

## Valves For Process Industry

Engineered **Pneumatic** Solutions

[www.pneumatrol.com](http://www.pneumatrol.com)



Pneumatrol Limited (formerly RGS Davis) is a specialist manufacturer accredited to ISO 9001. Operating from its headquarters in Lancashire, Pneumatrol provides engineered pneumatic solutions for use within hazardous and non-hazardous environments.

For over 50 years we have developed the technical and manufacturing expertise together with the market knowledge necessary to meet the demands of the **Process Industry**.

We understand the high expectations of the process industry and our solenoid valves are standard specification within many world class companies. We also design and manufacture piston linear actuators and control systems for most of the major process valve manufacturers and distributors.

## General Valve Specifications:

- Body materials: aluminium, brass, stainless steel and surface coating options
- Internal or external pilot
- Complete range of voltages available including low power options
- Wide standard ambient temperature range -20°C + 80°C
- Low temperature option to -40°C
- Momentary and latching manual overrides
- Various coil options with comprehensive range of hazardous area approvals
- Modular design
- Compact size

We are a member of the British Valve and Actuator Association (BVAA).



# HAZARDOUS & SAFE AREA SOLENOIDS

Our core product range of hazardous and safe area solenoids conform to CNOMO standards.

## Features

- Direct mounting to all valves meeting CNOMO fixing dimensions
- Interchangeable coils, including various hazardous area options
- Pilot exhaust dust caps fitted as standard







## Range of Approvals

Hazardous area approved pilot operators (ExnA, Exm, Exme, Exd and Exia) are available with various international approvals – ATEX, IECEx, FM, GOST CU TR (Russia) and NEPSI (China).

- Exia IIC T6
- Exd IIC T3 to T6
- Exd IIB +H2 T3 to T6
- Exm T5
- Exme T5
- ExnA T4/T6
- Safe Area



## Solenoid Specifications

| Coil Type            | Exia  | Exd   | Exm   | Exme   | ExnA  | Terminal Box (IP65)   |
|----------------------|---|---|---|--|---|---|
|                      |  |  |  |  |  |  |
| Ratings              |   |   |   |  |   |   |
| DC Voltages          | 12V - 24V   | 12V, 24V, 110V, 240V  | 12V, 24V, 48V, 110V, 240V   | 12V, 24V, 110V, 240V   | 12V, 24V, 48V, 110V   | 12V, 24V, 110V, 240V  |
| Power ratings        | 0.4W - 0.27W  | 1.3W - 3W   | 0.5W - 3W   | 0.5W - 1.3W - 2.4W   | 0.5W - 0.2.4W   | 1.3W - 2.4W   |
| AC Voltages          | N/A   | 12V, 24V, 110V, 220V, 240V, 440V  | 12V, 24V, 110V, 220V, 240V, 415V  | 12V, 24V, 110V, 220V, 240V, 275V   | 12V, 24V, 48V, 110V, 220V, 240V, 440V   | 12V, 24V, 110V, 220V, 240V, 440V  |
| VA rating            | N/A   | 9.5VA Max   | 9.0VA Max   | 9.0VA Max  | 10VA Max  | 9.5VA Max   |
| Frequency            | N/A   | 50/60Hz   | 50/60Hz   | 50/60Hz  | 50/60Hz   | 50/60Hz   |
| Diodes               | Standard  | N/A   | Optional  | Optional   | Optional  | Optional  |
| Bridge Rectifier     | N/A   | Optional  | Optional  | Optional   | Optional  | Optional  |
| Construction Types   |   |   |   |  |   |   |
| Terminal Box         | Yes   | Yes   | No  | Yes  | Yes   | Yes   |
| Plug and Socket      | Yes - DIN 43650 Type Form A   | No  | No  | No   | Yes - DIN 43650 Type Form A   | Yes - DIN 43650 Type Form A   |
| Flying Lead          | Yes   | No  | Yes   | No   | No  | Yes   |
| Inline Connector     | Yes   | No  | No  | Yes  | No  | Yes   |
| CNOMO Interface      | Yes   | Yes   | Yes   | Yes  | Yes   | Yes   |
| Screwdriver override | Available (not with SIL Approved)   | Available (not with SIL Approved)   | Available (not with SIL Approved)   | Available (not with SIL Approved)  | Available (not with SIL Approved)   | Available (not with SIL Approved)   |
| Terminal Box options | 1/2 NPT, M20  | 1/2 NPT, M20  | N/A   | 1/2 NPT, M20   | 1/2 NPT, M20  | 1/2 NPT, M20  |
| Approvals            |   |   |   |  |   |   |
| IP 65 Rating         | IP65 - All variants except SS   | N/A   | IP65  | IP65   | IP65 - All variants except SS   | IP65 - All variants except SS   |
| IP 66 Rating         | Stainless Steel Hsg. only   | IP66  | N/A   | N/A  | Stainless Steel Hsg. only   | Stainless Steel Hsg. Only   |
| T Classification     | T6  | T3, 4, 5, 6   | T5  | T5   | T4 & T6   | N/A   |
| SIL Approved         | SIL 2 & 3   | SIL 2 & 3   | SIL 2 & 3   | SIL 2 & 3  | SIL 2 & 3   | SIL 2 & 3   |

