

DigiCAT

Process development for elevated pressures using mini-reactors

Modular high pressure system

The DigiCAT allows the control of temperature and stirring as well as the safe addition of gas (including hydrogen) for chemistries at high pressure (up to 200 bar) and temperatures (up to 300 °C).

Reactor sizes up to 300 ml can be used in different combinations without any experience in the use of pressure tools.

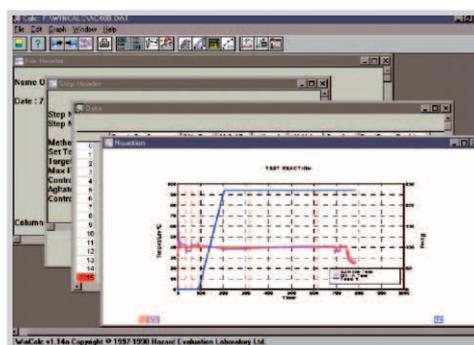


Control and monitor

- | reactor and mantle temperature
- | reactor pressure
- | stirring speed

The standard system provides analogue (gauge) readings of pressure and manual settings of temperature and stirring on digital controller.

In addition our software interface can also be provided.



Reactor Choice

Single or multiple reactors can be used with the same base system. Furthermore, two DigiCAT units can be operated in parallel giving the possibility of experiments with up to 6 high pressure reactors.

Choose your reactors from two ranges:

Mini-Range

| 16 ml, 25 ml, 50 ml

| Up to three reactors from the Mini-range can be used with each DigiCAT base system

Midi-Range

| 75ml, 125 ml, 300 ml

| One reactor from the Midi-range can be used with each DigiCAT base system



Specification

Reactor volumes	16 ml to 300 ml
Number of reactors per DigiCAT unit	3 x (16 ml, 25 ml, 50 ml) 1 x (75 ml, 125 ml, 300 ml)
Vessel Material	SS316, Hastelloy, Glass liner options
Max. operating temperature	300 °C
Max. operating pressure	200 bar (2,900 psi)
Head plate ports Mini range	5 x 1/16 MPT; freely configurable
Head plate ports Midi range	centre 1/4 BSPP, 1 x 1/4 BSPP, 4 x 1/8 BSPP; freely configurable
Standard fittings	PRV (optional rupture disk), gas inlet, thermowell, sampling port
Seals	Viton or Kalrez
Agitation	Magnetic suspended or overhead mechanical*
Stirring speed	300 to 1400 rpm

PolyCAT

This is a semi-automated 4 or 8 sample system where each sample can be at separate pressure temperature and all samples are stirred individually. Sample vessels are typically 16ml but larger sizes are also available. Temperature of each sample is individually controlled through software and the pressure is normally selected manually.

