Local regulations may restrict the use of this product to below the conditions quoted.
In the interests of development and improvement of the product, we reserve the right to change the specification without notice. © Copyright 2025

SA121, SA122, SA128 and SA1219
Self-acting Temperature Control Systems

Description

A range of self-powered control systems that incorporate sensor, actuator, set point adjustment / indicator for use with the following valve types:-

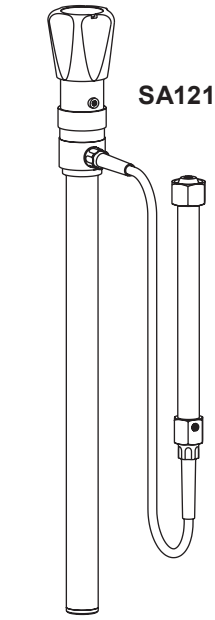
2-port	KA, KB, KC, KX, KY, SB, SBRA, BX and BXRA, BM, BMRA, BMF, BMFRA, NS and NSRA
3-port	TW

Available types

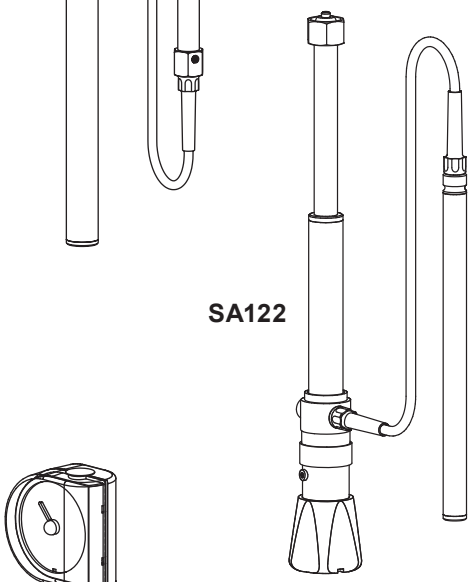
Set point adjustment at sensor				
SA121	For use on	2-port valves	DN15 to DN80	(½" to 3")
		3-port valves	DN20 to DN50	(¾" to 2")
SA1219	For use on	3-port valves	DN80 and DN100	(3" to 4")
SA128	For use on	2-port valves	DN15 to DN25	(½" to 1")
		3-port valves	DN20 and DN25	(¾" to 1")
Set point adjustment at valve				
SA122	For use on	2-port valves	DN15 to DN25	(½" to 1")
		3-port valves	DN20 and DN25	(¾" to 1")

Optional extras

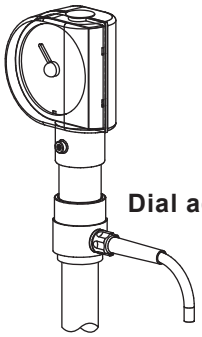
Union kit	Direct immersion
Pocket Pocket material stainless steel.	Indirect immersion
Wall bracket	
Duct adaptor	Duct mounting
Nickel plating	
Dial type set point adjuster	



