ENGINEERING PRODUCT SPECIFICATION RELEASE

Bulletin B-1135.1

FLOAT LEVEL CONTROL SWITCHES

APPLICATION: MAGNETIC FLOAT SINGLE/MULTIPLE LEVEL CONTROL, SPST - SPDT

DESIGNATION: SERIES S-05, S-10, S-20, S-30, S-50 and S-70

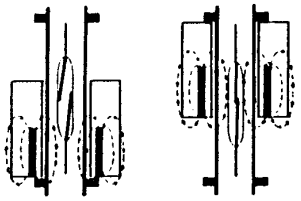
DESCRIPTION:

Floats, which contain embedded magnets, move up or down a guide tube with liquid level change. The flux density of the magnetic activates a dry reed switch encapsulated at precise dimensions in the guide tube.

The float switches provide accurate, reliable control which withstand vibration, shock, pressure and require no maintenance.

When properly used with BEC Solid-State relays, the reed switches offer in excess of one million cycles.

PRINCIPAL OF OPERATION



DRY DOWN POSITION — WET RAISED POSITION

Changing liquid level moves magnetic float up or down the guide tube, actuating the SPST or SPDT reed switch.

APPLICATIONS:

* Monitor tank levels, process equipment.
* Activate pumps, motors and alarms.
* Pump-up, Pump-down operation.
* Operate interlocks, computer inputs.
* Side and vertical mounting variations.
* Combination level and temperature switching.
* Wide differentials to prevent excess cycling.
* Materials of brass, 316SS, PVC, polypropylene, teflon.

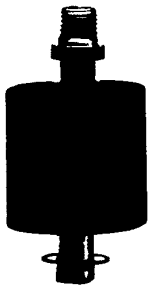
SPST MAX SWITCHING CURRENT, AMPS

VOLTS AC/DC	AC	DC	MAX LOAD
0-50	.3	.2	15 Watts
120	.12	.08	15 "
240	.06	.04	15 "

STANDARD FLOAT SPECIFIC GRAVITY

SERIES	FLOAT MATERIAL	SPECIFIC GRAVITY
S-05	Buna-N	.80
S-10	Polypropylene	.80
S-10	Buna-N	.50
S-10	Stainless Steel	.70
S-20	Buna-N	.40
S-25	Buna-N	.50
S-30	Buna-N	.30
S-50	Stainless Steel	.60
S-50	Stainless High Temp.	.55
S-70	PVC Hollow	.60

S-20
Brass/Buna-N



S-30
Brass/Buna-N

S-50
316 SS

S-70
PVC

S-10
Brass/Buna-N

S-05
Brass/Buna-N

S-10
Polypropylene

S-10
316 SS

SUGGESTED USES:

SINGLE POINT LEVEL CONTROLS

MINIATURE SINGLE POINT CONTROLS

S-05	Buna-N or Polypropylene floats - will pass through a 3/4" NPT threaded opening. (One-half pint containers to most 55 gallon drum openings.)
S-10	Buna-N, 316 stainless steel or teflon coated stainless - will pass 1" NPT threaded opening. (Corrosive and/or non-corrosive applications)
S-20	Economical for non-corrosive industrial liquids. (Fuel oil, gasoline. Temperatures to 180°F water, 230°F oil. Pressures to 160 psi.)
S-30	Applications requiring greater float lift. (Non-corrosive liquids. (Temperatures and pressures same as S-20 Series.)
S-50	316 stainless steel stem and float for corrosive applications. (Temperatures to 300°F, pressure to 780 psi. Teflon coating for more severe corrosive invironments.)
S-70	PVC construction for electroplating and acidic solutions. (Temperature to 140°F, pressure to 50 PSI)

FOR SPECIFICATIONS, SEE DATA CHART "FIGURE A"
(Refer to Price List for Stem/Float material combinations)

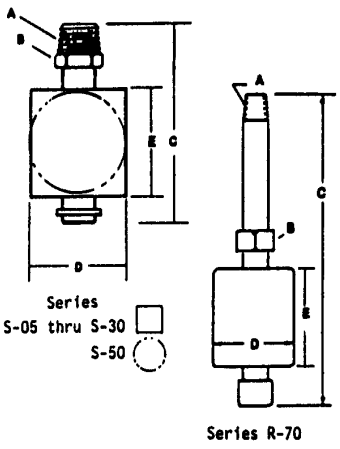
ENGINEERING PRODUCT SPECIFICATION RELEASE

