

## Technical Service Bulletin 100202

### Calibration of HPA Flow Switches: DCX Paragon

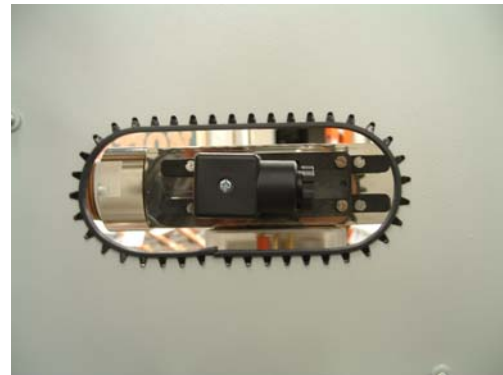
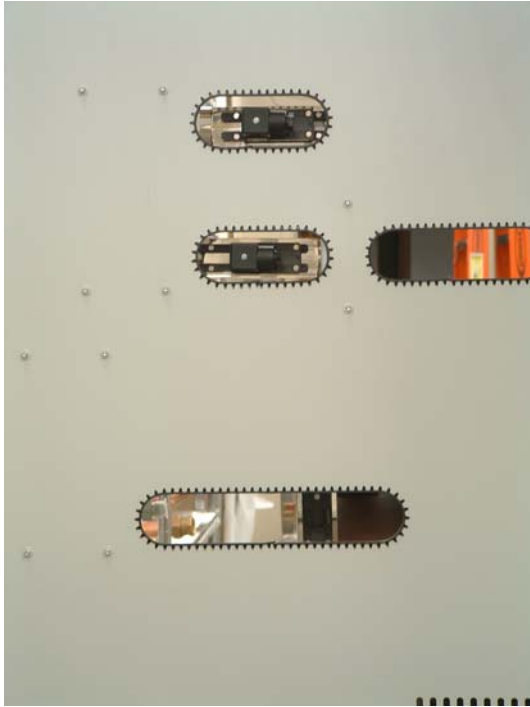
The calibration of the HPA flow switches is an important part in insuring proper protection for the IOT.

<b>Procedure 100202: Calibration of HPA Flow Switches: DCX Paragon</b>	
Applicability	DCX Paragon transmitters.
Prerequisites	None
Equipment Required	Flat Blade Screwdriver.
Comments	These switches should be tested on a regular / annual basis.

1. There are three coolant flow meter / switches in the Paragon HPA as seen in the picture below.
  - Heat Exchanger Secondary Water / Glycol Coolant.
  - IOT Anode Water / Glycol Coolant.
  - IOT Collector Oil Coolant.

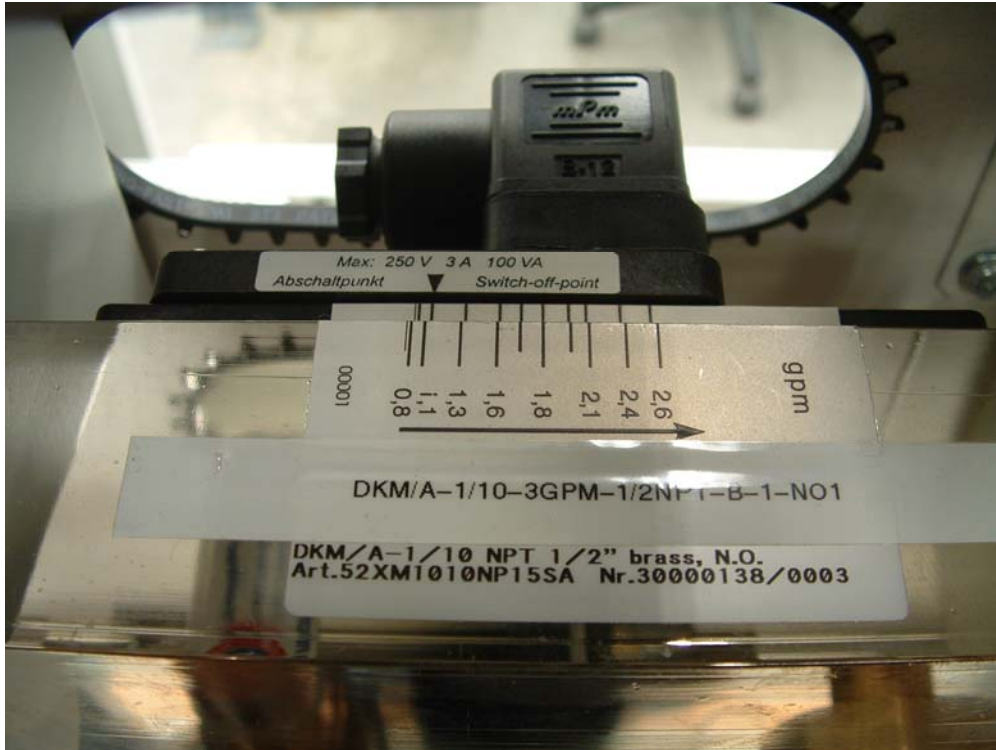


- Each of these switches are adjusted the same way. Access to the locking mechanism (two screws) is through the rear cabinet wall behind the IOT compartment. There are three "slots" in the wall that allow access to these from the IOT compartment side, as shown in the picture below.



- The trip pint is set by unlocking the armature/switch on the flow meter by loosening the two locking screws and sliding it along the length of the meter. There is a calibrated gauge on the side of the meter along with a corresponding mark on the switch. Where this mark lines up along the gauge scale determines the trip level of the switch. Once this is set per the correct value as seen on the gauge, tighten the two locking screws to hold the switch in position. See the pictures below.





4. The trip points should be set to the following values:

- Secondary Heat Exchanger Water / Glycol Flow = 10 GPM
  - IOT Anode Water / Glycol Coolant = 1 GPM (minimum per the IOT datasheet)
  - IOT Collector Oil Coolant = 15 GPM (minimum per the IOT datasheet)
5. To test the Secondary Heat Exchanger Water/Glycol Flow trip, decrease the flow to the HPA cabinet with the inlet coolant shutoff valve while observing the coolant trip LED on the control panel. When the trip is exceeded (too little coolant) the LED will be lit RED and a message on the LCD screen will be displayed stating Secondary Coolant Fault. After it is tested return the valve to the original full open position.
  6. To test the IOT Anode Water/Glycol Coolant trip, decrease the flow to the IOT anode by adjusting the coolant balance valve located directly below the anode coolant flow meter while observing the coolant trip LED on the control panel. When the trip is exceeded (too little coolant) the LED will be lit RED and a message on the LCD screen will be displayed stating Anode Coolant Fault. After it is tested, return the valve to the original position.
  7. To test the IOT Collector Oil Coolant trip, decrease the flow to the IOT collector by switching off the circuit breaker that applies AC mains power to the oil pump (CB4) while observing the coolant trip LED on the control panel. When the trip is exceeded (too little coolant) the LED will be lit RED and a message on the LCD screen will be displayed stating Primary Coolant Fault. After it is tested return CB4 to the original position.
  8. Procedure complete.

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