1oo1 SIL3 process point level safety system

Liquiphant FTL81 contributes to life cycle savings & risk reduction

Benefits at a glance
- Safe process vessel operation without interruption in challenging process conditions
- Reduced maintenance costs/ risks, because of long interval in-situ prooftesting
- Reduced environmental risks with a minimum of process connections
- Parameters certified for use in Safety Instrumented System (SIS) design
- Continuous self-monitoring of the transmitter ensures correct operation at all times

Safety system designers can now draw on additional capabilities built on the proven experience of over one million tuning fork point level measurement installations. The FTL81 moves point level detection beyond the traditional relay based level switch to a 4-20mADC based subsystem. High coverage diagnostics and the ability to continuously communicate point level sensor directly to the safety controller supporting SIL3 1oo1 safety system implementations.

Your challenges
- Processes running 24/7 for long periods of time in petrochemical where turnarounds/shutdowns are widely spaced
- Instrument must function with little/no maintenance/checking or without disrupting the process
- High temperature, pressure and other challenging process conditions
- Minimal process connections can be an important objective to environmental risk reduction
- Targeted safety coverage/ availability while providing low maintenance costs/risks for SIS implementation
- Limited process connections for instrument mounting

Our solution The FTL81 Liquiphant Failsafe installed in one process opening of a process vessel that required a Safety Instrumented System (SIS) SIL 3 high level layer of protection. The certified ANSI/ISA integral process seal in the Liquiphant helps to eliminate field engineered external sealing risks and costs.

Project scope We provide turn-key solution including:
- Procurement of all material and instruments
- Detailed design and engineering
- Cabling
- Installation
- Testing
- Commissioning
- Start-up and hand over
- Operating training

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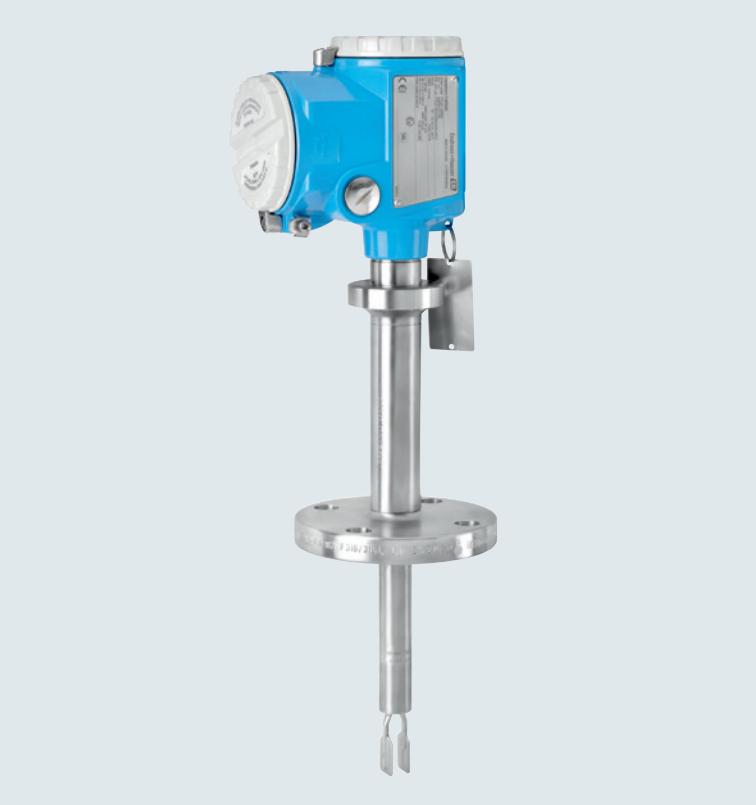

Liquiphant Failsafe FTL81 - achieve SIL3 with a single device

Continuous safe operation The Liquiphant 4-20mADC is powered via the safety controller I/O and the controller itself continuously monitors the current's alarm states as well as a modulated digital value from the Liquiphant to oversee the health of the whole loop. As the process vessel is required to operate without interruption for several years, the Liquiphant's 12 year capable prooftesting interval is able to address this.

Extreme conditions The tuning fork sensor can operate in temperatures in excess of 500 F and pressures approaching 1000 psi and its measurement capabilities are unaffected by a wide range of turbulence, aeration, vibration and process conditions.

Reducing maintenance costs and risks The FTL81 Liquiphant Failsafe supports in-situ partial proof testing with high proof test coverage Due to the high proof test coverage of the partial proof-test, the time interval between full proof tests can be greatly increased reducing the life cycle cost. By reducing the frequency of the full proof test, systematic risks (i.e. removal/ reinstallation damage to sensor or wiring) and personnel risk are reduced.

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