Bulletin B-1135.1

FLOAT LEVEL CONTROL SWITCHES

DATA CHART "FIGURE A"

Series	Load AC @ 120/240 V	Material Stem	Material Float	Float PSI	Temp. °F Water/Oil	NPT A	HEX B	C	D	E
S-05	50w	Brass (316SS)	Buna-N	160	180/230	1/8"	1/2"	2-1/16"	25/32"	3/4"
S-10	50w	Polypro	Polypro	100	240	1/8	1/2	2-1/16	31/32	31/32
S-10	50w	Brass	Buna-N	160	180/230	1/8	1/2	2-1/16	1-1/16	1
		(316SS)	(316SS)	(200)	(240)	"	"	"	"	"
			(Teflon)	(200)	(240)	"	"	"	"	"
		(Teflon Coating)		(200)	(240)	"	"	"	"	"
S-20	15w (100w)	Brass	Buna-N	160	180/230	1/8	1/2	3-3/16	1-3/16	1-3/4
		(316SS)	(Teflon)	(200)	(240)	"	"	"	"	"
S-25	15W	Brass	Buna-N	160	180/230	"	"	"	"	"
S-30	15w (100w)	Brass (316SS) (Alum.)	Buna-N	160	180/230	1/4	5/8	3-11/16	1-7/8	1-3/4
S-50	15w (100w)	316SS	316SS	780	300	1/4	5/8	3-11/16	2-1/16	-
		(Teflon Coating)								
S-70	15w	PVC	PVC	50	140	1/4	3/4	6-1/4	1-7/8	1-7/8



Lead wires: 24 inches
SPST reed switch, reversible for NC or NO operation.
SPDT contacts available on some units.
Teflon coating on 316SS is .002" thick.
100w reed switches available S-20, S-30 & S-50

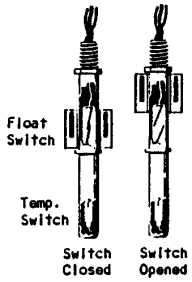
TEMPERATURE-LEVEL CONTROLS

Temperature-Level switches monitor both liquid level and temperature.

Level settings are available from two inches to several feet either single or multipoint with SPST or SPDT contacts. Floats are reversible for NC or NO contact operation.

Temperature settings are available in 5°C (9°F) increments with a maximum of 150°C (300°F, ±3°C (5°F).

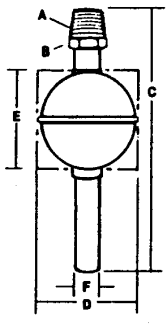
Control switches are mounted from inside of vessel. Material combinations of standard controls are 316SS stem and float or brass stem and buna-n float. Other materials available. Lead wire 24".



LEVEL SWITCH	TEMPERATURE SWITCH
Max. Switching Current	Max. Switching Current
.84 Amp @ 120 V	6.0 Amp @ 120 V
.42 Amp @ 240 V	4.0 Amp @ 240 V
3.00 Amp @ 12 V	(Specify switch to open or close on temp. rise.)

DATA CHART "FIGURE B"

Series	Load AC @ 120/240 V	Material Stem	Material Float	Float PSI	Temp. °F Water/Oil	NPT A	HEX B	C	D	E	F
S-TL20	100w	Brass	Buna-N	160	180/230	1/4"	5/8"	5-1/8	1-3/16	1-3/4	3/8
S-TL50	100w	316SS	316SS	780	300	3/8	11/16	5-1/8	2-1/16	-	1/2



MODEL NUMBER EXAMPLE: S-TL20BB-50°-A-NC

50° = Temperature °C (5°C Increments Only) Maximum 150°C.
A = Temperature Switch On Rising Temperature. ("A" - Closes, "B" - Opens).
NC = NC or NO (Float Switch Contact With Float In Down (Dry) Position).

S-TL20BB
S-TL50SS

BEC CONTROLS CORP.
WWW.BECCONTROLS.COM