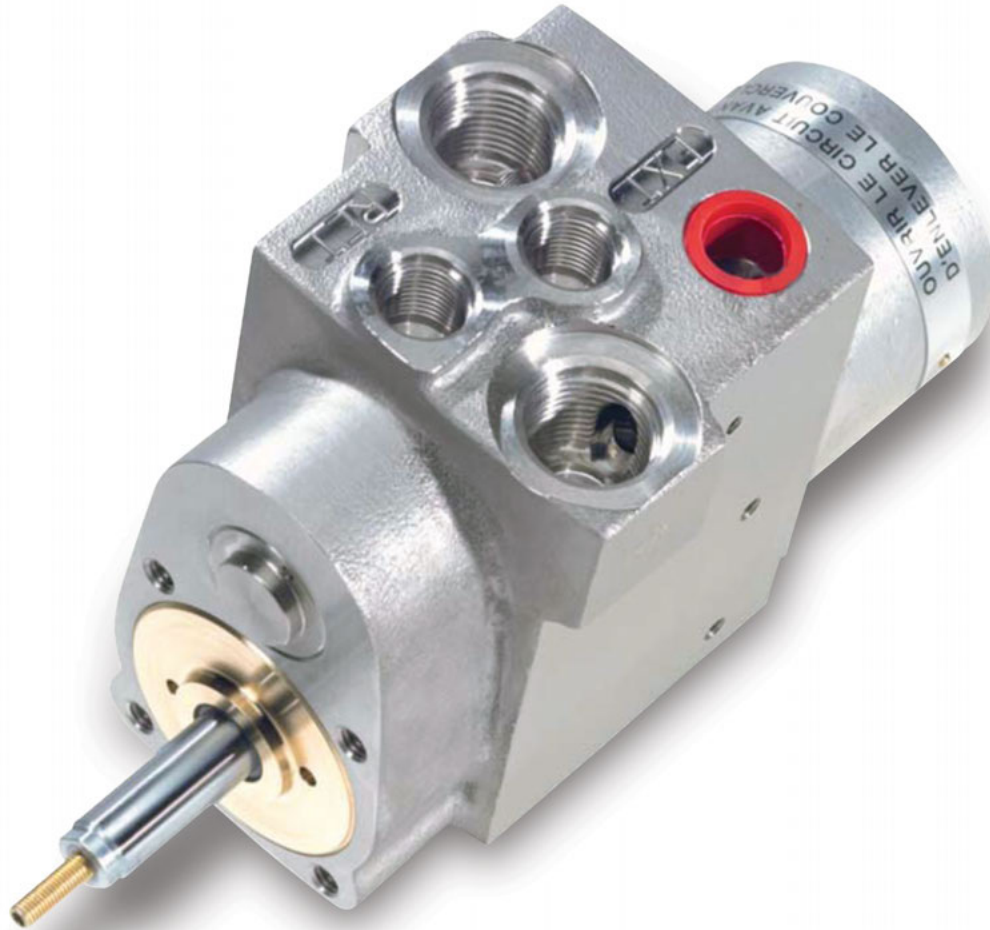


7-5078/5131 Series Hydraulic Servo Actuator



Y&F 7-5078 and 7-5131 Series Actuators and Positioners are used on Saturn, Centaur (all models), Taurus (all models), and Mars (all models) of turbines. The Y&F products are unique because they operate in the Hydraulic Pressure Range of 50 PSI or greater. They are used as Primary Fuel Control Actuators (7-5078 Series), Bleed Air Control Actuators (7-5078 Series), and for Guide Vanes (7-5131 Series). These products use low-pressure lube oil and a closed internal system using a manually driven positioner that has a ramp follower torque motor and provides $\pm 3\%$ of point positional accuracy operating on 4 to 20 mA / 0 to 50 mA / 20 to 4 mA, depending on the suffix dash number.

