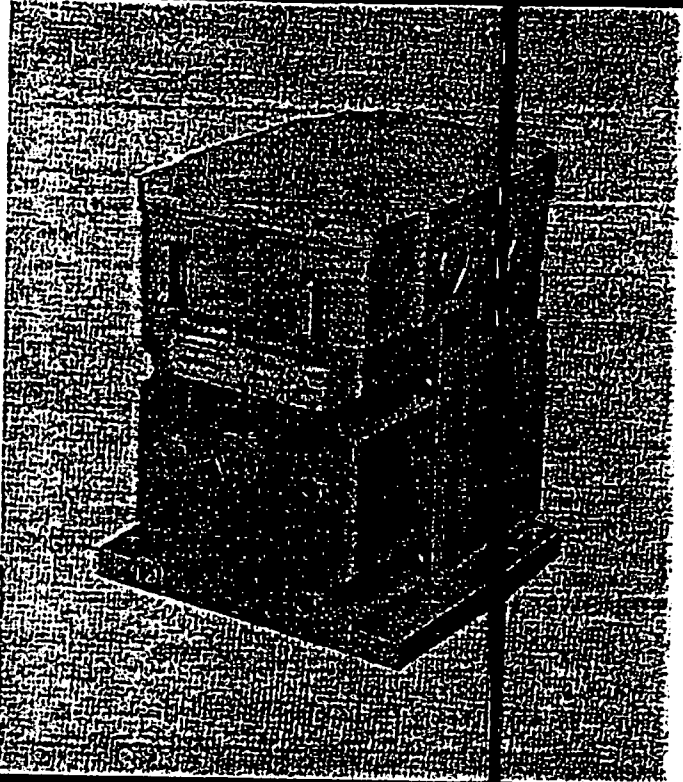


Honeywell

THE M7984N MOTOR IS A LOW VOLTAGE MOTOR USED TO CONTROL VALVES AND DAMPERS. THE MOTOR WILL ACCEPT A 0-2.5 Vdc SIGNAL FROM A PROPORTIONAL CONTROLLER. THE MOTOR WILL POSITION THE VALVE OR DAMPER (WITH SUITABLE LINKAGE) AT ANY POINT BETWEEN FULL OPEN AND FULL CLOSED AS DETERMINED BY THE INPUT FROM THE CONTROLLER. THE ELECTRONIC CIRCUIT ELIMINATES BALANCING RELAY CONTACTS THAT CAUSE CHATTER DUE TO EXCESSIVE VIBRATION.

- Replaces M744J.
- Rated for 150 lb.-in. torque.
- M7984N motors are normally closed, non-spring-return motors. When power fails, these motors will retain their last position.
- Zero adjustment feature allows input range of the motor to be adjusted to precisely match the controller output.
- Wiring box provides NEMA 3 weather protection.
- Motor stroke is fixed at 90 degrees.
- Adapter bracket for matching shaft height of M744J motors is standard with replacement motors.
- Rated for ambient temperatures of minus 40° F to plus 150° F [minus 40° C to plus 66° C].
- Direct drive feedback potentiometer is provided for accurate positioning of the motor by its electronic circuit.
- Oil-immersed geartrain for reliable performance and long life.
- Die cast magnesium housing.
- Explosion-proof housing is available.
- Uses standard Modutrol motor accessories, including damper and valve linkages.

MODUTROL IV MOTORS



M7984N

SPECIFICATIONS

MODEL:

M7984N—low voltage, proportional, non-spring-return, without auxiliary switches.

ELECTRICAL RATINGS:

Voltage and Frequency—24 Vac, 50/60 Hz.

Power Consumption—18 W.

Current Draw—0.8

CONTROLLER:

- May be used with Despatch Digitronic Controller.
- Motors can be used with any electronic controller that provides a stable, noise-free 0.25 Vdc proportional signal output.

OPERATING TORQUE: 150 lb.-in. (17 N-m).

BREAKAWAY TORQUE (Crank Arm Loading): 300 lb.-in. (34 N-m) Breakaway torque is available to overcome an occasional frozen or seized damper or valve.

MOTOR MUST NOT BE USED CONTINUOUSLY AT THIS RATING.

