

HRS Series On/Off & Proportional Electric Actuators

OVERVIEW

HRS SERIES ELECTRIC ACTUATORS



Non-Declutchable
Manual Override System
Suitable for use with overhead
chain-wheel installations

Powder Coated Aluminum Alloy
NEMA 4/4X/IP67 Enclosure

Raised Position Indicator

(2) Conduit Entry
Ports, Cable or
Conduit Compliant



Self Locking Epicyclic Transmission and
Low Pull-Force Worm Override Design



Local Control Station Options
Featuring Key Lockout, LCD
Display and LED Indicator Display



SAFE
Fail-Safe Battery
Backup Options



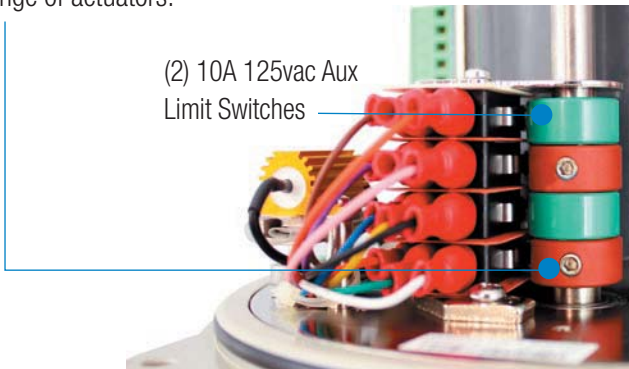
OVERVIEW

Hayward's HRS Series electric actuators are designed and produced to provide years of service in demanding industrial environments such as chemical processing, waste and water treatment, power generation, oil & gas, marine, mining and building services. These quarter-turn units drive dampers, ball valves, butterfly valves or inlet guide vanes that require torque ranges from 300 lbf-in up through 177,000 lbf-in. The HR Series housings are designed to meet NEMA 4X environmental demands, with ISO5211 compliant mounting that readily mounts up to most valves in the industries served. Featuring an epicyclic transmission system, the HR Series provides highly efficient multiplication of motor power to produce uniquely compact torque ranges compared to other technologies. A clutch-free manual override system provides full-time override capabilities during powered or un-powered events, and allows for simple adaptation for overhead chain-wheel drive installations.

UNDER THE HOOD

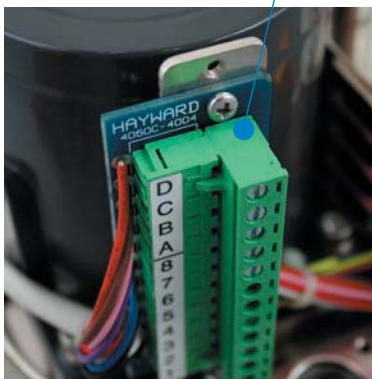
COLOR CODED CAM SYSTEM

Easily accessible travel and auxiliary switch cams are color coded to provide instant recognition of the CW or CCW cams when making stroke adjustments. Cam positions are easily changed by utilizing 2.5mm setscrews across the entire HRS range of actuators.

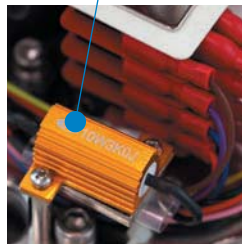


PLUG & PLAY WIRING

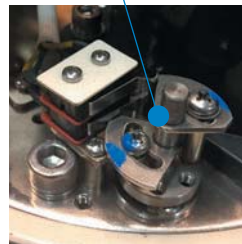
Clean, Easily Accessible Internal Wiring Layout, Removable Wire Receiver for Ease of Install



STANDARD ANTI-CONDENSATE HEATER



TORQUE SWITCH



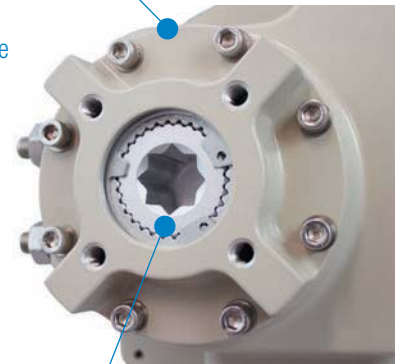
Pre Calibrated Torque Switch, Factory Set and not for field adjustment. Provides the utmost in over torque protection for the most sensitive of applications. All Torque forces are measured mechanically directly from the gear train.

ISO VERSATILITY

Following ISO principle, the Hayward HRS Series line of actuation offers complete versatility with a wide range of ISO compliant flanges and interchangeable drive sockets.

ISO 5211 MOUNTING FLANGE

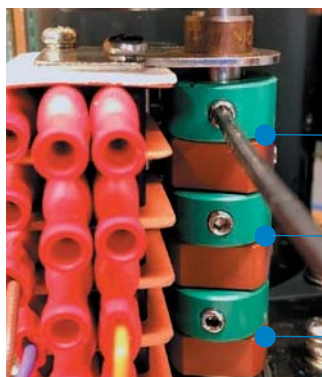
- Double Square
- Square
- Double D
- Rounded Key



INTERCHANGEABLE BUSHING



Externally Accessible Adjustable Mechanical Stops



- (2) Optional AUX Switches
(Dry Contact Close / Dry Contact Open)
- (2) STANDARD AUX SWITCHES
(Dry Contact Close / Dry Contact Open)
- (2) Motor Close / Motor Open

DIGITAL/ANALOG TIMER KIT

The 7-day timer offers two channels with daily and weekly programming functionality. High accuracy of timing, user-friendly interface and clear LCD display offers convenience and reliability for timing/scheduled applications.





