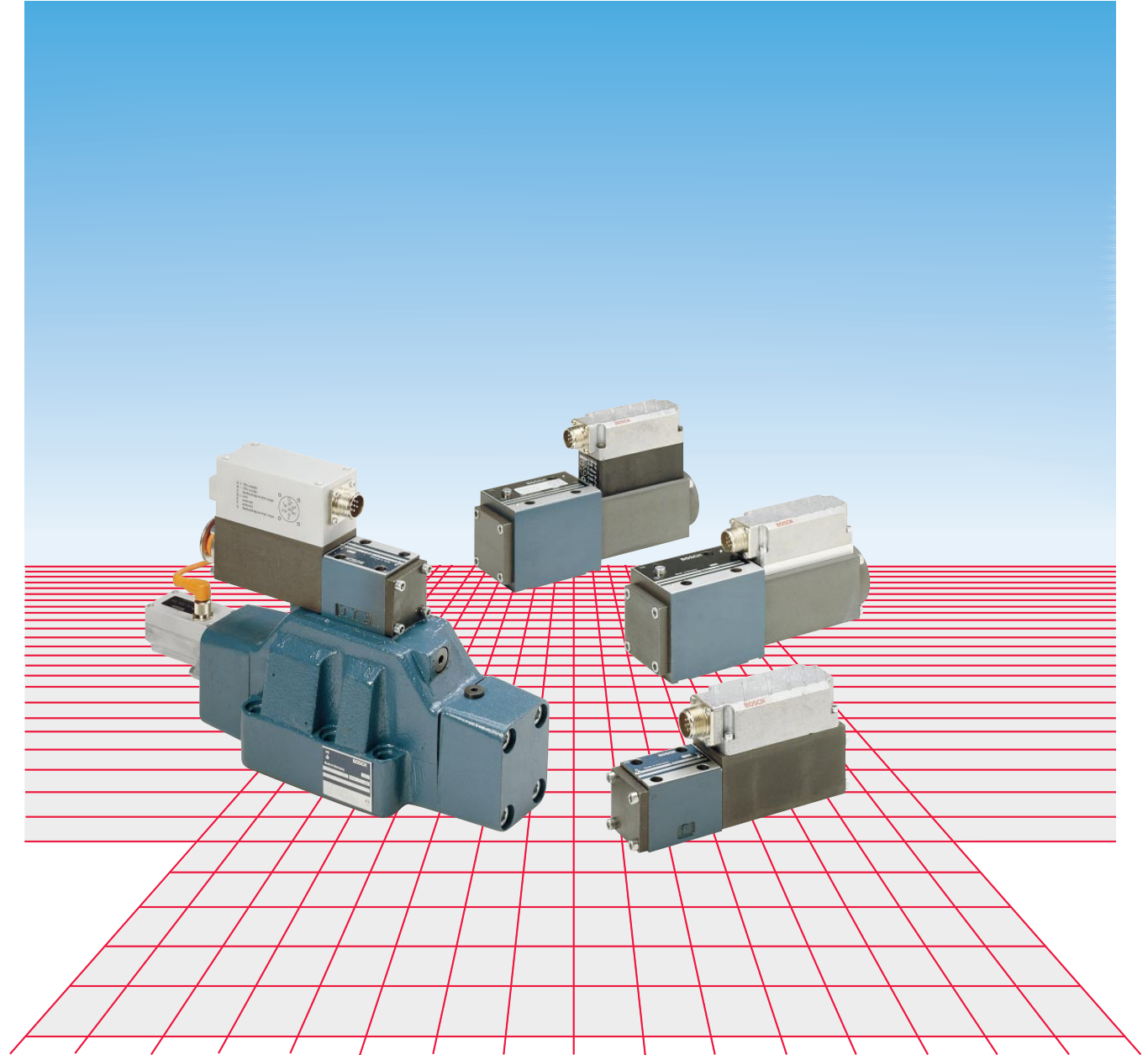




BOSCH



“Rugged”

Proportional and Servo Valves



Proportionals

- D03 - D10 sizes (NG6-NG32)
- Available with or without OBE (On-board electronics)
- Available with or without LVDT feedback
- Products available:
 - Flow Controls
 - Pressure Controls
 - Directional Controls
 - Cartridge Valves
- Mounting Surfaces to ISO and NFPA standards
- Standard pressure rating = 4600 psi
- Low sensitivity to contamination

For detailed information refer to the Bosch Proportional valve catalog #9535233179 and #1987761307.

