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Title – Hysteresis & Persistence	
Made By: AB 15/07/17	(Issue 1)

Explanation of Hysteresis and Persistence

Hysteresis

Best explained with an example.

If the alarm is set to 50 and the pressure goes 48>49>50 the alarm is triggered and when the pressure drops to 49.9 the alarm clear is sent. However if you set a Hysteresis value of 1 then the alarm clear will not be sent until the pressure reduces below 49. In this instance if the pressure went down to 49.5 and then back up to 51 no new alarm would be sent. So this provides a reduction of the number of alarms sent when the measured value is oscillating around a point.

A Hysteresis of 2 would mean no alarm clear until it reaches below 48 – again if the pressure dropped to 48.4 and then went back up to 51 no repeat alarm nor alarm clear would be triggered.

Persistence

Persistence is the number of times 'N' that an active alarm condition is satisfied during the last 'R' samples before the alarm is reported.

N=R means the active alarm condition must be satisfied during the last R samples (e.g at a sample rate of 15 minutes then in 30 minutes R=2)

1 out of 1 will report an alarm as soon as the condition occurs

2 out of 2 will report an alarm if the condition occurs for two consecutive readings

3 out of 3 will report an alarm if the condition occurs for 3 consecutive readings

N<R means the active alarm condition must be satisfied in any N out of R samples:

1 out of 4 will report an alarm if the condition occurs once in any 4 consecutive readings.

2 out of 4 will report an alarm if the condition occurs twice in any 4 consecutive readings.

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Halma Water Management, Ty Coch House, Llantarnam Park Way, Cwmbran, Gwent. NP44 3AW.
www.hwm-water.com; Tel: +44 (0) 1633 489479; Fax: +44 (0) 1633 877857