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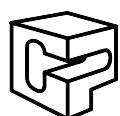
BCPFS R7

Wastewater

# CentriPro

## PUMP / CONTROL PANEL SWITCHES



 **CentriPro®**

CentriPro is a brand of ITT Corporation.

[www.centripro.com](http://www.centripro.com)

*Engineered for life*

### TERMS TO KNOW

**Pump Switches** are used to directly control the operation of a pump. They are normally wide-angle switches which means they operate over a range of approximately 70° to 90°. Pump switches are available with piggyback plugs and with bare leads. Some can also be used with control panels.

**Control Switches** are designed to only control pumps when used with a control or alarm panel. They cannot handle the high starting amps and running amperage of a pump, only signal or control amperage.

**NO or Normally Open** is a switch with contacts that are open in the hanging position. They are used to pump down or empty a tank.

**NC or Normally Closed** is a switch with contacts that are closed in the hanging position. They are used to pump up or fill a tank.

### A2T SERIES

#### SJE Double Float® Master Pump Switch

##### Features

- Mechanically activated, wide-angle switch designed to control pumps up to 13 FLA, 78 LRA, 120 VAC or 240 VAC.
- This switch consists of two mechanical floats and a splice tube. The splice tube contains a holding relay which eliminates pump chatter in turbulent conditions.
- Includes standard mounting clamps and boxed packaging.
- **Cable attached to float housing:** flexible 16 gauge, 2 conductor (UL, CSA) SJOW, water-resistant (CPE).
- **Cable above splice:** flexible 14 gauge, 3 conductor (UL, CSA) SJTW, water-resistant, thermoplastic.
- **Floats:** 2.74" diameter x 4.83" long (7.0 x 12.3 cm) high impact, corrosion resistant, PP housing for use in sewage and non-potable water up to 140° F (60° C).
- Not sensitive to rotation or turbulence.
- Pumping range: 10" to 56".
- Available for pump up or pump down applications.
- For confined applications requiring an accurate pumping range.
- UL Recognized for use in non-potable water and sewage.
- CSA Certified.
- See chart for data and order numbers.



### A2X SERIES

#### MilliAmpMaster™ Mechanical Float Switch

##### Features

- Mechanically activated, snap-action, sealed gold cross-point contacts are designed to activate low current control panels and alarms.
- Narrow angle Control for Low Voltage AC or DC applications.
- Operate with differential of 45° above or below horizontal.
- Electrical Load – low current non-arching applications
  - 125 VAC – Max. Load .1 amps (Min. Load .16 millamps)
  - 30 VDC – Max. Load .1 amps (Min. Load .16 millamps)
  - 5 VDC - Minimum Load 1 milliamp
- UL Listed for use in non-potable water and sewage.
- CSA Certified
- Mounting clamp for attaching to discharge pipe is standard.
- Not sensitive to rotation.
- Maximum submergence or water depth, 30' (9 meters), 13 psi.
- Flexible 18 gauge, 2 conductor SJOW water resistant cable.
- Impact and corrosion resistant, polypropylene float housing for use in sewage and water up to 140 ° F.
- Use with Intrinsically Safe Barriers (as used with explosion-proof pumps), PLC's, solar applications and other low current control panel or alarm applications.
- Cable lengths of 10', 20' and 30'.
- Standard order numbers are for Normally Open (NO) switches.
- Normally Closed (NC) or Pump Down switches are available as a special order by adding a "U" suffix. See **Nomenclature on last page**.
- Float comes with blue cap for easy identification.



### A2D SERIES

#### SJE PumpMaster® Pump Switch

##### Features

- Mechanically activated, heavy duty contacts, wide angle operation.
- Passed NSF standard 61 protocol by an approved Water Quality Association laboratory.
- Controls pumps up to 1/2 HP at 120 VAC and 1 HP at 230 VAC.
- Non-corrosive PVC housing for use in liquids up to 140° F (60° C).
- Not sensitive to rotation or turbulence.
- Pumping range: 7" to 36".
- 16 AWG, SJOW cord is available with or without piggyback plug.
- Available as pump up, pump down and SPDT models, see Nomenclature Chart.
- For potable water, water or sewage applications.
- UL Recognized for use in water and sewage.
- CSA Certified.
- See chart for amperage range and other data.



