

Training 17 -Flow monitors - Reasons for delay options 训练17 -流量监控器-延迟选项的原因

SW118 and SW119 feature some special delay options (please see training 16). This training will give you some “background information” why these delay options make sense.

SW118和SW119有一些特殊的延迟选项(请参见培训16)。这个培训将提供一些“背景信息”，为何这些延迟选项有意义。

Switch-on delay: 接通延迟:

The temperature difference between the heated and the unheated sensor depends on the flow speed: 加热和未加热传感器的温差取决于流速:

fast flow speed 快流量速度
much heat is dissipated from the heated sensor
加热的传感器 散发出大量的热量
=> low temperature difference between heated and unheated sensor
加热和不加热的传感器之间的低温差

slow flow speed 慢流量速度
few heat is dissipated from the heated sensor
加热的传感器 很少能散热
=> high temperature difference between heated and unheated sensor
高温和无热传感器之间的高温温差



What happens after the device is switched on?

打开设备后会发生什么?

Immediately after the device is switched on, there is no temperature difference at all. Because of this the device thinks that there is a very big flow speed, even if there is no flow at all.

That is the reason why some customers prefer to have a switch-on delay.

设备打开后立即就没有温度差了。因为这个装置认为有一个非常大的流速，即使根本没有气流。这就是为什么有些客户喜欢延期的原因。

Change-over delay: 转换延迟:

The change-over delay is interesting if you do not want an immediate alarm signal after the flow falls below the switching point (MIN version).

如果您不希望在流落在开关点以下(MIN版本)之后立即发出警报信号，那么变更延迟很有趣。

A good example are applications on ships:

一个很好的例子是船舶上的应用:

Ships pump sea water from the sea into the ship, for example for cooling purposes. If there are high waves and the ship sways, there could be air in the pipe instead of water for a few seconds. Of course a minimum flow switch would immediately give an alarm signal, because air dissipates much less heat than water.

船舶将海水从海里泵到船上，例如用于冷却。如果有高海浪和轮船，可能会有空气在管道中而不是水几秒钟。当然，最小流量开关会立即发出警报信号，因为空气比水释放的热量要少得多。

With activated change-over delay the alarm signal is delayed for 10 seconds.

在激活转换后，报警信号延迟10秒。