

ACCESSORIES ▼

▶ **INSPECTION HATCH**

▶ **TILT PROBE AND CONTROLLER**

▶ **PNEUMATIC LEVEL SENSOR AND CONTROLLER**

▶ **VALVE POSITIONING PACKAGE**



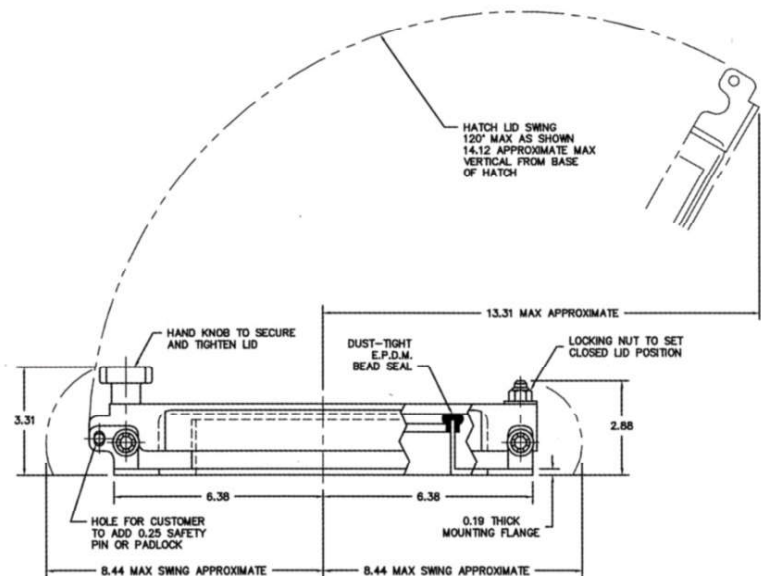
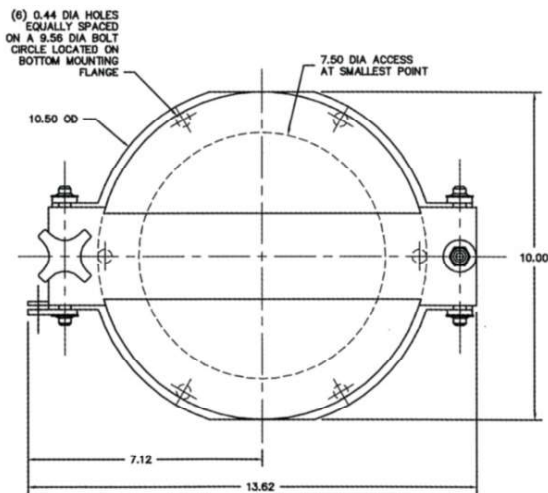
IH08 Inspection Hatch

APPLICATION

DCL IH08 Inspection Hatches can be installed on bins, tanks, mobile vessels, conveyors, and any other type of bulk material handling equipment. A low profile bolt on design allows these hatches to be mounted virtually anywhere on new and existing equipment without the need for torching or welding.

FEATURES

- Low profile bolt on assembly for easy field installation.
- Heavy duty design, constructed of carbon steel with stainless steel hardware.
- User friendly design requiring no tools to open.
- Lockable.
- Front and rear clamping for maximum seal.
- Epoxy/Urethane finish - Your choice of color for OEM customers.
- Optional 304 stainless steel construction.
- E.P.D.M. 65A Durometer seal for -50 to +250 degrees Fahrenheit (-46 to +121 degrees Celsius) service.



DCL BULK TECHNOLOGIES PVT. LTD.