Servo Valves

- D03 - D10 sizes (NG6-NG32)
- Available with or without OBE (On-board electronics)
- Mounting surfaces to ISO and NFPA standards
- Standard pressure rating = 4600 psi
- Factory set - no field nulling required
- No flapper/nozzle or jet pipe to clog up
- Low sensitivity to contamination
- Zero lap spool
- High dynamic response
- Very low hysteresis
- High repeatability

For detailed information refer to the Bosch Servo valve catalog #9535233182.

9535233753
HPUS AKY 013/5 US (2.95)



“Rugged” Proportional and Servo Valve Technology Designed And Built to Perform

Robert Bosch Fluid Power continues to lead the industry in state-of-the-art Proportional and Servo valve technology. For years now, we have offered both non-OBE (on-board electronics), and OBE valve, both Proportional and Servo quality. These valves are manufactured and supported worldwide with the quality only Bosch can supply.

What makes It Rugged?

- **Metal Cover:**

The new cover which houses the electronics and the 7 pin MS style connector is now constructed out of metal. The cover incorporates an O-ring at the mounting surface which seals the electronics from moisture.

- **Electrical Connector**

The MS style (metal) 7 pin connector is pre-wired internally to both the solenoid coil and the LVDT (both single stage and 2-stage valves). Included in the 7 pins is a LVDT monitor output which allows for valve function verification. On valves with OBE, the standard 24 volt power supply connection and the Standard +/- volt DC command signal are brought in via this connector.

- **Electronics**

The electronics incorporate all surface mount devices (SMD). Old multi-board designs have been replaced with single board designs. This improves product life and allows for a reduction in the overall space requirement.

- **LVDT feedback:**

Integrated LVDT allows for continuous feedback of the spool position. This reduces hysteresis and increases valve repeatability. On the 2-stage valves Bosch incorporates a LVDT on both the pilot valve and the main stage.