### A2E SERIES

#### SJE PumpMaster Plus® Pump Switch

##### Features

- Controls pumps up to 3/4 HP at 120 VAC and 2 HP at 230 VAC.
- 14 AWG, SJOW cord is available with or without piggyback plug.
- **All other features are the same as A2D PumpMaster Series above.**

### A2HT SERIES

#### High Temperature Float Switch

##### Features

- Temperature Rating: 221° F (105° C)
- Wide Angle Switch: contacts open @ 45° below horizontal and close at 45° above horizontal
- Float Material: PC/ABS (Polycarbonate ABS)
- Cord Material: Teflon coating
- Ratings: 13 Maximum Amps, 1/2 HP, 115/230 V
- Float Dimensions: 4.63" Long x 2.63" Diameter
- Nomenclature: see last page
- Available lengths: 20', 30' and 50' \*

\* No other lengths available in this Series.



### A2KM23WP3

#### Conery Mechanical Float Pack of 3

##### Features

- Pack of three floats
- Narrow angle control for panel hookup
- 15' cord - Type SJOW 16/2 have leads
- Float material: ABS material
- 5° contact closes
- Pump down operation

##### Ratings

- 10 Amp rating
- Mechanically activated
- Temperature Rating: Maximum temperature 190° F (88° C)

### A2G SERIES

#### SJE AmpMaster® Pump Switch

##### Features

- Mechanically activated, heavy duty contacts, wide angle operation.
- Controls pumps up to 1½ HP at 115 VAC and 3 HP at 250 VAC.
- Non-corrosive PVC housing for use in liquids up to 140° F (60° C).
- Maximum pump running current of 20 amps.
- Not sensitive to rotation or turbulence.
- Pumping range: 9" to 24".
- 12 AWG, SJOW cord is available only with bare leads.
- Available for pump down applications only.
- UL Recognized for use in non-potable water and sewage.
- CSA Certified.
- See chart for amperage range and other data.



### A2P SERIES

#### SJE MicroMaster® Plus

##### Features

- Mechanically activated, snap action contacts, wide angle.
- Pump down operation (optional pump up available)
- UL Recognized for use in non-potable water and sewage.
- CSA Certified.
- See chart for amperage range and other data.
- Controls pump up to 1 HP at 115 VAC and 1.5 HP at 230 VAC
- 16 AWG, SJOW cord
- Pumping range: 8" to 36"

### A2H SERIES

#### SJE VerticalMaster® Pump Switch

##### Features

- Mechanically activated vertical operation.
- Controls pumps up to ½ HP at 120 VAC and 1 HP at 230 VAC.
- Non-corrosive PVC housing for use in liquids up to 140° F (60° C).
- Overall Dimensions: 12" High, 5" Deep, 3" Wide.
- Not sensitive to rotation.
- Pumping range: .75" to 6.5".
- 16 AWG, SJOW cord is available with or without piggyback plug.
- Available for pump down applications only.
- For confined applications requiring an accurate pumping range.
- Stainless steel mounting bracket and hose clamp.
- UL Recognized for use in non-potable water and sewage.
- CSA Certified.
- See chart for amperage range and other data.



### A2J SERIES

#### SJE VerticalMaster® II Pump Switch

##### Features

- Mechanically activated vertical operation.
- Maximum running 10 amps.
- Non-corrosive PVC housing for use in liquids up to 140° F (60° C).
- Overall Dimensions: 12" High, 5" Deep, 3" Wide.
- Not sensitive to rotation.
- Pumping range: .75" to 6.5" (pump down only)
- 18 AWG, SJOW cord
- For confined applications requiring an accurate pumping range.
- Stainless steel mounting bracket and hose clamp.
- UL Recognized for use in non-potable water and sewage.
- CSA Certified.
- See chart for amperage range and other data.