INPUT RANGE: Applied to positive terminal (D) and negative terminal (X) in series with a 2.7KΩ resistor (located internally in the Despatch Digitronic Controller).

ZERO POTENTIOMETER SETTING	ZERO POINT (MOTOR CLOSED)	SPAN
CW	-0.9	2.6
CCW	1.0	2.4

INPUT IMPEDANCE: 3.6K ohms.

MOTOR ROTATION:

Normally closed. The closed position is the limit of the counterclockwise rotation as viewed from the power end of the motor. See Fig. 2. Motor opens clockwise (as viewed from the power end.)

STROKE: Fixed, 90 degree stroke.

TIMING: 30 seconds nominal at 90 degree stroke.

BRAKE: Electromechanical; holds load when motor winding is deenergized and releases when motor winding is energized.

DEADWEIGHT LOAD ON SHAFT:

Power End—200 lb. (90.7 kg) maximum.

Auxiliary End—100 lb. (45.4 kg) maximum.

AMBIENT TEMPERATURE:

Minimum: Minus 40° F [minus 40° C].

Maximum: Plus 150° F [plus 66° C] at 25 percent duty cycle.

CRANKSHAFT: Double-ended, 3/8 in. (9.5 mm) square, tapped for 8-32 UNC screw.

GEAR TRAIN: Motorized gear train runs submerged in special mineral oil.

DIMENSIONS: Refer to Fig. 1.

WIRING TERMINATION: Motor terminals are 1/4 in. (6.4 mm) quick-connects. Part 220741A is available for adapting to screw terminals;

ACCESSORIES:

ES650117 Explosion-proof Housing—Encloses motor for use in explosive atmospheres. Not for use with Q601, Q618, and Q455 Linkages. Order separately from Nelson Electric Co. Requires Honeywell 7616DM Coupling.

Q607 External Auxiliary Switch—Controls auxiliary equipment as a function of motor position.

Q605 Damper Linkage—Connects motor to damper. INCLUDES MOTOR CRANK ARM.

Q618 Linkage—Connects Modutrol motor to water or steam valve.

Q601 Bracket and Linkage Assembly—Connects Modutrol motor to water or steam valve.

Q100 Linkage—Connects Modutrol motor to butterfly valve.

221455A Motor Crank Arm—Infinitely adjustable crank arm. Approximately 0.75 inches shorter than the 4074ELY crank arm, can rotate through downward position and clear base of motor without requiring use of adapter bracket.

220741A Screw Terminal Adapter—Converts the standard quick-connect terminals to screws terminals.

7617ADW Motor Crank Arm—Approximately 0.75 inches shorter than 7616BR crank arm, can rotate through downward position and clear base of motor without requiring use of adapter bracket.

Transformers—Mounted internally, provide 24 Vac power to motor.

198162JA—24 Vac; 50/60 Hz (for electrical isolation).

198162EA—120 Vac; 50/60 Hz.

198162GA—220 Vac; 50/60 Hz.

198162AA—120/208/240 Vac; 50/60 Hz.

ORDERING INFORMATION

WHEN PURCHASING REPLACEMENT AND MODERNIZATION PRODUCTS FROM YOUR AUTHORIZED DISTRIBUTOR, REFER TO THE TRADELINE CATALOG OR PRICE SHEETS FOR COMPLETE ORDERING NUMBER.

IF YOU HAVE ADDITIONAL QUESTIONS, NEED FURTHER INFORMATION, OR WOULD LIKE TO COMMENT ON OUR PRODUCTS OR SERVICES, PLEASE WRITE OR PHONE:

1. YOUR LOCAL HONEYWELL RESIDENTIAL AND BUILDING CONTROLS OFFICE (CHECK WHITE PAGES OF YOUR PHONE DIRECTORY).
2. RESIDENTIAL AND BUILDING CONTROLS CUSTOMER SERVICE
HONEYWELL INC., 1885 DOUGLAS DRIVE NORTH
MINNEAPOLIS, MINNESOTA 55422-4386 (612) 542-7500

(IN CANADA—HONEYWELL LIMITED/HONEYWELL LIMITEE, 740 ELLESMERE ROAD, SCARBOROUGH, ONTARIO M1P 2V9), INTERNATIONAL SALES AND SERVICE OFFICES IN ALL PRINCIPAL CITIES OF THE WORLD.