Safety comes first in accordance with the Boiler Regulation

Safety-TL4896 of GHM GROUP

BENEFITS.

- certified in accordance with DIN EN14597, DIN EN 61508 and SIL2
- front panel installation in compact DIN format replaces separate display
- large lighted display with plain text information and optical signalling
- analogue actual value output for regulators and PLC eliminates additional sensors
- adjustable pre-alarm replaces separate limiter – redundant to PLC
- reset button on the front replaces separately wired operating element

Safety-TL4896 – now also for front panel installation

The requirements placed on us

In boiler applications for hot water production, a safety temperature limiter must be provided in addition to the limit value monitor and minimum water level monitor in order to reliably suppress the energy supply in accordance with DIN EN 12828 – whether by means of deactivating the automatic firing device with ignition flame monitoring (gas operation) or a safety valve (oil supply) or a heating current interruption – as soon as any of the limiters reacts. With the autarkic device technology required by DIN EN 61508 "Functional safety", i.e. independent of PLC systems, regulating systems and SCADA systems, only the permissible safety temperature limiters are used for industrial heat generators in accordance with DIN EN 14597 and the safety requirement level of functional safety in accordance with SIL2.

Combined heat and power plants require safety temperature limiters for autarkic monitors for the hot water, the overtemperature of motor preheating, motor cooling water, exhaust gas and calorific value heat exchangers. In hot steam production, additional safety elements must be used in order to monitor boiler systems equipped with overheaters.

Our solution

The new safety temperature limiter from our Center of Competence Martens, the Safety-TL4896 has a safety shut-off contact and an adjustable pre-contact in order to warn of impermissibly high actual values independently of the regulating and control device. Before the forced shut-off is activated, additional alarm messages can be issued and corresponding functional processes can be initiated in order to achieve a safe stand-by status, eliminate errors and avoid a time-consuming and costly complete shut-down and subsequent restart of a plant. The high-quality analogue output of the actual process value offered with the Safety-TL4896 enables further processing in the automation system and eliminates the need to install an additional sensor.

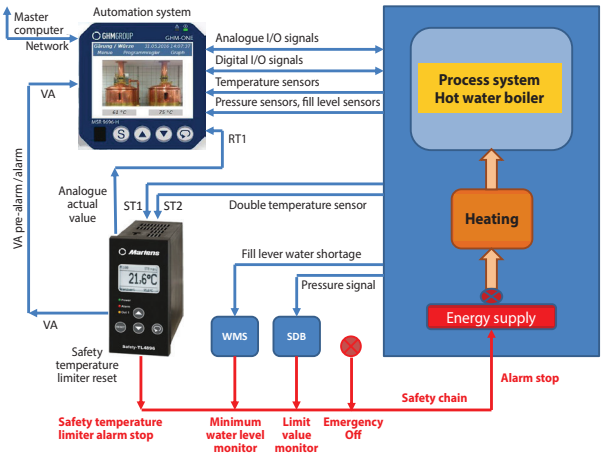
Benefits

Electronic safety temperature limiters were previously often built, for example, as top-hat rail devices in switch cabinets. Now, for the first time, the Safety-TL4896 also offers **installation in the front** panel. In the process, the actual and limit values on the **large display** can be read conveniently and the reset process after correction of the cause of an error takes place on the front panel in the same manner as for all other operating processes. As a result, separate devices and their wiring can be eliminated, because their **functions** are **already integrated: indicator and reset button.** With the **adjustable pre-alarm,** no additional limiters are needed and a redundancy to the automation unit is provided. A second additional measuring chain is eliminated by the **analogue output.**
The Safety-TL4896 can be configured with the front buttons and thus **tailored** to the application.

Summary

Particularly with small and compact systems whose complete automation electronics are contained in the operating device (e.g. with use of the GHM-ONE multi-function device or a compact industrial PC/PLC system), there is no longer a large, conventional traditional switch cabinet. As an autarkic front panel unit in slim DIN format 48x96, the new Safety-TL4896 enables a consistently compact design of modern small systems, reduces the wiring work and facilitates ergonomic operation in the monitoring and observance of safety requirements.
The Safety-TL4896 offers time and cost advantages in wiring and installation. With the easy operation from the front side, the requisite safety functions and ergonomic operation of safety temperature limiters are fulfilled for the first time.

Safety-TL4896 boiler regulation application



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