

# Saginomiya

June 2010



Motor Accessories  
& Refrigeration Controls  
Saginomiya



# SAGInoMIYA



Ph. 0800 239 239  
Fax. 0800 231 231  
sales@hamer.co.nz  
www.hamer.co.nz

# HAMER

LIMITED

Bringing you the best.

# Contents

Dual Pressure Controls	3
Automatic Reset Type with Adjustable Differential	3
Manual Reset Type	3
Accessories	3
Single Function Pressure Controls	4
Automatic Reset Type with Adjustable Differential	4
Manual Reset Type	4
Ammonia Models	5
Fixed Narrow Differential	5
High Pressure Safety Cut Out	5
Differential Pressure Controls	6
Special Variant	6
Pressure Switch Accessories	6
Small Pressure Controls	7
Technical Specifications	8
Condenser Fan Speed Controls	9
Check Valves	9
Solder Types	9
Flow Switches	9
Condensate Pump	10
Electronic Thermostats	10
Thermostats	10
Room Thermostats	10
Capillary Thermostats	11
High Limit Manual Reset Thermostats	11
Low Limit Manual Reset Thermostats	12
Small "TB" Style Pressure Temperature Controls	12
Reversing Valves	12
4-Way Reversing Valves	12
4-Way Reversing Valve Coils	13
Sensors	13
DSE & FSE Type Sensors	13
Riko Float Switches	13



# Dual Pressure Controls – with SPDT contact mechanism

## Automatic Reset Type with Adjustable Differential

Hamer Code	Catalogue Code	Low Side	High Side	Amperage	Detail Ref. Pg. 8
SG100	DNS-D306X	Range: -60 to 600KPa (-8.7 to 87 PSI) Differential range: 60 to 400KPa (8.7 to 58 PSI)	800 to 3000KPa (116 to 435.1 PSI) Fixed 400KPa (58 PSI)	12A 250VAC	Fig. 1.
SG140	DNS-D606X	Range: 60 to 600KPa (8.7 to 87 PSI) Differential range: 60 to 400KPa (8.7 to 58 PSI)  Complete with independent contacts on high and low side	800 to 3000KPa (116 to 435.1 PSI) Fixed 400KPa (58 PSI)	12A 250VAC	Fig. 3.



## Manual Reset Type

Hamer Code	Catalogue Code	Low Side	High Side	Amperage	Detail Ref. Pg. 8
SG110	DNS-D306XM	Range: -60 to 600KPa (-8.7 to 87 PSI) Differential range: 60 to 400KPa (8.7 to 58 PSI)	800 to 3000KPa (116 to 435.1 PSI) Manual reset Trips on pressure rise	12A 250VAC	Fig. 2.
SG145	DNS-D606XM	Range: -60 to 600KPa (-8.7 to 87 PSI) Differential range: 60 to 400KPa (8.7 to 58 PSI)  Complete with independent contacts on high and low side	800 to 3000KPa (116 to 435.1 PSI) Manual reset Trips on pressure decrease	12A 250VAC	Fig. 4.
SG150	DNS-D606XMM	Range: -60 to 600KPa (-8.7 to 87 PSI) Manual reset Trips on pressure decrease Complete with independent contacts on high and low side	800 to 3000KPa (116 to 435.1 PSI) Manual reset Trips on pressure rise	12A 250VAC	Fig. 5

## Accessories

Hamer Code	Catalogue Code	Low Side
SG110	DNS-AK01	Double "NS" Switch IP44 Top Cover



