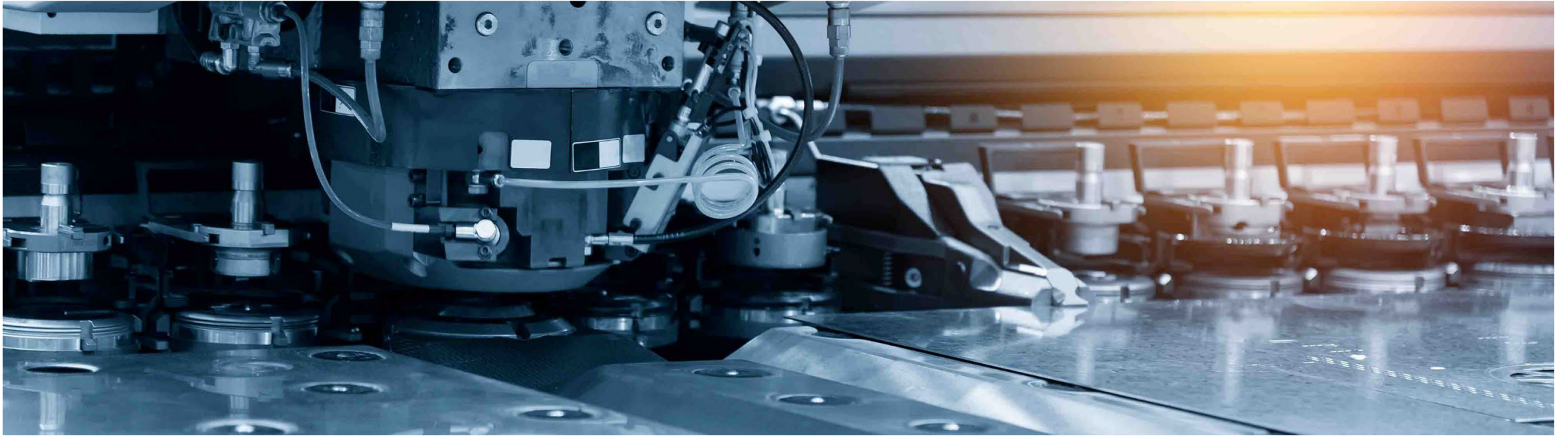




MOOG

DIRECT-OPERATED SERVO-PROPORTIONAL VALVES

MOOG D937 SERIES VALVE



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EXTERNAL

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PRODUCT OVERVIEW
TECHNICAL OVERVIEW
TECHNICAL FEATURES
HOW TO LEARN MORE
CONTACT US

MOOG D937 DIRECT-OPERATED SERVO-PROPORTIONAL VALVE

WHAT'S UNIQUE ABOUT IT

ROBUST

RELIABLE

PERFORMANT

COMPACT DESIGN

COST OPTIMIZED DESIGN

SHORT LEADTIME



It's not a valve, it's a MOOG!