# DIRECT ACTING VALVES

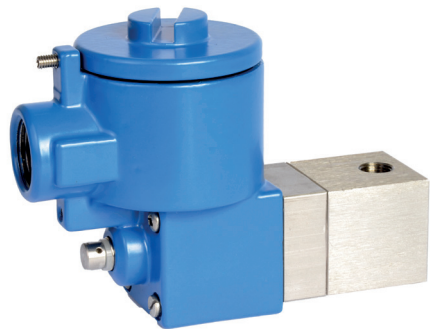
- 1/8" and 1/4" ports
- Banjo fitting
- CNOMO interface
- 3/2, N/C or N/O

## Product range -

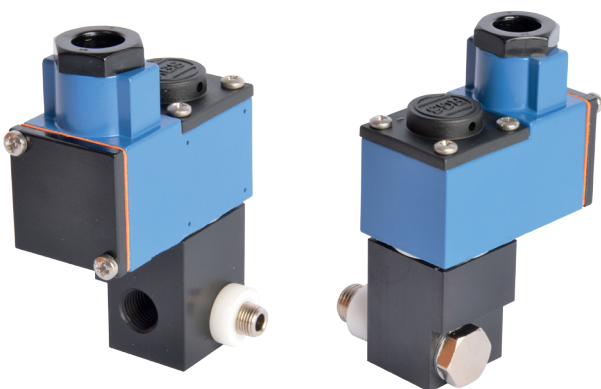
- » **CNOMO Interface:** direct mounting to all valves meeting CNOMO fixing dimensions
- » **E13A-0 Series:** remote mounting
- » **E13A-A/B Series:** direct banjo bolt mounting
- » **P23BU Series:** high flow, low power