QUICK & DISCOUNTED PRICING
CLICK HERE
 OR CALL (908) 362-9981



HRSN3 Series On/Off & Proportional Electric Actuators



FOR BALL AND BUTTERFLY
 VALVES UP TO 8"

KEY FEATURES

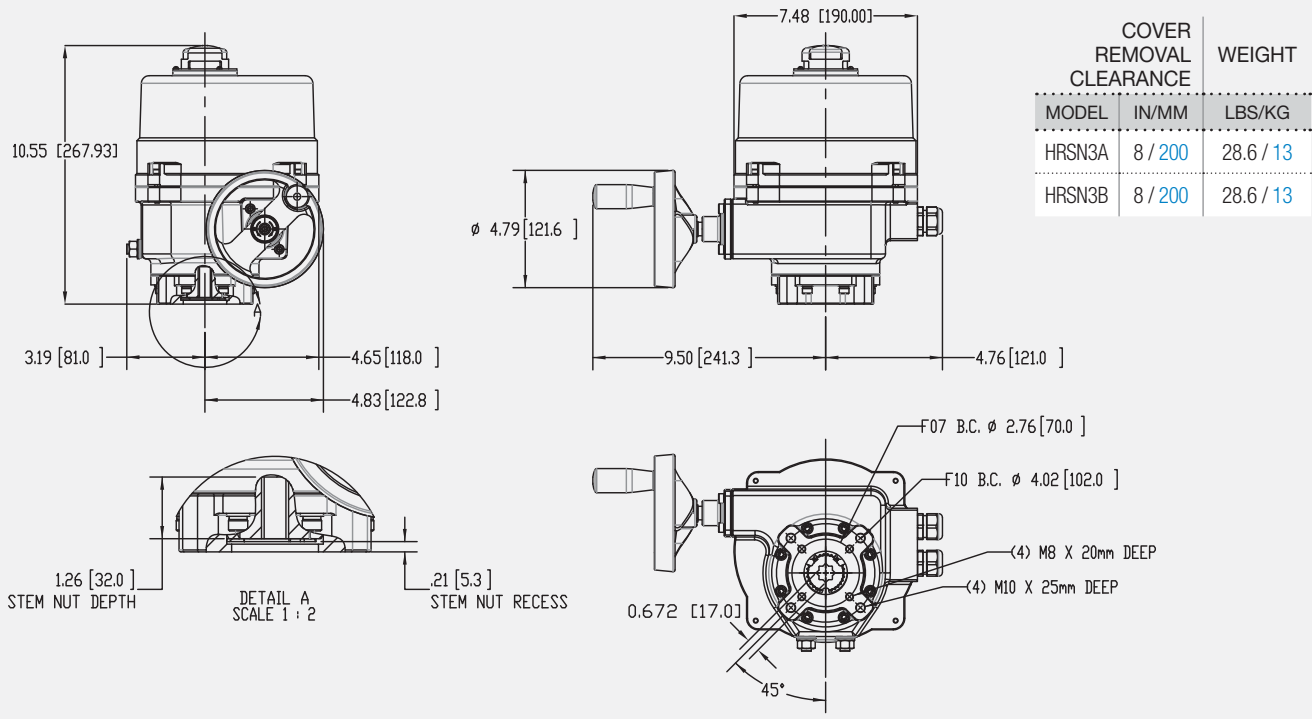
- Units are equipped with two (2) volt-free Form A Auxiliary switches
- ISO5211 compliant mounting with removable double square female drives and inserts
- 120VAC operation standard with 24VAC/VDC, 230VAC & 3 Phase options available
- Raised visual position indicator
- NEMA 4X/IP67 compliant
- Two (2) EMT entry ports with sealed cable glands

OPTIONS

- Local Control Stations
- IP68 Submersion
- Battery Backup
- Interchangeable ISO5211 Flange & Drives
- Torque Switches

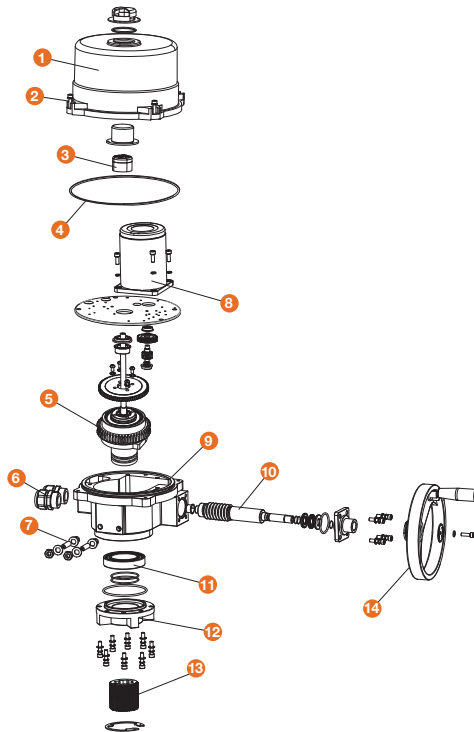
HRSN2
 HRSN3
 HRSN4
 HRSN5

TECHNICAL INFORMATION



HRSN3 Series On/Off & Proportional Electric Actuators

FOR BALL AND BUTTERFLY VALVES UP TO 8"



PARTS LIST

1. Cast Aluminum Cover
2. Captured Cover Screws
3. High Visibility Position Indicator
4. Cover O-Ring Seal
5. Epicyclic Transmission Set
6. EMT Glands
7. External Mechanical Stops
8. Drive Motor
9. Cast Aluminum Housing
10. Worm Override Shaft
11. Heavy Final Drive Bearing
12. ISO5211 Flange
13. Splined Drive Insert
14. Handwheel w/Collapsible Knob