PRODUCT OVERVIEW

PRODUCT PORTFOLIO OVERVIEW



More Details

PRODUCT SERIES OF DIRECT OPERATED SERVO-PROPORTIONAL VALVES

NG10

75 l/min@5 bar



38 l/min@5 bar



NG6

32 l/min@5 bar



15 l/min@5 bar



PRODUCT OVERVIEW

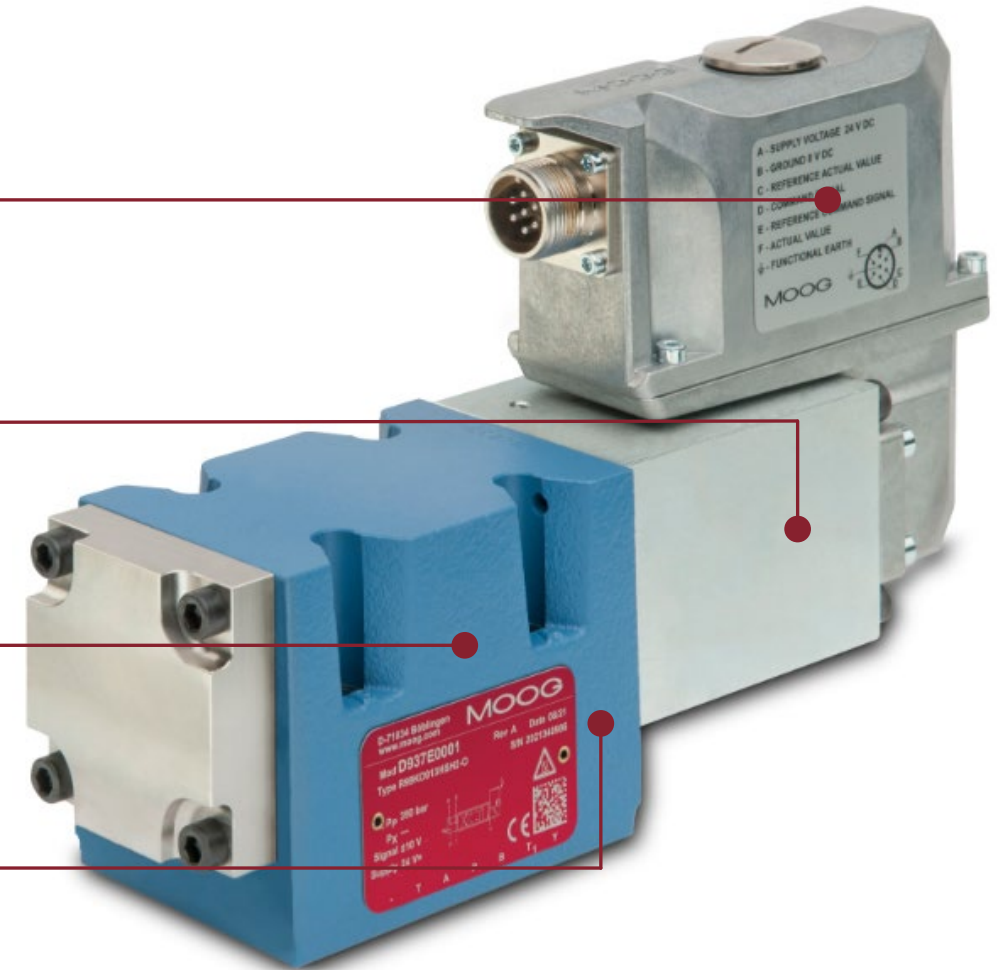
MOOG D937 DIRECT-OPERATED SERVO-PROPORTIONAL VALVE