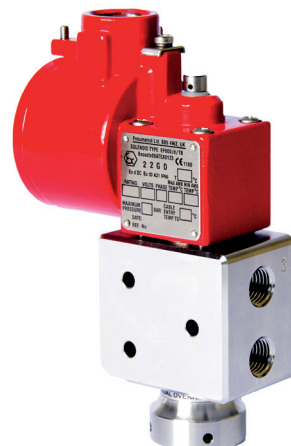
CNOMO Interface



E13A-0 Series



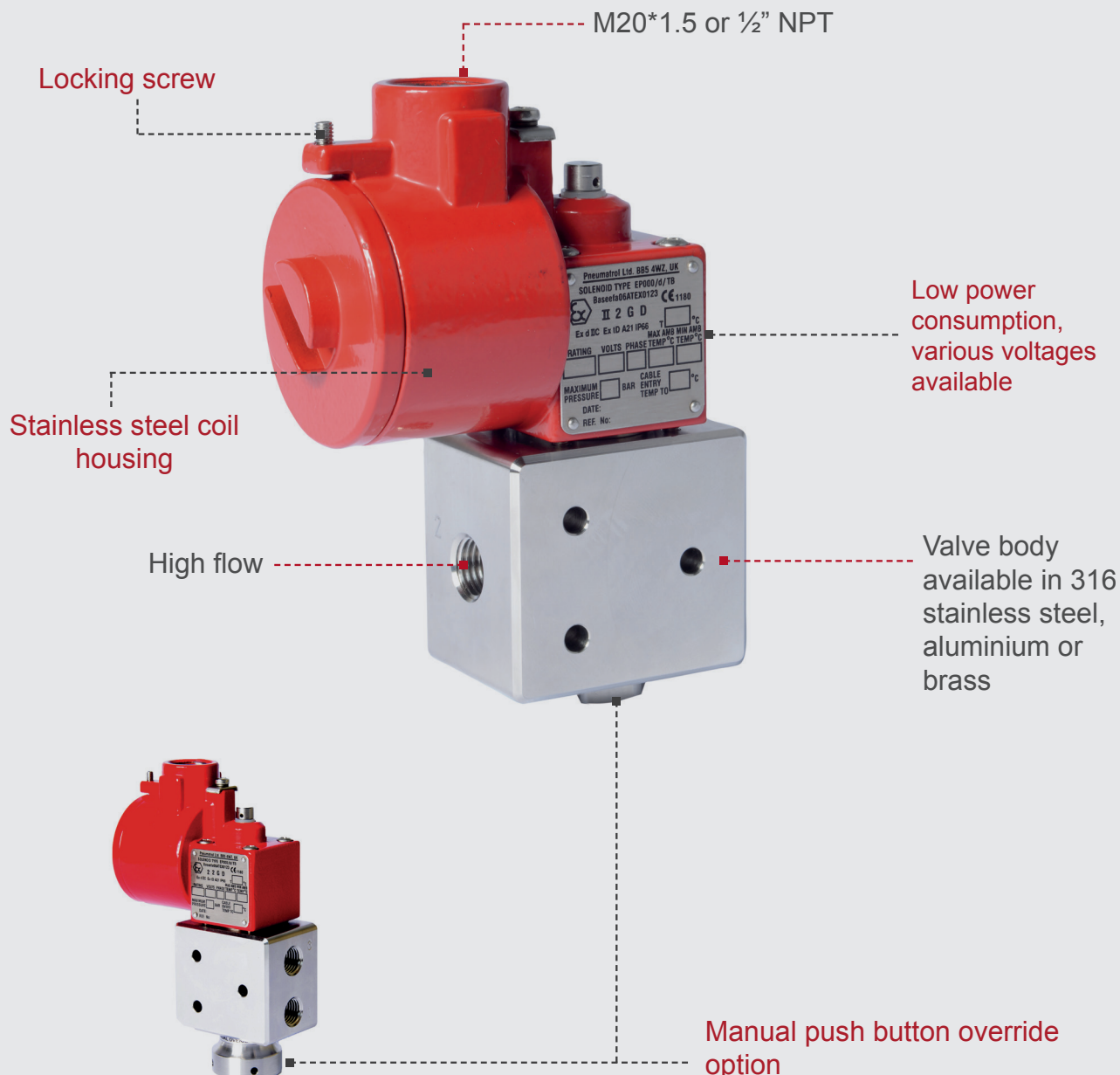
E13A-A/B Series



P23BU Series

# DIRECT ACTING VALVES

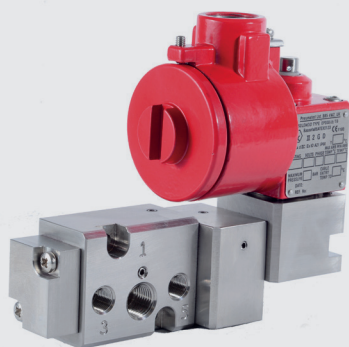
## P23BU Series, 1/4", 3/2 Function Solenoid Valve



# NAMUR MOUNTED VALVES

- Designed for direct mounting onto ¼ turn pneumatically operated valve actuators, meeting the Namur standards.
- ⅛" and ¼" ports
- 3/2 or 5/2 functions from the same valve, using interface plates
- Exhaust to spring (ETS) feature in the 3/2 versions to protect actuator spring from corrosion
- High flow version available on Type T25
- Integrated speed control option on Type T23

