



**Visual Dial  
 Position Indicator**

**Ball Bearing Reliability**

Ball bearings on both the inner and outer rotor shaft provide greater reliability.

**Travel Switches**

10amp SPDT with position feedback.

**High Strength Heat Treated Gears**

One piece worm and output shaft for strength.

**Optional Heater & Thermostat**

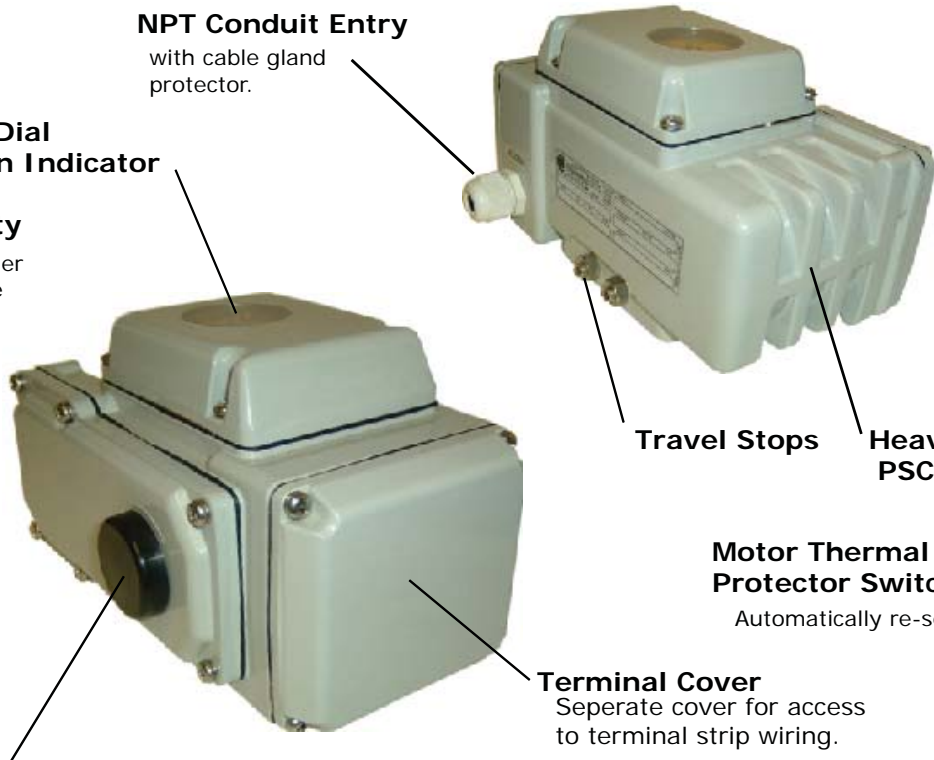
Other options available.

**Worm Gear Drive**

Manual Operation is accomplished by removing the dust cover and simply turning the gear with the supplied hex wrench.

**NPT Conduit Entry**

with cable gland protector.



**Travel Stops**

**Heavy Duty  
 PSC Motor**

**Motor Thermal  
 Protector Switch**

Automatically re-setting

**Terminal Cover**

Separate cover for access to terminal strip wiring.

**IP65 Design Housing Protection**

Similar to NEMA 12 for protection against dust and water jet spray.

**Standard Features:**

**Compact - Reliable:**

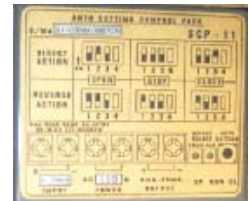


**Ideal for  
 butterfly valve  
 automation.**

Because of the worm drive gear, the NL unit is ideally suited for rubberlined butterfly valves. Worm gears are typically used on applications to prevent back driving which causes excessive valve oscillations.

**Modulating Control with  
 Digital Calibration**

4-20mA input allows complete control over valve position. Push button setup is digitally stored. Comes standard with 4-20mA output.



\*Requires longer side cover on NL1 and NL4 models. Controller fits into same housing on all other models.