ACTUATOR SPECIFICATIONS

		HRSN3A	HRSN3B	
Supply	Torque Output (in-lb / Nm)	880/100	1770/200	
12VAC*	Current Draw (Start / Run / LRA)	7.2A / 5.2A / 17.8A	7.2A / 5.2A / 17.8A	
	Speed (90°) DC-60Hz/50Hz, seconds	14 / 14	28 / 28	
	Motor - 12V DC Perm Magnet 2 Pole Brush	25W	25W	
	On/Off / Proportional	Duty Cycle (IEC60034)	75% (S2-15 min) / 75% (S4-75%)	
12VDC*	Motor Protection, Temp / Class	All - 130°C / Class B		
	Motor Starts, per hour, Max	All - 600		
	24VAC	Current Draw (Start / Run / LRA)	4.2A / 3.2A / 11.0A	4.2A / 3.2A / 11.0A
		Speed (90°) DC-60Hz/50Hz, seconds	14 / 14	28 / 28
Motor - 24V DC Perm Magnet 2 Pole Brush		25W	25W	
On/Off / Proportional		Duty Cycle (IEC60034)	75% (S2-15 min) / 75% (S4-75%)	
24VDC	Motor Protection, Temp / Class	All - 130°C / Class B		
	Motor Starts, per hour, Max	All - 600		
	120VAC	Current Draw (Start / Run / LRA)	1.2A / 0.9A / 1.5A	1.2A / 0.9A / 1.5A
		Speed (90°) 60Hz / 50Hz, seconds	16 / 19	33 / 39
Motor - 120V Capacitor Run TENV		40W	40W	
On/Off - Std Duty / On/Off - Ext Duty & Proportional		Duty Cycle (IEC60034)	25% (S2-15 min) / 75% (S4-75%)	
230VAC	Motor Protection, Temp / Class	155°C / Class F / 180°C / Class H		
	Motor Starts, per hour, Max	600 / 1200		
	All	Current Draw (Start / Run / LRA)	0.5A / 0.4A / 0.7A	0.5A / 0.4A / 0.7A
		Speed (90°) 60Hz / 50Hz, seconds	16 / 19	33 / 39
Motor - 230V Capacitor Run TENV		40W	40W	
On/Off - Std Duty / On/Off - Ext Duty & Proportional		Duty Cycle (IEC60034)	25% (S2-15 min) / 75% (S4-75%)	
All	Motor Protection, Temp / Class	155°C / Class F / 180°C / Class H		
	Motor Starts, per hour, Max	600 / 1200		
	Environmental Rating	NEMA 4/4X & IP67		
	Electrical Entry (2)	3/4" EMT or Polyamide gland		
	Control	On/Off, Proportional, 2 Pos RO, RC & 3 Position		
	Auxiliary Switch - End of Travel	(2) Form A Volt-Free, Rated 10A @ 250vac		
	Ambient Operating Range	-22°F to +158°F (-30°C to +70°C)		
Humidity Range	0-95% RH			
Altitude Limit	9850 ft / 3000 m			



Hayward is a registered trademark of Hayward Industries, Inc. © 2021 Hayward Industries, Inc.



**QUICK & DISCOUNTED PRICING
CLICK HERE
OR CALL (908) 362-9981**



HRSN3 Series Electronic Fail-Safe Actuator Battery Backup



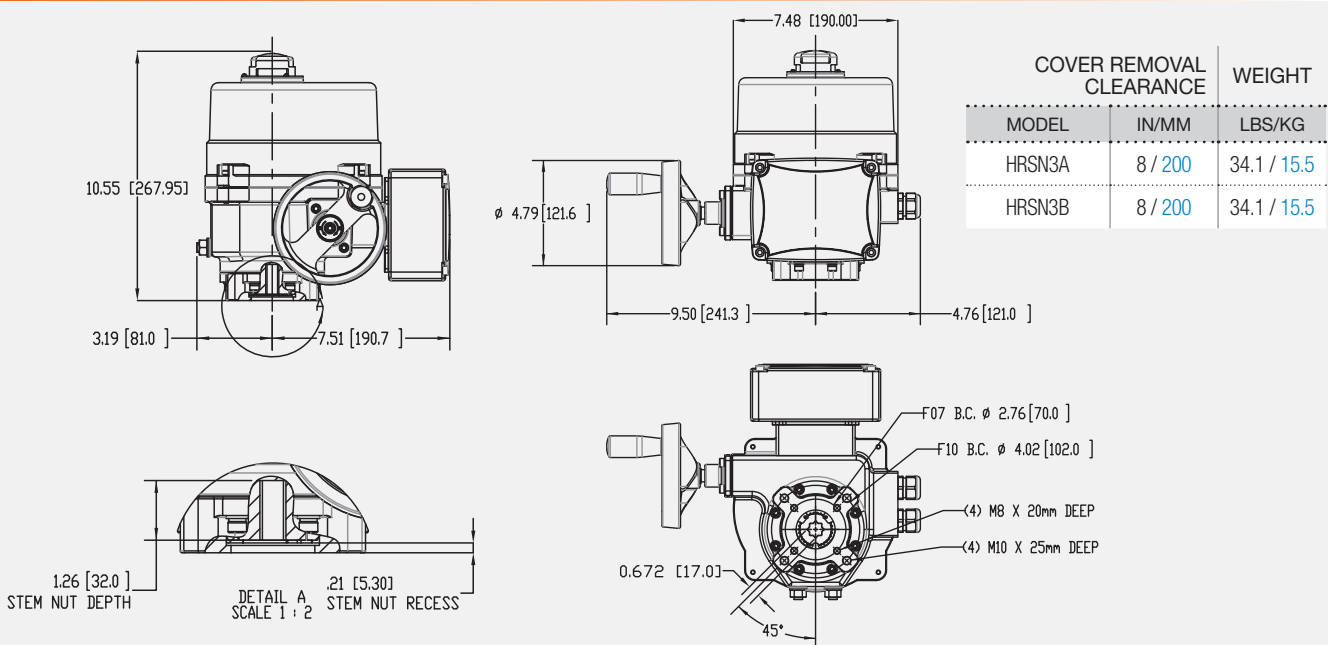
KEY FEATURES

- Stored Energy System provides positive valve positioning upon loss of mains power
- Up to 1770"lbs torque for ball valves and butterfly valves up to 8"
- 24VAC/VDC operation standard, with 120vac and 230vac transformer options available
- Field selectable fail CW or CCW operation for complete flexibility
- Self-Contained charge and discharge control of the Lithium-Ion Battery provides maximum life from the reserve energy system
- Battery Pack is field replaceable to minimize down-time
- Stored Energy status indicators show system health
- Fault-Out contact is standard and allows remote monitoring of the stored energy system performance.
- ISO5211 Mechanical mount with removable double-square female drive socket
- Two (2) 3/4" EMT ports for ease of field wiring
- NEMA 4/4x/IP67 Compliant
- Optional Torque Switches

HRS Series Electronic Fail-Safe Actuators are intended to provide positive positioning in power-fail conditions.