integrated electronics

single proportional solenoid operated

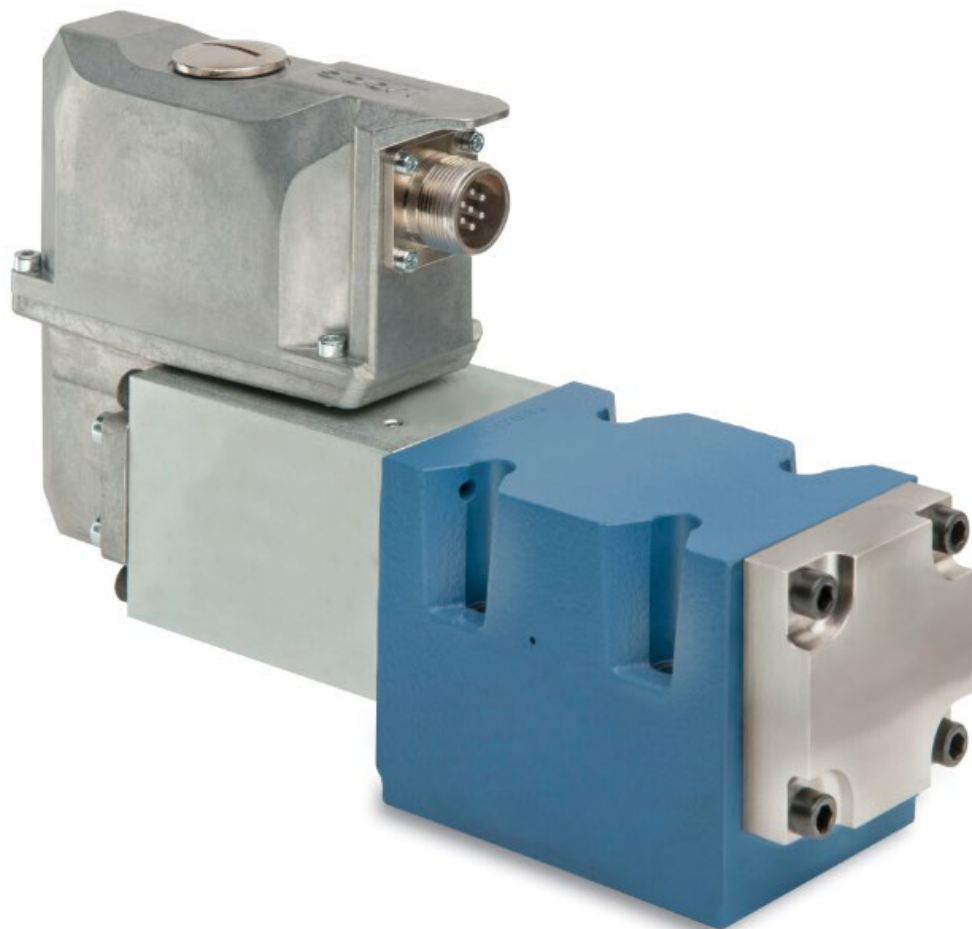
4/4-way bushing-spool design

closed-loop spool position control



TECHNICAL OVERVIEW

TECHNICAL DATA



Size NG10

Rated flow up to 38 l/min (@5 bar)

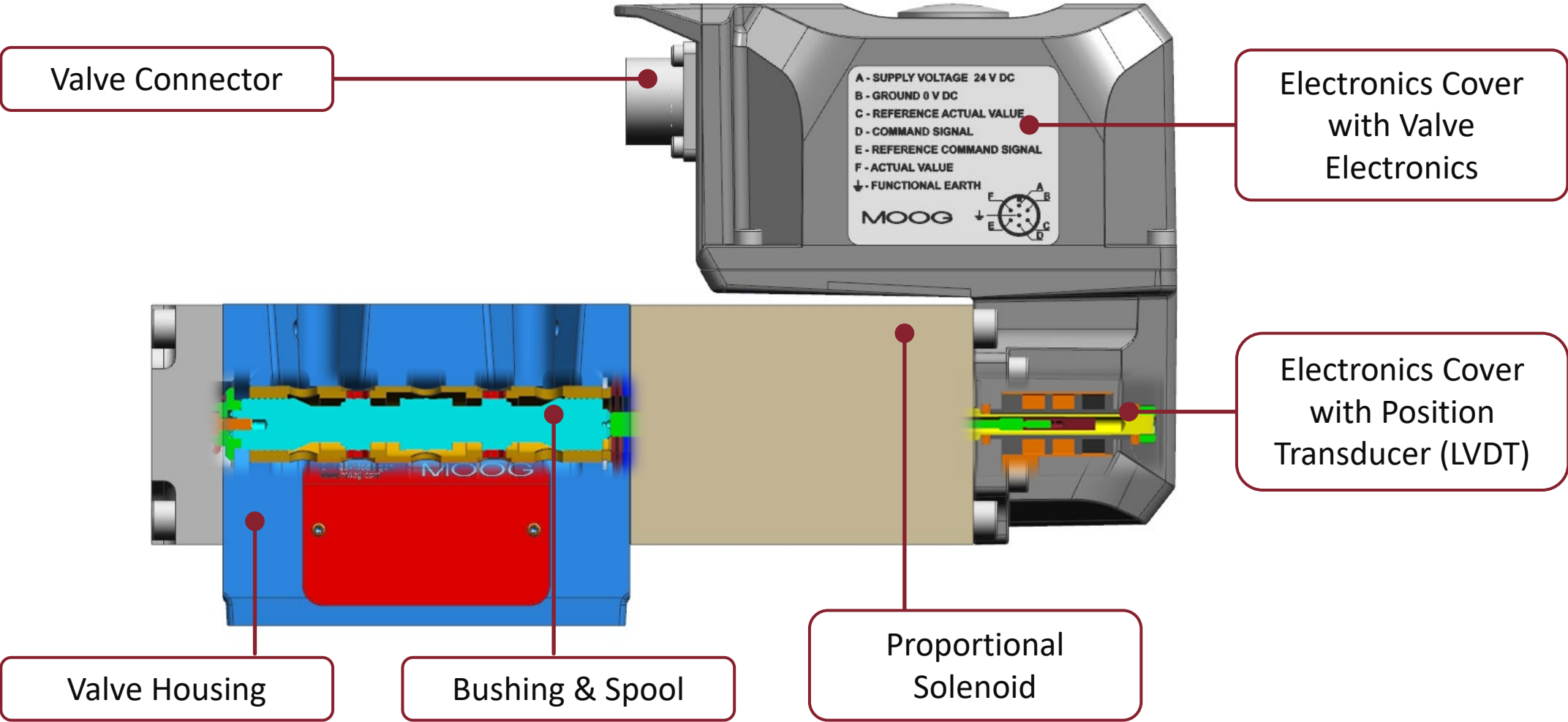
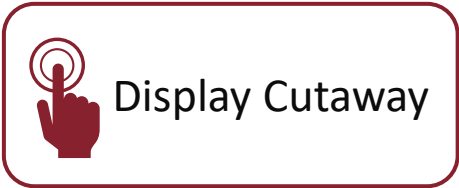
4/4-way design