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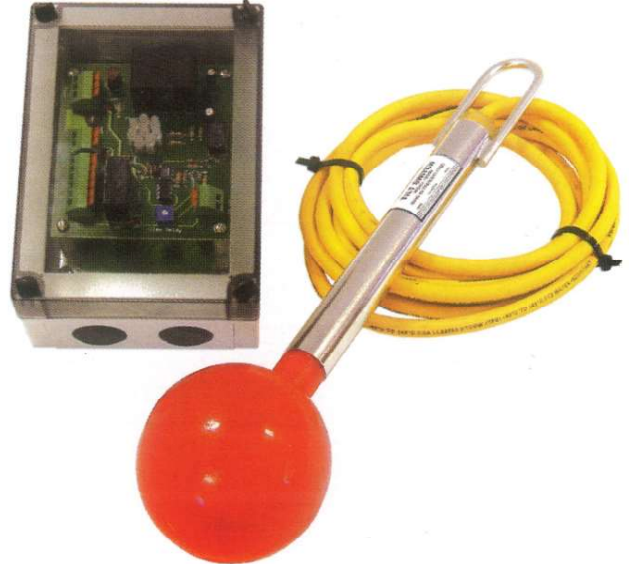
TPS Tilt Probe and Controller

APPLICATIONS

- High-level indication in trucks, rail cars, and bins, being loaded with dry bulk material.
- Automatic raise signal for loading chutes in stockpile or open truck loading.
- Plugged transfer chute alarm.
- Material flow / no flow alarm for conveyors.
- Material overshooting alarm on transfer conveyor.

OPERATION

The **DCL Tilt Probe TPSMF** switch is totally encapsulated in a 316 stainless steel schedule 80 pipe making them extremely rugged and dependable in even the harshest environments. The normally closed mercury switch opens whenever the probe is tilted 15 degrees or more from a vertical position. The probe has a female 3/4" npt on the bottom for optional probe extensions. A two-wire connection to the probe controller provides for a simple and fast installation.



TPSMF Specifications:

Probe Housing:	316 Stainless Steel	Maximum Switching Current:	0.8 Amps @ 240 VAC / Amps @ 120 VAC
NEMA Rating:	4X	Maximum VA:	200
Contact Style:	Normally Closed Omni Directional	Operating Angle:	15 Degrees +/- 3 Degrees
Mercury Switch		Operating Temperature:	-37 to 100 C / -35 to 212 F
Maximum Switching Voltage:	240 VAC		

The **DCL Illuminated Tilt Probe TPSML** offers the same rugged construction as the TPSMF with the addition of ultra bright red LED's that illuminate when the probe is tilted 15 degrees or more. The LED's are potted in a clear epoxy on the top of the tilt switch and are easily visible from any direction when the probe is tilted beyond the 15 degree switch point. The Illuminated Tilt Probe must be used with the DCL Probe Controller PCUV-A.

TPSML Specifications:

Probe Housing:	316 Stainless Steel	Operating Angle:	15 Degrees +/- 3 Degrees
NEMA Rating:	4X	Operating Temperature:	-37 to 100 C / -35 to 212 F
Contact Style:	Normally Closed Mercury Switch	*Probe must be used with DCL Probe Controller PCUV-A	
Maximum Switching Voltage:	12 VDC		

The **DCL Probe Controller PCUV-A** is housed in a UL & cUL listed NEMA 4X polycarbonate enclosure with a transparent cover. The controller has an LED cluster that illuminates green when the probe is hanging at angles below 15 degrees and changes to red when the probe tilts beyond 15 degrees. The controllers DPDT relay output is energized when the probe is hanging at angles below 15 degrees and drops out when the probe tilts beyond 15 degrees providing a fail-safe operation. An adjustable 0-10 second time delay on the output relay is used to prevent false signals caused from momentary tilting.

PCUV-A Specifications:

Output Type:	D.P.D.T. Relay	Supply Voltage Range:	85 to 265 VAC
Rated Load (Resistive pf = 1):	5 Amps @ 24 VDC / 5 Amps @ 240 VAC	Supply Frequency Range:	47 to 63 HZ
Rated Load (Inductive pf = .4):	3 Amps @ 24 VDC / 2 Amps @ 240 VAC	Maximum Power Consumption:	5 Watts
Minimum Permissible Load:	10 mA @ 5 VDC	Operating Temperature:	-40 to 85 C / -40 to 185 F
Time Delay Adjustable:	0.1 to 10 Seconds	NEMA Rating:	Type 4X, Polycarbonate Enclosure

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Dust Control and Loading Systems

