

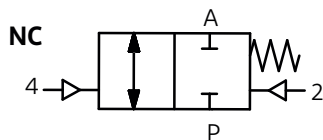
CV10

Coaxial Valve externally controlled

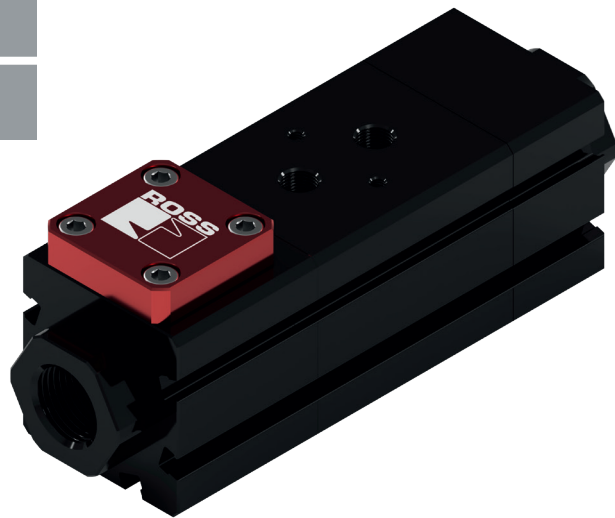
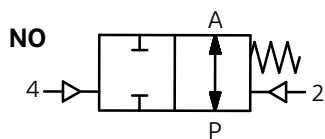


SERIES CV10

normally closed



normally open



ROSS – COAXIAL VALVE

Valve Type	CV10	
Function	2/2-Way valve	
Operating mode	externally controlled	
Functions	normally closed (NC)	normally open (NO)
k_v -value	2.1 - 3.7 m ³ /h	
Port-Size	G 1/4 - G 3/4 and NPT 1/4 - NPT 3/4	
Media	neutral gases, liquid, highly viscous, gelatinous and contaminated	
Nominal size	DN 10	
Type of operation	pressure controlled	pilot operated
Construction design	<p>The coaxial valve consists of a valve seat (4-way adjustable), the control tube, a pneumatic cylinder and the connection pieces.</p> <p>By applying pressure to the cylinder, the control tube is moved in an axial direction towards the valve seat.</p> <p>This opens (NC) or closes (NO) the valve. The axial flow enables high kv values and low pressure losses.</p>	

OPERATING PRESSURE	PARAMETER	SPECIAL DESIGN
Operating pressure	0 to 16 bar / 0 to 40 bar / 0 to 64 bar / 0 to 100 bar	on demand
Back pressure	0 to 16 bar	
Vacuum		yes
Control pressure	3 to 10 bar	
FLOW DIRECTION	PARAMETER	SPECIAL DESIGN
P → A	according to marking	
A → P	max. 16 bar	
TEMPERATURE	PARAMETER	SPECIAL DESIGN
Ambient temperature	-10°C to +80°C	on demand
Media temperature	-10°C to +130°C	
CONSTRUCTION MATERIAL	PARAMETER	SPECIAL DESIGN
Sealing material valve seat	PTFE	
Sealing material static (O-Ring)	FKM (Standard)	EPDM, NBR, HNBR
Sealing material dynamic	PTFE	on demand
Connectors	anodized aluminum	on demand
Cylinder material	anodized aluminum	on demand
Control tube	1.4571	
TECHNICAL PARAMETER	PARAMETER	SPECIAL DESIGN
Nominal size	DN 10	
k _v -value	2.1 - 3.7 m ³ /h	
Functions	normally closed (NC), normally open (NO)	
Response time	20 - 30 ms (depending on the pilot pressure)	
Media*	neutral gases, liquid, highly viscous, gelatinous and contaminated	
Manual override		Pilot valve
Pilot air connector	G 1/8 / NPT 1/8	Quick connect fitting, Pilot valves
Port size	G 1/4 - G 3/4 and NPT 1/4 - NPT 3/4	Flange, Special connectors
PNEUMATIC DRIVE	PARAMETER	SPECIAL DESIGN
Operating pressure	3 to 10 bar	
Air consumption	7 cm ³ /stroke	
Cycle time	adjustable with a speed controller at the pilot valve	
Controller		on demand
Pilot air connector	G 1/8 / NPT 1/8	Quick connect fitting, Pilot valves
Flow media	filtered air, lubricated or unlubricated	
MISCELLANEOUS	PARAMETER	SPECIAL DESIGN
Control mode	preferably via 5/2 way pilot valve	
Weight	0.9 kg	
Mounting	mounting bracket	mounting bracket
End switch	on demand	on demand
Orientation	any	

