

Product Bulletin

Facts & Technical Information

New Product Features

LPG Back Check Valve with Internal Relief

Liquid Controls is committed to continually improving our products to ensure we set the highest standard for safety, performance, durability, and accuracy in the industry. We have enhanced the A2885 LPG Back Check Valve with Internal Relief to deliver the fast, consistent pressure relief in LPG truck delivery systems, under the safest conditions possible, while maintaining minimal registration roll-back.

Background

Under certain conditions, very high system pressures may occur on LPG trucks, which could result in the release of the hydrostatic relief valve. This issue was highlighted on our previous Technical Bulletin on LPG Pressure Entrapment, which outlined a mechanical solution, reducing the differential pressure (dP) threshold on the internal pressure relief valve within the back check valve, well as offering a software solution to relieve the excessive system pressure. Valves with these changes are differentiated with a “110” mark stamped on the valve housing.

The mechanical and software solutions relieve excessive system pressure without release of the hydrostatic relief valve in most instances. Under certain conditions, however, trucks may still experience system pressures high enough to open the relief valve, so we redesigned the internal pressure relief system to further minimize this potential.

Solution: Product Enhancements

The new design uses a metal sealing element which is highly resistant to deformation and damage from solid contaminants. For this reason, the NEW Back Check Valve is exceptionally durable and performance is repeatable over time. Additionally, a filter has been added to the inlet side of the relief valve for additional protection against particulate matter. These enhancements have decreased the amount of time necessary to relieve excessive system pressure by



more than four times, and have increased cycle-to-cycle consistency up to 10 times.

These enhancements are located internally within the same Back Check Valve housing, so no additional modifications are required for installation into existing piping system designs. In addition, the pressure relief setting is factory-calibrated and does not require field adjustment.

Benefits of the new design are:

- Increased speed and capacity of pressure relief
- Safely relieves the pressure to the upstream side of the back check seal
- Durable for truck-mounted delivery systems
- Consistent operation over time
- Resistant to damage from particulate matter
- UL Listed

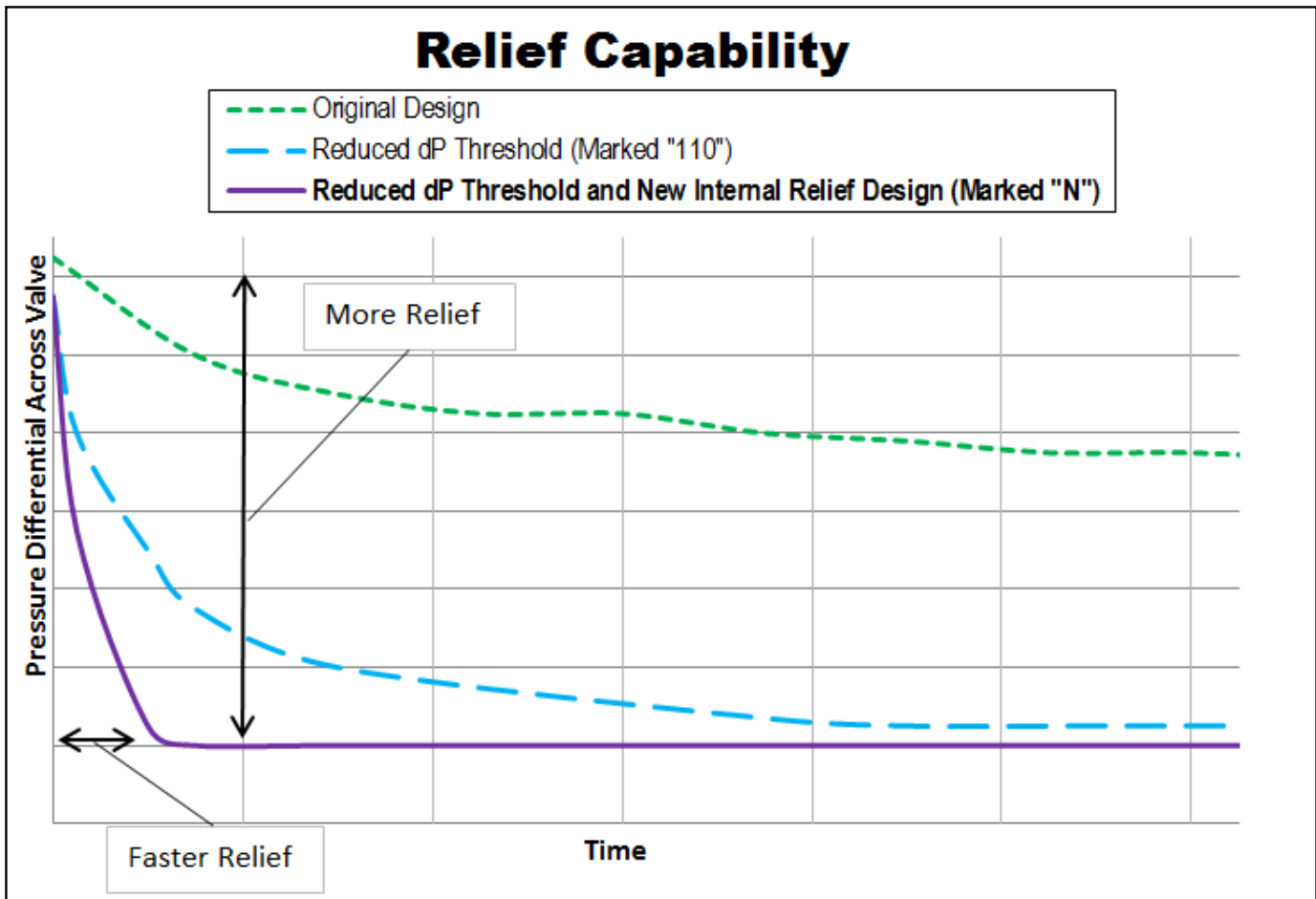


LIQUID CONTROLS®

An IDEX Energy & Fuels Business

105 Albrecht Drive
Lake Bluff, IL 60044-2242
1.800.458.5262 1.847.295.1050
Fax: 1.847.295.1057
www.lcmeter.com
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A relief capability performance comparison to previous designs can be seen below.



Product Release

New LPG metering systems that include Back Check Valves and Back Check Valves purchased on or after 02/01/2017 will feature the A2885 with new product design. Valves with the new design are differentiated by a steel relief stem and the external marking stamp of "N" on the valve housing.



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