**Type C15**



**Reflex**



**Type J15**



**Type T23**



**Type T25, 3/2 or 5/2**



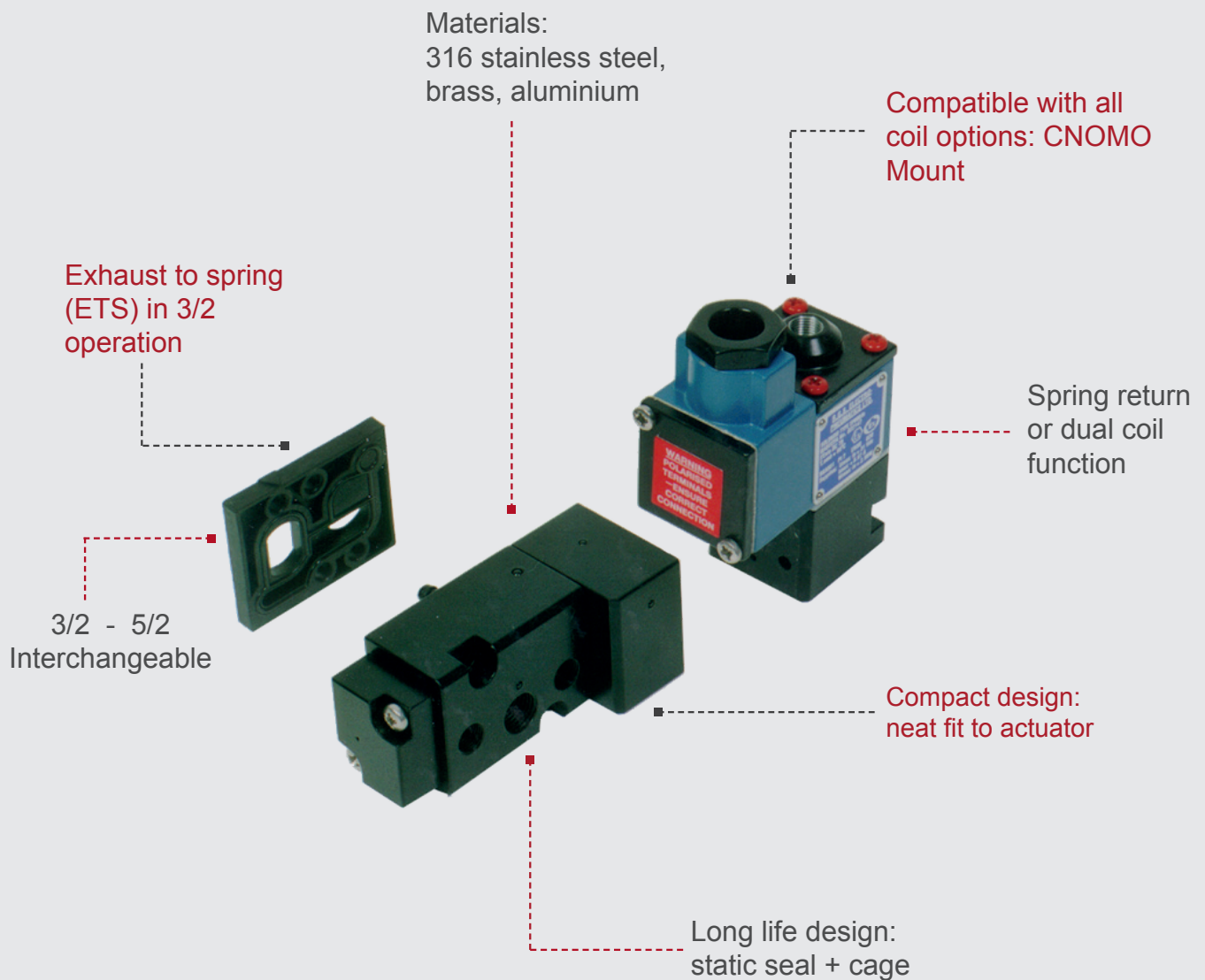
**Type T25, 5/3**





# NAMUR MOUNTED VALVES

## Namur Mounted: Complete Flexibility



# REMOTE MOUNTED VALVES

Pneumatrol has designed valves for high flow applications and valves for operation across a wide temperature range. Valve options include:

