

2000 Series HercuLine™ Actuators

Model Selection Guide

Instructions

- Select the desired key number. The arrow to the right marks the selection available.
 - Make the desired selections from Tables I thru VIII using the column below the arrow.
- A dot (•) denotes unrestricted availability.

Key Number	I	II	III	IV	V	VI	VII	VIII	IX
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

KEY NUMBER - Motor Selection	Selection	Availability			
Basic Motor Unit (no electronics)	2000	↓			
Basic Motor Unit plus Digital Electronics	2001		↓		
Enhanced Performance Motor Unit with Non-contact Position Sensing	2002			↓	
Unidirectional Motor (M640D Replacement)	2003				↓

TABLE I - TORQUE & SPEED SELECTION (speed per 150 degree rotation)

Torque, lb-in/(N-M)	50Hz	60Hz				
50 / (6.0)	7.5 sec	6 sec	050	•	•	•
100 / (11.5)	15 sec	12 sec	100	•	•	•
200 / 22.5)	30 sec	25 sec	200	•	•	•
400 / (45.0)	60 sec	50 sec	400	•	•	•
400 / (45.0)	90 sec	75 sec	600	•	•	•

TABLE II - ROTATION

Travel	90 degrees	090	•	•	•	
	150 degrees	150	•	•	•	
	360 degrees	360				•

TABLE III - POWER SUPPLY

Single Phase	100 - 130 Vac, 60 Hz	(Note 5)	126	•	•	•	•
	100 - 130 Vac, 50 Hz		125		•	•	
	200 - 240 Vac, 60 Hz	(Note 5)	246	•	•	•	
	200 - 240 Vac, 50 Hz		245		•	•	

TABLE IV - ANALOG INPUT/OUTPUT SIGNALS

Input	3 Wire Drive up/down	0 __	•			
	0/4-20 mA, 0/1-5 Vdc, 0-10 Vdc	2 __		•		
	0/4-20 mA, 0/1-5 Vdc, 0-10 Vdc	3 __			•	
	0 to 135 ohm input (Series 90 control)	4 __		a		
	Contact Input for 2003	6 __				•
Output	None	_ 00	•	•	•	•
(Note 1)	Dual 1000 Ohm (1000 ohms over 150 degrees)	_ 15	b			
(Note 1)	Dual 1000 Ohm (1000 ohms over 90 degrees)	_ 19	c			
	Slidewire Emulation	_ 60		•		
	Slidewire Emulation	_ 65			•	
	0/4-20mAdc (0/1-5 Vdc, 0-16 Vdc)	_ 80		•		
	0/4-20mAdc (0/1-5 Vdc, 0-16 Vdc)	_ 85			•	

TABLE V - SWITCH AND RELAY OUTPUTS (2 end-of-travel switches are standard)

Auxiliary Outputs	No Auxiliary Switches	0 _	•	•	•	
	2 Auxilliary Switches	2 _	•	•		•
	4 Auxilliary Switches	4 _	•	•		
Relay Outputs	No Relays	_ 0	•	•		
	2 Programmable Relay Outputs	_ 2		•		
	2 Programmable Relay Outputs	_ 3			•	
	4 Programmable Relay Outputs	_ 4		•	•	

2000 2001 2002 2003

TABLE VI - OPTIONS

		Selection	↓	↓	↓	↓
Local keypad/ display	No local display interface supplied (Note 2)	0_____	•	•	•	•
	Integrally mounted local display/keypad interface	1_____		•	•	
Local Auto/ manual switch	No auto/manual switch	_0_____	•	•		•
	Auto/manual switch with "Out of Auto Contact"	_1_____	•	•		
	Auto/manual switch with "Out of Auto Contact"	_2_____			•	
Handwheel	No Handwheel	__0____	•	•	•	•
	Handwheel	__1____	•	•	•	•
Certificates	None	___0___	•	•	•	•
	Certificate of Conformance	___1___	•	•	•	•
Approvals	UL Type 4/IP66, CSA (Note 4)	____0_	•	•	•	•
	CE	____1_	•	•	•	
Shipped Rotation	Counter clockwise shaft rotation on increasing signal	_____0	•	•	•	•
	Clockwise shaft rotation on increasing signal	_____1		•	•	

TABLE VII - COMMUNICATIONS/PROTOCOL

None	No communications option board or protocol	0	•			•
Modbus RTU RS485	RS-485 Modbus compliant - standard with EEU	1		•	•	

TABLE VIII - MANUALS

Standard	English	0	•	•	•	•
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TABLE IX - FACTORY OPTIONS

Factory Options	None	00	•	•	•	•
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Restrictions

Restriction Letter	Available Only With		Not Available With	
	Table	Selection	Table	Selection
a	IV	_00	IV	_60, _80
b	II	150	II	090
c	II	090	II	150

ACCESSORIES

Mounting Hardware	Mounting plate adapter for Barber Colman Series MP495	51452354-501
	Mounting plate adapter for Landis & Staefa SQM53/56	51452354-502
Linkage Assembly	Direct Couple Valve Hardware	51452354-503
	North American Valve Retrofit Kit	51452354-511
	Ball joint for 5/16" dia. Pushrod	51452354-504
	Pushrod 12 in. (304,5 mm) long, 5/16 " dia.	51452354-505
	Pushrod 18 in. (457,2 mm) long, 5/16 " dia.	51452354-506
	Pushrod 24 in. 609,6 mm) long, 5/16 " dia.	51452354-507
	Pushrod 48 in. (1219,2 mm) long, 5/16 " dia.	51452354-508
Handheld Config. (Note 3)	HercuLink™ Palm Software	51452354-509
	Battery powered 232/485 converter with cable	51452354-510
Remote Mount Control	Remote 4-20 mA requires 135 ohm fdbk, 120V 50/60Hz	R7195A1031
	Remote 4-20 mA requires 1000 ohm fdbk, 120V 50/60Hz	R7195A1056
	Remote 4-20 mA requires 135 ohm fdbk, 220V 50/60Hz	R7195A1064
	Remote 135 ohm input requires 135 ohm fdbk, 120V 50/60Hz	R7195B1021

- Notes:**
- 135 ohm available by parallelling 1K potentiometer with 158 Ohm resistor (supplied).
 - HercuLink™ software (pn 51452354-509), RS232/485 converter (pn 51452354-510), customer supplied Palm™ PDA running OS3.5 or higher and Palm serial cable are required for the 2001 and 2002 actuators if no display is selected.
 - Requires PDA manufacturer's serial interface cable.
 - CSA approval is good for 75°C and a maximum relay load of 3.5 amps or 70°C with a relay load of 5 amps.
 - HercuLine 2000 Selections 126/246 can be used with either 50 or 60 Hz Power Supply.