Failsafe option: 4th position

Rated pressure 350 bar

Pressure tank port 250 bar

VALVE DESIGN



TECHNICAL FEATURES

TECHNICAL FEATURES



Available Flow Options

4th Safe Spool Position

Electrical Interface and Signals

Robustness

TECHNICAL FEATURES



More Details

AVAILABLE FLOW OPTIONS



9 spool options

2 rated flows (19 and 38 l/min@5 bar)

area ratio (1:1 and 2:1)

zero lapped spools with 3 flow characteristics

TECHNICAL FEATURES



More Details

FAILSAFE OPTIONS



4th position by spring force

3 options for spool cut in 4th position

TECHNICAL FEATURES



More Details

ELECTRICAL INTERFACE AND SIGNALS



6-PE connector

3 signal types for input

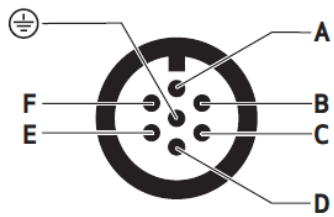
2 signal types for output

TECHNICAL FEATURES



More Details

INTERFACE



Pin	Pin assignment
A	Supply Voltage
B	GND
C	Reference point actual value (Pin F)
D	Command signal
E	Reference point command signal (Pin D)
F	Actual value
	Protective earth (PE)

