

# BCS 7700 Firing Rate Motor

## M7484 BCS 7700 Firing Rate Motor

Low voltage, reversing, proportional modutrol motor used to drive a fuel valve and combustion air damper as commanded by the BCS 7700.



- Requires 24 Vac power supply.
- Electronic vibration-resistant drive circuit.
- Die-cast aluminum case.
- Feedback potentiometer circuit provides position indication input to the BCS 7700 System, as well as Low and High fire position proving.
- Double-ended, 3/8 in. square crankshaft.

### APPROVALS:

Underwriters Laboratories Inc. Component Recognized: File No. MP268, Guide No. MCCZ.  
Canadian Standards Association Certified: LR95329-1.  
Industrial Risk Insurers Acceptable.

### TEMPERATURE RATINGS:

Operating: 32 F to 150 F (0 C to 66 C).  
Shipping: -30 F to +150 F (-35 C to +66 C).

HUMIDITY RATINGS: 85% relative humidity continuous, noncondensing.

VIBRATION: 0.5g continuous.

TORQUE BREAKAWAY<sup>a</sup>: 300 lb.-in.

DEADWEIGHT LOAD ON SHAFT:

Power End: 200 lb. (91 kg) maximum.  
Auxiliary End: 100 lb. (45 kg) maximum.

<sup>a</sup> The maximum torque available to overcome occasional large loads, such as seized damper or valve. **MUST NOT BE USED CONTINUOUSLY AT THIS RATING.**

### ELECTRICAL RATINGS:

Terminal	Description	Rating
G	Common (Negative Supply)	0V
Y	Power Supply from BCS 7700	8.0V ±0.050 Vdc
	Overvoltage continuous	9.0 Vdc Maximum
T	Signal to BCS 7700	1.5 - 5.5 Vdc
1	Damper Motor Close	24 Vac, 50/60 Hz
2	Damper Motor Open	
3	Damper Motor Common	

CURRENT DRAW: 0.8A at 24 Vac.

POWER CONSUMPTION: 18W.

### ACCESSORIES:

- ES650117 Explosion-proof housing. Encloses motor for use in hazardous locations. Not for use with Q100 Valve Linkage.<sup>b</sup>
- Q100 Linkage. Connects motor to butterfly valve.
- Q601 Linkage. Connects motor to water or steam valve.
- Q618 Linkage. Connects motor to water or steam valve.
- Q181A Auxiliary Potentiometer. Controls additional Series 90 Modutrol Motor.
- 220738A Adapter Bracket. Adjusts shaft height to match M741B.
- Q607 Auxiliary Switch. Controls auxiliary equipment as a function of motor position.
- Q605 Damper Linkage. Connects motor to damper and includes a motor crank arm.
- 7617ADW Adjustable Modutrol IV Motor Crank Arm.
- 4074ERU Weatherproofing Kit. Weatherproofs motor.
- 220741A Screw Terminal Adapter. Used to convert motor quick-connect terminals to screw terminals.

<sup>b</sup> Available only through Nelson Electronics, Order Services Dept., P.O. Box 726, Tulsa, OK 74101; (918) 627-5530.

Order Number	Electrical Ratings, Power Supply	Timing Opening	Stroke (degrees)	Includes	Dimensions, Approximate
M7484A1010	24 Vac, 50/60 Hz	30 sec.	90	Internal drive circuit	5½ in. (140 mm) wide, 7¾ in. (185 mm) high, 6¼ in. (164 mm) deep.

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