# Single Function Pressure Controls – with SPDT contact mechanism

## Automatic Reset Type with Adjustable Differential

Hamer Code	Catalogue Code	Description	Amperage	Detail Ref. Pg. 8
SG218	SNS-C101 <u>X</u>	Range: -60 to 100KPa (-8.7 to 14.5 PSI) Differential range: 15 to 50KPa (2.17 to 7.25 PSI)	12A 250VAC	Fig. 1.
SG220	SNS-C102 <u>X</u>	Range: -20 to 200KPa (-2.9 to 29 PSI) Differential range: 25 to 150KPa (3.62 to 21.75 PSI)	12A 250VAC	Fig. 1.
SG230	SNS-C106 <u>X</u>	Range: -60 to 600KPa (-8.7 to 87 PSI) Differential range: 60 to 400KPa (8.7 to 58.01 PSI)	12A 250VAC	Fig. 1.
SG270	SNS-C110 <u>X</u>	Range 100 to 1000KPa (14.5 to 145 PSI) Differential range 100 to 300KPa (14.5 to 43.5 PSI)	12A 250VAC	Fig. 1.
SG130	SNS-C120 <u>X</u>	Range 500 to 2000KPa (72.5 to 290 PSI) Differential range 200 to 500KPa (29 to 72.5 PSI)	12A 250VAC	Fig. 1.
SG280	SNS-C130 <u>X</u>	Range 500 to 3000KPa (72.5 to 435.1 PSI) Differential range 300 to 1000KPa (43.5 to 145 PSI)	12A 250VAC	Fig. 1.
SG297	SNS-C135 <u>X</u>	Range 1000 to 3500KPa (145 to 507.6 PSI) Differential range 500 to 1500KPa (72.5 to 217.5 PSI)	12A 250VAC	Fig. 1.



## Manual Reset Type

Hamer Code	Catalogue Code	Description	Amperage	Detail Ref. Pg. 8
SG225	SNS-C102 <u>XM2</u>	Range -20 to 200KPa (-2.9 to 29 PSI) Manual reset. Trips on pressure decrease	12A 250VAC	Fig. 2.
SG250	SNS-C106 <u>XM2</u>	Range -60 to 600KPa (-8.7 to 87 PSI) Manual reset. Trips on pressure decrease	12A 250VAC	Fig. 2.
SG290	SNS-C130 <u>XM2</u>	Range 500 to 3000KPa (72.5 to 435 PSI) Manual reset. Trips on pressure decrease	12A 250VAC	Fig. 2.



## Ammonia Models

Hamer Code	Catalogue Code	Description	Amperage	Detail Ref. Pg. 8
SG260	SNS-C106 <u>XN</u>	Range -60 to 600KPa (-8.7 to 87 PSI) Differential range 60 to 400KPa (8.7 to 58.01 PSI)	12A 250VAC	Fig. 1.
SG275	SNS-C110 <u>XN</u>	Range 100 to 1000KPa (14.5 to 145 PSI) Differential range 100 to 300KPa (14.5 to 43.5 PSI)	12A 250VAC	Fig. 1.
SG282	SNS-C130 <u>XN</u>	Range 500 to 3000KPa (72.5 to 435.1 PSI) Differential range 300 to 1000KPa (43.5 to 145 PSI)	12A 250VAC	Fig.1.
SG291	SNS+C130 <u>XM2N</u>	Range 500 to 3000KPa (72.5 to 435.1 PSI) Manual reset. Trips on pressure decrease	12A 250VAC	Fig. 2.

## Fixed Narrow Differential

Hamer Code	Catalogue Code	Description	Amperage	Detail Ref. Pg. 8
SG320	FNS-C101 <u>X</u>	Range -60 to 100KPa (-8.7 to 14.5 PSI) Differential fixed 6KPa (.87 PSI)	12A 250VAC	Fig. 1.
SG325	FNS-C102 <u>X</u>	Range -20 to 200KPa (-2.9 to 29 PSI) Differential fixed 8KPa (1.16 PSI)	12A 250VAC	Fig. 1.
SG340	FNS-C110 <u>X</u>	Range 100 to 1000KPa (14.5 to 145 PSI) Differential fixed 25KPa (3.62 PSI)	12A 250VAC	Fig.1.
SG350	FNS-C130 <u>X</u>	Range 500 to 3000KPa (72.5 to 435.1 PSI) Differential fixed 120KPa (17.4 PSI)	12A 250VAC	Fig. 2.



## High Pressure Safety Cut Out

Hamer Code	Catalogue Code	Description	Amperage	Detail Ref. Pg. 8
SG200	HNX-C130 <u>X</u>	Range 800 to 3000KPa (116 to 435.1 PSI) Differential fixed 400KPa (58 PSI)	12A 250VAC	Fig. 3.
SG215	HNS-C130 <u>XN</u>	Range 800 to 3000KPa (116 to 435.1 PSI) Differential fixed 400KPa (58 PSI) <b>FOR AMMONIA</b>	12A 250VAC	Fig. 3.
SG210	HNS-C130 <u>XM1</u>	Range 800 to 3000KPa (116 to 435.1 PSI) Manual reset. Trips on pressure increase	12A 250VAC	Fig.4.
SG212	HNS-C130 <u>XM1N</u>	Range 800 to 3000KPa (116 to 435.1 PSI) Manual reset. Trips on pressure increase. <b>FOR AMMONIA</b>	12A 250VAC	Fig. 4.