Leaders in Innovative Bulk Loading Systems Design

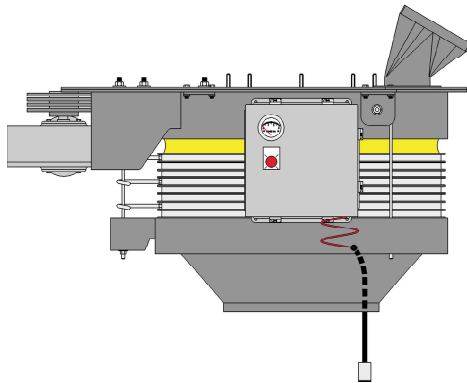
Pneumatic Level Sensor

PNEUMATIC LEVEL SENSOR

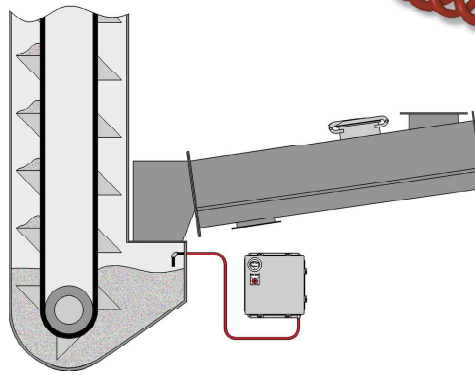
DCL's Pneumatic Level Sensor offers a simplistic approach to solving the problem of probe selection for the industries most difficult applications. The sensor will detect the presence of minus 20 mesh materials whether in a highly fluid state or at rest. This sensor does not utilize electronics to provide the actual sensing, therefore it is ideal for high or low temperature applications.

All pneumatic level sensor adjustments have been set at the factory. However if the probe does need to be adjusted, there are two adjustment screws. One located on the pressure switch which adjusts sensitivity and the other located on the flow meter which adjusts strength.

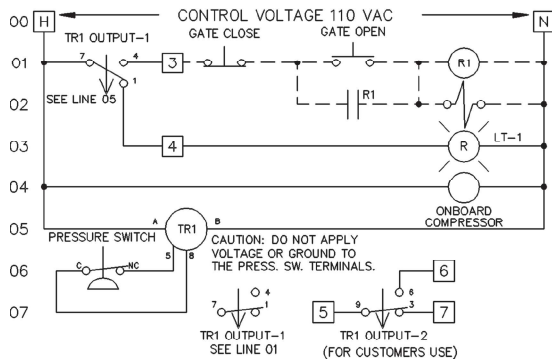
The system can be checked for operational function by plugging the pneumatic level sensor (simulating product presence). This will test and indicate level full.



Loading Spout Application
(Pneumatic Level Sensor used to detect full level in vehicle.)

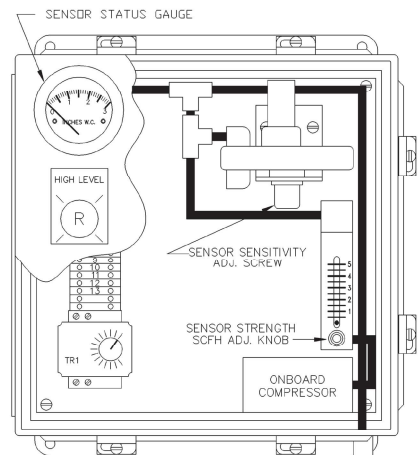


Bucket Elevator Application
(Pneumatic Level Sensor used to detect high level in bucket elevator boot.)



FFFD (GATF-IN RFLAY BY OTHERS)
FEED GATE-SOLENOID VALVE BY OTHERS
LEVEL FULL PILOT LIGHT BY DCL

TR1 TIME DELAY RELAY
DELAY ON BREAK, ADJUSTABLE FROM .1-10 SECONDS. WITH POWER APPLIED TO THE TIMER AND THE PRESSURE SWITCH NOT TRIPPED THE TIMERS OUTPUT CONTACTS OPERATE. WHEN THE PRESSURE SWITCH TRIPS DUE TO PRODUCT BURYING THE SENSING HOSE TIMING BEGINS. AT THE END OF THE TIMED PERIOD, OUTPUT CONTACTS RETURN TO THERE NORMAL POSITION. DELAY IS USED TO PREVENT MOMENTARY FALSE SIGNALS. TYPICAL TIME DELAY IS 3 SECONDS.



