

# RDx-S-xxxPx- Spring Return

For internal valves

## Wiring:

Connect wires according to chart below. Full schematic found on next page:

Terminal #	Description
6	+24VDC +/- 20%
5	Power Gnd
4	Signal (provide 24V)
3	Limit Switch Common
2	Limit Switch - Valve Closed
1	Limit Switch - Valve Open

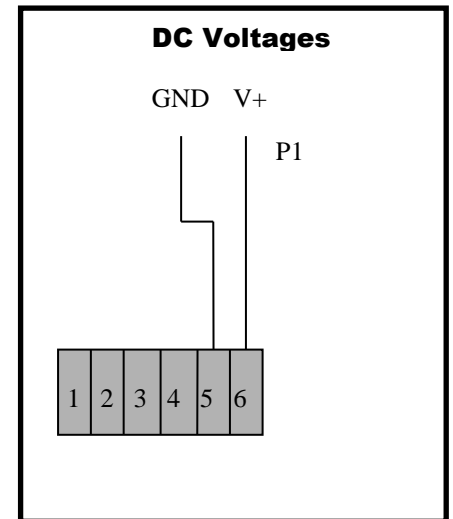
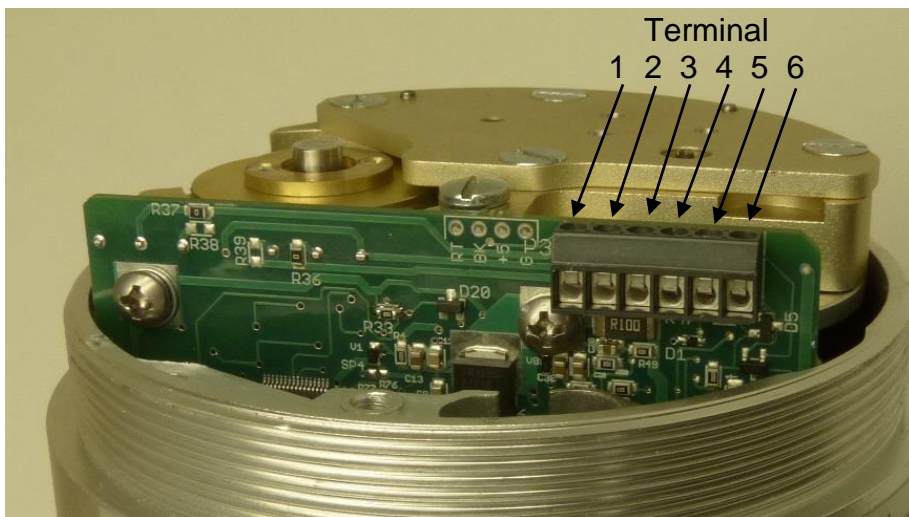