### A2N SERIES

#### SJE SignalMaster® Control Switch

##### Features

- Mechanically activated, narrow angle, designed to activate pump control panels or alarms.
- Not designed for direct connection to pump.
- Passed NSF standard 61 protocol by an approved Water Quality Association laboratory.
- Non-corrosive PVC housing for use in liquids up to 140° F (60° C).
- Not sensitive to rotation.
- Control differential: 1.5" above or below horizontal.
- Available as NO (pump down), NC (pump up) or SPDT model, see Nomenclature page.
- For potable water, water or sewage applications.
- Supplied with a pipe clamp for mounting to pipe.
- UL Listed for use in water and sewage.
- CSA Certified.
- See chart for amperage range and other data.
- Normally open - comes with yellow cap for easy identification.
- Normally closed - comes with white cap for easy identification.
- Single pole double throw - comes with green cap for easy identification.



### A2S SERIES

#### CentriPro® Diaphragm Pump or Control Switch

##### Features

- Mechanical contacts.
- Cast iron housing and BUNA-N diaphragm.
- For use in liquids up to 104° F (40° C).
- Control differential: pump turns on at 18" and off at 12" submergence.
- 18/3 AWG, SJTW cord w/breather tube is available with or without piggyback plug.
- Available only as NO for pump down operation.
- For wastewater or sewage applications.
- Supplied with a mounting bracket for mounting to pump.
- See chart for amperage range and other data.



### A2WT SJ ELECTRO WEIGHT

- Adjustable snap in design.
- Works with all float switches shown.
- PVC



### A2WTC CONERY WEIGHT

- Zinc plated cord weight
- Works with all float switches



PUMP SWITCHES (WIDE ANGLE) can be connected directly to a pump.

CONTROL SWITCHES (NARROW ANGLE) can only be used with control panels or alarm panels.

ORDER NUMBER	MAXIMUM RUNNING AMPS	MAXIMUM STARTING AMPS	CORD LENGTH (FEET)	BARE LEADS	PUMP SWITCH	CONTROL SWITCH	(1)	(2)	MOUNTING	
							N.O.	N.C.	STRAP	WEIGHT
A2D13	13	85	10	X	X	—	X		X	
A2D23U	13	85	15	X	X	—		X	X	
A2D23W	13	85	15	X	X	—	X			X
A2D33	13	85	20	X	X	—	X		X	
A2D33U	13	85	20	X	X	—		X	X	
A2D33W	13	85	20	X	X	—	X			X
A2D53W	13	85	30	X	X	—	X			X
A2D63W	13	85	50	X	X	—	X			X
A2D83W	13	85	100	X	X	—	X			X
A2E23	15	85	15	X	X	—	X		X	
A2E23U	15	85	15	X	X	—		X	X	
A2E33	15	85	20	X	X	—	X		X	
A2E53	15	85	30	X	X	—	X		X	
A2E53U	15	85	30	X	X	—		X	X	
A2E63	15	85	50	X	X	—	X		X	
A2E63U	15	85	50	X	X	—		X	X	
A2E73	15	85	75	X	X	—	X		X	
A2E83	15	85	100	X	X	—	X		X	
A2G33	20	120	20	X	X	—	X		X	
A2G43	20	120	25	X	X	—	X		X	
A2G53	20	120	30	X	X	—	X		X	
A2G63	20	120	50	X	X	—	X		X	
A2HT33	13	58	20	X	X	X	X		X	
A2HT53	13	58	30	X	X	X	X		X	
A2HT63	13	58	50	X	X	X	X		X	
A2N13	5	N/A	10	X	—	X	X		X	
A2N33	5	N/A	20	X	—	X	X		X	
A2N33U	5	N/A	20	X	—	X		X	X	
A2N93	5	N/A	125	X	—	X	X		X	
A2S23 <sup>①</sup>	10	N/A	15	X	—	X	X		X	
A2S53 <sup>①</sup>	10	N/A	30	X	—	X	X		X	
A2S63 <sup>①</sup>	10	N/A	50	X	—	X	X		X	
A2X13	See description	N/A	10	X	—	X	X		X	
A2X33	See description	N/A	20	X	—	X	X		X	
A2X53	See description	N/A	30	X	—	X	X		X	

N.O. (1) = PUMP DOWN

N.C. (2) = PUMP UP

<sup>①</sup> Diaphragm switch with 6" differential.