**Optional Motor  
 Voltages**

115Vac, 230Vac  
 380Vac  
 12, 24Vdc  
 consult factory for other voltages

**Relays, feedback  
 sensors,...**

Consult factory for custom electrical requirements.

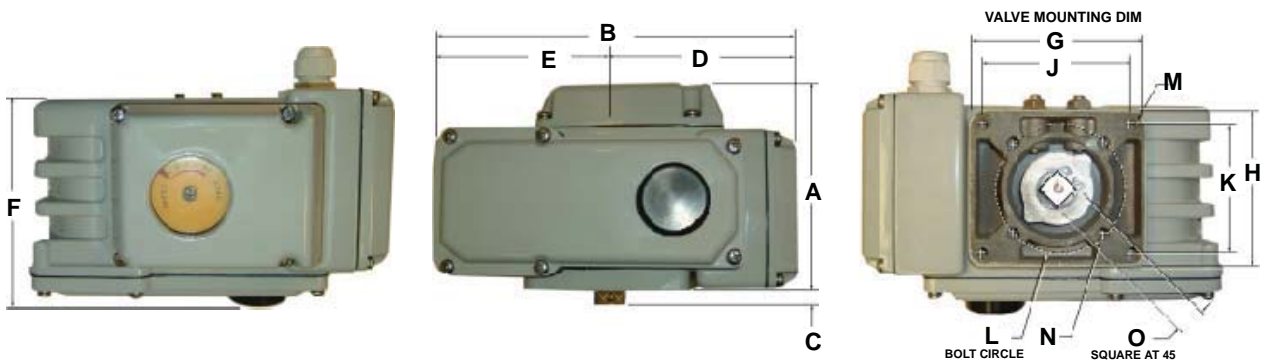
**Options:**

**B00033-04**

Performance:

Model	Output Torque		Current amperes	Speed Sec/90	Optional Sec/90	Weight	
	in-lbs	N-m				Lbs	Kg
NL1	177	20	0.5	10	-	4	2
NL4	440	50	0.5	20	-	4	2
NL8	880	100	0.9	30	60	9	4.3
NL1.7K	1,760	200	1	30	60	17	7.8
NL2.2K	2,200	250	1	30	60	17	7.8
NL3.5K	3,520	400	2	30	60	18	8
NL4.4K	4,400	500	2	30	60	18	8
NL8.8K	8,800	1,000	2	30	60	26	12
NL17.6K	17,600	2,000	2	60	100	26	12

Dimensional:



Model	A	B	C	D	E	F	G	H	J	K	L	M	N	O
NL1	4.5	6.1	0.4	2.7	3.4	4.0	3.1	2.8	2.7	2.4	2.8	M6	M8	0.472
NL4	4.5	6.1	0.4	2.7	3.4	4.0	3.1	2.8	2.7	2.4	2.8	M6	M8	0.472
NL8	4.5	8.2	0.6	4.3	3.9	4.7	3.9	3.4	3.2	2.8	2.8	M6	M8	0.591
NL1.7K	5.6	10.1	0.9	5.2	4.8	6.1	5.3	4.2	4.6	3.3	4.0	M10	M10	0.906
NL2.2K	5.6	10.1	0.9	5.2	4.8	6.1	5.3	4.2	4.6	3.3	4.0	M10	M10	0.906
NL3.5K	5.6	10.1	0.9	5.2	4.8	6.1	5.3	4.2	4.6	3.3	4.0	M10	M10	0.906
NL4.4K	5.6	10.1	0.9	5.2	4.8	6.1	5.3	4.2	4.6	3.3	4.0	M10	M10	0.906
NL8.8K	6.7	11.0	1.0	6.0	5.0	6.1	6.7	4.2	4.6	3.3	N/A	M12	N/A	1.181
NL17.6K	6.7	11.0	1.0	6.0	5.0	6.1	6.7	4.2	4.6	3.3	N/A	M12	N/A	1.181

**BI-TORQ VALVE AUTOMATION**

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