## Differential Pressure Controls

Hamer Code	Catalogue Code	Description	Amperage	Detail Ref. Pg. 8
SG293	WNS-C102 <u>X</u>	Range 30 to 200KPa (4.35 to 29 PSI) Differential range 30 to 150KPa (4.35 to 21.75 PSI)	12A 250VAC	Fig. 1.
SG292	WNS-C106 <u>X</u>	Range 50 to 350KPa (7.25 to 50.76 PSI) Differential range 50 to 250KPa (7.25 to 36.25 PSI)	12A 250VAC	Fig. 1.
SG295	WNS-C106 <u>XN</u>	Range 50 to 350KPa (7.25 to 50.76 PSI) Differential range 50 to 250KPa (7.25 to 36.25 PSI) <b>FOR AMMONIA</b>	12A 250VAC	Fig.1.



## Special Variant

Hamer Code	Catalogue Code	Description	Amperage	Detail Ref. Pg. 8
SG301	SP61-A	Range -60 to 600KPa (-8.7 to 87 PSI) Differential range 60 to 400KPa (8.7 to 58 PSI) Supplied without bracket and with female connection 1/4"-18NPT thread ( <b>directly replaces Penn P61AA-6C &amp; 35C</b> )	12A 250VAC	Fig. 1.
SG400	SP61-B	Range 100 to 1000KPa (14.5 to 145 PSI) Differential range 100 to 300KPa (14.5 to 43.5 PIS) Supplied without bracket and with female connection 1/4"-18NPT thread ( <b>directly replaces Penn P61NA-2C &amp; 4C</b> )	12A 250VAC	Fig. 1.
SG202	SNS-AE01	Angled bracket - optional extra		
SG235	SNS-106 <u>XLP</u>	Loss of prime shut off switch Range -60 to 540KPa (-8.7 to 78.32 PSI) Trips on low pressure. With manual override switch to return to prime	12A 250VAC	



## Pressure Switch Accessories

Hamer Code	Catalogue Code	Description
SG202	SNS-AE01	Bracket for "NS" range
SG298	SNS-AD01	Capillary with 1/4" SAE flare Nuts, 1000mm long
SG300	SNS-AD02	Capillary with 1/4" SAE flare Nuts, 2000mm long
SG310	HPL	Adaptor 1/4" SAE flare (7/16"20UNF) to 1/4" BSP female / female connection





# Small Pressure Controls – Disc Type

## General Description

- Pressure Control CB series are small disc type pressure controls featuring compact structure and proven reliability.
- They are designed to suit modern designed applications with various types of connection style, applications include air conditioning, auto industries and others.

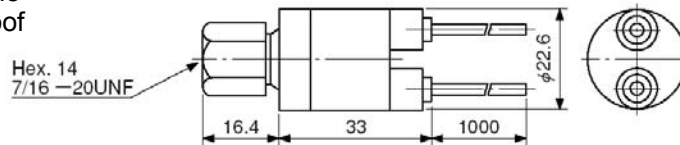
Type ACB...High & Medium pressure range

Type LCB...Low pressure range

## Standard Type ACB, LCB

Hamer Code	Catalogue Code	Off (PSI)	On (PSI)	Amperage	Detail Ref. Pg. 8
SG3048	LCB-PA48	6±5	21±7	Blue	10,000
SG3095	LCB-PA95	10±5	25±5	Blue	10,000
SG3096	LCB-PA96	35±7	60±7	Blue	10,000
SG1052	ACB-PA52	150±14	225±14	Red	100,000
SG1053	ACB-PA53	170±14	250±14	Red	100,000
SG1055	ACB-PA55	200±20	259±10	Red	100,000
SG2051	ACB-PB51	410±14	335±14	Black	100,000
SG2052	ACB-PB52	385±14	310±14	Red	100,000
SG2111	ACB-PB111	400±14	300±21	Red	100,000
SG2112	ACB-PB112M	400±28	<300 Manual	Red	10,000
SG2113	ACB-PB113	350±10	250±20	Red	100,000

