

CONTHERM SCIENTIFIC LTD

TECHNICAL MEMORANDAM

PRODUCT : PRECISIONS

No : 0025

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FROM : Russell Kirkwood

DATE : 13/3/92

TO : All Agents

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SUBJECT : NEW REFRIGERATION SOLENOID.

In line with Contherm's policy of continued product improvement we are please to announce a change in the refrigeration solenoid valves fitted to any "R" version or plant growth cabinet from march 1992.

In the past to achieve temperature control in the PLCS range of precision cabinets the microprocessor controller pulses both the hot gas solenoid valve (HOT) and the liquid solenoid valve (COLD).

To extend the service life of the valves and to reduce associated noise several parameters have been changed.

A) Changes to the Control Program have eliminated the need for the liquid solenoid valve to be pulsing on any but the largest refrigerated cabinets, (Plant growth and low temperature) except during :

- 1) Defrosting
- 2) Refrigeration OFF.

B) A recently released RAPID ACTION solenoid valve has now become available to Contherm, these valves have been specially designed for Contherm's application to give :

- a) Increased reliability
- b) Noise reduction.

A copy of the manufacturer's release bulletin in included.

Contherm have been testing this valve for about 12 months both within the factory and in field trials and are entirely satisfied with the results obtained.

To further enhance the reliability of the refrigeration system the valves have been changed from a flare nut type fittings to a sweat type fittings (welded connections).

SUMMARY

1) The pulsing of the LIQUID valve has been eliminated on the standard cabinets (M180R,M190R), allowing the use of the standard solenoid valve.

The model of standard valve currently used is an ALCO 100RBS2 with sweated connections.

2) The hot-gas (HOT) solenoid valve is now a SPORLAN model XUP RAPID ACTION type with sweated connections.

3) On the larger type (PLANT growth and low temperature) cabinets or wherever it is necessary to pulse the LIQUID valve, the new rapid action XUP valve is also fitted.

NB: The ELECTRICAL coils fitted to the valves are NOT interchangeable.