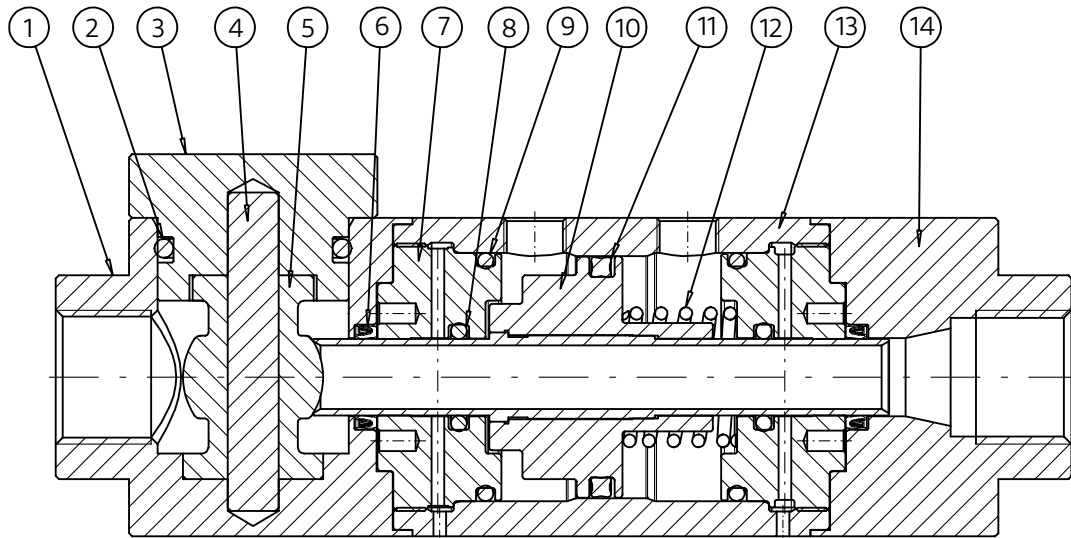
*see operating instructions

ELECTRICAL PART - PILOT VALVES

COMPACT VALVE	PARAMETER	SPECIAL DESIGN
Voltage	24 VDC, 230 VAC 40 to 60 Hz	on demand
Voltage tolerance	± 10% according to VDE 0580	
Power consumption	3 Watt / 5 VA	
Duty rating	100% ED	
Connector	DIN EN 175301-803, Form B	on demand
Enclosure rating	IP 65	
Ambient/Media temperature	+5° to +60°C	
Flow media	filtered air, lubricated or unlubricated	
Pipe size	G 1/8	
NAMUR VALVE (acc. to VDI/VDE 3845)	PARAMETER	SPECIAL DESIGN
Voltage	24 VDC, 230 VAC 40 bis 60 Hz	
Voltage tolerance	± 10% according to VDE 0580	
Power consumption	DC 2,5 Watt / AC 5,5 VA bei 50/60 Hz	
Duty rating	100% ED	
Connector	DIN EN 175301-803, Form B	on demand
Enclosure rating	IP 65	
Ambient/Media temperature	+5° to +60°C	
Flow media	filtered air, lubricated or unlubricated	
Pipe size	G 1/4	
ISO-VALVE (ISO 5599-1)	PARAMETER	SPECIAL DESIGN
Voltage	24 VDC, 230 VAC 40 to 60 Hz	
Voltage tolerance	± 10% according to VDE 0580	
Power consumption	DC 6 Watt / AC 8,5 VA at 50/60 Hz	
Duty rating	100% ED	
Connector	DIN EN 175301-803, Form A	on demand
Enclosure rating	IP 65	
Ambient/Media temperature	+5° to +50°C	on demand
Flow media	filtered air, lubricated or unlubricated	

