MESSAGE FROM

Frick®

SERVICE INFORMATION

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To: Service Manual Holders
National, International and Canada
Field Sales and Waynesboro Personnel

Subject: **Calibration of the Slide Stop and Slide Valve using the Linear Transmitter / Analog board channel selection.**

Because the linear transmitter, used to gauge the movement of the slide stop and slide valve, is a sealed device it is no longer possible to ensure the proper movement of the slide stop and slide valve based on visible movement.

Therefore to ensure full movement, we must now use the differential in voltage that is shown on the Slide Stop/Slide Valve calibration screen. The differential is the voltage given for the high end minus the voltage given for the low end.

Below is the list of the standard voltage differentials that should be read between 2.2 and 5.0 Vi as well as 0-100% Slide Valve by model number.

Package Model	Slide Stop 2.2-5.0	Slide Valve 0-100%
RXF 12-101mm	N/A	1.35 - 1.65Vdc @ 2.2 Vi 0.95 - 1.15Vdc @ 3.5 Vi 0.73 - 0.93Vdc @ 5.0 Vi
RWF-100	1.2 – 2.4Vdc	1.36 – 1.61Vdc
RWF-134	1.2 – 2.4Vdc	1.83 – 2.13Vdc
RWF-177	1.2 – 2.4Vdc	1.65 – 1.93Vdc
RWF-222	1.2 – 2.4Vdc	2.09 – 2.42Vdc
RWF-270	1.2 – 2.4Vdc	2.60 – 2.98Vdc
RWF-316	1.2 – 2.4Vdc	2.02 – 2.33Vdc
RWF-399	1.2 – 2.4Vdc	2.55 – 2.93Vdc
RWF-480	1.2 – 2.4Vdc	3.37 – 3.83Vdc
RWF-496	1.2 – 2.4Vdc	2.14 – 2.51Vdc
RWF-676	1.2 – 2.4Vdc	2.95 – 3.39Vdc
RWF-856	1.2 – 2.4Vdc	3.28 – 3.70Vdc
RWF-1080	1.2 – 2.4Vdc	3.25 – 3.74Vdc

For example: an RWF-177 with a 0% slide valve reference voltage of 1.34Vdc and a 100% reference voltage of 3.13Vdc will have a differential voltage of 1.79Vdc which is in the range of 1.65 – 1.93Vdc as shown above. This ensures that the slide valve physically moved the full travel during the calibration process.

Note: To obtain these voltage differentials the proper slide valve travel number must be set in Factory Setup based on the compressor size and the machine running at 2.2 Vi.

Package Model		Slide Valve Travel
RXB/RXF 12, 15, 19		190°
RXB/RXF 24,30, 39, 50		190°
RXF 58, 68, 85, 101		190°
RWB-II 60		195.6°
RWB-II 38, 76		195.6°
RWB-II 100		195.6°
RWB-II 134		195.6°
RWB-II 177		195.6°
RWB-II 222		195.6°
RWB-II 270		158.6°
RWB-II 316		195.6°
RWB-II 399		195.6°
YS Chiller S7		194.1°
RWB-II 480		165.5°
RWB-II 496	0153L / 0011SBS and lower	185.6°
RWB-II 496	0154L / 0012SBS and higher	213.9°
RWB-II 676	0222K / 0025SBL and lower	185.6°
RWB-II 676	0223K / 0026SBL and higher	213.9°
RWB-II 856	0109XL / 0052SBXL and lower	146.5°
RWB-II 856	0110XL / 0053SBXL and higher	184.6°
RWB-II 1080		141.5°

ANALOG BOARD CHANNEL SELECTION

Where the analog channels of the previous analog board were set with jumpers located on the board, the current analog board uses software selections to set the channels for the type of device that is wired to it.
Please use these definitions when configuring the analog input channels.

ICTD (Integrated Circuit Temperature Device) – This is the standard temperature probe used by Frick. It provides a micro-amp signal, which at 0°C or 32°F is 273µA. This signal will rise or fall by 1µA per 1°C rise or fall.

0-5Vdc – Select this setting if the device has a 0-5 or 1-5Vdc output, such as a transducer.

0-20mA – Select this setting if the device has a 0-20 or 4-20mA output. This would be the selection for channels 14 & 15 if a Linear Transmitter were used for the slide stop and/or slide valve position feedback.

POT – Select for channels 14 & 15 of analog board #1only, on machines that use a potentiometer for the slide stop and/or slide valve position feedback.

Cur Tran – Select on channel 16 of analog board #1 only, if a current transformer (CT) is used to read the motor amps.

MC 50mA – On earlier analog board versions for when using a current transformer (CT) for reading motor amps. Replaced by the **Cur Tran** selection.

Note: The analog board supplies 15Vdc to the sensors. Be sure to consider this if selecting sensors other than those supplied by Frick.

Please contact me directly if you have any questions regarding this letter or any other controls related issue

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