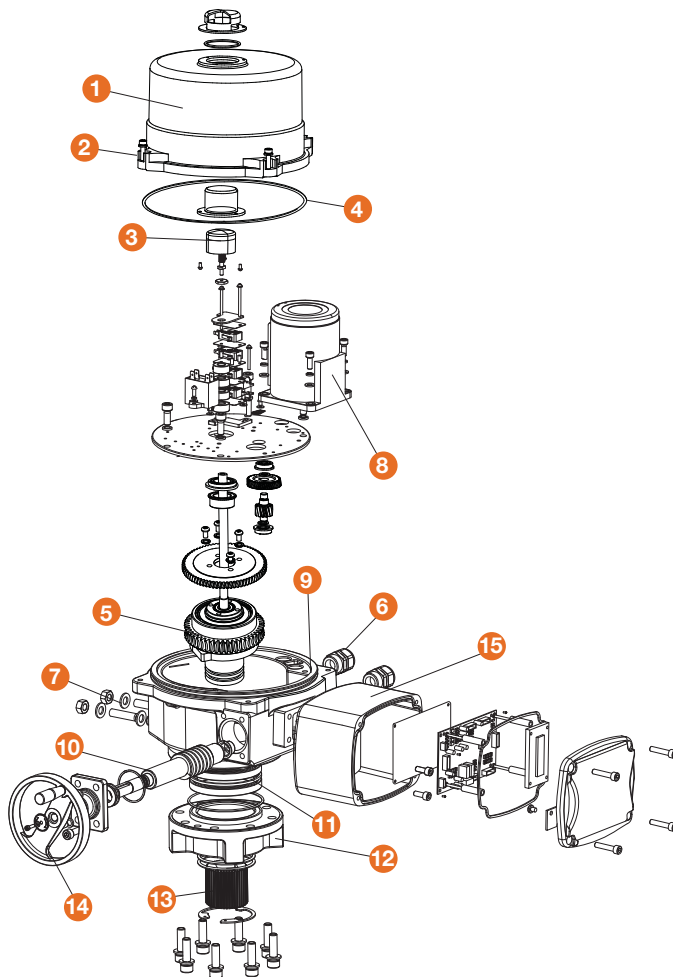
HRSN2
HRSN3
HRSN4
HRSN5

TECHNICAL INFORMATION



HRSN3 Series Electronic Fail-Safe Actuator Battery Backup

FOR BALL AND BUTTERFLY VALVES UP TO 8"



PARTS LIST

1. Cast Aluminum Cover
2. Captured Cover Screws
3. High Visibility Position Indicator
4. Cover O-Ring Seal
5. Epicyclic Transmission Set
6. EMT Glands
7. External Mechanical Stops
8. Drive Motor
9. Cast Aluminum Housing
10. Worm Override Shaft
11. Heavy Final Drive Bearing
12. ISO5211 Flange
13. Splined Drive Insert
14. Handwheel w/Collapsible Knob
15. Cast Aluminium Control Housing

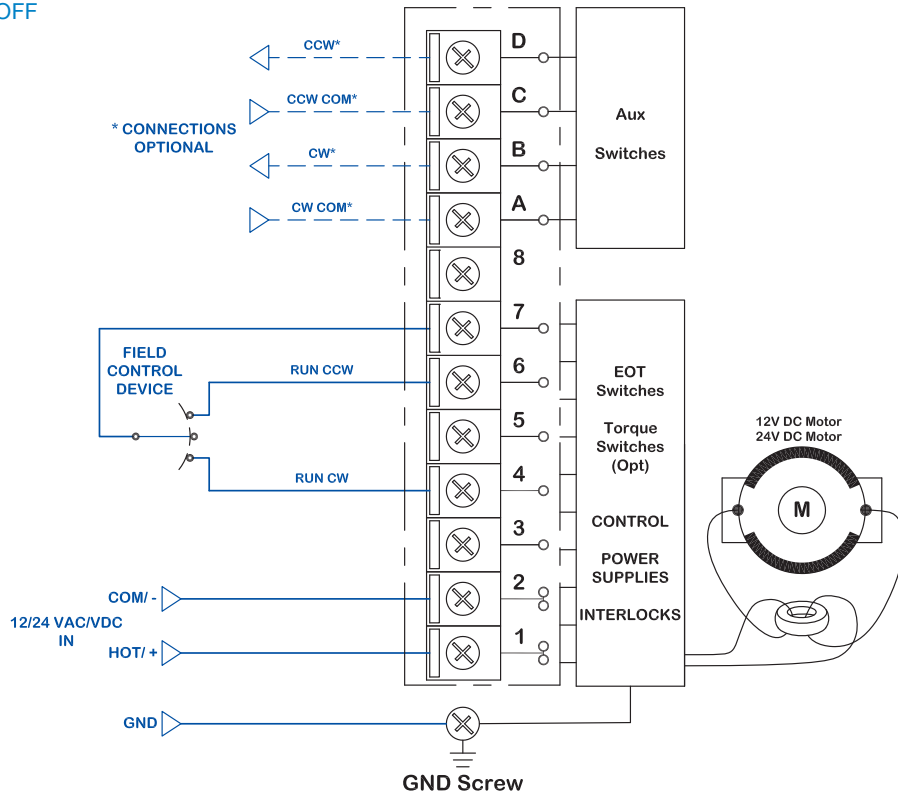
ACTUATOR SPECIFICATIONS

		HRSN3A..20	HRSN3B..20
Supply	Torque Output (in-lbs / Nm)	880 / 100	1770 / 200
	Current Draw (Start / Run / LRA)	4.2A / 3.2A / 11.0A	4.2A / 3.2A / 11.0A
24VAC	Speed (90°) DC-60Hz/50Hz, seconds	14 / 14	28 / 28
~ 24VDC	Motor - 24V DC Perm Magnet 2 Pole Brush	25W	25W
	On/Off / Proportional	75% (S2-15 min) / 75% (S4-75%)	
	Duty Cycle (IEC60034)	All - 130°C / Class B	
	Motor Protection, Temp / Class	All - 600	
	Motor Starts, per hour, Max		
120VAC	Requires 120:24 Transformer Pack, 250VA	OEMBBC120-250	OEMBBC120-250
230VAC	Requires 230:24 Transformer Pack, 250VA	OEMBBC230-250	OEMBBC230-250
	Manual Override	Clutchless Handwheel	Clutchless Handwheel
	Environmental Rating	NEMA 4/4X & IP67	
	Electrical Entry (2)	3/4" EMT or Polyamide gland	
	Control	On/Off, Proportional	
	Auxiliary Switch - End of Travel	(2) Form A Volt-Free, Rated 10A @ 250vac	
All	Ambient Operating Range	-22°F to +158°F / -30°C to +70°C	
	Humidity Range	0-95% RH	
	Altitude Limit	9850 ft / 3000 m	
	BATTERY SPECIFICATIONS	HRSN3A~3B (20 SERIES)	
	Type	22.2V Lithium-Ion pack with charge / discharge control	

