



Series 261 Structural Pressure Test Controller

Precise cyclic pressure control

Benefits

- » Seamless integration with MTS AeroPro™ software, FlexTest® controls, and data acquisition systems
- » Easy test configuration and setup
- » Convenient, integrated design with all controls and gages located on the front panel
- » Manual control mode for test setup or static pressure testing
- » Over-pressure circuit mitigates potential damage or hazards from excessive structure pressure
- » Pilot pressure filter prevents contamination of SPTC operating elements

The MTS Series 261 Structural Pressure Test Controller (SPTC) provides pressurized air control during cyclic pressure tests in demanding aerospace applications. Designed for reliability and precise control, the SPTC works in conjunction with an external pressurized air supply and a system controller to deliver closed-loop pressure control.

When configured with MTS FlexTest digital controllers, the SPTC controls test structure pressure in proportion to a pre-programmed command signal.

In local mode, the SPTC* controls the pressure via manual front panel controls. When program command signals or dial settings indicate the need to reduce pressure, the SPTC vents pressure from the test structure.

With the SPTC, MTS offers a complete solution for full-scale structural testing in aerospace, enabling manufacturers to acquire critical components from a single, experienced provider. The SPTC also eliminates the need to build customized pressure controls in house.

* Models 261.04 and 261.08

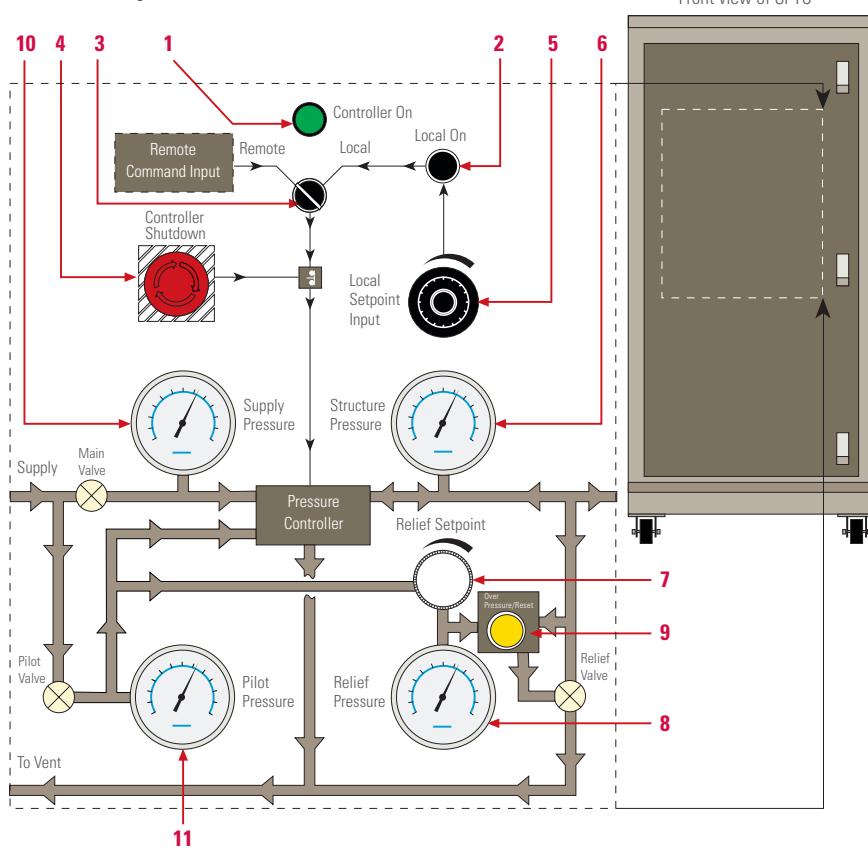
Simple, intuitive pressure control

- 1. Controller On Indicator** lights when the SPTC is active (in local mode, when the pilot and main valves are open; in remote mode, when the pilot valve is open)*
- 2. Local On Switch** activates the SPTC, applying pressure to the test structure if the input air supply is turned on*
- 3. Remote/Local Switch** sets the operational mode (local or remote)*
- 4. Controller Shutdown Switch** locks in and closes the pilot and main valves to depressurize the test structure*
- 5. Local Setpoint Input Control** sets the output pressure (in local mode) and changes the pressure in the test structure when the SPTC is active*
- 6. Structure Pressure Gage** indicates pressure output to the test structure
- 7. Relief Setpoint Control** prevents overpressurization of the test structure, shutting down the SPTC if structure pressure exceeds this setting*
- 8. Relief Pressure Gage** indicates the pressure setting of the relief setpoint control

- 9. Over-Pressure Indicator/Reset Switch** lights to indicate the SPTC is in over-pressure relief state and not active, and resets the interlock when the over-pressure indicator is on*
- 10. Supply Pressure Gage** indicates the input supply pressure
- 11. Pilot Pressure Gage** indicates the pilot pressure

* Models 261.04 and 261.08

Functional Diagram (261.04 & 261.08)



Specifications

Parameter	261.01	261.04	261.08
Maximum supply pressure	0.83 MPa (120 psi)	0.83 MPa (120 psi)	0.83 MPa (120 psi)
Maximum structure pressure*	0.69 MPa (100 psi)	0.69 MPa (100 psi)	0.69 MPa (100 psi)
Pressure Accuracy†	<0.4% full scale	<0.7% full scale	<0.7% full scale
Maximum flow capacity	0.283 m ³ /s at 0.83 MPa (600 scfm at 120 psi)	3.633 m ³ /s at 0.83 MPa (7700 scfm at 120 psi)	7.268 m ³ /s at 0.83 MPa (15400 scfm at 120 psi)
Hose diameters:			
Supply	76.2 mm (3 in)	76.2 mm (3 in)	152 mm (6 in)
Structure	76.2 mm (3 in)	152 mm (6 in)	265 mm (10 in)
Exhaust	76.2 mm (3 in)	152 mm (6 in)	265 mm (10 in)
System controller outputs:			
Solenoid valves	1.5 A at 24 V DC	1.5 A at 24 V DC	1.5 A at 24 V DC
Pressure control command signal	0 to 10 V DC	0 to 10 V DC	0 to 10 V DC
Maximum ambient operating temperature	65°C (150°F)	65°C (150°F)	65°C (150°F)
Maximum ambient operating temperature	0°C (32°F)	0°C (32°F)	0°C (32°F)
Dimensions:			
Height	578 mm (22.8 in)	2096 mm (82.5 in)	2096 mm (82.5 in)
Depth	712 mm (28 in)	1008 mm (39.7 in)	1008 mm (39.7 in)
Width	762 mm (30 in)	800 mm (31.5 in)	800 mm (31.5 in)

* The maximum structure pressure specified is the maximum designed level for the SPTC in the local mode. For a maximum structure pressure less than 0.69 MPa (100 psi), the required maximum structure pressure must be specified at the time of order.

† The pressure accuracy rating depends on the calibrated range of the proportional valve and the accuracy of the external feedback device. Specifications are subject to change without notice.



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