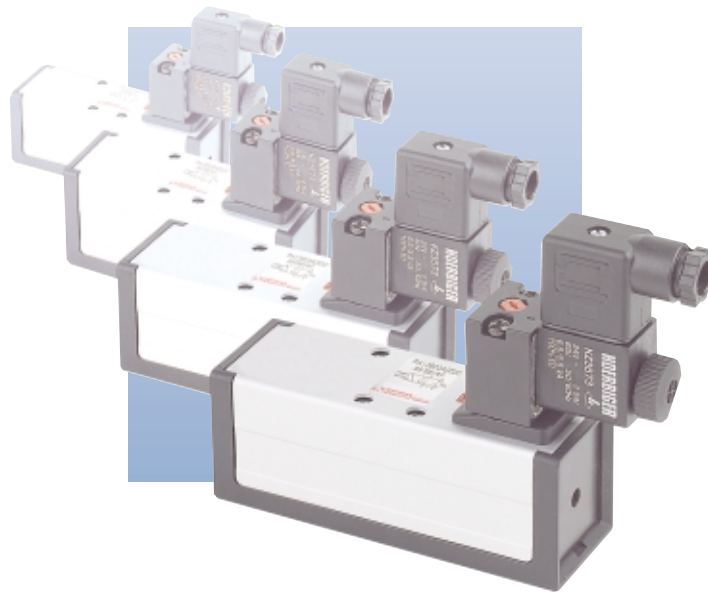


**AUTOMATION
TECHNOLOGY**

**ISO AND VDMA
VALVES**

**STANDARD VALVES
FOR SPECIAL MARKETS
SIZES 01/1/2/3**

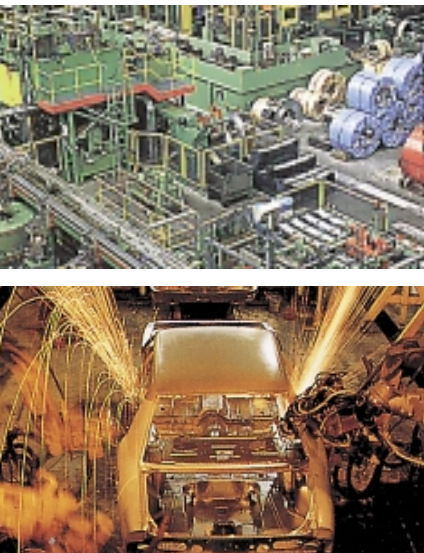


HOERBIGER
ORIGA

HOERBIGER-ORIGA ISO VALVES: LEADING TECHNOLOGY FOR MAXIMUM RELIABILITY AND PERFORMANCE

The heart of this valve, the spool, is constructed from a specialist ceramic material. Its unique design and material-properties guarantee absolute reliability and extremely long service life. The innovative technology is proven in wide spread markets and in the most demanding applications.

DESIGNED FOR HIGH-DEMAND MARKETS



For many years ISO valves have been the recognized standard for the automotive industry and its suppliers. More recently, technological developments have resulted in the successful introduction and acceptance of the more compact VDMA standard valves and base plates.

