

SOLUTIONS

FRICK® EZ-CAL™ High Pressure Cut-out Check Valve Test Block and Calibration Kit

Safe, Simple Calibration Solution

New Safety Standards

Both ASHRAE 15 and IAR-2 safety standards prohibit the use of an intervening stop valve in the compressor discharge line, leading to the high-pressure-limiting device (High Pressure Cut-out, or HPCO).

Both the Frick IOM and the IAR-6 standard require testing of the HPCO yearly to show the function of the device to shut down an operating compressor.

Many end users are not comfortable with manipulating the discharge pressure to shutdown levels, or lowering the setpoint of the high-pressure safety to test it. The EZ-CAL provides a safe way to test the devices function without compromising the integrity of the setpoint or raising system pressures to uncomfortable levels.

Safe, Simple Calibration Solution Complies with Safety Standards

The FRICK EZ-CAL™ test block is designed to be installed between the compressor discharge connection and the HPCO. The unit provides a simple calibration method in compliance with safety standards, while reducing the risk of prematurely lifting a safety relief valve with a resultant refrigerant release.

Check Valve Test Block

Placed between the discharge pressure source and the HPCO, the test block functions as a check valve for low-pressure drop – not a stop valve.

In the RUN position, the HPCO is fully open to the compressor discharge pressure.



FRICK EZ-CAL™ test block
in run position

In the TEST position, an external pressure source is connected to the test block port, providing a direct connection to the HPCO. This allows the function of the HPCO and pressure setting to be confirmed by applying external pressure, and then comparing the compressor discharge pressure reading on the control panel to a master gauge.

The valve should be switched back to the RUN position after confirming the HPCO trips the compressor at the correct set point. Should an actual high-pressure event occur (even during testing), the check valve in the test block will open and expose the HPCO to the high-pressure level, still allowing compressor protection.

One test block should be installed permanently on each compressor and should only be used during HPCO testing. The block can be locked in the RUN position during normal operation, however the compressor is still protected from a high-pressure event in either operational position.

**135 Years of Experience
with Natural Refrigerants**

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EZ-CAL™ Test Pump Calibration Kit

The test pump calibration kit includes a hydraulic test pump, a 15' quick connect hose, an oil reservoir, and a calibrated master gauge. All components are suitable for use with refrigeration oil as the pressurizing media.

The pump is used to connect to the quick-connect test port on the EZ-CAL™ test block. Once the test block is switched to the TEST position, operation of the test pump allows the technician to raise the pressure measured at the HPCO until the running unit is proven to stop at the correct cut-out pressure.

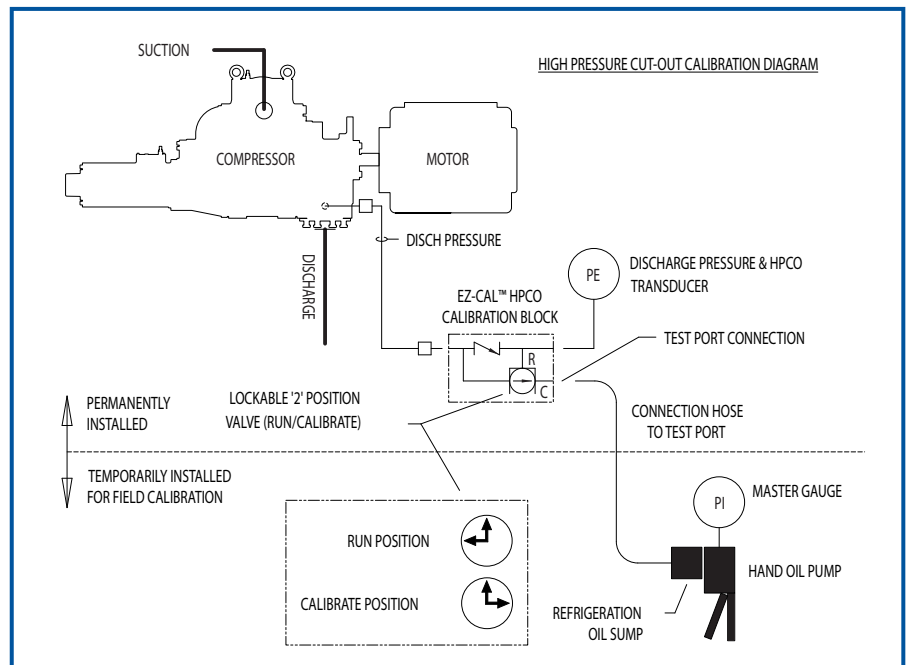
The actual cut-out pressure can be compared between the pressure display on the control panel and the master

gauge included with the test pump. If the reading is beyond the permissible tolerance, the control panel should be recalibrated to read correctly at the set point. If the kit is used to test a pressure switch, and the switch does not function to stop the compressor at the correct set point, the switch should be properly adjusted or replaced, and re-tested to show proper cut-out within tolerance.

Once testing is complete, the pump can be removed at the quick-connect to the block, and the block can be switched back to RUN position. Any test refrigeration oil used during the testing will drain harmlessly into the compressor sump without introducing non-condensable gas to the system. The test pump is then ready to calibrate the next compressor HPCO.



Test Pump Calibration Kit



Test Blocks: ⁽¹⁾

- 720B0129 H01 – For ammonia, propane, HFC and carbon dioxide (CO₂) refrigerants
- 720B0129 H02 – For propylene

Calibration Kits:

- 720B0129 G01 – For ammonia, propane, HFC and CO₂ refrigerants (500 PSIA)
- 720B0129 G02 – For propylene (500 PSIA)
- 720B0129 G03 – For ammonia, propane, HFC and CO₂ refrigerants (800 PSIA)
- 720B0129 G04 – For Propylene (800 PSIA)

* Refrigerant compatibility is based on the use of FRICK genuine oils.

⁽¹⁾ Test block currently not registered in Canada. Test block rated to 1000 PSI (from -55°F to 300°F)

