CONN.	1"	1-1/2"	2"
FNPT	6.15	7.25	9.00
150# R.F.	11.25	6.55	6.50
300# R.F.	11.25	7.25	7.25
600# R.F.	11.25	7.65	8.00

Housing: Class 1, Division 1, Groups BCD, X-P; also 4X IP64  
 Third Party Listings: CSA (Canada) and NRTL/C (USA)  
 Housing Nipple: Brass; SS Optional  
 12" Flying Leads; Terminal Strip Optional



623 WITH 1 1/2"  
FPT PIPELINE  
CONNECTIONS

### MODEL NUMBER

Basic Type	Wetted Material	Switch Contacts	Pipeline Size/Type	Options
Example: 623	- YY	- B	- 2" 300 R	- AA

M/N	BODY	TRIM/TARGET
YY	316 SS	316 SS
ZZ	AS NEEDED	

Note: Inconel spring if over 220°F  
 Flow Rate: 120 GPM, 360 SCFM, or less

M/N	CONTACT	AMPS *	MAX °F
A	SPDT	10	220
B	SPDT	5	320
C	DPDT	10	220
H	DPDT	5	320

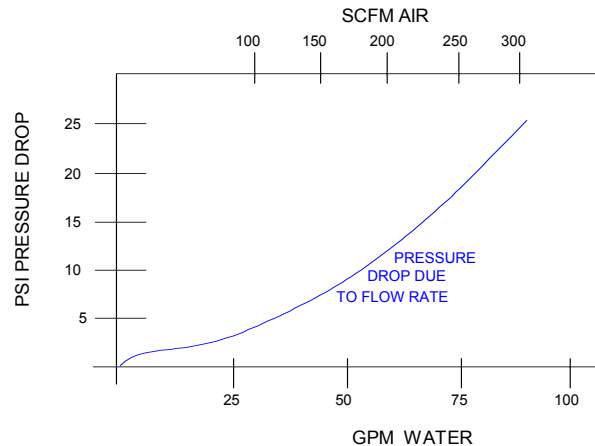
\* Amp Ratings up to 250 VAC;  
 Rated 4 amps at 24 VDC

M/N	DESCRIPTION
AA	None
SH	SS HOUSING
TS	TERMINAL STRIP
SN	SS HOUSING NIPPLE
HT	TEMPERATURE TO 300°F
HF	HIGH FLOW RATES; OVER 120 GPM OR 360 SCFM
ZZ	OTHER CONFIGURATIONS

THREADED NPT  
 1" FPT  
 1 1/2" FPT  
 2" FPT  
 BSP, METRIC, OR ANY OTHER IS OPTIONAL.

FLANGED PROCESS CONNECTION	
SIZE:	3/4", 1", 1 1/2" OR 2" ANSI
RATING:	150, 300, OR 600 LB CLASS
FACE:	RF, FF OR RTJ

SWITCHING POINTS (Fixed, Within 10%; closer optional)  
 ACTUATION: 0.9 GPM Water; 5.0 SCFM Air  
 DEACTUATION: 0.5 GPM Water; 2.7 SCFM Air  
 PRESSURE RATING: 1200 PSIG(8.3 Mpa) @ 100° F (40° C)  
 MATERIALS: 316 S.S. basic, others optional



## DELTA CONTROLS CORP

Engineered Sensors – For Difficult Services

585 Fortson Street Shreveport, La. 71107  
**Voice:** (318) 424-8471 **Fax:** (318) 425-2421  
**Email:** delta@deltacnt.com **Website:** www.deltacnt.com