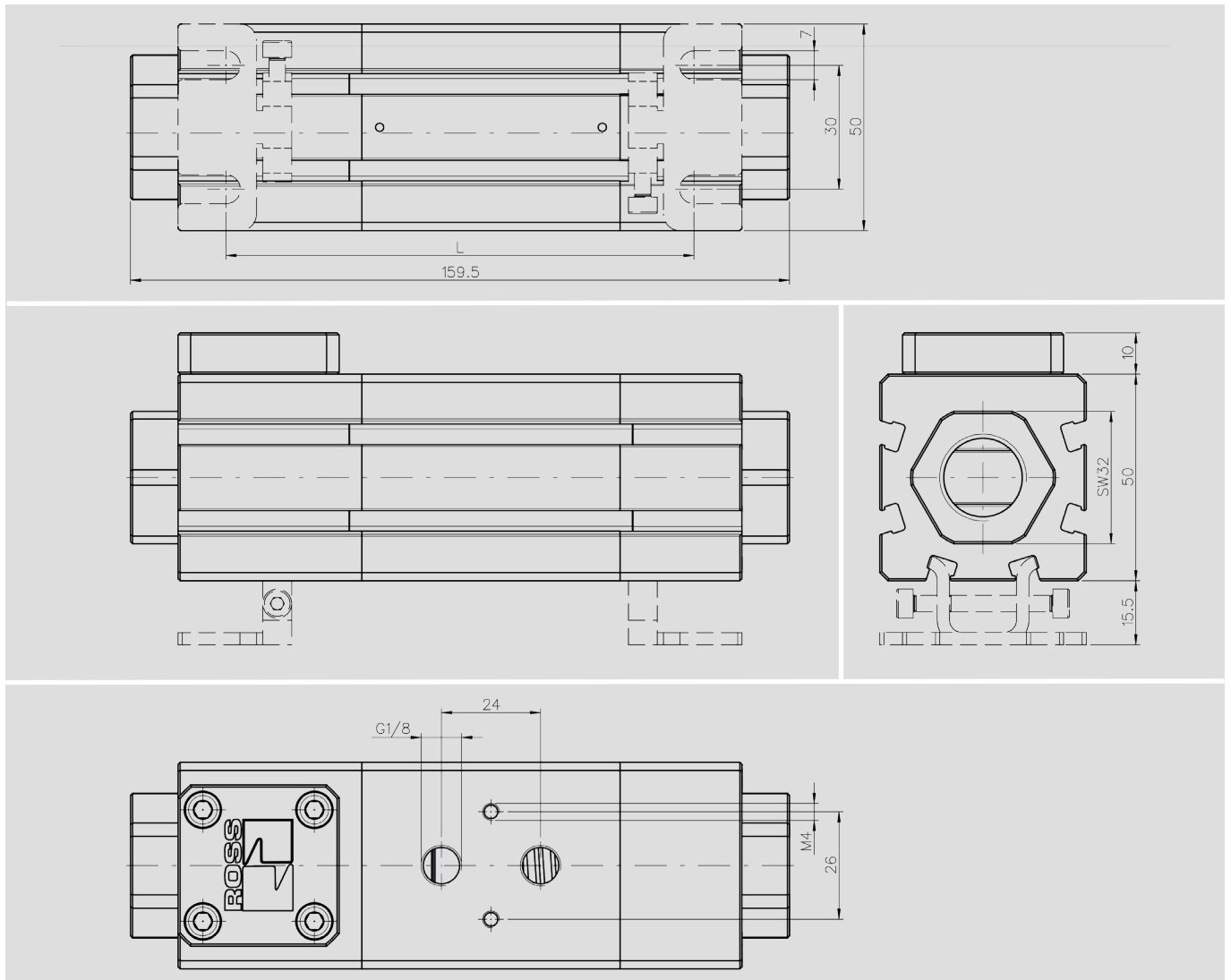
OTHER PILOT VALVES ON REQUEST

DESCRIPTION - VALVE COMPONENTS



POSITION	DESCRIPTION	QUANTITY
1	Connector outlet	1
2	O-Ring valve cover	1
3	Valve cover	1
4	Cylinder pin	1
5	Seal body	1
6	Rod seal	2
7	Seal carrier	2
8	O-Ring control rod	2
9	O-Ring cylinder sealing	2
10	Piston with control rod	1
11	Piston seal	1
12	Spring	1
13	Cylinder	1
14	Connector inlet	1