## Connect the power:

The **RDx-S-xxxPx** may be connected to voltages ranging from 20– 24 VDC

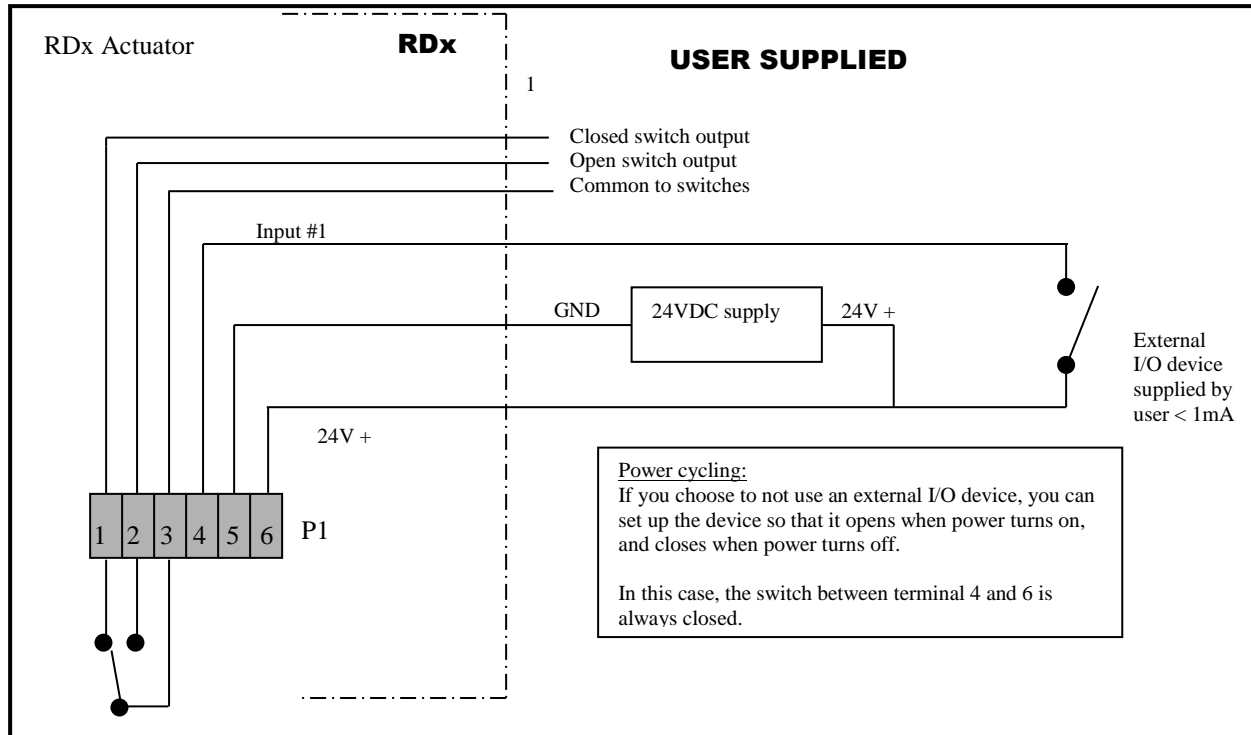
The power consumption will range from max. 4.0 to approx. min. 100mA when the actuator is active. When not moving, the actuator draws less than 60mA.

Locate the correct connection terminals as shown in the picture below then connect power according to the connection schematics to the right.



**Connect the signal:**

Locate the correct connection terminals as shown in the picture above then connect your input signal on terminal 4 as shown below.



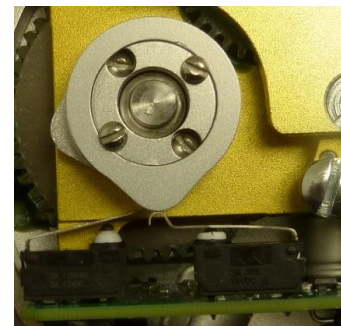
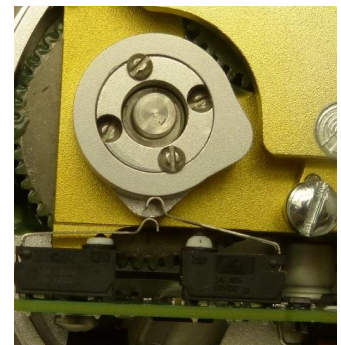
**Functionality of the RDx-xxxPx**

Input#1 (Terminal 4)	Action taken
Low (GND)	Moves to or remains in closed position
High (24V)	Moves to or remains in open position

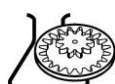
**Feedback via Limit Switches**

**IMPORTANT: Do not exceed 0.1A or 24V through switches**  
(future version will be good for 3A @ 125VAC)

Actuator Position	Action taken
Closed	Terminal 1 is connected to Terminal 3
Open	Terminal 2 is connected to Terminal 3
In between	Nothing is connected to Terminal 3



Limit switches are triggered mechanically when the actuator is fully closed, and when fully open. See photos above.



## Torque and Speed

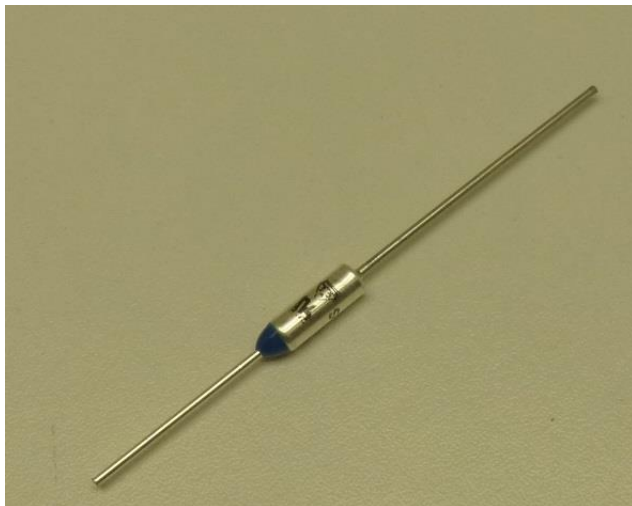
<b>Torque</b>	90in-lbs
Time to open	4 seconds
Time to close	2 seconds (2 seconds when power is lost)