- $\frac{1}{8}$ " to 1" ports
- Heavy duty valves up to 1  $\frac{1}{2}$ "
- 3/2, 5/2, and 5/3 functions
- Body materials available in aluminium, brass, 316 stainless steel
- Manual override options: screw driver, lever and push button
- Internal or external air pilot
- Comprehensive range of coil options and voltages available (including low power options)



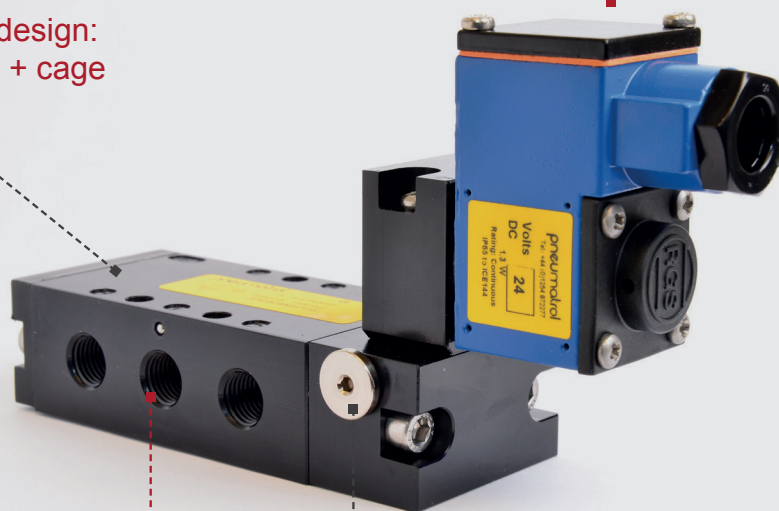


# REMOTE MOUNTED VALVES

## Remote Mounted

Long life design:  
static seal + cage

Compatible with  
all coil options:  
CNOMO Mount



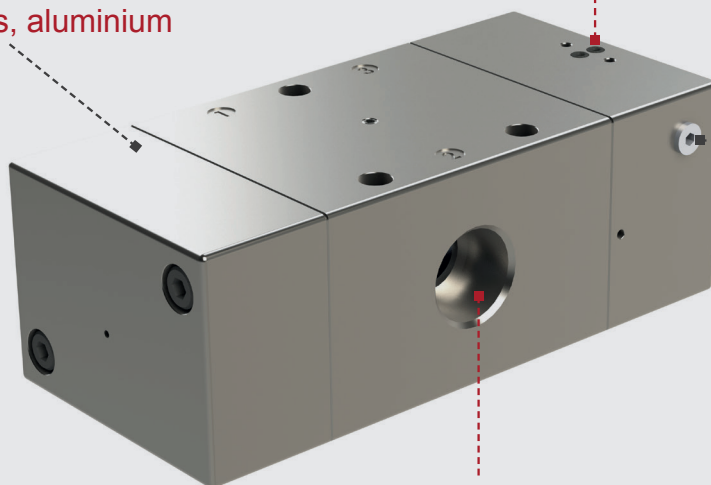
High flow

Internal or external pilot  
air supply

## Air Pilot

Body material: 316 stainless  
steel, brass, aluminium

CNOMO interface



Internal or external  
pilot air supply

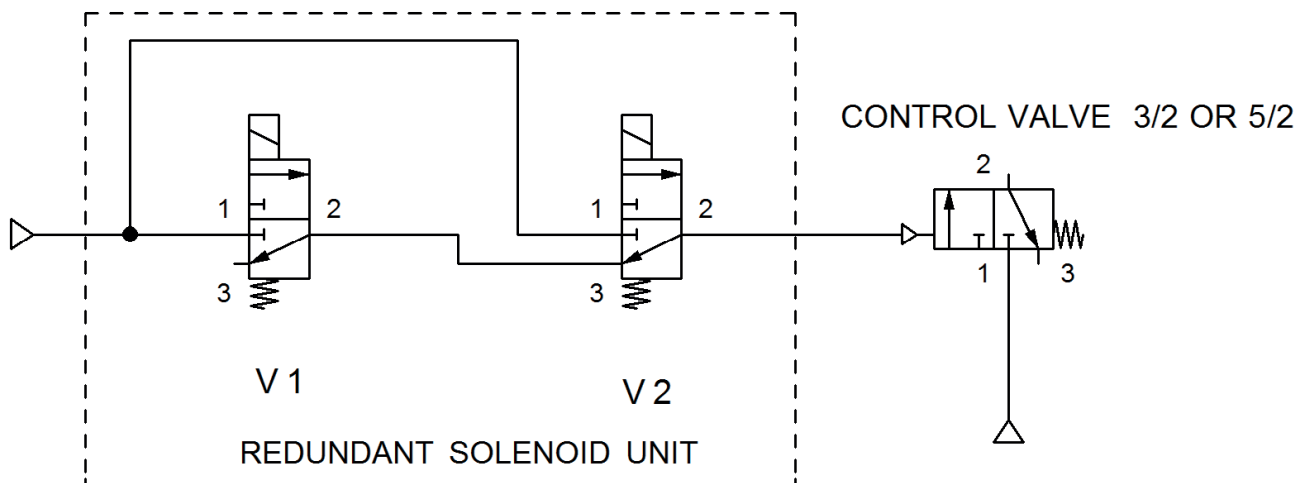
Valve port  $\frac{1}{8}$ " ~ 1", high flow