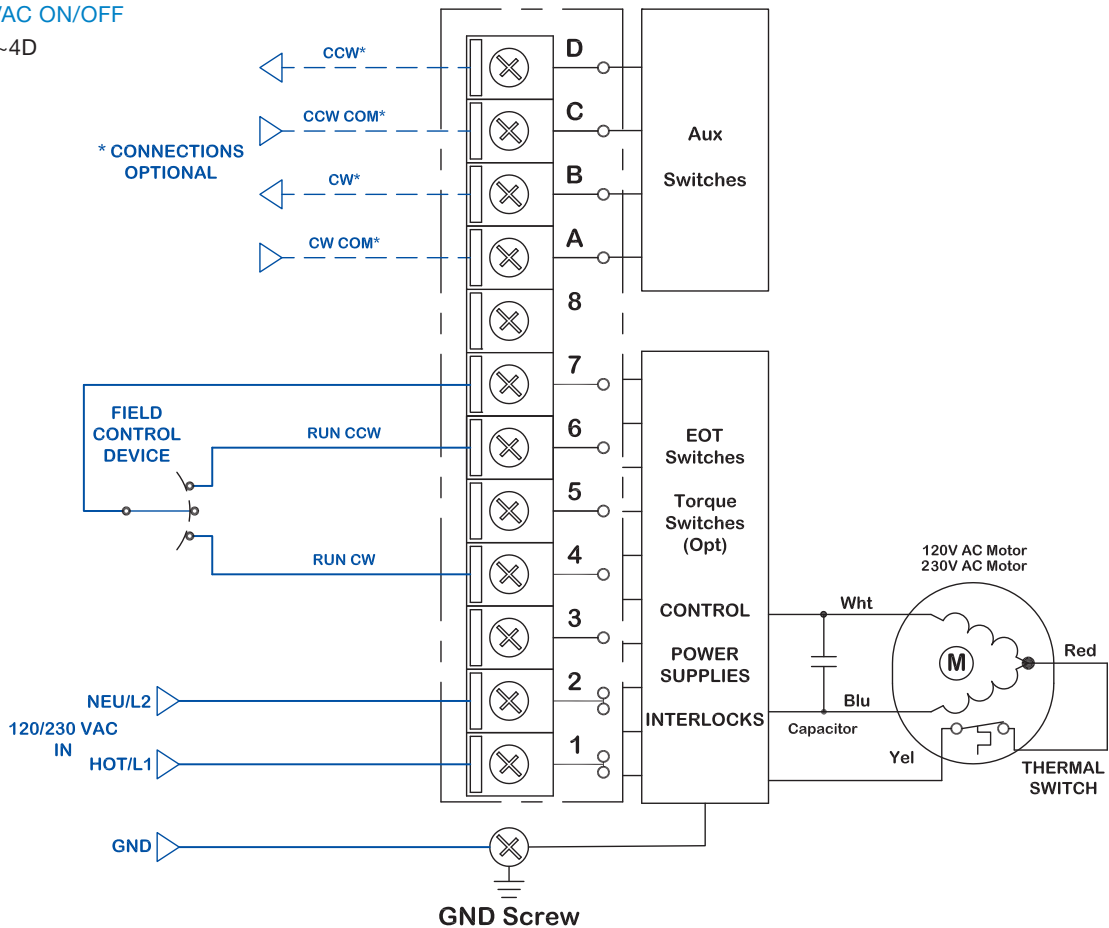


Hayward is a registered trademark of Hayward Industries, Inc. © 2021 Hayward Industries, Inc.