Features:

- Servo Actuator with Mechanical Feedback; -4 to 20 mA Command Signal
- Position Control: 4-20 mA command
- Low Pressure Hydraulics (55 to 500 PSI)
- Aluminum and Stainless Steel Housings Available
- 1.5 inch Stroke
- Parallel Control Ports Available for Slave Cylinder
- Explosion Proof Approvals

YF 7-5078/5131 Series Technical Specifications

N. American/CENELEC Part Number	7-5078-32	7-5078-33	7-5078-34	7-5078-35	7-5078-36	7-5078-4	7-5131-32	7-5131-33	
ATEX Part Number	7-5078-370	7-5078-380	7-5078-390	7-5078-400	7-5078-410	7-5078-420	7-5131-340	7-5131-350	
Failure Mode	Extend	Extend	Extend	Extend	Extend	Extend	Retract	Retract	
Current mA	Nom. Range	4 to 20	4 to 20	4 to 20	4 to 20	4 to 20	0 to 50	4 to 20	4 to 20
	Full Extend	4.4 ± .4	4.4 ± .4	4.4 ± .4	4.4 ± .4	4.4 ± .4	0 ± 4	19 ± 1	19 ± 1
	Full Retract	19 ± 1	19 ± 1	19 ± 1	19 ± 1	19 ± 1	50 ± 4	4.4 ± .4	4.4 ± .4
Coil Resistance Ohms	400 ± 10%	400 ± 10%	400 ± 10%	400 ± 10%	400 ± 10%	200 ± 10%	400 ± 10%	400 ± 10%	
Volts @ Maximum Current	8 VDC	8 VDC	8 VDC	8 VDC	8 VDC	10 VDC	8 VDC	8 VDC	
Weight Lbs	10	22	10	22	22	10	10	22	
Valve Flow- Minimum GPM @ PSID	N/A	N/A	N/A	8.2 @ 180	8.2 @ 180	N/A	5.8 @ 55	5.8 @ 55	
Minimum Stall Load Lbs. @ 55 PSIG	100	100	100	100	N/A	100	100	100	
Velocity in/sec @ X Lbs @ Nominal Pressure 10% to 90% of Stroke	15 in/sec @ 0 lbs.	15 in/sec @ 0 lbs.	15 in/sec @ 0 lbs.	15 in/sec @ 0 lbs.	N/A	10 in/sec @ 0 lbs.	15 in/sec @ 0 lbs.	15 in/sec @ 0 lbs.	
Velocity in/sec @ X Lbs @ 25 PSIG 10% to 90% of Stroke	2 in/sec @ 0 lbs.	2 in/sec @ 0 lbs.	2 in/sec @ 0 lbs.	N/A	N/A	2 in/sec @ 0 lbs.	2 in/sec @ 0 lbs.	2 in/sec @ 0 lbs.	
Pressure PSIG -	Minimum:	55	55	55	200	200	55	55	55
	Nominal:	55	55	55	500	500	55	55	55
	Maximum:	400	400	400	550	550	400	400	400
	Proof:	550	550	550	600	600	550	550	550
	Burst:	700	700	700	1000	1000	700	700	700
Materials -	Actuator/Valve Body:	Alum. Alloy	SS	Alum. Alloy	SS	SS	Alum. Alloy	Alum. Alloy	SS
	Motor Cover:	Alum. Alloy	SS	Alum. Alloy	SS	SS	Alum. Alloy	Alum. Alloy	SS
	Piston/Feedback Rod:	Chrome Plt Stl	Chrome Plt Stl	Chrome Plt Stl	Chrome Plt Stl	Chrome Plt Stl	Chrome Plt Stl	Chrome Plt Stl	Chrome Plt Stl
Type	Servo hydraulic, explosion proof								
Temperature	Media: +20°F to +210°F (-7°C to +99°C) • Ambient: -10°F to +200°F (-20°C to +93°C)								
Hysteresis, Max at 95°F - 210°F Media	3% of full stroke (0.045")								
Threshold, maximum	0.5% of input signal range								
Fluid Media	Turbo 32								
Fluid Cleanliness	ISO 14/11 or NAS 5								
External Leakage	1 Drop/50 cycles maximum								
Stroke	1.5" ± 0.1" (38.1mm ± 2.5mm)								
Ingress Protection	IP 65								
Certifications	