# REDUNDANT SOLENOID SYSTEM

Pneumatrol has developed a valve system that is operated with two independent solenoids. Redundant solenoid valves are used for high availability applications and functional safety.

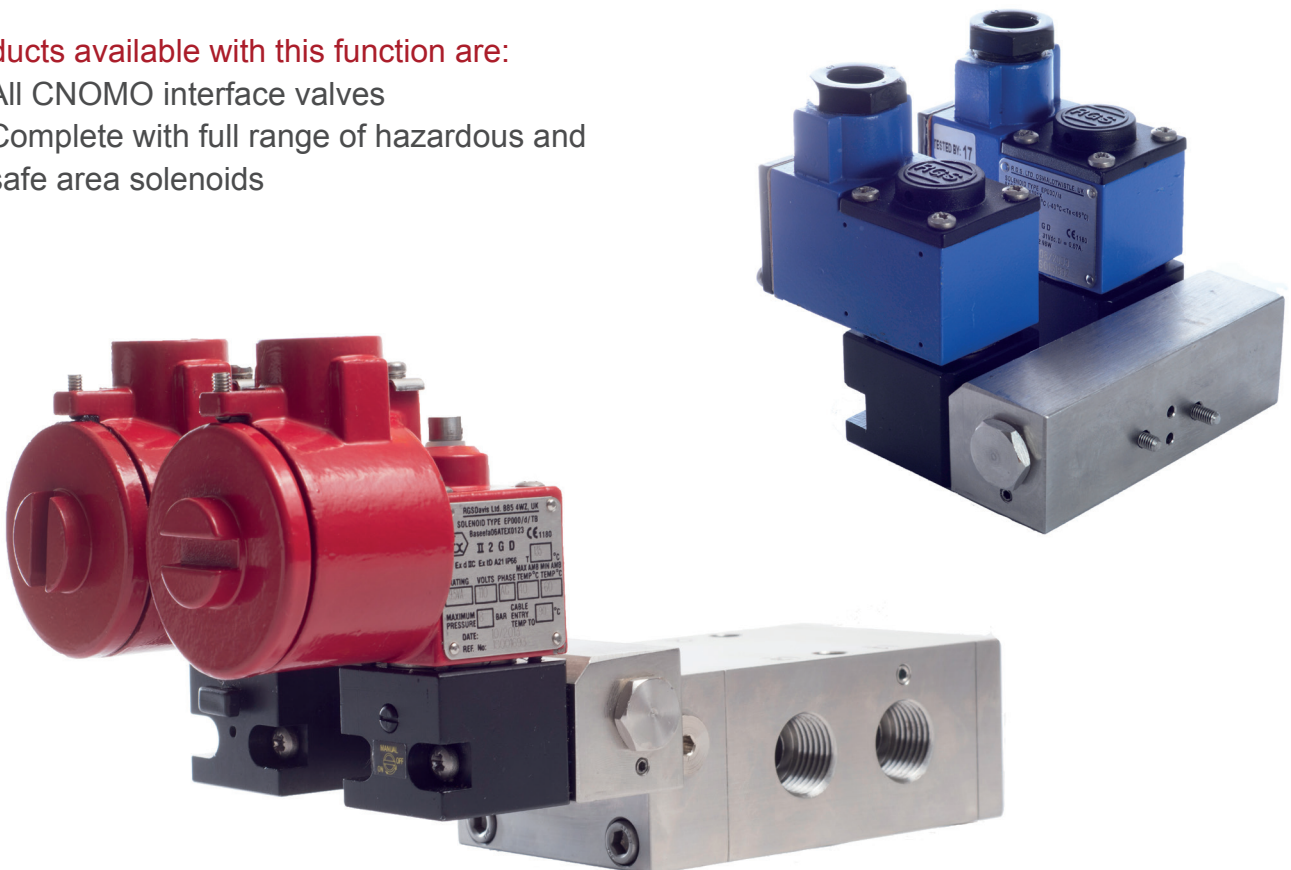
As long as one of the two solenoids are energised the main control valve will be in its operating position, which in turn keeps the actuator/process valve in its operating position. Both coils must be de-energized in order to return the actuator/process valve to its non-operating position.