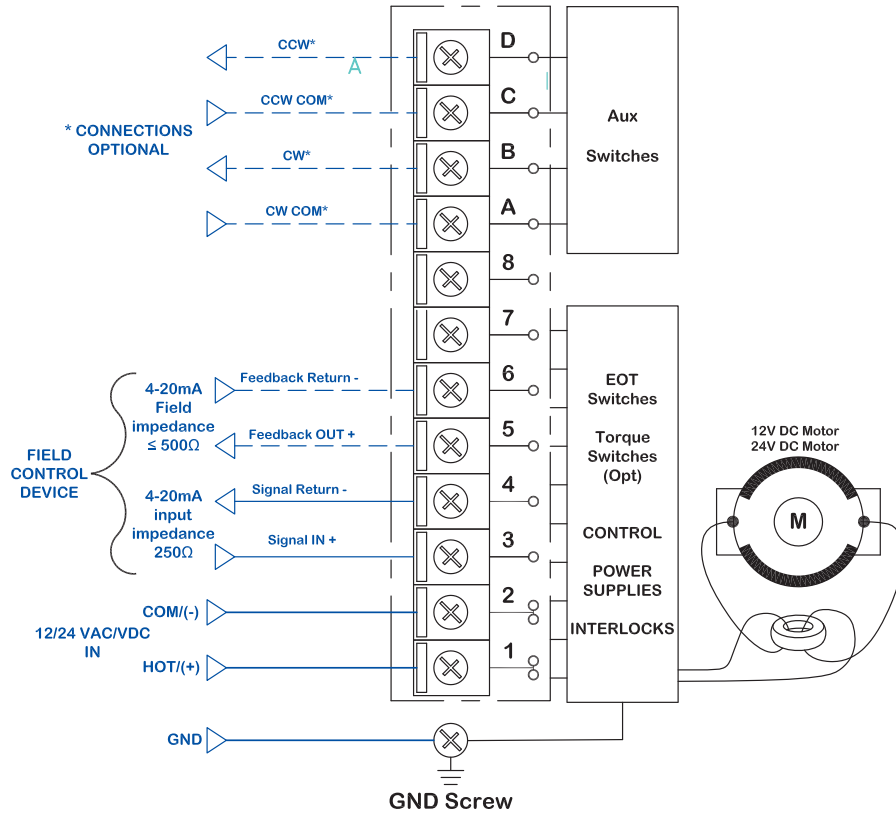
12/24VAC/VDC ON/OFF
HRSN3A~4D



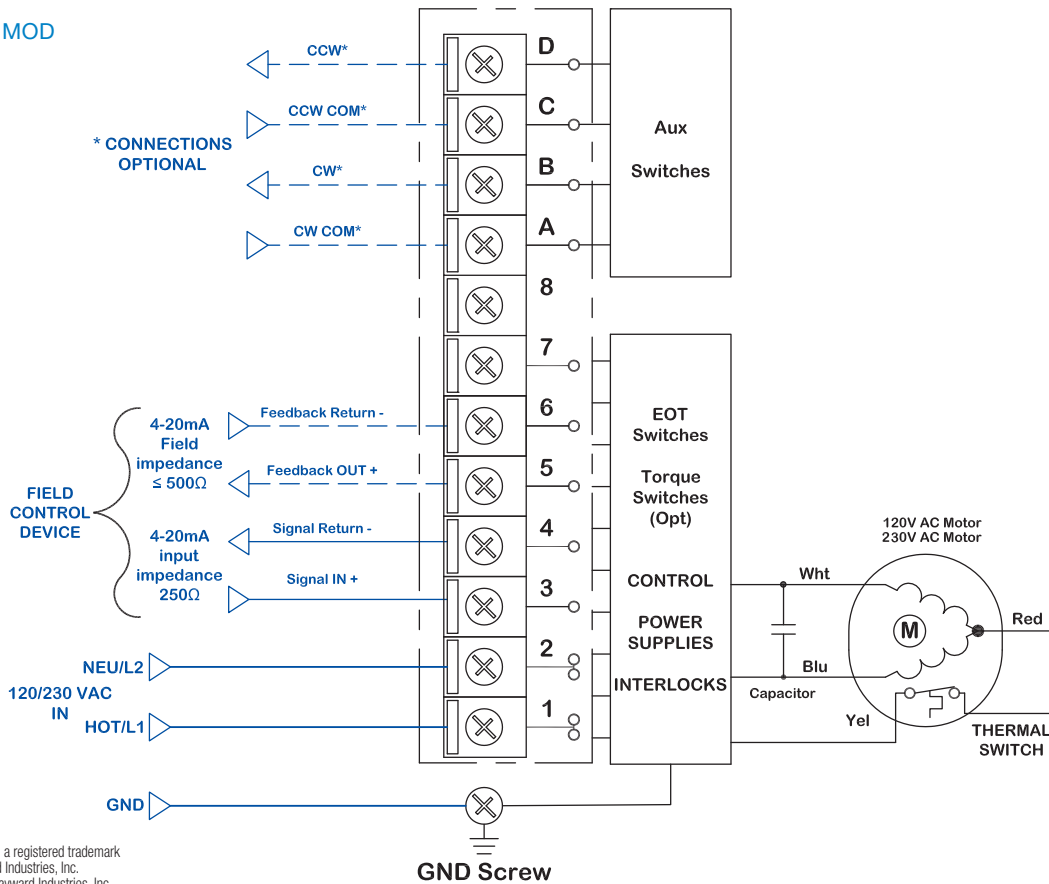
120/230VAC ON/OFF
HRSN3A~4D



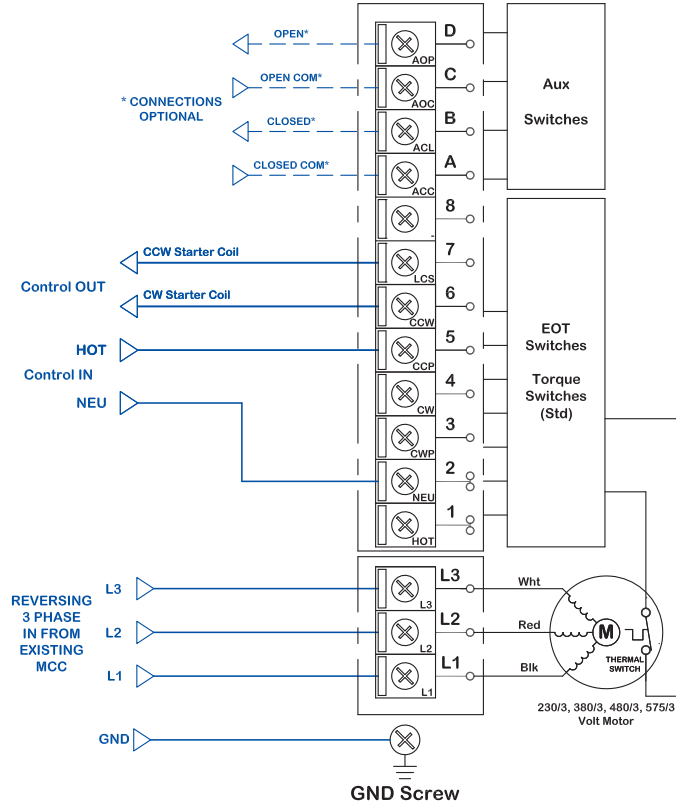
12/24VAC/VDC MOD
HRSN3A-4D