QUALITY AND RELIABILITY – THE BASIS FOR TROUBLE-FREE SYSTEM OPERATION

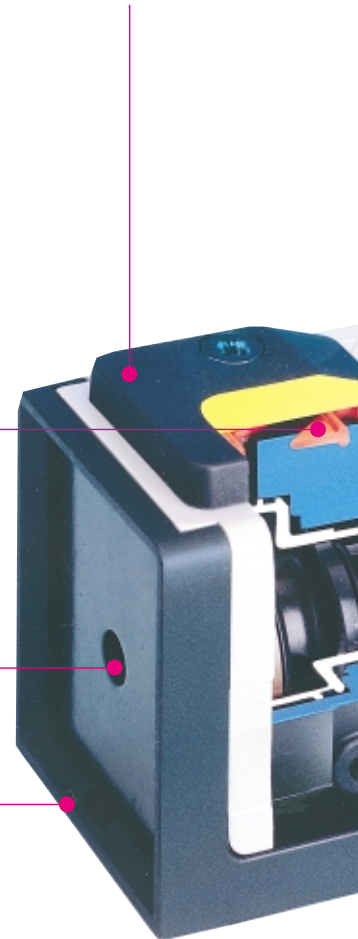
- **High performance:**
Superior flow characteristics result from the highly efficient spool design and construction.
- **Constant performance:**
Low friction dynamic lip-seals ensure consistent operation for the complete valve life.
- **Compact construction:**
Valve dimensions do not exceed the standard base plate area.
- **Maintenance free:**
Suitable for use with dried and unlubricated or lubricated air, with no demand for routine maintenance.
- **Easy installation:**
Mounting screws are retained in valve body.

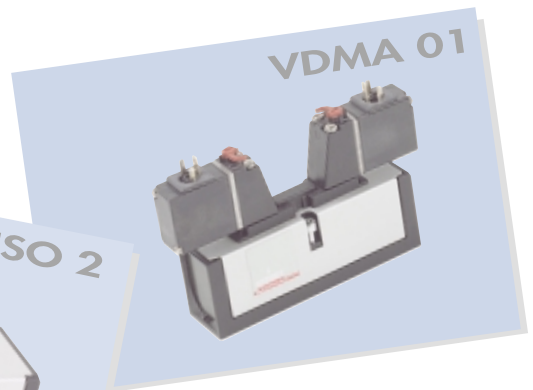
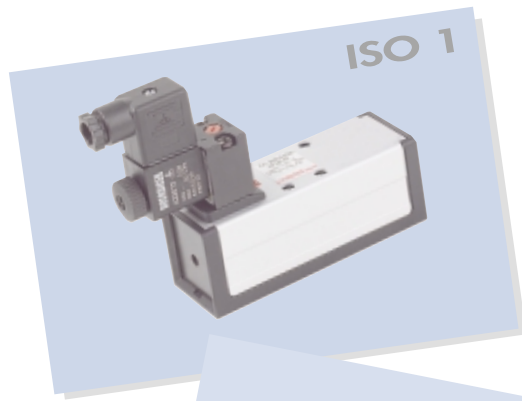
Cover plate can be exchanged for a pilot valve for electrical actuation.

Easy function selection between internal pilot or servo air supply, using a 2 position switch.

Manual override – tool operated for additional safety

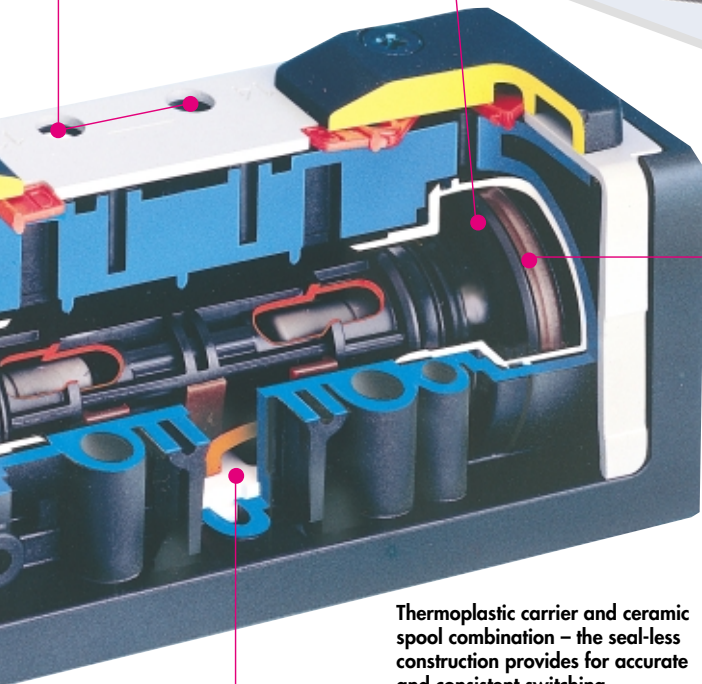
Integrated valve gasket





Retained mounting screws

Pressure amplifier integrated into the actuating piston, to minimize the actuation pressure.