Lead wire end: Free  
 Contact action: SPST  
 Ambient Temperature: -30 to +100C  
 Fluid Temperature: -54 to +135C  
 Should mark pressure ON/OFF setting on the body  
 Pressure Connection: 1/4" Female  
 Construction: Waterproof



Motor Accessories  
& Refrigeration Controls  
Saginomiya

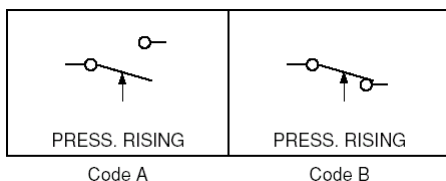


## Electrical Ratings

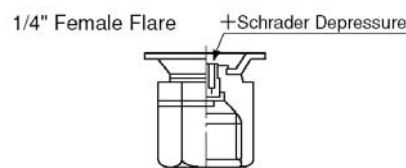
Category of Ratings			M Ratings		
Rated Voltage (V)	Power Factor (COSΦ)		125V.AC	250V.AC	12V.DC
Rated Amps. (A)					
Non-Inductive Current	1		1 to 6	1 to 4	1 to 4
Inductive Current	Full Load	0.75			
	Locked Rotor	0.45	1 to 16	1 to 24	-

## Contact Ratings

Type ACB, LCB & HCB



## Pressure Connections



↑: Operating direction on press. increase at High Press Side  
 M↓: Operating direction on manual reset

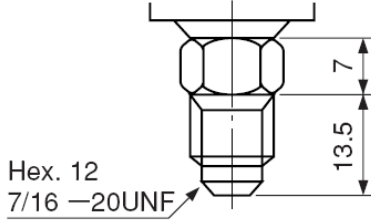
Indent / made to order product available upon request, MOQs apply.

# Technical Specifications

## Pressure Connectors

Suits: SNS, DNS, FNS, HNS, WNS, and ENS  
 Applications: Fluorinated Refrigerant, Air & Water

1/4" Male Flare



## Electrical Ratings

Suits: SNS, DNS, FNS, HNS, and WNS

Rated Voltage (V)	Rated Amps. (A)	Power Factor (COSΦ)	125/250V .AC
Non-Inductive Current		1	12
Inductive Current	Full Load	0.75	
	Locked Rotor	0.45	72

## Contact Functions - SNS, FNS, WNS and HNS

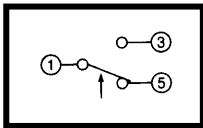


Figure 1

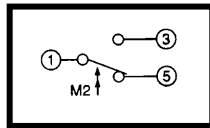


Figure 2

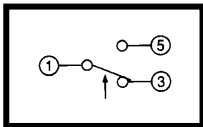


Figure 3

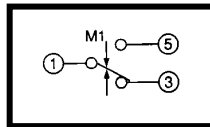


Figure 4

	Figure 1 & 2	Figure 3 & 4
1	Common Terminal	Common Terminal
3	Close on Pressure Increase	Open on Pressure Increase
5	Close on Pressure Decrease	Open on Pressure Decrease

↑: Operating direction on pressure increase  
 M1↓, M2↑: Operating direction on manual reset

## Contact Functions - DNS

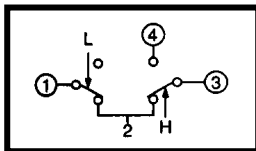


Figure 1

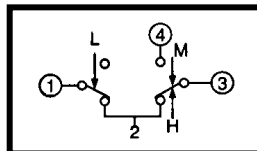


Figure 2

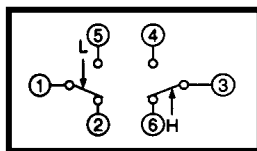


Figure 3

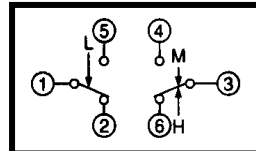


Figure 4

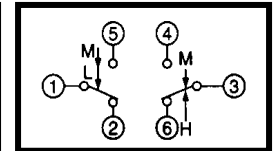


Figure 5

↓L: Operating direction on pressure increase  
 ↑H: Operating direction on pressure increase  
 ↓M: Operating direction on manual rest





