ELETTA

CASE STUDY



COOLING CIRCUIT MONITORING | October 2026

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FOUNDRY | FRANCE | FLOWMONITORING

30 years of service.
4 screws to upgrade.

How a foundry near Lyon added a 4–20 mA signal, a local display and relay alarms to its furnace cooling circuits – without modifying a single pipe – and gained a safer plant and lower pump energy costs.

INDUSTRY
Foundry
– cast parts for trucks

LOCATION
Lyon area, France

APPLICATION
Furnace cooling circuits

UPGRADE
Eletta S2 → Eletta D2s

30+
years of S2 service to full customer satisfaction

4
screws to swap a control unit

0
piping modifications

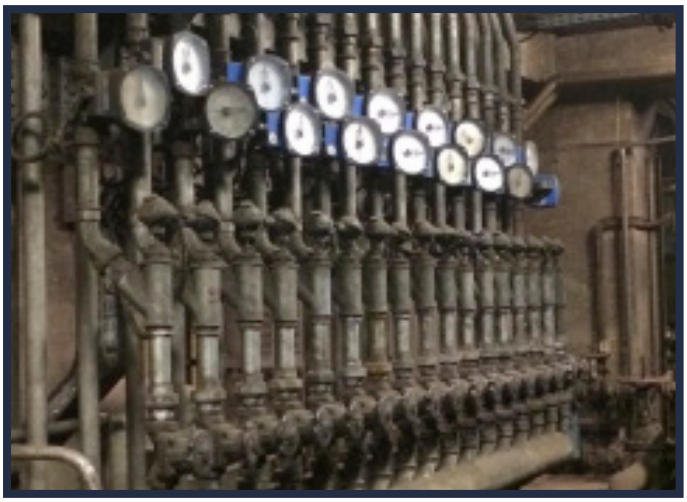
4-20 mA
years of S2 service flow signal to the control room

01 CHALLENGE

Furnace cooling circuits depend on uninterrupted flow, and in this foundry near Lyon, which produces cast parts for trucks, that protection had been entrusted to Eletta S2 flow monitors for more than 30 years – **with complete customer satisfaction.**

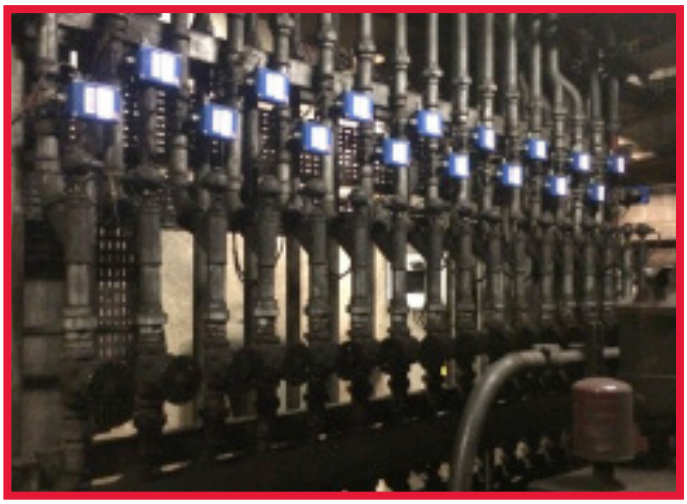
But the plant now needed more. Flow had to be checked daily by an operator reading the S2 graduated scales, in an area considered very dangerous – at odds with the foundry's HSE (Health, Safety and Environment) plan. And flow information had to reach the control room as a 4–20 mA signal, so that each circuit could be tuned.
The question was how to get there without opening up a cooling circuit that has been running reliably for three decades.

BEFORE - ELETTA S2



S2 flow monitors with graduated scales and microswitch alarms – 30+ years in service.

AFTER - ELETTA D2



D2 control units on the same pipework – 4–20 mA, display and 2 relay alarms.

02 SOLUTION

The customer chose the Eletta **D2** to replace the S2 control units. One upgrade delivers three new capabilities:

4–20 mA output

Flow information transmitted directly to the control room – the missing link the customer asked for.

Local display

Flow status readable right at the measuring point, on every circuit of the manifold.

2 relay alarms

Two alarm relays per unit replace the S2 microswitches – on the same existing wiring

	S2 (BEFORE)	D2 (AFTER)
Alarm output	Microswitch contacts	**2 alarms on relays**
Flow signal to control room	Not available	**4–20 mA output**
Pipework	Existing pipe section	**Unchanged– no modification**

03 INSTALLATION: CONTROL UNIT ONLY

Only the control units are replaced. The pipe section remains on the existing pipes, so there is no piping modification at all.

1

Unscrew

Remove four screws and withdraw the S2 control unit. The pipe section stays exactly where it is.

2

Replace

Fit the D2 control unit, delivered ready to install. No piping modification, no re-plumbing.

3

Reconnect

The existing electrical wires from the S2 microswitches connect directly to the D2 alarm relays.

04 RESULTS AT THE CUSTOMER

SAFETY | HSE

Less time in a dangerous area

The daily visual check of the S2 graduated scales is no longer necessary. Operators spend less time in an area considered very dangerous – raising the safety level, as part of the HSE plan for the whole foundry.

ENERGY | COST

Lower pump energy use

With a 4–20 mA flow signal from every cooling circuit, each one can be adjusted to just reach the required cooling temperature.

The immediate benefit: lower pump energy use, with electricity savings of thousands of euros every year.

05 WHY IT MATTERS

- **Minimal intervention** – no pipework to cut, no re-plumbing; the D2 is delivered ready to install.
- **Protected investment** – existing pipe sections and alarm wiring are reused.
- **A proven upgrade path** – S2 users can modernise to D2 while keeping what has worked for 30 years.

Ageing flow monitors on your cooling circuits?

Talk to Eletta about a control-unit upgrade path that keeps your pipework, your wiring and your uptime.

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