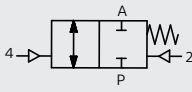
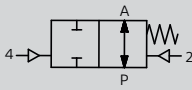
DIMENSIONS - MM



MODEL NUMBER

CV10	2	E	C	100	F	10	A	G014	A	0
Series	Type/Funktion 2/2 2	Actuation indirect E	Version NC C NO O	Pressure range 0 - 16 bar 016 0 - 40 bar 040 0 - 64 bar 060 0 - 100 bar 100	Seal material PTFE / FKM F PTFE / EPDM E PTFE / NBR N PTFE / HNBR H	Nominal size DN 10 10	Valve body material / colour Aluminium black anodized A	2/2-Way valve Port size Inlet Outlet	Control mode A w/o pilot valve	Revision level
								G 1/4 G 1/4 G014 G 3/8 G 3/8 G038 G 1/2 G 1/2 G012 G 3/4 G 3/4 G034 NPT 1/4 NPT 1/4 N014 NPT 3/8 NPT 3/8 N038 NPT 1/2 NPT 1/2 N012 NPT 3/4 NPT 3/4 N034		

ORDERING CHART - VARIANTS WITH SEALING MATERIAL PTFE / FKM

TYPE/FUNCTION	NOMINAL SIZE (mm)	PIPE SIZE	k_v -VALUE (m ³ /h)	NOMINAL PRES-SURE (bar)	ORDER NUMBER	NOMINAL PRES-SURE (bar)	ORDER NUMBER		
2/2-way, normally closed (NC) 	10 mm	G 1/4	2.1	0 - 16	CV102EC016F10AG014A0	0 - 40	CV102EC040F10AG014A0		
		G 3/8	3.2		CV102EC016F10AG038A0		CV102EC040F10AG038A0		
		G 1/2	3.7		CV102EC016F10AG012A0		CV102EC040F10AG012A0		
		G 3/4	3.7		CV102EC016F10AG034A0		CV102EC040F10AG034A0		
		NPT 1/4	2.1		CV102EC016F10AN014A0		CV102EC040F10AN014A0		
		NPT 3/8	3.2		CV102EC016F10AN038A0		CV102EC040F10AN038A0		
		NPT 1/2	3.7		CV102EC016F10AN012A0		CV102EC040F10AN012A0		
		NPT 3/4	3.7		CV102EC016F10AN034A0		CV102EC040F10AN034A0		
		G 1/4	2.1	0 - 64	CV102EC064F10AG014A0	0 - 100	CV102EC100F10AG014A0		
		G 3/8	3.2		CV102EC064F10AG038A0		CV102EC100F10AG038A0		
		G 1/2	3.7		CV102EC064F10AG012A0		CV102EC100F10AG012A0		
		G 3/4	3.7		CV102EC064F10AG034A0		CV102EC100F10AG034A0		
		NPT 1/4	2.1		CV102EC064F10AN014A0		CV102EC100F10AN014A0		
		NPT 3/8	3.2		CV102EC064F10AN038A0		CV102EC100F10AN038A0		
		NPT 1/2	3.7		CV102EC064F10AN012A0		CV102EC100F10AN012A0		
		NPT 3/4	3.7		CV102EC064F10AN034A0		CV102EC100F10AN034A0		
		TYPE/FUNCTION	NOMINAL SIZE (mm)	PIPE SIZE	k_v -VALUE (m ³ /h)	NOMINAL PRES-SURE (bar)	ORDER NUMBER	NOMINAL PRES-SURE (bar)	ORDER NUMBER
		2/2-way, normally open (NO) 	10 mm	G 1/4	2.1	0 - 16	CV102EO016F10AG014A0	0 - 40	CV102EO040F10AG014A0
				G 3/8	3.2		CV102EO016F10AG038A0		CV102EO040F10AG038A0
				G 1/2	3.7		CV102EO016F10AG012A0		CV102EO040F10AG012A0
G 3/4	3.7			CV102EO016F10AG034A0	CV102EO040F10AG034A0				
NPT 1/4	2.1			CV102EO016F10AN014A0	CV102EO040F10AN014A0				
NPT 3/8	3.2			CV102EO016F10AN038A0	CV102EO040F10AN038A0				
NPT 1/2	3.7			CV102EO016F10AN012A0	CV102EO040F10AN012A0				
NPT 3/4	3.7			CV102EO016F10AN034A0	CV102EO040F10AN034A0				
G 1/4	2.1			0 - 64	CV102EO064F10AG014A0	0 - 100	CV102EO100F10AG014A0		
G 3/8	3.2				CV102EO064F10AG038A0		CV102EO100F10AG038A0		
G 1/2	3.7				CV102EO064F10AG012A0		CV102EO100F10AG012A0		
G 3/4	3.7				CV102EO064F10AG034A0		CV102EO100F10AG034A0		
NPT 1/4	2.1				CV102EO064F10AN014A0		CV102EO100F10AN014A0		
NPT 3/8	3.2				CV102EO064F10AN038A0		CV102EO100F10AN038A0		
NPT 1/2	3.7				CV102EO064F10AN012A0		CV102EO100F10AN012A0		
NPT 3/4	3.7				CV102EO064F10AN034A0		CV102EO100F10AN034A0		