# Condenser Fan Speed Controls

Cut off / Min speed (fixed) with changeover switch

Hamer Code	Catalogue Code	Description
SG354	RGE-Z1N4-5	Pressure actuated fan speed controller Factory set for R22, R404A, R407C and adjustable for use with R134a refrigerant Single phase, 4 Amps, IP54 (please not minimum fixed setting 0.6MPa)
SG358	RGE-Z1Q4-5	Pressure actuated fan speed controller Factory set for R22, R404A, R407C and adjustable for use with R134a refrigerant Single phase, 8 Amps, IP54 (please not minimum fixed setting 0.6MPa)
SG359	RGE-Z1N6-5	Pressure actuated fan speed controller Factory set for R410A refrigerant Single Phase, 4 Amps, IP54
SG356	RGE-X3R4-7	Pressure actuated fan speed controller Factory set for R22, R404A, R407C and adjustable for use with R134a refrigerant Three phase, 5 Amps IP54 (please note minimum fixed setting 0.6MPa)



# Check Valves

Solder Type

Hamer Code	Catalogue Code	Description
SG360	BCV-804DY	1/2" Check Valves
SG363	BCV-1005DY	5/8" Check Valves



# Flow Switches

Hamer Code	Catalogue Code	Description
SG900	FQS-U30G	Flow Switch, SPDT, Suitable for pipe sizes 1" to 6" Connection 1" NPT
SG905	BQS PADDLESET	Spare Paddle Sets



# Condensate Pump

Hamer Code	Catalogue Code	Description
SG891	PJV-1041	Condensate Pump 230V Capacity 400cc per minute, pump head 750mm

Indent / made to order product available upon request, MOQs apply.



# Electronic Thermostats

## Thermostats

Hamer Code	Catalogue Code	Description
SG761	ULE-SD11-011 (replaces ELE-SD11-011)	Electronic digital thermostat Range -50 to 30°C Temperature LED indication -55 to 40°C
SG744	ELE-RD21-010	Electronic digital thermostat Range 0 to 100°C Temperature LED indication 0 to 110°C

NOTE: SG744 - Indent / made to order product available upon request, MOQs apply.



## Room Thermostats

Hamer Code	Catalogue Code	Description
SG860	VRS-C234Q147	Room Thermostat Two Stage Auto Change Over Knob Adjustment Range 10 to 35°C Differential 1.5°C Fixed Between Stages 2°C Fixed
SG862	VRS-C234Q149	Room Thermostat Two Stage Auto Change Over Screwdriver Adjustment Range 10 to 35°C Differential 1.5°C Fixed Between stages 2°C Fixed
SG872	VRS-C234Q172	Room Thermostat Two Stage with Auto Change Over ON/OFF Switch Range 10 to 35°C Differential 1.5°C Fixed Between stages 2°C

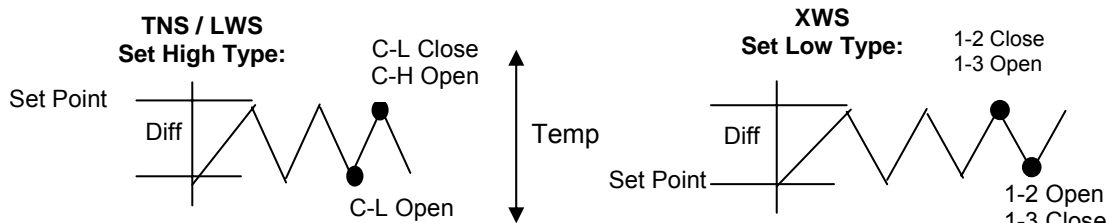


# Capillary Thermostats

L1 = 1 metre. L2 = 2 metres.

Hamer Code	Catalogue Code	Description
SG547	LWS-C1120FGL2	Capillary thermostat. Range 40 to 120°C Fixed differential 2.5°C 8 Amp
SG548	LWS-C1090AGL2	Capillary thermostat. Range 25 to 90°C Adjustable differential 2 to 7°C 8 Amp
SG566	XWS-C1030AGL2	Capillary thermostat. Range -35 to +30°C Adjustable differential 2 to 7°C 8 Amp
SG567	XWS-C1060AGL2	Capillary thermostat. Range -5 to +60°C Adjustable differential 2 to 7°C 8 Amp For heating or cooling
SG557	TNS-C1120X	Capillary thermostat. Range 95 to 125°C Adjustable differential 5 to 20°C 12 Amp <b>NOTE: Temperature of the bulb must be greater than the temperature of the switch</b>
SG562	TNS-C1150X	Capillary thermostat. Range 115 to 150°C Adjustable differential 5 to 20°C 12 amp <b>NOTE: Temperature of the bulb must be greater than the temperature of the switch</b>
SG574	TNS-C1034XC	Capillary thermostat. Range -20 to +35°C Adjustable differential 4 to 20°C 12 Amp
SG576	TNS-C1070XC	Capillary thermostat. Range 15 to 70°C Adjustable differential 4 to 20°C 12 Amp