SIGNAL

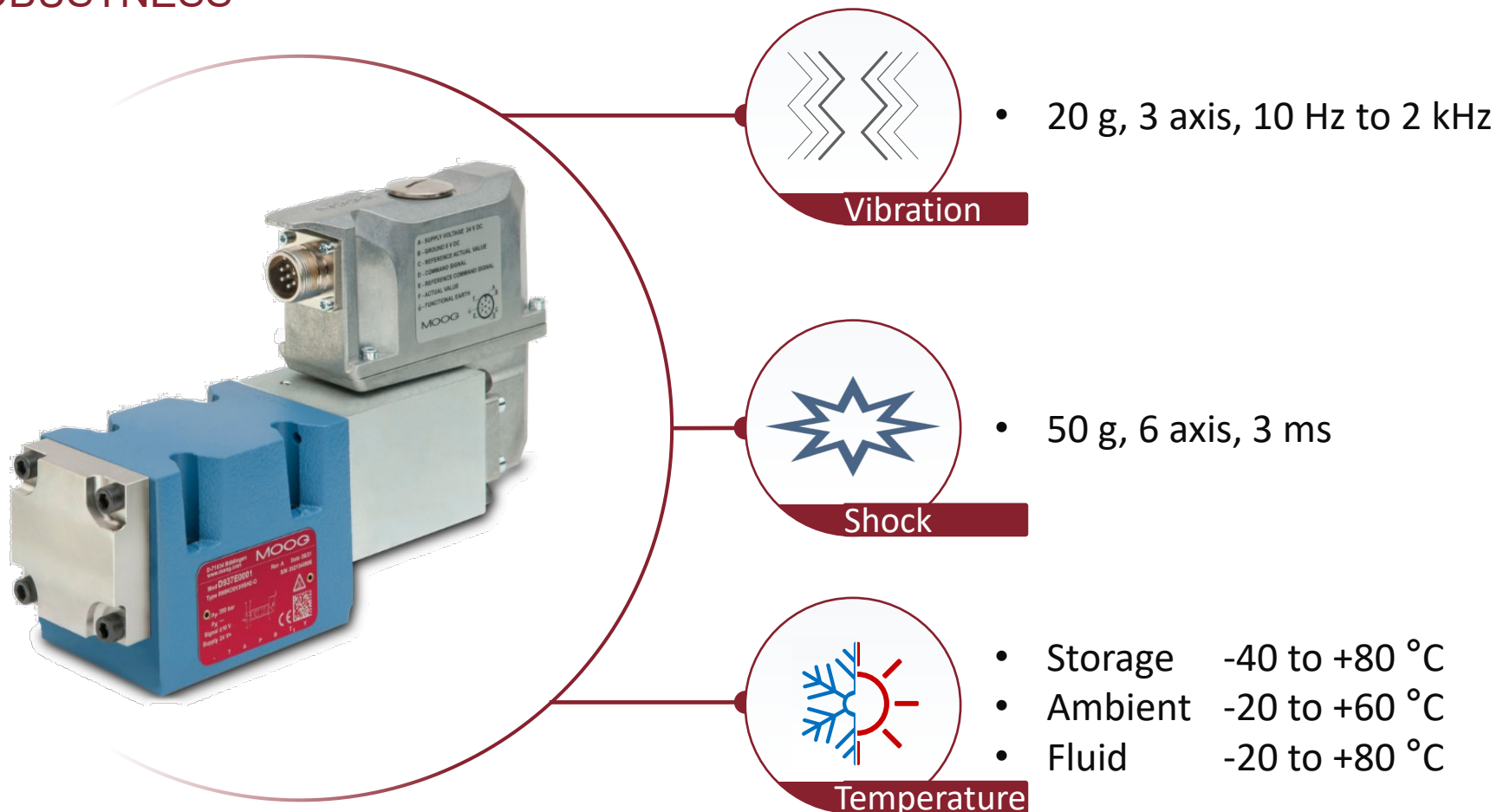
Command signal

	Command Signal	Actual Value
H	$\pm 10\text{ V}$	$\pm 10\text{ V}$
E	4 to 20 mA	4 to 20 mA
X	$\pm 10\text{ mA}$	4 to 20 mA

