

# DrX Application Note

<b>DrX</b>	All DrX modules (except DrClick)
<b>Subject</b>	Multiple alarms using two wires
<b>Note Ref.</b>	AN270.01

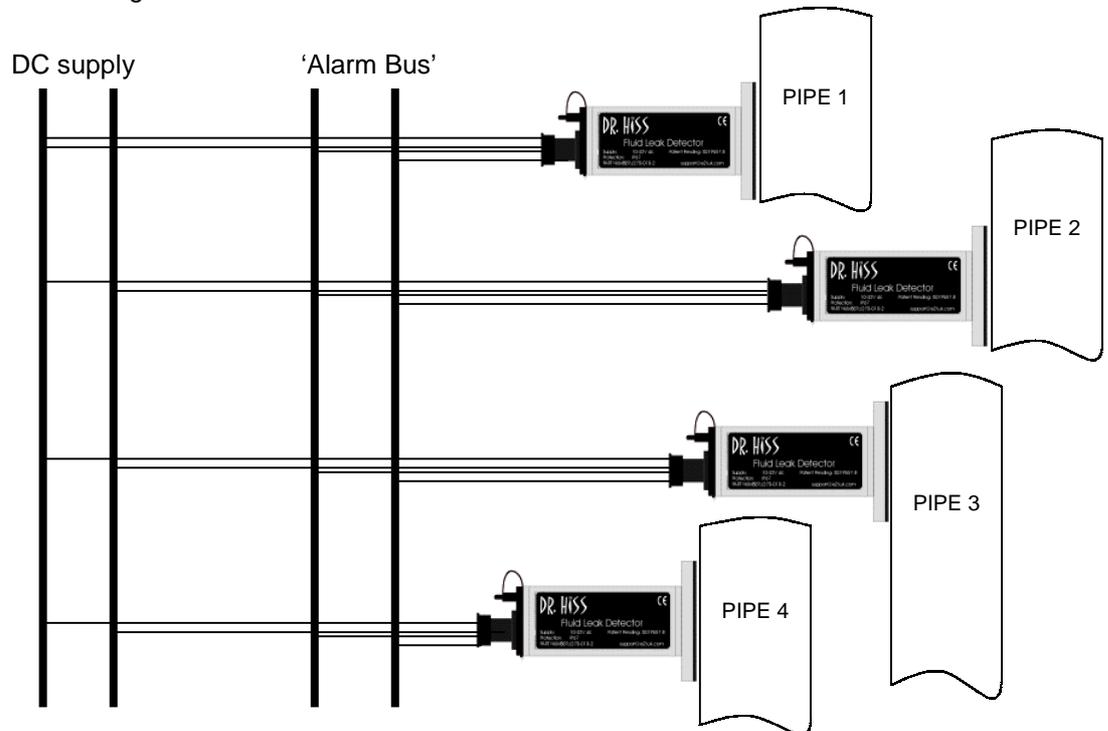
## Multiple alarms using two wires

All the DrX series provide alarm indication for detecting an increase in the chosen physical parameter. In all cases this is a red indication light in the body of the module. Additionally, (with the exception of DrClick) the units are provided with a volt-free output; normally open when there's a green light displayed, closed when a red light occurs.

For systems where a number of DrX units may be in use, there may be a requirement to monitor the alarm condition for all of them and then find out the individual module in the alarm state by inspection.

Such a system removes the need for a complex alarm per unit system thus lowering cost and complexity. Thus if we took a cluster of DrHiss leak detectors on a group of pipes then we could raise one alarm for any leak in that cluster. Which pipe was leaking could then be discovered by finding the specific DrHiss with a red light on its body.

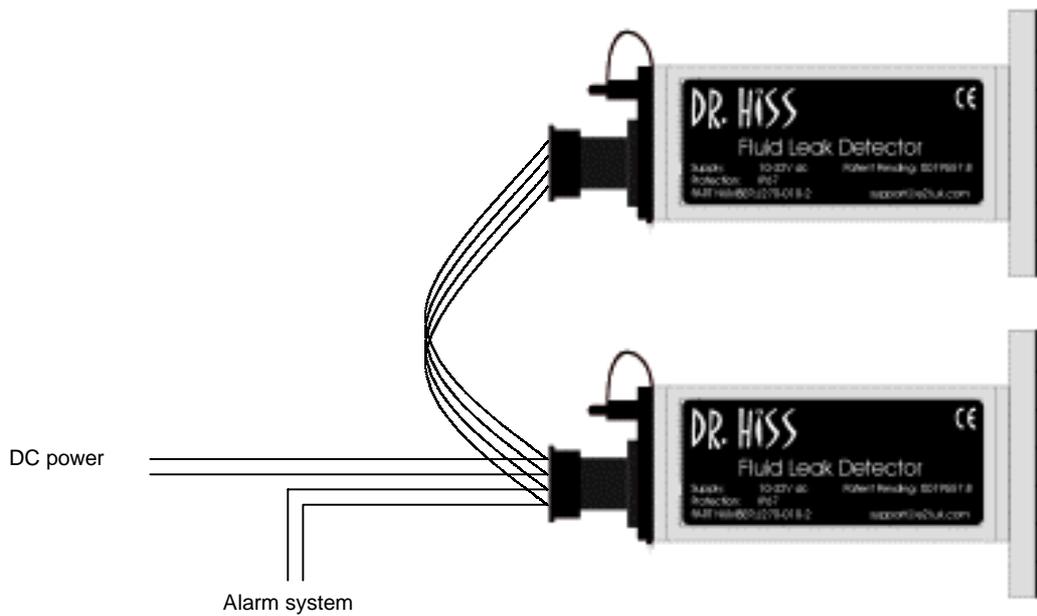
If we consider a series of DrHiss modules, each on a separate pipe, in a bundle, an efficient wiring scheme would be:



In this case the system would use a single power source brought in by two wires, and a two wire alarm bus. On an alarm condition any of the modules would cause their individual volt-free contacts to close and an alarm to be raised.

The alarm bus could be fed into a plant monitoring computer, a local plc system, or even a simple electric bell or flashing light annunciator.

The wiring layout also does not have to be as per the illustration, but could be 'daisy chained' from one DrX connector to another all in parallel. For example:



Any number of DrX units can be grouped together using this method. These 'Alarm clusters' provide a useful way of managing sensor groups and sectionalising plant operations when trying to prevent failure.