## Contact Style & Operation Function



## High Limit Manual Reset Thermostats

Hamer Code	Catalogue Code	Description
SG551	INS-C1070XM1Q2	Capillary Thermostat Range 25 to 75°
SG552	INS-C1120XM1Q2	Capillary Thermostat Range 70 to 125°
SG553	INS-C1150XM1Q2	Capillary Thermostat Range 115 to 150°



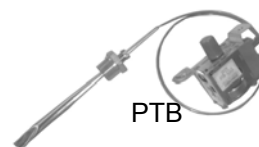
## Low Limit Manual Reset Thermostats

Hamer Code	Catalogue Code	Description
SG554	CNS-C114XM2	Capillary Thermostat Range -15 to 15°



## Small "TB" Style Pressure Temperature Controls

Hamer Code	Catalogue Code	Description
SG582	DTB-X178	Bead Style Thermostat for Bottle Coolers, SPST <b>ON</b> +5°C. Adjustable OFF -10.1 to -2.9°C
SG580	ATB-X325	Fixed Setting Bulb Style Spa Thermostat, SPDT <b>OFF</b> 44°C. <b>ON</b> 39°C - <i>Unplated Bulb</i>
SG585	LTB-X321 (replaces X303)	Pressure Switch for Pools & Spas, SPDT Fixed Setting ON 5 PSI OFF 2 PSI. 400mm Capillary, 1/4" Flare Nut
SG590	LTB-X330	Pressure Switch for Pools & Spas, SPDT Fixed Setting ON 5 PSI OFF 2 PSI. 1000mm Capillary, 1/4" Flare Nut



PTB



LTB

## Reversing Valves

### 4-Way Reversing Valves

Hamer Code	Catalogue Code	Description
SG941	STF-0201G	4-Way reversing Valve Capacity 2.6 TON (2.8~11.4 kW) Refrigerant R22, R407c, R410A Connections: Compressor Discharge 3/8" OD Suction & Coils 1/2" OD. <b>Price excludes coil</b>
SG948	STF-0214"G"	4-Way Reversing Valve Capacity 3 TON (2.8~11.4 kW) Refrigerant R22, R407c, R410A, Connections: Compressor Discharge 1/2" OD Suction & Coils 5/8" OD. <b>Price excludes coil</b>
SG950	STF-0408"G"	4-Way Reversing Valve Capacity 6 TON (8.3~29.2kW) Refrigerant R22, R407c, R410A Connections: Compressor Discharge 1/2" OD Suction & Coils 3/4" OD. <b>Price excludes coil</b>



## 4-Way Reversing Valve Coils

Hamer Code	Catalogue Code	Description
SG961	CHV-01AI501A1	4-Way Reversing Valve 230Vac, 50Hz Coil <b>Suits CHV/STF 101~2011 Valves.</b>
SG964	CHV-01AB500B1	4-Way Reversing Valve 24Vac, 50Hz Coil <b>Suits CHV/STF 101-2011 Valves.</b>

## Sensors

### DSE and FSE Type

Hamer Code	Catalogue Code	Description
SG970	SEK12H	Sensor for DSE and FSE. Range: -20 to +20°C
SG975	SEK14H	Sensor for DSE and FSE. Range 0 to 40°C
SG570	SEK14A001	Sensor for DSE and FSE Immersion. Range 0 to 40°C
SG977	SEK14R001	Sensor for DSE and FSE Room. Range 0 to 40°C

## Riko Float Switches

Hamer Code	Catalogue Code	Description
SG887	MFS9-N2-2	Nylon-6 Horizontal Float Switch, 73mm Long x 15mm Dia. 0.5 Amp
SG894	RFS-12-2	½" NPT S/S Horizontal Float Switch, 94mm Long x 17mm Dia. 0.5A



**Motor Accessories  
& Refrigeration Controls**

Saginomiya

