huber

Setup details
Unistat® 910w & DDPS reactor

Temperature range:	-90...250 °C
Cooling power:	5.2 kW @ 250…-20 °C
	4.7 kW @ -40 °C
	3.1 kW @ -60 °C
Heating power:	6.0 kW
Hoses:	2x1.5 m; M38x1.5 (#6656)
HTF:	DW-Therm (#6479)
Reactor:	25-litre vacuum insulated jacketed glass reactor
Reactor content:	18.75 litre M90.055.03 (#6259)
Stirrer speed:	70 rpm
Control:	process

Unistat® 910w

Controlling an exothermic reaction of 600 W (516 kcal / hr) in a DDPS 25-litre jacketed glass reactor

Requirement

The test is conducted to investigate the performance of Unistat 910w controlling a simulated 600 W (516 kcal / hr) exothermic reaction in a DDPS 25-litre vacuum insulated glass reactor.

Method

The Unistat and reactor are connected using two 1.5-metre insulated metal hoses. The reactor is filled with 18.75 litre of "M90.055.03", a Huber supplied silicon based HTF. The simulated reactions are carried out using a controlled electric immersion heater.

Results

When an increase in temperature caused by the simulated exothermic reaction is sensed the jacket temperature reacts very quickly to remove the heat. A cooling rate of approx. 7.7 K/min. equals the temperature rise of approx. 3.7 K within 13 minutes and the set-point is kept exactly on the set-point.

Technical details and dimensions are subject to change. No liability is accepted for errors or ommisions.