

## Protect your pump with **Dry-Run Detector DRD-100** (art nr 854006)



The operating principle behind the Dry-Run Detector (DRD) is simple, yet very effective.

This engineered product senses an increase in air volume, due to loss of prime or dry running, and automatically turns off the pump, preventing excessive cycling

### Benefits:

- Extended life of diaphragm
- Eliminate air consumption in dry run applications
- Save energy costs
- Prevent air valve from premature failure
- Operates intrinsically safe
- Can be fitted with remote warning systems

### Specifications:

- Working pressure range: 1,7 to 9.5 bar / 25 to 140 PSI
- Air inlet: NPT 3/4"
- Air outlet: NPT 3/4"






### Installation:

Install the DRD between the filter-regulator and the pump.  
The DRD must use the same regulated air as the pump.  
The DRD should be within 1 meter from the pump.

## Principles of Operation

### Application:

The DRD-100 is applicable to every device that is driven with compressed air. It detects an increase in airflow or decrease in air pressure, and shuts down the compressed air supply.

DRD-100 Control Switch		
	<b>CHANGEOVER SWITCH - ON</b>	Switch to 'ON' to operate the DRD-100. This allows the unit to detect a surge in air volume.
	<b>CHANGEOVER SWITCH - RESET</b>	Resets the pump after detecting a surge. Set the switch to this position to reset the pump and return changeover to switch to 'ON' positions when ready to resume operation.
	<b>PSI CONTROL KNOB</b>	A knob that allows you to set the differential pressure according to the pressure of air supplied to the pump (see chart).
	<b>PSI SET METER</b>	Pressure is controlled with the PSI CONTROL Switch.
	<b>VOLUME CONTROL KNOB</b>	Controls the airflow according to the operation status of the pump.

## Reference value to be set

Air supply (to pump)	Differential pressure setting
25 psi / 1,7 bar	15 psi / 1,0 bar
40 psi / 2,7 bar	25 psi / 1,7 bar
55 psi / 3,8 bar	40 psi / 2,7 bar
70 psi / 4,8 bar	55 psi / 3,8 bar
85 psi / 5,9 bar	70 psi / 4,8 bar
100 psi / 7,0 bar	85 psi / 5,9 bar

## External output detector

Using this connector will allow you to transmit a signal to an external device, when a surge is detected.



A - Air Outlet  
B - External Outlet

Use a tube fitting to connect this connector to a control device. (When using a pneumatic-electro converter, you can convert the output from this connector into electrical signals).

The supplied air pressure remains unrestricted when the DRD is in normal operation. It is only when a surge in air volume is detected, that the DRD shuts off the supply air.

### TROUBLE SHOOTING

PROBLEM	RESOLUTION
The Dry Run Detector will not shut down the pump when it runs dry.	Adjust the PSI CONTROL by turning the knob clockwise until the pump stops.
The Dry Run Detector is too sensitive and shuts down with just a little bit of air in the suction line.	Adjust the PSI CONTROL by gradually turning the knob counterclockwise, until the pump starts to run again.