## POINT LEVEL SWITCH =

FLOAT	CONDUCTIVITY	PADDLE	CAPACITANCE	ADMITTANCE	VIBRATING	VIBRATING	VIBRATING	MICROWAVE	MICROWAVE	FOAM
			PS	PP			7			
Range: 0-20m / 0-65ft	Range: 0-1m / 0-3ft	Range: 0-1.5m / 0-5ft	Range: 0-5m / 0-16ft	Range: 0-5m / 0-16ft	Range: 0-3m / 0-10ft	Range: 0-20m / 0-65ft	Range: 0-4m / 0-13ft	Range: 0-100m / 0-328ft	Range: 0-1.5m / 0-5ft	Range: 0-6m / 0-19ft
-20 to +200°C -4 to +392°F	-10 to +250°C +14 to +482°F	-20 to +200°C -4 to +392°F	-20 to +800°C -4 to +1472°F	-20 to +550°C -4 to +1022°F	-40 to +130°C -40 to +266°F	-20 to +250°C -4 to +482°F	-20 to +150°C -4 to +302°F	-50 to +500°C -58 to +932°F	-10 to +55°C +14 to +131°F	+1 to +170°C +39 to +338°F
LIQUIDS	LIQUIDS	SOLIDS	LIQUIDS / SOLIDS	LIQUIDS / SOLIDS	LIQUIDS	SOLIDS	SOLIDS	SOLIDS	SOLIDS	LIQUIDS
Very low-cost mechanical devices mounted from either the side or top of the tank. Wide range of process connections and body materials for corrosive environments. Simple to install, with single or multiple switch points. Flexible cable and rigid probe mounting options.	Simple low cost level switch for basic water applications or products with conductive media. Metal vessels can be used as a reference probe if required. Simple to install with high corrosion resistant probes. Universal probe design for side or top mounting into small process entries. High temperature options are used extensively on	mechanical switch range for solids only. Simple to install from either top or side of silo. Corrosion resistant paddle designs. Wide range of process connections and high temperature options. Suitable for powders, flakes, pellets and granules above 500g/litre. Triple shaft seal and long	liquids, slurries, pastes, powders and granular material. Simple to install from side or top of vessel. Rigid probe and cable options and high vibration options for flexible mounting. Corrosion resistant and high temp options with ceramic probes. Safety ground level test facility as	liquids, slurries, pastes, powders and granular material. Immune to coating on probe so ideal for products such as paint, bitumen and adhesives etc. Simple to install from side or top of vessel. Compact design options available. Corrosion resistant SS probes as standard. High temp and a	liquid requiring no set up calibration. No moving parts, unaffected by vapours and surface agitation. Compact design options available with minimal insertion length. Corrosion resistant, high temperature (130°C) and pressure (40 bar) options as standard	products such as flour, sugar, sawdust or cement. No moving parts to wear. Sensitivity unaffected by dusts and build-up on tank walls. Corrosion resistant Stainless Steel rigid probe and rope versions. Flexible mounting from either the top or side of silo, with simple installation. ATEX options for dust in	Ideal for pellet applications. A choice of electronic outputs allows the user to switch a load on/off or to interface directly with a computer.  The units can be set to sense high or low level and failsafe high or low, with adjustable sensitivity to eliminate false switching. The switch is only sensitive at the tip, minimising the effect of build-up on tank	intrusive level switch suitable for many solids and powders applications. Utilises continuous, low-power microwaves with a range of up to 100m.  A safe replacement for nucleonics that is unhindered by product coating. Typically used for blocked chute detection, point switching and as	microwave switch provides an effective way of detecting the flow or no flow of a wide range of particulate materials along chutes, pipes and conveyor belts. The flow switch uses a microwave Doppler effect and is noninvasive.  Microsense improves plant efficiency, increases	extensive range of aqueous and non-aqueous foam detection systems in the world.  Specifically designed to detect, analyse and control virtually any foam, with optional in-built Antifoam pump in the controller. providing key benefits to industry including huge reductions in anti-foam