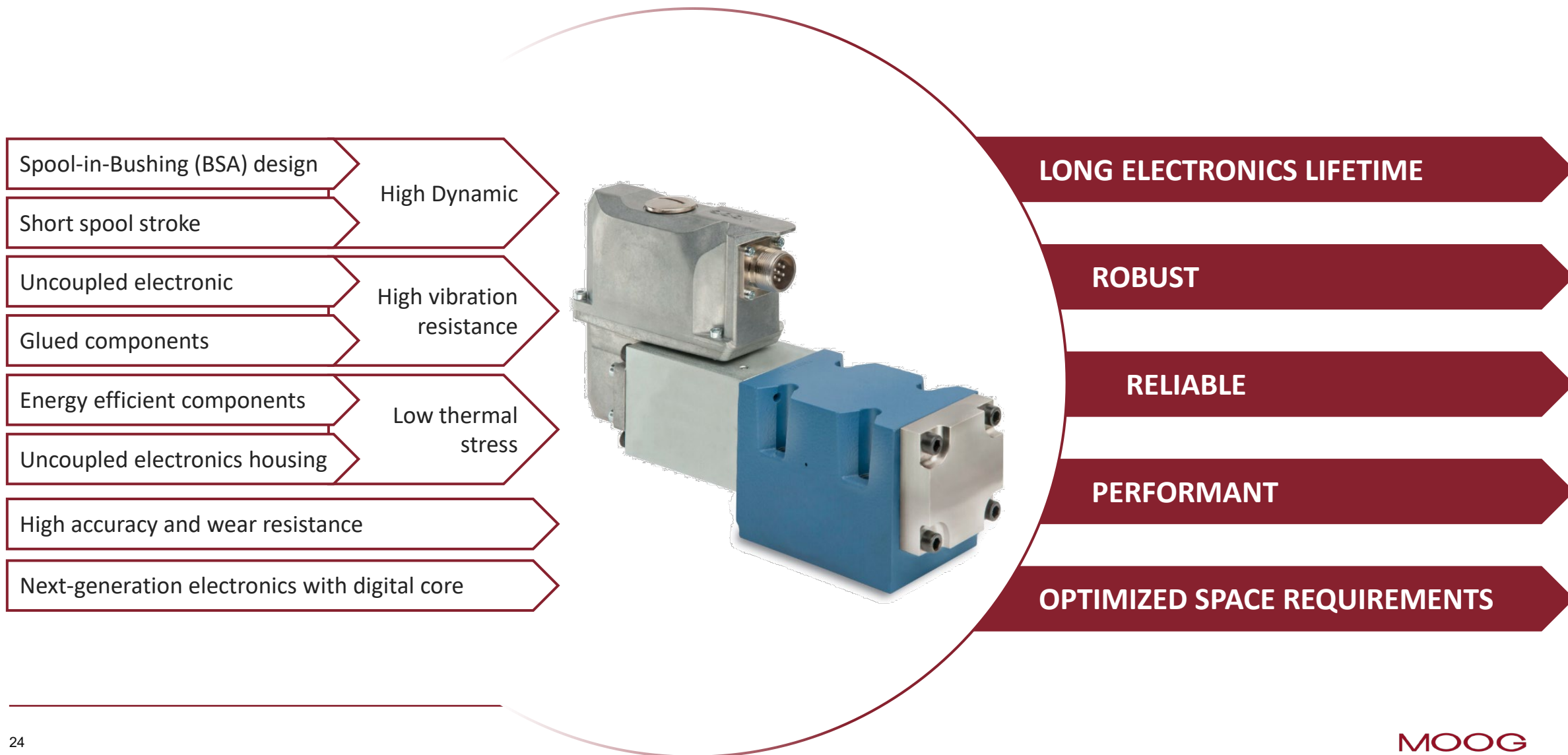
Tap to see less

TECHNICAL FEATURES

ROBUSTNESS



FEATURES AND BENEFITS



HOW TO LEARN MORE

D937 CONFIGURATION OPTIONS

Model number (assigned at the factory)

Model number (assigned at the factory)		Type designation																																												
D93__		1	2	3	4	5	6	7	8	9	10	11	13																																	
Size		R		K	9					S	2		0																																	
6 Size 03																																														
7 Size 05																																														
Model designation																																														
1 Valve type		R Servo-proportional valve with integrated digital electronics																																												
2 Rated flow per spool land [l/min (gpm)] ¹⁾		<table border="1"> <thead> <tr> <th>Size</th> <th>For $\Delta p_s = 35$ bar (500 psi)</th> <th>For $\Delta p_s = 5$ bar (75 psi)</th> </tr> </thead> <tbody> <tr> <td>04 D936</td> <td>4 (1.06)</td> <td>1.5 (0.4)</td> </tr> <tr> <td>08 D936</td> <td>8 (2.1)</td> <td>3.0 (0.8)</td> </tr> <tr> <td>12 D936</td> <td>12 (3.2)</td> <td>4.5 (1.2)</td> </tr> <tr> <td>15 D936</td> <td>15 (4.0)</td> <td>5.7 (1.5)</td> </tr> <tr> <td>20 D936</td> <td>20 (5.3)</td> <td>7.6 (2.0)</td> </tr> <tr> <td>24 D936</td> <td>24 (6.3)</td> <td>9.1 (2.4)</td> </tr> <tr> <td>25 D936</td> <td>25 (6.6)</td> <td>9.5 (2.5)</td> </tr> <tr> <td>40 D936</td> <td>40 (10.6)</td> <td>15.1 (4.0)</td> </tr> <tr> <td>50 D937</td> <td>50 (13.2)</td> <td>18.9 (5.0)</td> </tr> <tr> <td>99 D937</td> <td>100 (26.4)</td> <td>37.8 (10.0)</td> </tr> </tbody> </table>												Size	For $\Delta p_s = 35$ bar (500 psi)	For $\Delta p_s = 5$ bar (75 psi)	04 D936	4 (1.06)	1.5 (0.4)	08 D936	8 (2.1)	3.0 (0.8)	12 D936	12 (3.2)	4.5 (1.2)	15 D936	15 (4.0)	5.7 (1.5)	20 D936	20 (5.3)	7.6 (2.0)	24 D936	24 (6.3)	9.1 (2.4)	25 D936	25 (6.6)	9.5 (2.5)	40 D936	40 (10.6)	15.1 (4.0)	50 D937	50 (13.2)	18.9 (5.0)	99 D937	100 (26.4)	37.8 (10.0)
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3 Pressure range [bar (psi)]		K 350 (5,000)																																												
4 Bushing/spool design ¹⁾		O 4-way: zero lap, linear flow characteristic																																												
		J 4-way: zero lap, linear flow characteristic, A:B = 2:1																																												
		Y 4-way: zero lap, dual gain flow characteristic																																												
		E 4-way: zero lap, dual gain flow characteristic, A:B = 2:1																																												
		L 4-way: zero lap, progressive flow characteristic																																												
5 Proportional solenoid		9 Proportional solenoid on B side																																												
6 Spool position without electrical supply		1 Port P blocked, ports A and B connected to T																																												
		2 Ports P, A, B and T blocked																																												
		F P → B, A → T connected																																												
7 Size		Y port																																												
0 D936		No Y port, $p_{Tmax} = 280$ bar (4,000 psi)																																												
0 D937		No Y port, $p_{Tmax} = 250$ bar (3,625 psi)																																												
3 D936		With Y port, $p_{Tmax} = 350$ bar (5,000 psi)																																												
3 D937		Not available																																												
13 Enable function		0 No enable signal																																												
11 Supply voltage		2 24 V _{DC} , for more information, see section "Electronics"																																												
10 Command signals		<table border="1"> <thead> <tr> <th>Command signal</th> <th>Actual value</th> </tr> </thead> <tbody> <tr> <td>H ± 10 V</td> <td>± 10 V</td> </tr> <tr> <td>E 4 to 20 mA</td> <td>4 to 20 mA</td> </tr> <tr> <td>X ± 10 mA</td> <td>4 to 20 mA</td> </tr> </tbody> </table>												Command signal	Actual value	H ± 10 V	± 10 V	E 4 to 20 mA	4 to 20 mA	X ± 10 mA	4 to 20 mA																									
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9 Valve connector X1		S 6-pole + PE EN 175201-804																																												
8 Seal material		H HNBR																																												
		V FKM																																												