SA121, SA1219 and SA128



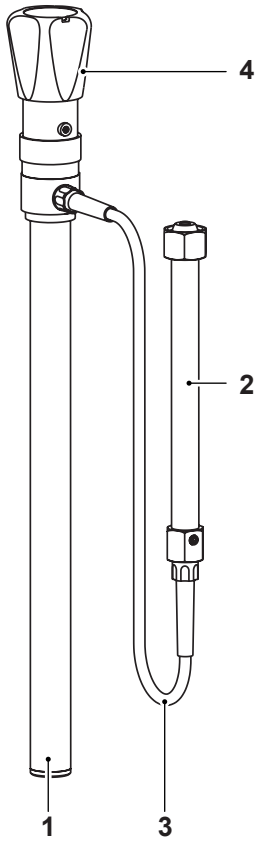
SA122



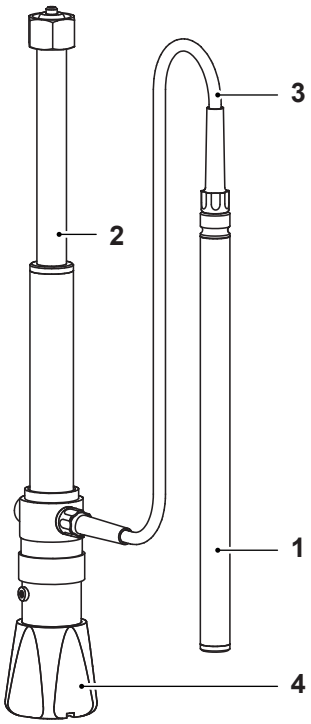
Dial adjustment option

Materials

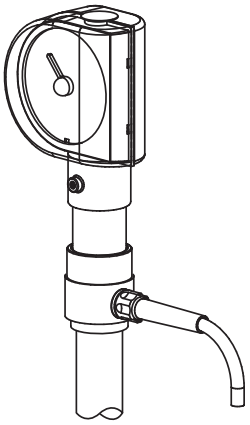
SA121, SA1219 and SA128



SA122



Dial adjustment option



No.	Part	Material	
1	Sensor	Brass	
2	Actuator	Brass	
3	Capillary tube	Copper with PVC coated armoured covering	
4	Adjustment head	Polypropylene	
5 *	Union kit	Brass	
6	Mounting bracket	Steel	
7	Clip	Polypropylene	
8 *	Adaptor plate (Duct fixing adaptor)	Steel	
9 *	Pocket	Stainless steel	BS 3605 CFS 316S 18
10	Liquid fill	Kerosene	

* Items **5**, **8** and **9** are shown on page 4

Temperature ranges

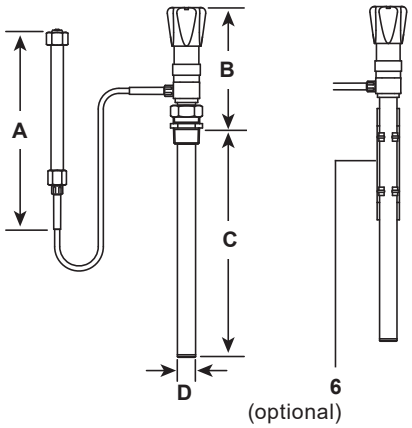
SA121 and SA1219	Range 1	-15 °C to 50 °C	(5 °F to 122 °F)
	Range 2	40 °C to 105 °C	(104 °F to 221 °F)
	Range 3	95 °C to 160 °C	(203 °F to 320 °F)
Over temperature protection		55 °C (131 °F) over set value to 190 °C (374 °F) maximum	
SA122	Range 1	-20 °C to 120 °C	(-4 °F to 248 °F)
	Range 2	40 °C to 170 °C	(104 °F to 338 °F)
Over temperature protection		55 °C (131 °F) over set value	
SA128	Range 1	-20 °C to 110 °C	(-4 °F to 230 °F)
	Range 2	40 °C to 170 °C	(104 °F to 338 °F)
Over temperature protection		55 °C (131 °F) over set value to 190 °C (374 °F) maximum	
Note - Ambient design temperature	Minimum	-35 °C	(-31 °F)
	Maximum	+50 °C	(122 °F)

Capillary tube

Standard length 2 m, 4 m, 8 m and maximum special length is 16m. (6.6 ft, 13.1 ft, 26.2 ft and 52.5 ft)

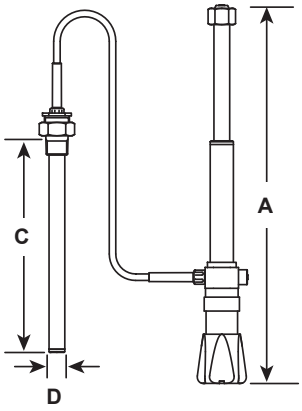
Dimensions/weights (approximate) in mm and kg

