
Coaxial Valves from müller co-ax gmbh Pass Tough Flame Resistance Test

The externally controlled coaxial valves of the FCF series from müller co-ax gmbh exceed the strict requirements of the flame resistance test according to DIN EN ISO 19921, which has helped the company to secure a major project order for use in a gas control system on a ship.

While an emergency like a sudden fire, explosion, or deflagration is always nerve-wracking, it is particularly critical on the high seas, as rapid emergency response measures are only possible to a limited extent. That is why all components used in the maritime industry are subject to the strictest safety requirements and regulations, which must be verified. One of these is the flame resistance test according to DIN EN ISO 19921. This standard defines test standards for determining the flame resistance of the materials used in the marine and offshore industry. The flame resistance test according to this standard evaluates how well a material resists direct contact with flames and how it behaves under heat exposure over a period of time. This involves subjecting the materials of the test specimen to certain temperatures and observing how quickly they ignite, how long they burn, and whether they facilitate the spread of fire.

This test is particularly important for materials used in safety-critical areas where a high degree of fire resistance is required, such as in closed ship interiors like the engine room or, generally speaking, in all offshore installations. The goal is to ensure that these materials maintain their structural integrity and protective functions for as long as possible in the event of a fire.

In addition, DIN EN ISO 19921 is a standard intended to ensure that the components installed in maritime and offshore environments can withstand the very high levels of flame and heat that occur, and thus ensure safety in these areas.

The test procedure

During the test, the coax[®] FCF valve was exposed to flames at a temperature of 800 °C (+/- 50 °C) for 30 minutes while water was circulating inside the valve at a pressure of 5 bar (+/- 0.2 bar). The water temperature at the inlet was 80 °C (+/- 2 °C) and a maximum of 85 °C at the outlet. The flames were generated by gas burners in accordance with DIN EN ISO 19921. After flame exposure, the valve was subjected to a pressure 1.5 times higher than the nominal pressure for five minutes.

The result

Thanks to the coaxial design and German-engineered precision manufacturing, the coaxial valves from müller coax have once again proven their outstanding performance under

extreme conditions. T. Bäumer GmbH, the institute that conducted the test, certified that the valve remained completely tight to the outside during and after the test and that no seat leakage was detected.

The valve can withstand these extreme conditions thanks to standard high-quality materials, such as a solid steel valve body, high-performance sealing materials, and robust internal parts.

The “Fire Safe” test is critical for all ships to ensure reliable operation of the installed valves in the event of a fire, preventing dangerous situations such as explosions or the leakage of harmful substances. This guarantees the high safety standards in the marine industry.

The reliability and performance of coax® valves are confirmed by many years of use in the marine industry and by certificates. Their compact design, fast and reproducible switching behavior as well as durable valve technology make them the perfect solution for use in safety-critical maritime applications.

These features help to ensure that the original coax® valves from müller coax in Forchtenberg provide a safe, efficient, and durable solution for the marine industry.



coax® FCF valve series passes fire safe test with flying colors

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