

Controls for Steam Turbines

Control	Peak 150	2301D-ST	505	505E	5009
Typical Application	Mechanical drive turbines with 1 actuator	Generator drive turbines with 1 actuator	Generator or Mechanical drive turbines with 2 actuators	Extraction / Admission; Generator or Mechanical drive turbines with 2 actuators	Extraction / Admission; Generator or Mechanical drive turbines with 2 actuators
Key Features	Low cost, NEMA D control, Remote speed set, NEMA 4X	Low cost, NEMA D control, Internal aux controller, Remote speed set, Internal load sharing	Low cost, NEMA D control, Internal aux and cascade controller, Remote speed set, NEMA 4X enclosure, more I/O than Peak	Low cost, NEMA D control, Internal cascade controller, Remote speed set, NEMA 4X enclosure, more I/O than Peak	505/505E functionality in a TMR (triple modular redundant) configuration
Certifications	Class I, Div 2, Groups A, B, C, D	CE Marked; Marine listed; opt. Class I, Div 2, Groups A, B, C, D	CE Marked; Class I, Div 2, Groups A, B, C, D	CE Marked; Class I, Div 2, Groups A, B, C, D	CE Marked; Class I, Div 2, Groups A, B, C, D
Configure with	External Hand Held Programmer	Download from PC	Front panel or Download from PC	Front panel or Download from PC	Download from PC
Display	Front panel	None, use PC monitor or DCS	Front panel or use PC monitor or DCS	Front panel or use PC monitor or DCS	None, use PC monitor or DCS
Input Power	24/125 Vdc 120 Vac	24 Vdc	24/125 Vdc 120/230 Vac	24/125 Vdc 120/230 Vac	2 Power Supplies 24/125 Vdc 120/230 Vac
Speed Input	2 MPUs	1 MPU	2 MPUs or Prox Probes	2 MPUs or Prox Probes	4 MPUs or Prox Probes
Generator Load Sharing	None	Yes CTs/PTs + LS lines	None, use DSLC or EGCP-3	None, use DSLC or EGCP-3	None, use DSLC or EGCP-3
Analog Inputs	1	2 configurable	6 configurable	6 configurable	8 configurable
Discrete Inputs	8	8 with 3 configurable	16 with 12 configurable	16 with 12 configurable	24 with 20 configurable
Analog Outputs	2 with 1 configurable	1 configurable	6 configurable	6 configurable	4 configurable
Discrete Outputs	4 with 2 configurable	4 configurable	8 with 6 configurable	8 with 6 configurable	12 with 10 configurable
Actuator Outputs	1 4–20 / 20–160 mA	1 0–20 / 4–20 / 0–200 / 20–200 mA	2 4–20 / 20–160 mA	2 4–20 / 20–160 mA	2 4–20 / 20–160 mA, single or dual coil
Digital Communications Ports	1 RS-232/422/485 (Modbus®) + 1 hand-held programmer port	1 RS-232/422 configuration or Modbus port	2 RS-232/422/485 (Modbus) + 1 configuration port	2 RS-232/422/485 (Modbus) + 1 configuration port	2 RS-232/422/485 (Modbus) + 1 configuration port
Prod. Spec.	85549	03297	85005	85005	85578
Manual	85565	26184	85017	85018	85580