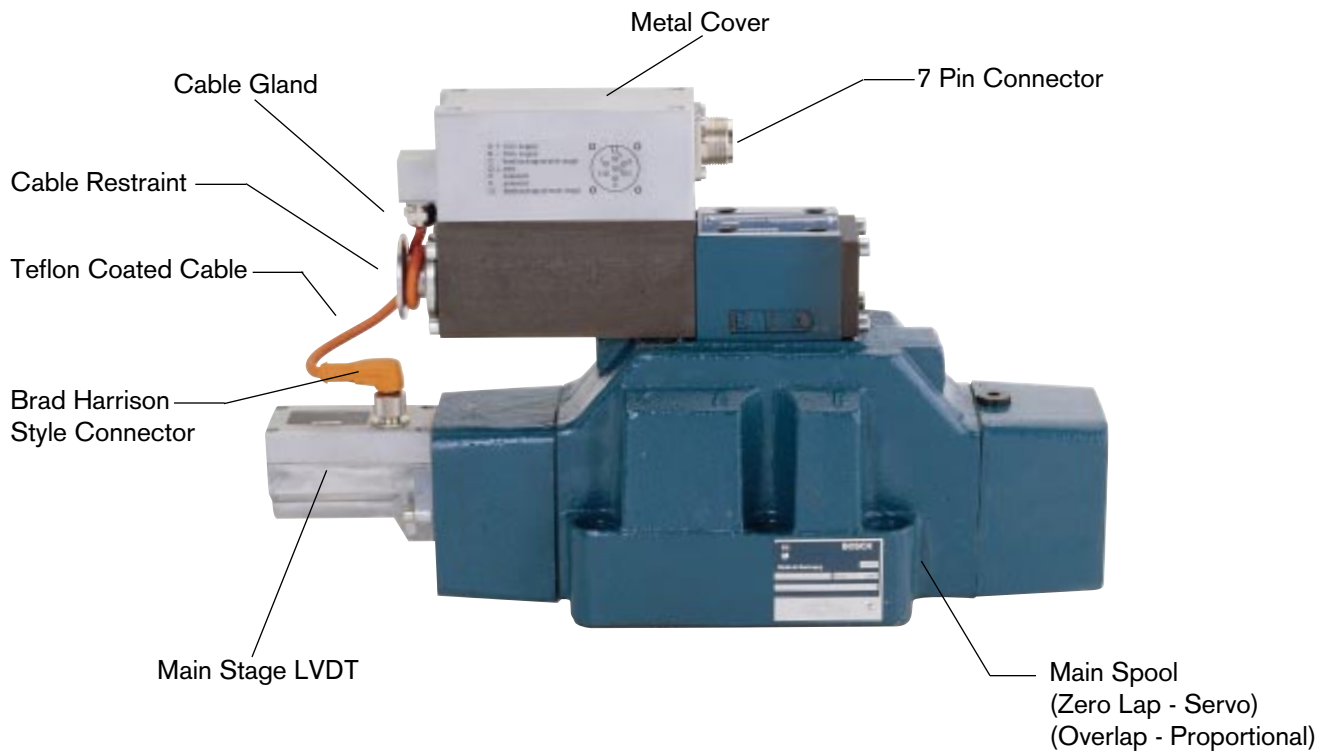
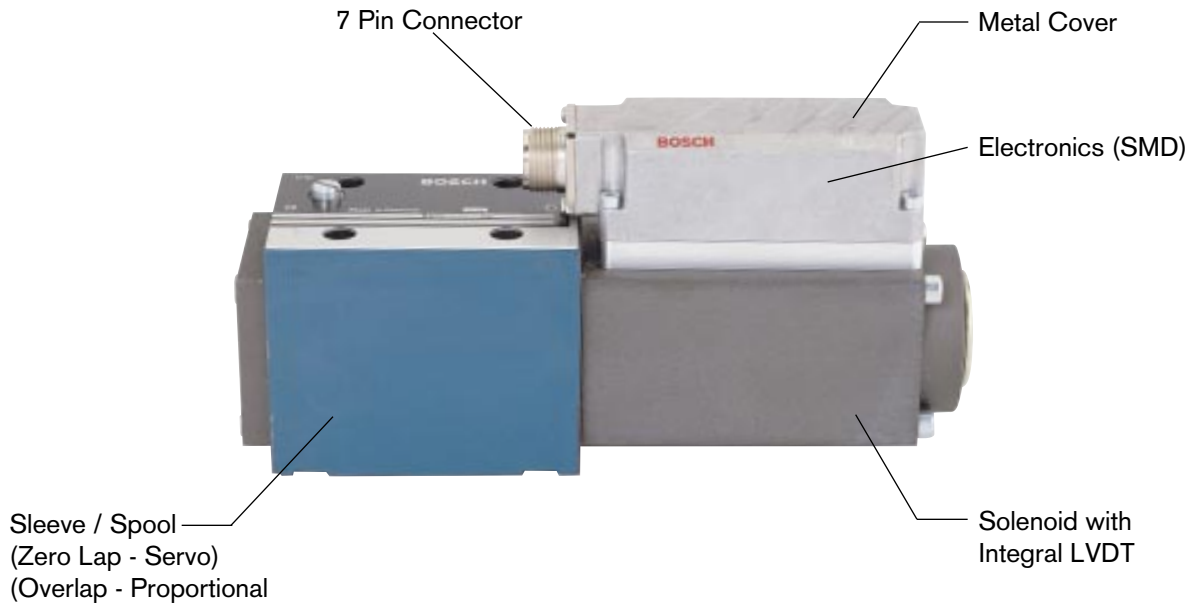
- **Main Stage LVDT:**

The newly designed main stage LVDT incorporates an o-ring at the mounting surface between the valve body and the feedback. In addition, this new generation LVDT has better linearity, smaller ripple on output signal, higher dynamic response, reduced temperature drift, higher resistance to vibration, and better resistance to EMI.

- **Cable:**

The cable between the main stage LVDT and the metal cover on the pilot valve utilizes a Brad Harrison style connector at the LVDT outlet and a cable gland at the cover entrance. Both end are sealed from outside moisture and the cable is Teflon coated to protect against many corrosive fluids.