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Valve Positioning Package

APPLICATION

The DCL Valve Positioning Package provides a cost effective solution to flow control of aerated material. The control package comes pre-wired and pre-plumbed to the cylinder, which allows an easy retrofit to existing equipment.

The package provides three position control of the pneumatic cylinder. Closed, an adjustable mid or slow feed position, and an adjustable open position. Adjusting the reed switch location on the cylinder makes adjustment of the mid and open positions.

FUNCTIONAL SPECIFICATIONS

Temperature Range

Standard: +14 to +140 degrees Fahrenheit (-10 to +60 degrees Celsius).

Optional: -30 to +185 degrees Fahrenheit (-34 to +85 degrees Celsius).

Ingress

Standard: NEMA 4, IP66

Optional: NEMA 7 & 9

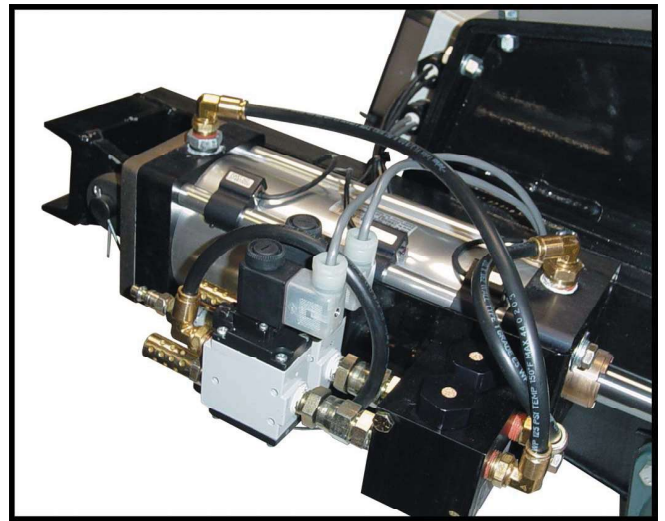
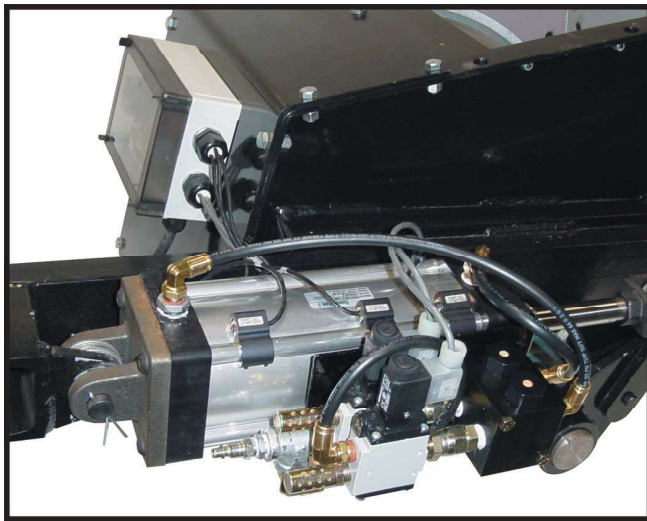
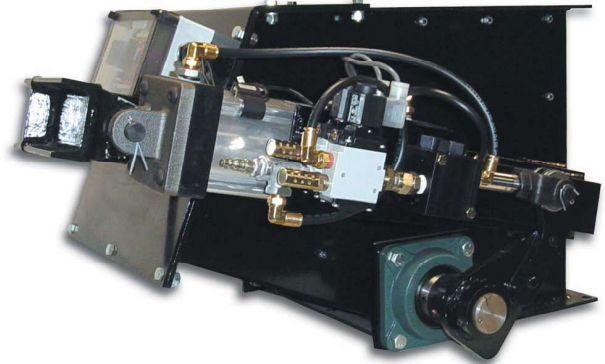
Package Requirements

Pneumatic: 3/8" NPT, 60 to 125 PSI.

Air Consumption: Depends on cylinder size and frequency of use.

Electrical: 85 to 250 VAC

Power Consumption: 15 watts @ 120 VAC



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