

Control system RT 45, controllers RT 22 and RT 30.

The RT 45 control system ensures an optimal fit for practically every application. The RT 22 and RT 30 controllers are a simple, cost-effective solution for a wide variety of applications.

All controllers are designed to avoid problems before they arise.



Automated manufacturing processes require data transfer between the temperature control unit and the production facility's central computer – just one of many applications for the RT 45 control system with data interface.



RT 45 technical data

Operation and control

- Clear arrangement of operating and indicating elements.
- Fully automatic function sequences → Simple to operate.
- Simultaneous readout of temperature set-point and actual values.
- Control options:
 - Consumer temperature with cascade control for highest temperature constancy with 2 control circuits (consumer and fluid).
 - Fluid Temperature.
- Set value switch-over. Example: value 1: production; value 2: interruption of production.
- Automatic pump run-out → Extension of service life of the pump seal and of oil life by dissipation of the stored heat in the unit.

Safety

- All disturbances in the unit are indicated on the RT 45 display.
- Set value «blockable» → Protection against incorrect adjustment.
- Limitation of max. programmable set value.
- Monitoring of upper and lower limit values.
- Unauthorized access to the data levels prevented by a combination of buttons.
- Monitoring of the pump motor current.
- Phase fault monitoring.
- Monitoring of the sense of pump rotation.
- Sensor-break monitoring and short-circuit monitoring for Pt 100 sensors.
- Automatic switch-over to the internal sensor (fluid) in the event of external sensor breakage.
- Protection class IP 54.
- Units with automatic water refilling: In order to limit the consequences of leakage (e.g. hose burst) the filling time per refill is limited to 20 s and the number of refills to 3 per hour → Protection of the production installation against damage caused by water.

Service

- Indication of the service interval.
- Operating-time meter.

- Indication of the pump motor current.
- When changing the control insert, programmed data remain stored.

Optional features

- External sensor connection for Pt 100, J (Fe-CuNi), K (NiCr-Ni) or T (Cu-CuNi).
- When leakstop mode, the heating capacity is limited to 60% → Due to reduced pumping capacity reduction of the thermal load of the oil.
- Drainage of the fluid from the consumer by suction. Model P 140 S: drainage by compressed air.
- Common alarm.
- Time switch.
- Flow rate measurement. Data: temperature max. 660 °F. Range 0.5 to 13 GPM.
- Inlet sensor (Pt 100).
- External set-value input.
- External set-value switch-over.
- External heating/cooling command.
- External on/off.
- Operation with interface.
- Recorder outputs (V, mA, probe signal).
- Automatic correction of wrong direction of pump rotation.
- Cavity control:
 - Combined with measurement of cavity pressure using Kistler sensor 6190 A.
 - Only temperature sensor: type 6192 A (Ø 0.16") or 6194 A (Ø 0.10") from Kistler.

RT 22 and RT 30 technical data

- Clear arrangement of operating and indicating elements.
- Simultaneous readout of temperature set-point and actual values.
- Sensor-break monitoring and short-circuit monitoring for Pt 100 sensors.
- Control of the consumer temperature (only with Pt 100 sensor).
- Permanent self-testing of the control system.
- Monitoring of upper and lower limit values for fluid temperature. Optional.

RT 45

RT 22, RT 30