

# Sensor improves the reliability of home booster

## The Situation

Grundfos Innovation Workshop is set up to take ideas from sales teams, where a market gap has been identified, and create a solution that the sales teams can exploit.

One such requirement in the UK market is low water pressure in homes, businesses and buildings. Many modern appliances such as Combi-boilers require a minimum pressure to operate. The Home booster was designed to overcome this in areas where the mains pressure is subject to fluctuations due to location, age of water infrastructure and potential for mains leakage.

It houses a 180 litre useable volume tank, pump set, service valving & micro-processor controls. The input of which was originally a 3rd party manufacturers pressure sensor giving 4-20 mA output.

The reason to consider changing the sensor for the RPS was due to the high failure rate on the existing standard 3rd party sensor. It was particularly vulnerable to physical damage due to its installed location and construction. The PCB was bonded to the small sensor element with no protecting case and therefore easy to damage during pump service calls.

## The Grundfos Solution

The RPS 0-10 Bar sensor was introduced and the reduction in service calls for this fault has been dramatically reduced. This provided a sufficient cost saving to offset the work required by the controller supplier, in changing the sensor power supply from 30 to 5Vdc.

The product has now proved to be reliable and demand is running at 1000-1500 annually.

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### TOPIC:

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### LOCATION:

United Kingdom

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### COMPANY:

Grundfos

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#### The Outcome

An additional advantage over the previously supplied sensor is that other similar Pressure Boosting systems, which use the same control unit, have also been converted to be able to take the Grundfos Direct Sensors™ RPS 0-10 bar sensor. The IMpress range having many more variants and pressure settings of 2.5 or 4.3 Bar has only 1 sensor to cope with all models. Thereby reducing the need to stock different range sensors for each model.

The customer is very pleased with solution, and has seen a large reduction in the usage of transducers by the service teams doing house calls. Warranty cost is today below the original set targets.