The Redundant solenoid system can be fitted to any of Pneumatrol's standard 3/2 or 5/2 control valves which utilise the CNOMO solenoid interface.



**Products available with this function are:**

- All CNOMO interface valves
- Complete with full range of hazardous and safe area solenoids



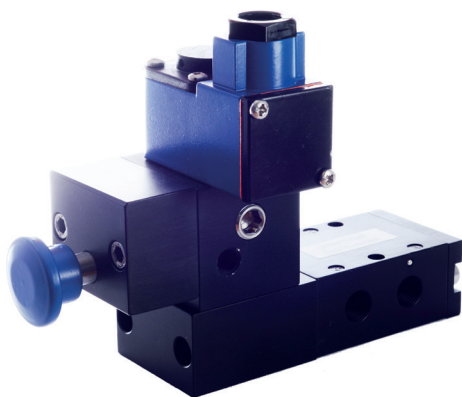
# SAFETY RESET FUNCTION

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Pneumatrol offers solenoid valves with safety reset function to suit a wide range of applications within the Process industry.

Upon energising the solenoid, the valve will not operate until the Safety Reset Button is pressed.

If the solenoid is de-energised or if there is a loss of air pressure or electrical supply, the valve will close. The valve will only re-open when power and air pressure are reinstated and when the Safety Reset Button is pressed.



Products available with this function are:

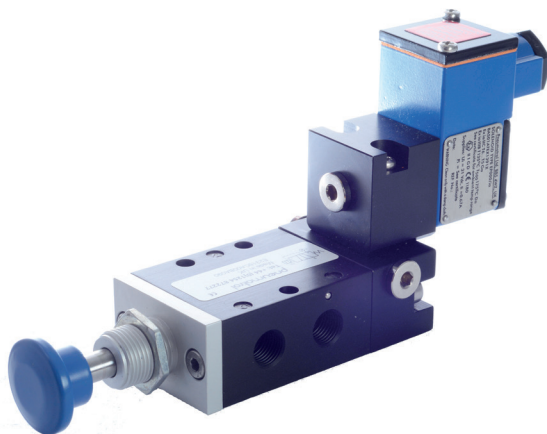
- E23 series
- E25 series
- E43 series
- E45 series

# MANUAL RESET FUNCTION

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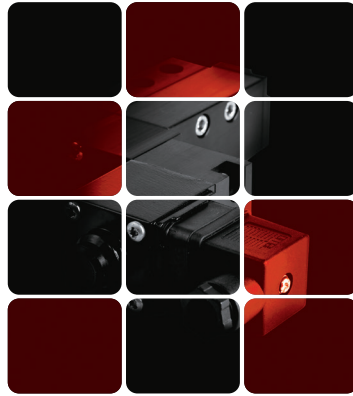
Pneumatrol offers solenoid valves with manual reset function to suit a wide range of applications within the Process industry.

Upon de-energising the solenoid or if there is a loss of air pressure or electrical supply, the valve will not close until the Manual Reset Button is pressed. The valve will only re-open when power and air pressure are reinstated.



Products available with this function are:

- C15 series
- E23 series
- E25 series
- E43 series
- E45 series



Engineered **Pneumatic** Solutions

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