SA121, SA1219 and SA128

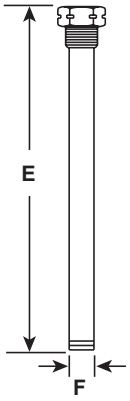


For a wall mounted sensor

SA122



Pockets

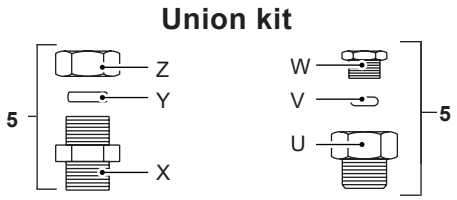


	Control system				Metal pockets		Weight
Model	**A**	**B**	**C**	**D**	**E**	**F**	excluding pocket
SA121	252 (9.9)	185 (7.3)	310 (12.2)	25 (1.0)	333 (13.1)	28 (1.1)	2.0 (4.4)
SA1219	350 (13.8)						2.3 (5.1)
SA122	441 (17.4)		240 (9.4)	17 (0.7)	271 (10.7)	20 (0.8)	1.8 (4.0)
SA128	252 (9.9)		178 (7)	25 (1.0)	196 (7.7)	28 (1.1)	1.8 (4.0)

Union kit (for sensor immersion without pocket)

Includes gland nut, compression ring and union nipple.

SA121, SA1219 and SA128	Items Z, Y and X
SA122	Items W, V and U



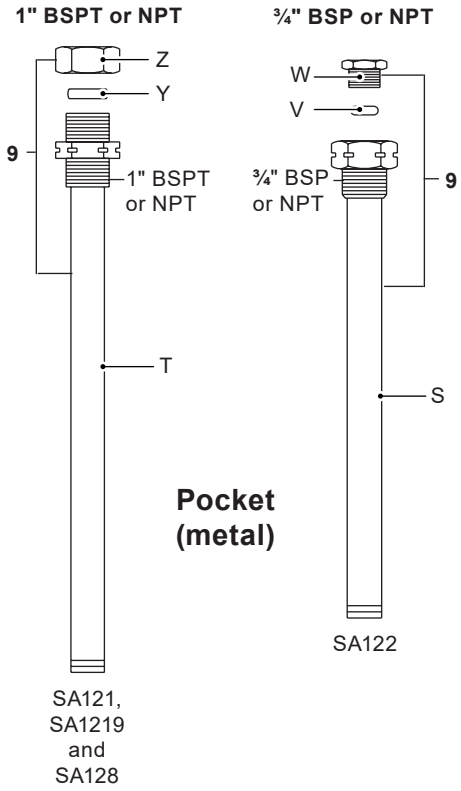
Pockets (for indirect immersion)

Includes pocket, gland nut and compression ring.

SA121, SA1219 and SA128	Items T, Z and Y
SA122	Items S, W and V.
Available materials	Stainless steel

Wall mounting bracket (Item 6)

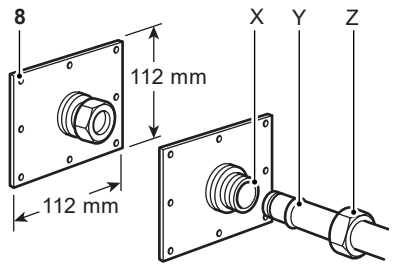
SA121, SA1219, SA122 and SA128	Optional



Duct fixing adaptor (for air sensing within ducts)

Includes adaptor plate, union nipple, compression ring and gland nut.

SA121, SA1219 and SA128	Items 8, X, Y and Z
SA122	Not available



Duct fixing adaptor

Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions supplied with the product.

How to order

Example: 1 - Spirax Sarco SA121 temperature control system, having temperature range 2, 2 m (6.6 ft) capillary and stainless steel pocket.