## **LIQUIDS / SOLIDS** REFLEX BYPASS R/T MICROFLEX C/LR MINIFLEX LR REFLEX LR VG5 SERIES VG6/VG7 SERIES VF03 SERIES VF2/VF7 SERIES MULTISENSE SONARFLEX HYC-XACT i 2, 3 or 4-wire 24vDC level | Multi-functional instrument | Pushes boundaries of long Transmits high frequency | Emits 26GHz frequency | Ideal replacement for | Transmits | The VF Series TDR is ideal | Continually monitors and | Sludge blanket and | A range of precision transmitters. Low cost, for level, flow, differential, range ultrasonic FMCW signal of a nominal with accuracy up to 3mm. displacer with high electromagnetic pulses of for liquids, powders and controls foam and liquid in terface level pressure transmitters for 10GHz, increasing linearly Two-wire radar level accuracy of 1mm. approximately one granules, unaffected by levels. MultiSense measurement for liquid tank level non-contact technology. and pump control. monitoring for liquids and Simple to install with very Non-contact ultrasonic solids with multiple relays during measurement transmitters unaffected by Reliable measurement nanosecond's width along pressure, temperature, measures both foam height demanding applications in measurement only. (frequency sweep). compact design and technology. Low cost and and output options. changes in pressure, even with agitated surface. a rigid or flexible Stainless viscosity, vacuum, foam, and liquid interface level water & waste, mining and Constructed from 316L corrosion-resistant body simple to install. 16-digit Programmable for level, Wave horn antenna temperature, vapours and Ideal for tanks with Steel conductor. dust, coating or changes in with high accuracy. industrial applications. providing high accuracy of dual line display for flow, volume, distance and provides a more focussed foam. ATEX options complex internal 24vDC loop powered dielectric constant. A wide selection of Has an integrated up to 0.05%. Wide range of ATEX options available for programming and display pump control. Lowand reliable signal. Can available with EExd & EEia structures. Purpose-designed for high Provides high-accuracy connections, flanges and automatic cleaning process connections are Low maintenance as no temperature applications measurement via a seal materials are mechanism on the sonar available to suit most IS-certified areas. Wide assistance. Can display frequency transmission map complex internal tank approvals. structures for precision Ideal for corrosive moving parts. Option for such as bitumen with an Stainless Steel conductor available. The controller transducer and can applications. Option for range of outputs including level and contents or flow allows for accuracy in even relay, 4-20mA, HART, and totalised flow dusty applications. measurement. Available atmospheres and either TDR or radar as accuracy of +/-5mm up to a (option of Hastelloy-C). can be customised for simultaneously track with a wide range of pressures up to 100bar. primary measuring device. maximum range of 24m. Interface measurement either foam and liquid, multiple interface levels of push button calibration Profibus, and Modbus. simultaneously. Remote diagnostics tools connections and outputs. Optional drop-shaped Wide range of flanges and HART protocol as with VF7, ATEX option for liquid only or foam only RAS. FLOC and FLUFF, behind a laminated safety Very low power options Corrosion resistant range options over GSM SIL2 approval available for antenna resists product designs to meet most standard. FEP probe VF2. Wide variety of detection, depending upon ATEX EExia & EExm glass. available for remote of transducers with integral connection. ATEX options battery applications. T-compensation. also available. critical applications. build-up/condensation. applications. coating and ATEX options. process connections. the application. options are available

## SILO PROTECTION =

Having designed specialist silo protection equipment for over ten years, Hycontrol have extensive experience of the potential problems that exist on sites, especially in the cement, quarrying, bitumen, food, plastics and waste water industry sectors. Ineffective filters, blocked pressure relief valves (as pictured top right) and unchecked pneumatic tanker deliveries are common problems that are all too frequently ignored. Put simply, many powder storage silos are nothing short of disasters waiting to happen, with explosive over-pressurisation and over-filling incidents putting lives at risk and posing serious threats to the environment.

These risks can only be avoided through the implementation of a complete, fully-testable Silo Protection System *(as pictured bottom right)*. Hycontrol's advanced SPS is the first system on the market to fully comply with and exceed the comprehensive safety guidelines issued by the Mineral Products Association (MPA).

At the touch of a single ground-level button, the system fully tests all essential components - the pressure relief valve, pressure sensor, and high-level alarm - before allowing the inlet valve to open, all within six seconds. Failure of any component will trigger an alarm and prevent delivery. Our system has proven itself in hundreds of installations and has received numerous industry awards. It is nothing short of the last word in ensuring silo safety.









## **DESIGN / BUILD / INSTALL / SUPPORT**

Hycontrol have been at the forefront of level measurement technology for over thirty years, providing effective solutions for diverse applications across a wide range of industries ranging from quarrying to food; from nuclear power to chemical and from animal feed to waste recycling. From our manufacturing base in Redditch, Worcestershire, we have been trusted to oversee thousands of applications across the UK and around the world.

At Hycontrol, we pride ourselves on providing a 'complete solution' service to our UK customers. We have the experience and skill to design, manufacture, install and maintain bespoke measurement and control systems that are crafted to suit the particular needs of each individual customer.

We understand the consequences of inaccurate or unreliable level systems, and therefore each Hycontrol installation is tailored precisely to match your application. Our goal is simple: to provide the best engineered solution - without compromise.

With one of the widest ranges of level measurement technologies on the market including a patented range of foam detection and control equipment, backed up by a team of highly experienced engineers and technicians, Hycontrol are a leading force in advanced level solutions.



