Low friction dynamic lip-seals ensure consistent operation for the complete valve life.

Thermoplastic carrier and ceramic spool combination – the seal-less construction provides for accurate and consistent switching, insensitive to air quality i.e. high reliability.



Ceramic spool for maximum service life. (25 million cycles, maintenance free with dried, unlubricated air).

- 5/2 and 5/3 way valves
- Pneumatically or electrically actuated
- All common voltages
- Pilot operated spring return
- Vacuum compatible

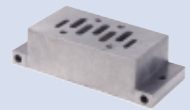
Single base plate, form A



VDMA

ISO

Base plates, form B



ISO

Modular bolt-together base plate, form C



VDMA

ISO

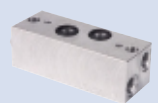
End plate set, form D for base plate combinations



VDMA

ISO

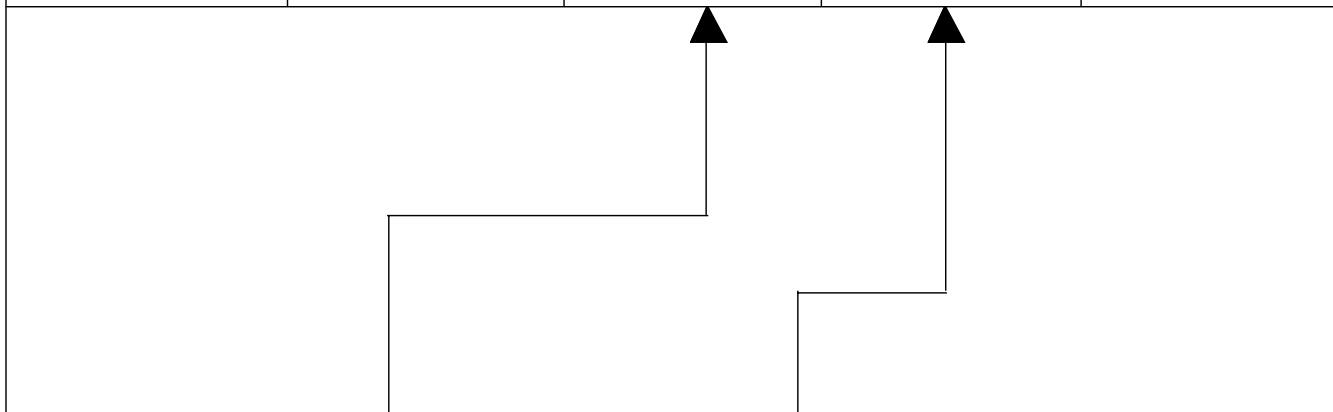
Angle base plate, form E



ISO

OVERVIEW – 5/2 STANDARD WAY VALVE

Actuation	Symbol	Order Instructions		Further Informations see Page
		Type	Order No.	
Pneumatic, by permanent signal, spring return		S20 561RF-01 (VDMA)	PA 12891	31,32
		S20 561RF-1	PA 12869	7,8
		S20 561RF-2	PA 16425	15,16
		S20 561RF-3	PA 16426	23,24
Pneumatic, by permanent signal, air spring return		S20 561R-01 (VDMA)	PA 12892	31,32
		S20 561R-1	PA 12870	7,8
		S20 561R-2	PA 16428	15,16
		S20 561R-3	PA 16429	23,24
Pneumatic, by impulse		S20 561-01 (VDMA)	PA 12893	31,32
		S20 561-1	PA 12868	7,8
		S20 561-2	PA 16422	15,16
Electrical, by permanent signal, spring return		S20 581RF-01-.. (VDMA)	PA 12886-..33	33-35
		S20 581RF-1-..	PA 12875-..33	9-11
		S20 581RF-2-..	PA 16441-..33	17-19
		S20 581RF-3-..	PA 16442-..33	25-27
with external pilot air		S20 581S-RF-01-.. (VDMA)	PA 12896-..33	33-35
		S20 581S-RF-1-..	PA 12882-..33	9-11
		S20 581S-RF-2-..	PA 16456-..33	17-19
		S20 581S-RF-3-..	PA 16462-..33	25-27
Electrical, by permanent signal, air spring return		S20 581R-01-.. (VDMA)	PA 12887-..33	33-35
		S20 581R-1-..	PA 12876-..33	9-11
		S20 581R-2-..	PA 16444-..33	17-19
		S20 581R-3-..	PA 16445-..33	25-27
Electrical, by impulse,		S20 581-01-.. (VDMA)	PA 12888-..33	33-35
		S20 581-1-..	PA 12874-..33	9-11
		S20 581-2-..	PA 16438-..33	17-19
		S20 581-3-..	PA 16439-..33	25-27