D936



D937



PRODUCT PAGE

MOOG D936 AND D937 PRODUCT PAGE

- Product Catalog
- Datasheet
- Introduction Video
- Installation Drawing
- 3D Model Files
- Installation and commissioning instructions
- And more!

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Products / Servo Valves and Proportional Valves / Industrial / Flow Control Valves / Analog With Integrated Electronics / Direct-Operated Servo-Proportional Valves for Analog Signals D936 and D937 Series

Fieldbus

Analog With Integrated Electronics

Direct-Operated Servo Valves for Analog Signals D633 and D634 Series

Direct-Operated Servo Valves for Analog Signals D636 and D637 Series

Pilot-Operated Servovalves for Analog Signals D670 Series

Pilot-Operated Servovalves for Analog Signals D661 Series

Pilot-Operated Proportional Valves for Analog Signals D660 Series

Pilot-Operated Proportional Valves for Analog Signals D670 Series

Pilot-Operated Servovalves for Analog Signals D791 and D792 Series

Pilot-Operated Proportional Valves for Analog Signals D680 Series

Direct-Operated Proportional Valves for Analog Signals D926 and D927 Series

Direct-Operated Servo-Proportional Valves for Analog Signals D936 and D937 Series

Direct-Operated Servo-Proportional Valves for Analog Signals D936 and D937 Series



- Directly driven by a proportional solenoid
- 4/4-way design including failsafe position reduces need for additional safety components
- Fully hardened spool and bushing provides high accuracy and wear resistance
- Electronics mechanically uncoupled from housing allows for high vibration resistance for longer service life and less machine downtime
- Next-generation electronics with digital core and energy efficient components lead to low thermal stress and long electronic life span

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Product Service & Repairs


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Literature

[Catalog - D936 and D937 Servo-Proportional Valves](#)