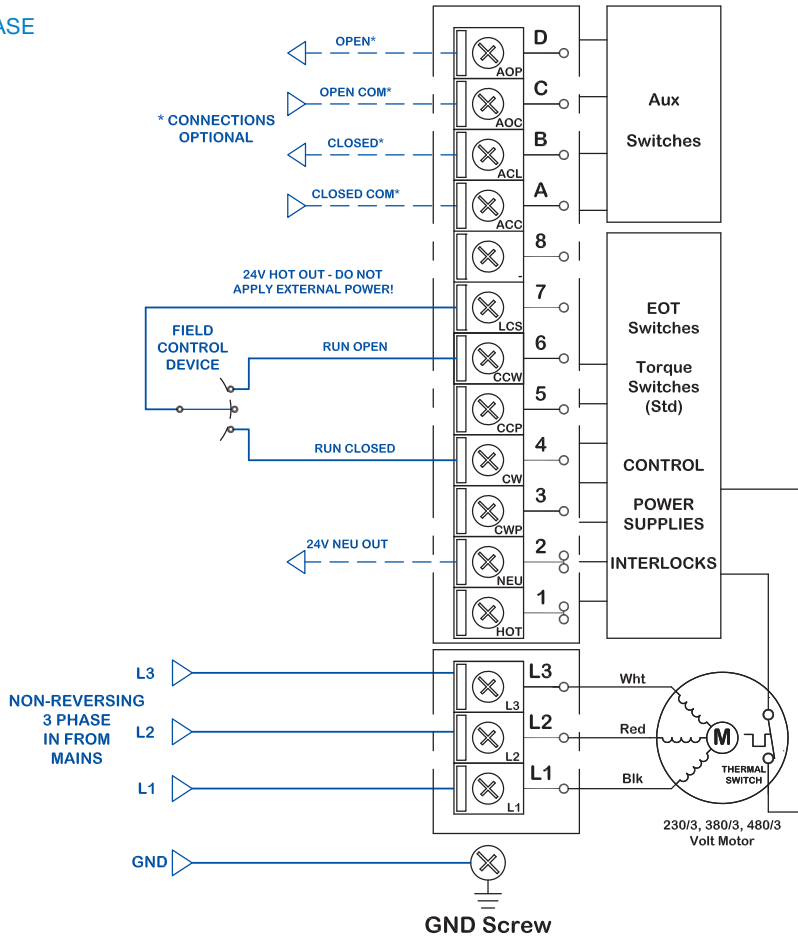
120/230VAC MOD
HRSN3A-4D



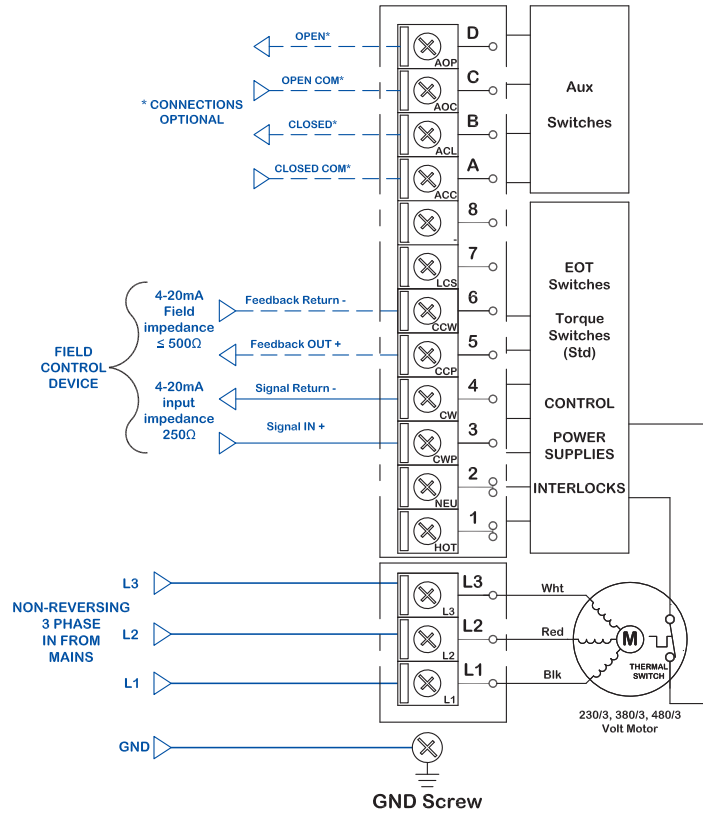
230-575/3 BASIC 3-PHASE
(NO MOTOR CONTROL)
HRSN3A~4D



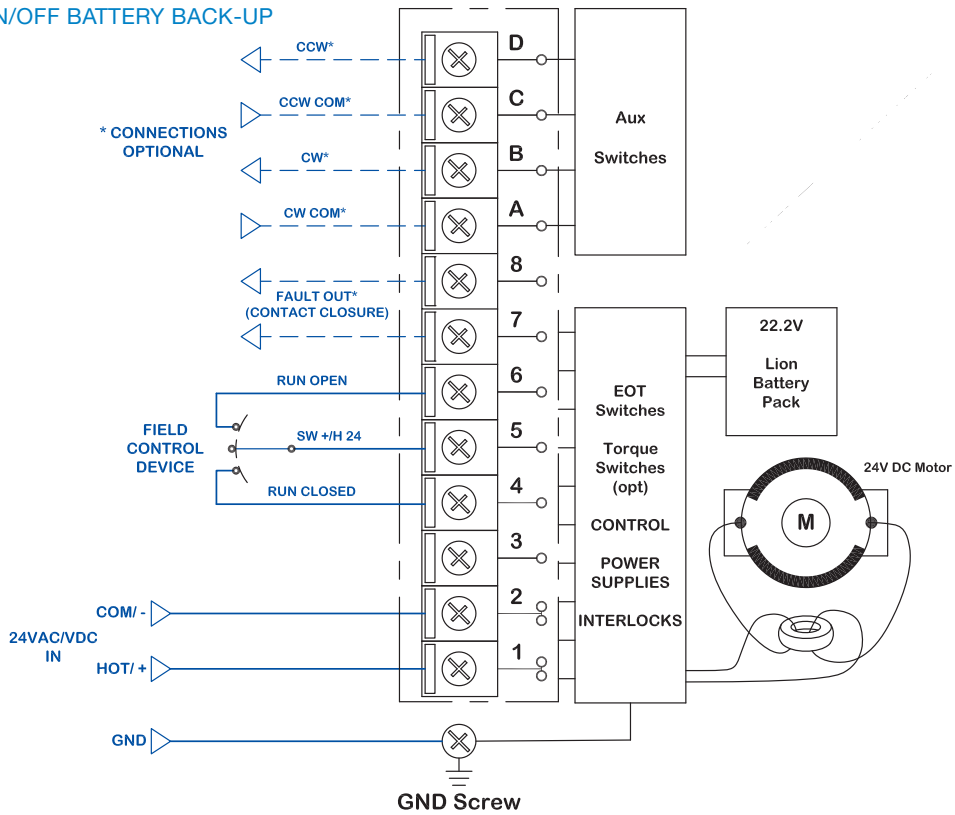
230-480/3 ON/OFF 3-PHASE
(NON-LCS)
HRSN3A~4D