with external pilot air		S20 581S-01-.. (VDMA)	PA 12898-..33	33-35
		S20 581S-1-..	PA 12880-..33	9-11
		S20 581S-2-..	PA 16454-..33	17-19
		S20 581S-3-..	PA 16460-..33	25-27



Solenoid version	Nominal voltage	Applicable for	Key code
Standard version	220 V/50 (60) Hz	110 V=	61
	24 V=	48 V/50 (60) Hz	02
Low wattage version	24 V=		13*
	220 V/50 (60) Hz		69*
Ex-proof version	24 V=		48*
	220 V/50 (60) Hz		98*

* only for ISO-Valves
Further voltages available on request.

OVERVIEW – 5/3 STANDARD WAY VALVE

Actuation	Symbol	Order Instructions		Further Informations see Page		
		Type	Order No.			
Pneumatic, by permanent signal, spring return to middle position		S20561RFG-01 (VDMA)	PA 12894	31,32		
		S20561RFG-1	PA 12871	7,8		
		S20561RFG-2	PA 16431	17-19		
		S20561RFG-3	PA 16432	23,24		
		S20561RFB-1	PA 12873	7,8		
		S20561RFB-2	PA 16437	23,24		
		S20561RFE-01 (VDMA)	PA 12895	33-35		
		S20561RFE-1	PA 12872	7,8		
		S20561RFE-2	PA 16434	17,19		
		S20561RFE-3	PA 16435	23,24		
		Electrical, by permanent signal, spring return to middle position		S20581RFG-01 (VDMA)	PA 12889-..33	33-35
				S20581RFG-1-..	PA 12877-..33	9-11
S20581RFG-2-..	PA 16447-..33			17-19		
S20581RFG-3-..	PA 16448-..33			25-27		
	S20581RFB-1-..		PA 12879-..33	9-11		
	S20581RFB-2-..		PA 16453-..33	17-19		
	S20581RFE-01 (VDMA)		PA 12890-..33	33-35		
	S20581RFE-1-..		PA 12878-..33	9-11		
	S20581RFE-2-..		PA 16450-..33	17-19		
	S20581RFE-3-..		PA 16451-..33	25-27		
	with external pilot air			S20581S-RFG-01.. (VDMA)	PA 12900-..33	33-35
				S20581S-RFG-1-..	PA 12883-..33	9-11
S20581S-RFG-2-..		PA 16457-..33		17-19		
S20581S-RFG-3-..		PA 16463-..33		25-27		
		S20581S-RFB-1-..	PA 12885-..33	9-11		
		S20581S-RFB-2-..	PA 16459-..33	17-19		
		S20581S-RFE-01-.. (VDMA)	PA 12899..33	33-35		
		S20581S-RFE-1-..	PA 12884..33	9-11		
		S20581S-RFE-2-..	PA 16458..33	17-19		
		S20581S-RFE-3-..	PA 16464..33	25-27		
Solenoid version		Nominal voltage	Applicable for	Key code		
Standard version	220 V/50(60) Hz	110 V=	61			
	24 V=	48 V/50(60) Hz	02			
Low wattage version	24 V=		13*			
	220 V/50(60) Hz		69*			
Ex-proof version	24 V=		48*	* only for ISO-Valves Further voltages available on request.		
	220 V/50(60) Hz		98*			

