Configuring and Performing Partial Stroke Testing via Loop Current Initiation with the Fisher[™] FIELDVUE[™] DVC6200 SIS Digital Valve Controller

The DVC6200 SIS is capable of performing loop current initiated Partial Stroke Testing. This is useful in cases where you want to initiate Partial Stroke Testing (PST) of your FIELDVUE DVC6200 SIS digital valve controller via analog current. This instruction manual supplement is intended to guide you in the configuration and use of this functionality.

Use these procedures in conjunction with the Safety manual (<u>D103601X012</u>) and Instruction Manual (<u>D103557X012</u>). In addition, exercise good engineering practices and abide by specific plant safety guidelines for safe operation.

A WARNING

This document is not intended to be used as a stand-alone document. It *must* be used in conjunction with the following documents:

Safety Manual for FIELDVUE DVC6200 SIS Digital Valve Controller and Position Monitor (<u>D103601X012</u>) Fisher FIELDVUE DVC6200 SIS Instruction Manual (<u>D103557X012</u>)

Failure to use this instruction manual supplement in conjunction with the above referenced manuals could result in personal injury or property damage. If you have any questions regarding these instructions or need assistance in obtaining any of these documents, contact your <u>Emerson sales office</u>.

Configuring Loop Current Partial Stroke Test Initiation using ValveLink[™] software

Note

Loop current Partial Stroke Testing applies to DVC6200 SIS in Point-to-Point operation only.





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Using ValveLink software, select *Instrument Setup* > *Detailed Setup* and find the SIS / Partial Stroke tab. Find the Start PST on Loop Current Trigger parameter and set it to to "Enabled".

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			vel/Pressure Control Travel History Alerts	Informational Status Deviation & Other Alert	Electronic Alerts s General Self						tuator	SIS / Parti	Notes ial Stroke
Parameter Partial Stroko	e		Instrument			Download	/Upload	Database Datase	et:				
Enable		Enabled			-	\rightarrow	Enabled					•	
Test Start Point		Valve Open			_								
Partial Stroke Press Limit		35.0 psi			-	\rightarrow	35.0 psi						
Max. Travel Movement (%)		10			-	\rightarrow	10						
Test Speed		0.25%/s			-	\rightarrow	0.25%/s					•	
Test Pause Time		10 sec			←	\rightarrow	10 sec					•	
Auto Test Interval		0 days 0 hours 0 mi	nutes		-	\rightarrow	0 days 0 hours	0 minutes					
Start PST on Loop Current Trigger		Disabled			←	\rightarrow	Enabled					•	
SIS Options								Enabled Disabled					
DVC Power Up		Manual Reset			+	\rightarrow	Manual Reset					•	
Action on Failed test		Step Back			+	\rightarrow	Step Back					•	

Initiating a Partial Stroke Test via Loop Current Trigger

When this feature is enabled, the digital valve controller will run a partial stroke test if the loop current is set to within +/0.5% of the PST Initiation Point. The loop current must remain at that point for the duration of the test. This feature is not available when a local control panel is installed.

PST Initiation Points:

Deenergize to Trip (DETT) Applications – 16 mA (Normal State 20 mA and trip State 4 mA – Normally used configuration with Relay A and Relay C)

Energize to Trip (ETT) – 8 mA (Normal State 4 mA and Trip State 20 mA – Normally used configuration with Relay B)

Canceling a Partial Stroke Test via Loop Current Trigger

To abort the test, the loop current must be returned to the normal current. Alternately, setting the loop current to its tripped state will override the PST and abide by the safety function.

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