## Safety features:

**Fusible Link:** This UL approved part will mechanically fail at 100°C (212F). This will allow the internal valve's own spring to close itself.



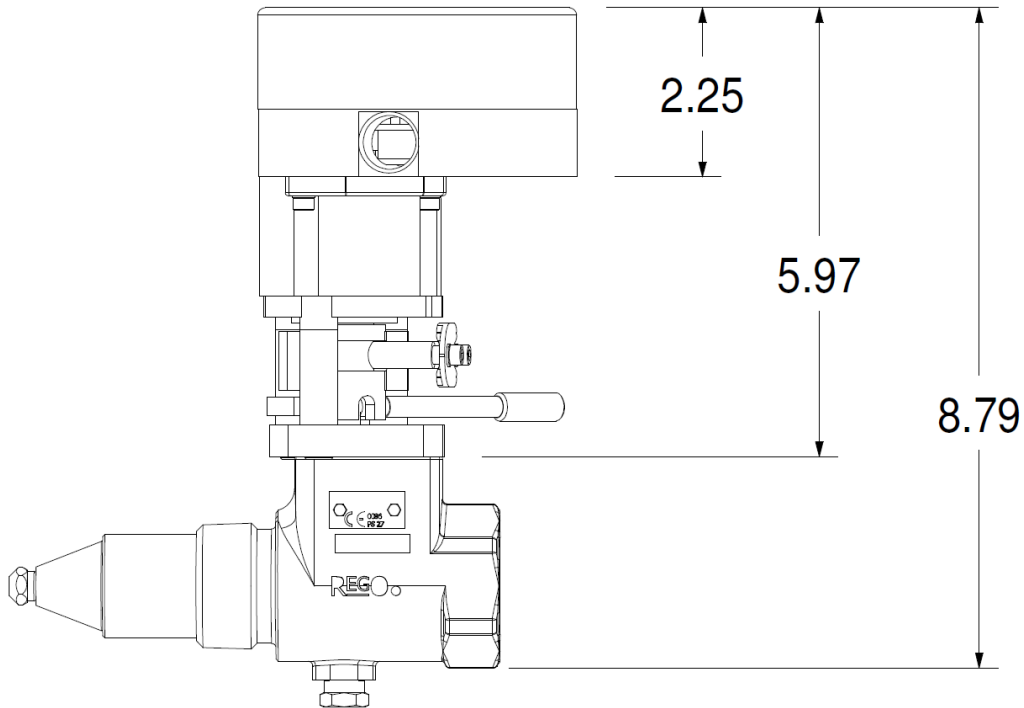
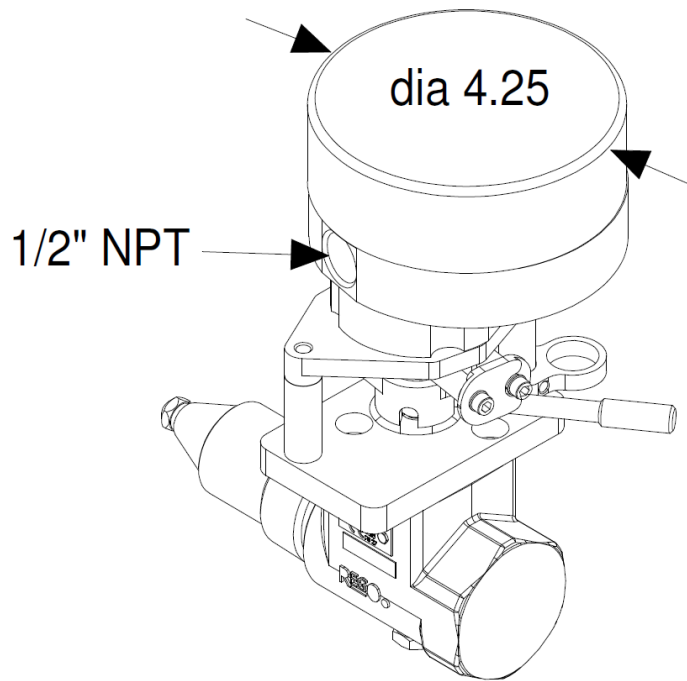
**Thermal Cutoff:** This UL approved part is found inside the enclosure, connected to the circuit board. When overheated it will sever the electrical connection, allowing the actuator to close itself via spring return.