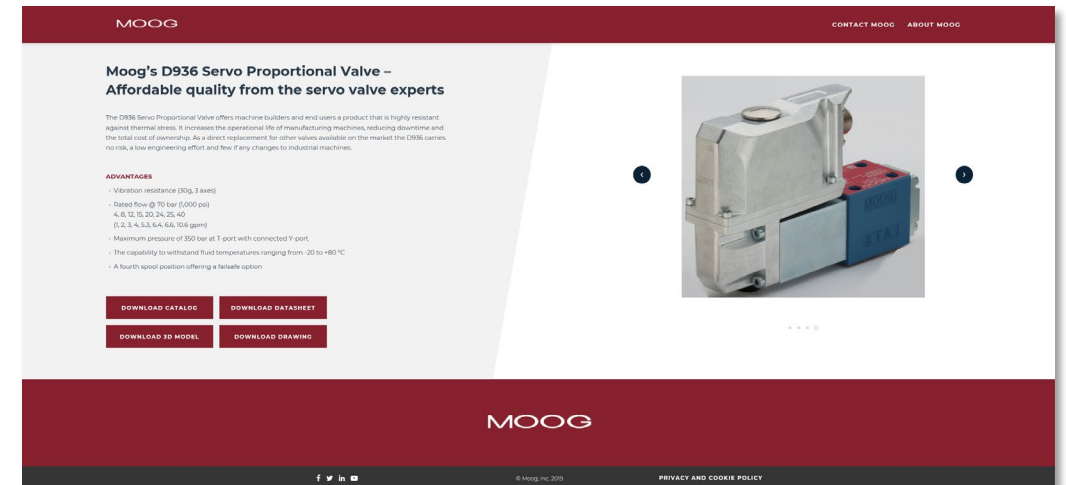
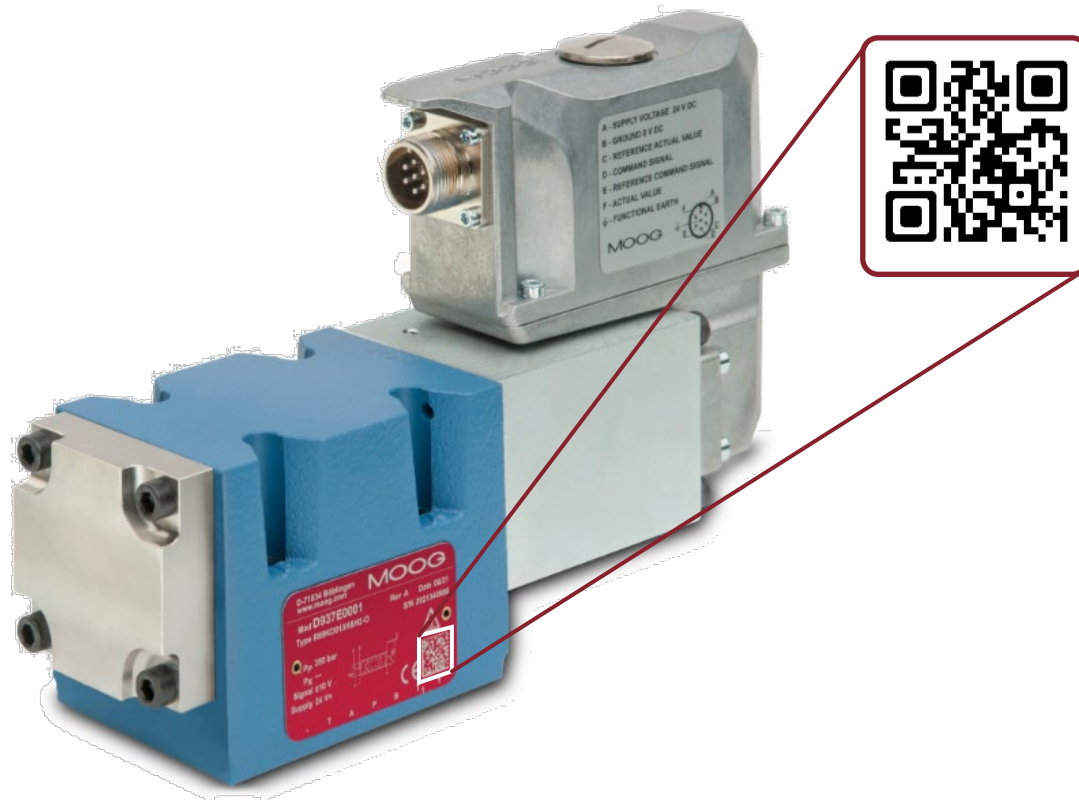
[Datasheet - D936 Servo-Proportional Valves](#)

[Datasheet - D937 Servo-Proportional Valves](#)

[Installation Drawing - D936 Servo-](#)

PRODUCT PAGE

QR CODE



- 3D model
- drawing
- datasheet
- catalog



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TOGETHER

Name

/ click to connect /

Email

