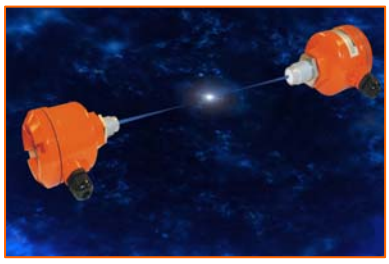
HYCONTROL

with

SIMS GROUP



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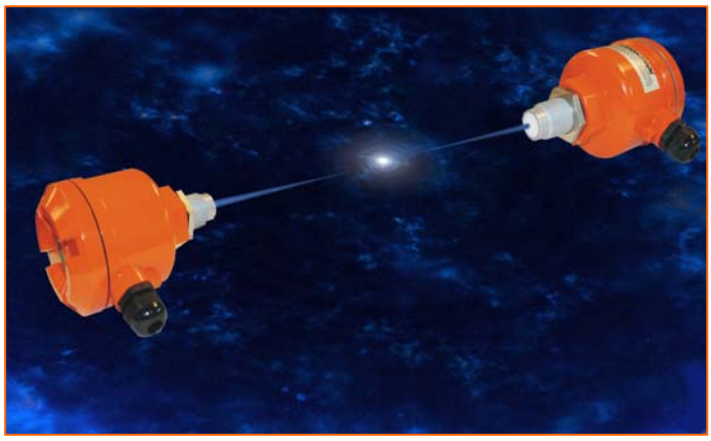
Sims Group UK Ltd specialize in the safe reprocessing of post consumer products such as TVs, radios, computers and other electronic and electrical consumer goods and their operation at Long Marston services a continual influx of vehicles from all over the Midlands. Despite clear warning signs, including one directly on the conveyor, drivers were still forgetting to lower their vehicles' after discharging their loads, with expensive and disruptive consequences. It was after the conveyor had been damaged for the second time in 2007 alone, that management decided they had to take decisive action. However the working environment is not conducive to the operation of sensitive instrumentation and any solution needed to be robust, foolproof and capable of operating in 'all weathers'.

The MicroSense, which overcomes traditional 'thrubeam' reliability shortfalls, is ideal for such arduous applications and Hycontrol engineers had no hesitation in recommending the switch to provide the necessary 'protection' for the conveyor.



The switch subsystem consists of two robust components: a microwave transmitter, which generates a low power 24 GHz microwave beam, and a receiver unit with a maximum operating range of 40 metres between the two antennae. The two units are mounted facing each other either side of the entrance road, approximately 5 metres from the ground. In the un-switched state the narrow beam from the transmitter is detected by the receiver. If the path of the beam

is then interrupted by the passage of a raised tipper body or excessively high load, the internal relay is triggered (within pre-programmed time and attenuation parameters), thereby activating the switch. The MicroSense's switching capabilities are unaffected by dust, steam, smoke or heat, whilst build up of material on the antennae has little or no effect on the operation.

A time delay function can be set from 0.1 to 10 seconds to avoid spurious or unwanted beam interruptions. The detection mode can be set so that the relay is initiated either when the beam is broken or restored, similar to *normally open* or *normally closed* switching terminology.

A key advantage of the MicroSense over its competitors is the ease with which the system can be set up and calibrated. By comparison with switches based on the older diode detection technology the MicroSense is calibrated in one easy step via the sensitivity dial. The 15 LED indicator array at the back of the receiver unit displays the received power level from the transmitter and the set-point sensitivity. At the turn of a screw, the setpoint is simply programmed at a suitable point below this power level, to provide the required switch-over.

The output relay is used to set off a high intensity audible alarm together with flashing beacons, giving drivers plenty of warning of impending problems. Sims Group UK's approved electrical supplier Alan Thomas is impressed with the simplistic effectiveness of the Hycontrol system and as he concludes: *"We were continually amazed at the ease with which drivers forgot to lower their tipping bodies and in addition to actual damage, lost count of the number of near misses. Hycontrol's solution does exactly 'what it says on the box' and it does not interfere with any other part of our operation. We can easily check the system integrity by deliberately blocking the beam, although our drivers tend to do this regularly enough for us anyway."*

SIMS GROUP

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