**Spring Return:** This unit is capable of closing the valve attached to it when power is turned off, or lost for any reason.



**Main Dimensions**



**Factory presetting:**

Invoice No:

Line item :

Full Hanbay Part Number: 

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Hanbay Electronics: 

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Hanbay Firmware: 

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Valve Manufacturer:

**Valve Type:**

- Ball Valve
- Butterfly Valve
- Other (specify)

We have set your actuator(s) at our factory after mounting the valve and for testing the assembly.

**Notes & recommendations:**

<table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 20px; height: 20px; text-align: center;">R</td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>	R			<table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>								<table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 20px; height: 20px;"></td></tr></table>		<table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 100px; height: 20px;"></td></tr></table>		<p style="text-align: right; margin: 0;"><b>MODEL NUMBER</b></p> <p style="margin: 0;">↓ Valve Manufacturers Valve Part Number/CU Number</p> <ul style="list-style-type: none"> <li>0 No Valve or Mounting Kits</li> <li>1 Mounting Kits Only</li> <li>3 Valve with Mounting Kits, Mounted Assembly</li> <li>4 Swagelok Bracket, Mounting Kits</li> <li>5 Swagelok Bracket, Valve with Mounting Kits, Mounted Assembly</li> <li>6 Drive lever only</li> <li>7 External Stop</li> </ul> <ul style="list-style-type: none"> <li><b>AB</b> Analog Signal Board Base Model</li> <li><b>AI</b> Analog Signal Board Isolated Model</li> <li><b>AF</b> Analog Signal Board Isolated with Feedback</li> <li><b>DC</b> Continuous TTL Input Board</li> <li><b>DT</b> TTL Input Board</li> <li><b>SB</b> Serial-Analog Signal Board Base Model</li> <li><b>SI</b> Serial-Analog Signal Board Isolated Model</li> </ul> <ul style="list-style-type: none"> <li>0 Nothing Special</li> <li>5 Remote Control Potentiometer</li> <li>6 Remote Control Selector Switch</li> <li><b>H</b> Heater</li> </ul> <ul style="list-style-type: none"> <li>0 Nothing Special</li> <li>5 TURCK 5 Position Connector w. 20' Cable and Plug</li> <li>6 TURCK 6 Position Connector w. 20' Cable and Plug</li> <li>7 TURCK 5 Position Connector only</li> <li>8 TURCK 6 Position Connector only</li> </ul> <ul style="list-style-type: none"> <li>0 Nothing Special</li> <li><b>B</b> Explosion proof B</li> <li><b>C</b> Explosion proof C</li> <li><b>X</b> Custom [see CU Number]</li> <li><b>M</b> Manual Override</li> <li><b>P</b> Position Indication</li> <li><b>S</b> Stainless Housing SS316</li> </ul> <ul style="list-style-type: none"> <li><b>L</b> Low <b>J</b> - Low Power Motor</li> <li><b>M</b> Med <b>K</b> - Low Power Motor</li> <li><b>H</b> High <b>D</b> - Low Linear</li> <li><b>U</b> Ultra High <b>E</b> - Med Linear</li> </ul> <ul style="list-style-type: none"> <li><b>D</b> Discrete</li> <li><b>C</b> Continuous</li> </ul> <p><b>R</b> - BLDC Miniature Actuator</p>	<ul style="list-style-type: none"> <li><b>DF</b> Continuous TTL Input Analog Feedback</li> <li><b>EF</b> Continuous 24V TTL Input Analog Feedback</li> <li><b>ET</b> 24V TTL Input Board</li> </ul>
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