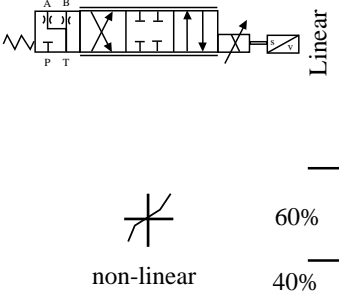
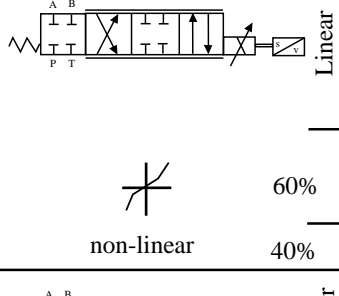
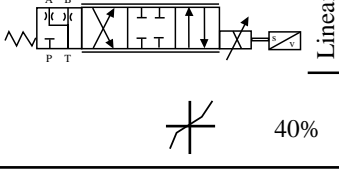
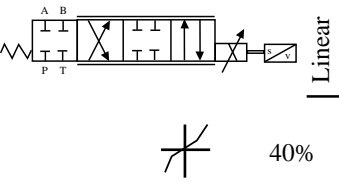
“Rugged” Proportional and Servo Valve



**BOSCH**

Rugged Servo Solenoid and Proportional valves

Direct operated Servo Solenoid valves

Symbol	Size	Flow (l/min)	Basic valve	Previous ruggedized B number	New B no. Die cast cover	10 digit number			
 Linear non-linear 60% 40%	NG6 (D03)	2	D P= 35 bar						
		4							
		12							
		24		0811404035	B810027035	0811404169			
		40		0811404036	B810026961	0811404170			
		12							
		24		0811404043	B810027062				
		40		0811404044	B810027064				
		 Linear non-linear 60% 40%		NG6 (D03)	4	D P= 35 bar			
12									
24	0811404038		B810027027		0811404167				
40	0811404039		B810027036		0811404171				
12	0811404048		B810027126		0811404173				
24	0811404045		B810027063						
40	0811404046		B810027065						
 Linear non-linear 40%	NG10 (D05)		50:50		D P= 35 bar		0811404058	B810006521	
			100:100				0811404059	B810006507	
		50:50	0811404062	B810006523					
		100:100	0811404063	B810006524					
		 Linear non-linear 40%	NG10 (D05)	50:50		D P= 35 bar	0811404060	B810006522	
100:100	0811404061			B810006441	B810006505		0811404069		
50:50	0811404064				B810006525				
100:100	0811404065				B810006506		0811404088		
100:50	0811404078				B810006516		0811404089		

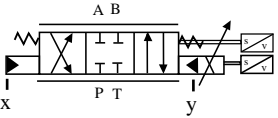
Note: The mating connector (9 536 230 054) must be ordered separately
 For additional information see: HP/VHI - BEY 013/39 De,En (7.95)

9 535 233 754
 HPUS AKY 013/5-4US (5.96)

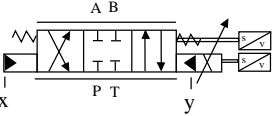
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 Printed in USA

**BOSCH**

Pilot operated Servo Solenoid valves

Symbol	Size	Flow (l/min)		Basic valve	B no. ext./ext.	O no. ext./ext.	O no. int./int.
	NG10 (D05)	55	D P= 5 bar	0811404093	B810065179	0811404096	
		85		0811404094	B810065180	0811404097	
	NG16 (D07)	120		0811404206	B810055500	0811404229	
		110:65		B810055338	B810055558	0811404236	
		200		0811404207	B810055537	0811404231	
		370:250			B810015718		
		370:370		0811404405	B810015711		

Pilot operated Proportional valves

	NG10 (D05)	80:80	D P= 5 bar	0811404180	B810065181	0811404191	0811404192
	NG16 (D07)	180:180		0811404210	B810055502	0811404232	0811404233
		180:180		0811404224*	B810055501*	0811404234*	0811404235*
	NG25 (D08)	350:350		0811404407	B810015681	0811404424	0811404425
		350:350		0811404418*	B810015682*	0811404422*	0811404426*

* consult factory

Note: The mating connector (9 536 230 054) must be ordered separately
 For additional information see: HP/VHI - BEY 013/39 De,En (7.95)

9 535 233 754
 HPUS AKY 013/5-4US (5.96)