OVERVIEW – 5/2 AND 5/3 WAY PIEZO VALVES

Actuation	Symbol	Order Instructions		Further Informations see Page	
		Type	Order No.		
Electrical, by permanent signal, spring return		S20 585RF-1-..	PS 13704-..1A	12-14	
		S20 585RF-2-..	PS 13724-..1A	20-22	
		S20 585RF-3-..	PS 13744-..1A	28-30	
with external pilot air		S20 585S-RF-1-..	PS 13705-..1A	12-14	
		S20 585S-RF-2-..	PS 13725-..1A	20-22	
		S20 585S-RF-3-..	PS 13745-..1A	28-30	
Electrical, by permanent signal, air spring return		S20 585R-1-..	PS 13702-..1A	12-14	
		S20 585R-2-..	PS 13722-..1A	20-22	
		S20 585R-3-..	PS 13742-..1A	28-30	
with external pilot air		S20 585S-R-1-..	PS 13703-..1A	12-14	
		S20 585S-R-2-..	PS 13723-..1A	20-22	
		S20 585S-R-3-..	PS 13743-..1A	28-30	
Electrical, by impulse,		S20 585-1-..	PS 13700-..1A	12-14	
		S20 585-2-..	PS 13720-..1A	20-22	
		S20 585-3-..	PS 13740-..1A	28-30	
	with external pilot air		S20 585S-1-..	PS 13701-..1A	12-14
			S20 585S-2-..	PS 13721-..1A	20-22
			S20 585S-3-..	PS 13741-..1A	28-30
Electrical, by permanent signal, spring return to middle position		S20 585RFG-1-..	PS 13706-..1A	12-14	
		S20 585RFG-2-..	PS 13726-..1A	20-22	
		S20 585RFG-3-..	PS 13746-..1A	28-30	
		S20 585RFB-1-..	PS 13710-..1A	12-14	
		S20 585RFB-2-..	PS 13730-..1A	20-22	
		S20 585RFE-1-..	PS 13708-..1A	12-14	
		S20 585RFE-2-..	PS 13728-..1A	20-22	
		S20 585RFE-3-..	PS 13748-..1A	28-30	
	with external pilot air		S20 585S-RFG-1-..	PS 13707-..1A	12-14
			S20 585S-RFG-2-..	PS 13727-..1A	20-22
			S20 585S-RFG-3-..	PS 13747-..1A	28-30
		S20 585S-RFB-1-..	PS 13711-..1A	12-14	
		S20 585S-RFB-2-..	PS 13731-..1A	20-22	
		S20 585S-RFE-1-..	PS 13709-..1A	12-14	
		S20 585S-RFE-2-..	PS 13729-..1A	20-22	
		S20 585S-RFE-3-..	PS 13749-..1A	28-30	

Piezo version	Nominal voltage	Type key	Key code	* Note: Because of the very small power consumption, residual and leakage currents of the controlling circuit can cause unintended switching of the valve, if they are larger than the operating current.
Standard version	24-250VDC 20-230V AC	A *	13	
	24VDC Ex	E	21	
	7,5VDC Ex	N	51	
Special version	24V DC	D	30	
	Pilot-Valve with NO-Function request			