**WIDE ANGLE 115 VOLT PIGGYBACK FLOAT SWITCHES TO DIRECTLY CONTROL PUMPS**

ORDER NUMBER	MAXIMUM AMPS	START AMPS	115 V PLUG	CORD LENGTH FEET	(1)	(2)	MOUNTING STRAP
					N.O.	N.C.	
A2D11	13	85	X	10	X		X
A2D31	13	85	X	20	X		X
A2D51	13	85	X	30	X		X
A2D61	13	85	X	50	X		X
A2E21	15	85	X	15	X		X
A2E31	15	85	X	20	X		X
A2E31U	15	85	X	20		X	X
A2E51	15	85	X	30	X		X
A2E61	15	85	X	50	X		X
A2H11	13	60	X	10	X		X
A2H31	13	60	X	20	X		X
A2J11	15	85	X	10	X		X
A2J21	15	85	X	15	X		X
A2J31	15	85	X	20	X		X
A2P01	13	78	X	10	X		X
A2P21	13	78	X	15	X		X
A2P31	13	78	X	20	X		X
A2P51	13	78	X	30	X		X
A2S21	13	60	X	15	X		X
A2T31	13	78	X	20	X		X
A2T51	13	78	X	30	X		X

**WIDE ANGLE 230 VOLT PIGGYBACK FLOAT SWITCHES TO DIRECTLY CONTROL PUMPS**

ORDER NUMBER	MAXIMUM AMPS	START AMPS	230 V PLUG	CORD LENGTH FEET	(1)	(2)	MOUNTING STRAP
					N.O.	N.C.	
A2D12	13	85	X	10	X		X
A2D32	13	85	X	20	X		X
A2E22	15	85	X	15	X		X
A2E32	15	85	X	20	X		X
A2E32U	15	85	X	20		X	X
A2E52	15	85	X	30	X		X
A2E62	15	85	X	50	X		X
A2H12	12	60	X	10	X		X
A2H32	12	60	X	20	X		X
A2J12	10	60	X	10	X		X
A2J22	10	60	X	15	X		X
A2S22	13	60	X	15	X		X
A2T32	13	78	X	20	X		X
A2T52	13	78	X	30	X		X

N.O. (1) = PUMP DOWN

N.C. (2) = PUMP UP

# NOMENCLATURE

## 1st and 2nd Characters

A2 = Float Switch

## 3rd Character

D = PumpMaster® – SJE  
E = PumpMaster Plus® – SJE  
G = AmpMaster® – SJE  
H = VerticalMaster® – SJE  
J = VerticalMaster® II – SJE ②  
N = SignalMaster™ – SJE  
P = MicroMaster® Plus – SJE ②  
R = MicroMaster® – SJE ②  
S = C I Diaphragm Level Switch – MP  
T = Double Float® Master – SJE  
X = MilliAmpMaster™

## 4th Character

1 = 10'  
2 = 15' ①  
3 = 20'  
4 = 25' ①  
5 = 30'  
6 = 50'  
7 = 75'  
8 = 100' } Only available on select  
9 = 125' control switches.

## 5th Character

1 = 115 V piggyback  
2 = 230 V piggyback  
3 = Bare lead  
4 = Single pole double throw (SPDT)

## 6th Character (optional)

U = Pump Up or Normally Closed (NC)  
W = A2WT Cable Weight  
B = Bulk Packed (internal only)

## Characters 1-4

A2HT = High Temperature Float Switch  
A2KM = Conery 3 pack

## Character 5 \*

Length (ft)  
2 = 15' (Conery only)  
3 = 20'  
5 = 30'  
6 = 50'

## Character 6

1 = 115V Piggyback Plug  
2 = 230V Piggyback Plug  
3 = Bare Leads  
4 = Single Pole Double Throw (SPDT)

## Characters 7, 8, 9

PK3 = Pack of three

\* No other lengths available in this Series.

① Only available on existing models.

② Discontinued models – contained mercury.



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2881 East Bayard Street, Seneca Falls, NY 13148

Phone: (315) 568-7123 • Fax: (315) 568-7973

[www.centripro.com](http://www.centripro.com)

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