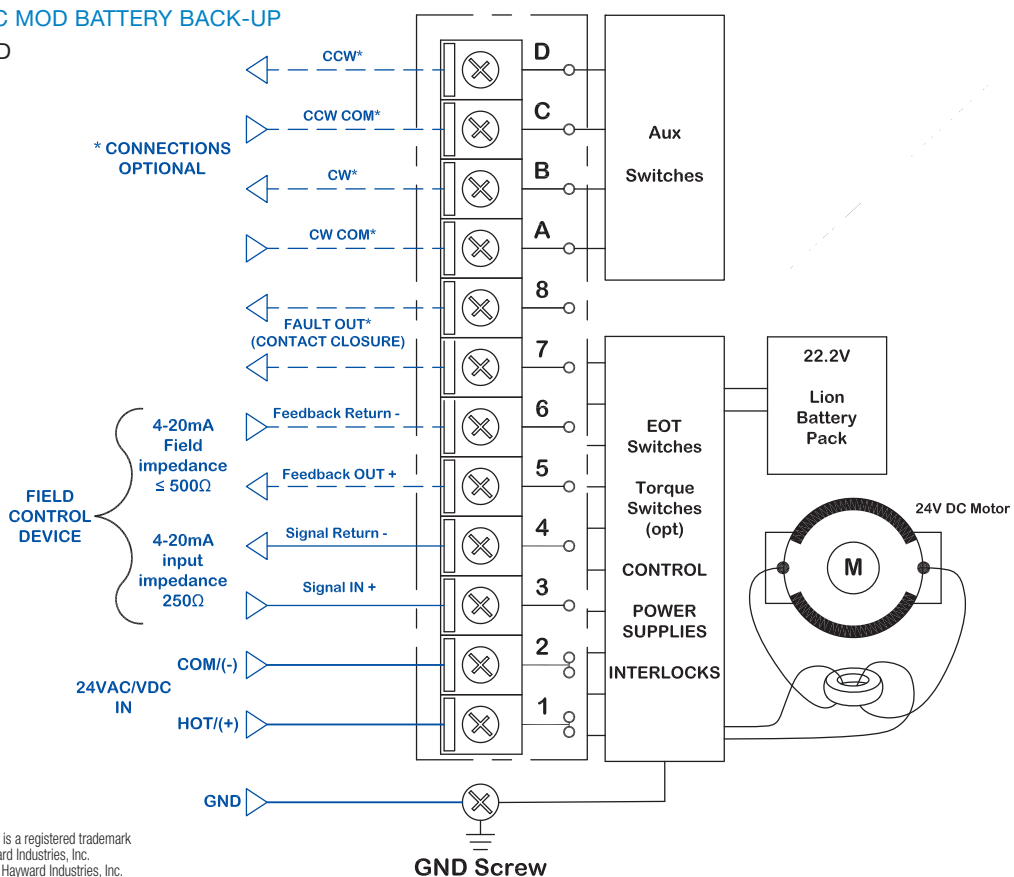
230-480/3 MOD 3-PHASE
(NON-LCS)
HRSN3A--4D



24 VAC/VDC ON/OFF BATTERY BACK-UP
HRSN3A-4D



24 VAC/VDC MOD BATTERY BACK-UP
HRSN3A-4D





HRSN3 Series On/Off & Proportional Electric Actuators

FOR BALL AND BUTTERFLY VALVES UP TO 8"

3-PHASE

OPTIONS

- Basic Interface
- Phase Correction
- Fault Out
- Local Control Stations
- Complete Integral Motor Control Stations

HRSN2
HRSN3 3-PHASE
HRSN4
HRSN5

TECHNICAL INFORMATION

ACTUATOR SPECIFICATIONS		HRSN3A	HRSN3B
Supply	Torque Output (in-lb / Nm)	880 / 100	1770 / 200
220/3ph	Current Draw (Start / Run / LRA)	0.7A / 0.6A / 1.0A	0.7A / 0.6A / 1.0A
	Speed (90°) 60Hz / 50Hz, seconds	16 / 19	33 / 39
	Motor - 220v polyphase TENV	40W	40W
	On/Off / Proportional	Duty Cycle (IEC60034) Motor Protection, Temp / Class Motor Starts, per hour, Max	25% (S2-15 min) / 75% (S4-75%) 155°C / Class F 600
380/3ph	Current Draw (Start / Run / LRA)	0.4A / 0.3A / 0.6A	0.4A / 0.3A / 0.6A
	Speed (90°) 60Hz / 50Hz, seconds	16 / 19	33 / 39
	Motor - 380v polyphase TENV	40W	40W
	On/Off / Proportional	Duty Cycle (IEC60034) Motor Protection, Temp / Class Motor Starts, per hour, Max	25% (S2-15 min) / 75% (S4-75%) 155°C / Class F 600
480/3ph	Current Draw (Start / Run / LRA)	0.2A / 0.2A / 0.4A	0.2A / 0.2A / 0.4A
	Speed (90°) 60Hz / 50Hz, seconds	16 / 19	33 / 39
	Motor - 480v polyphase TENV	40W	40W
	On/Off / Proportional	Duty Cycle (IEC60034) Motor Protection, Temp / Class Motor Starts, per hour, Max	25% (S2-15 min) / 75% (S4-75%) 155°C / Class F 600
575/3ph	Current Draw (Start / Run / LRA)	0.2A / 0.2A / 0.3A	0.2A / 0.2A / 0.3A
	Speed (90°) 60Hz / 50Hz, seconds	16 / 19	33 / 39
	Motor - 575v polyphase TENV	40W	40W
	On/Off - Basic	Duty Cycle (IEC60034) Motor Protection, Temp / Class Motor Starts, per hour, Max	25% (S2-15 min) 155°C / Class F 600
LCS	Environmental Rating	HRSN Series: NEMA 4/4X & IP67 (optional IP68) HRCK Series: NEMA 4/4X & IP65 HRCB Series: NEMA 4/4X & IP67 HRCL Series: NEMA 4/4X & IP67 (optional IP68) HRCD Series: NEMA 4/4X & IP67 (optional IP68)	
All	Electrical Entry (2)	3/4" EMT or Polyamide gland	
	Control	On/Off, Proportional, in six levels of control and protection (some limited applications)	
	Auxiliary Switch - End of Travel	(2) Form A Volt-Free, Rated 10A @ 250VAC	
	Ambient Operating Range	-22°F to +158°F (-30°C to +70°C)	
	Humidity Range	0-95% RH	
	Altitude Limit	9850 ft / 3000 m	