SPECIAL VALVES ON REQUEST

ORDERING CHART - PILOT VALVES	ORDER NUMBER
Compact valve 24 VDC (incl. Connector)	RESK 4779.1
Compact valve 230 VAC (incl. Connector)	RESK 4779.2
Namur valve 24 VDC (incl. Connector)	D9576K2901
Namur valve 230 VAC (incl. Connector)	D9576K2901Y
ISO I Valve 24 VDC (w/o Connector)	W6076B2401*
ISO I Valve 230 VAC (w/o Connector)	W6076B2401*
Adapter plate Namur & Compact valves for valve version (NC) - normally closed	ZP-KN-CV10NC
Adapter plate Namur & Compact valves for valve version (NO) - normally open	ZP-KN-CV10NO
Adapter plate ISO I Valve for valve version (NC) - normally closed	ZP-ISO1-CV10NC
Adapter plate ISO I Valve for valve version (NO) - normally open	ZP-ISO1-CV10NO
ORDERING CHART - ACCESSORIES	ORDER NUMBER
Speed controlled silencer G 1/8	RESK 2938.1
Speed controlled silencer G 1/4	RESK 2938.2
Silencer sintered bronze G 1/8	RESK 2865.2
Silencer sintered bronze G 1/4	RESK 2865.3
Magnetic sensor (Two-wire Sensor with Reed contact & LED)	D0100FA0031**
Magnetic sensor (Three-wire Sensor with Reed contact & LED)	D0100IFM0031**
Connector with LED – 24 VDC	936K87-A
Connector M12x1 with LED – 24 VDC	RESK 4610.1
Bracket	HTW-CV10
Repair kit, sealing body and valve cover (see Page 4, Pos. 2, 3, 4 and 5)	DICH-CV10

* Please specify voltage when ordering. ** Please specify cable length.

SPECIAL VALVES AND ACCESSORIES ON REQUEST

NOTE

To operate the coaxial valve with a pilot valve the corresponding adapter plate is required

We reserve the right to make technical changes in the course of product development.

ROSS EUROPA GmbH

Robert-Bosch-Strasse 2 · D-63225 Langen · T +49(0) 6103. 75 97-100 · F +49(0) 6103. 75 97-299
 info@rosseuropa.com · www.rosseuropa.com

