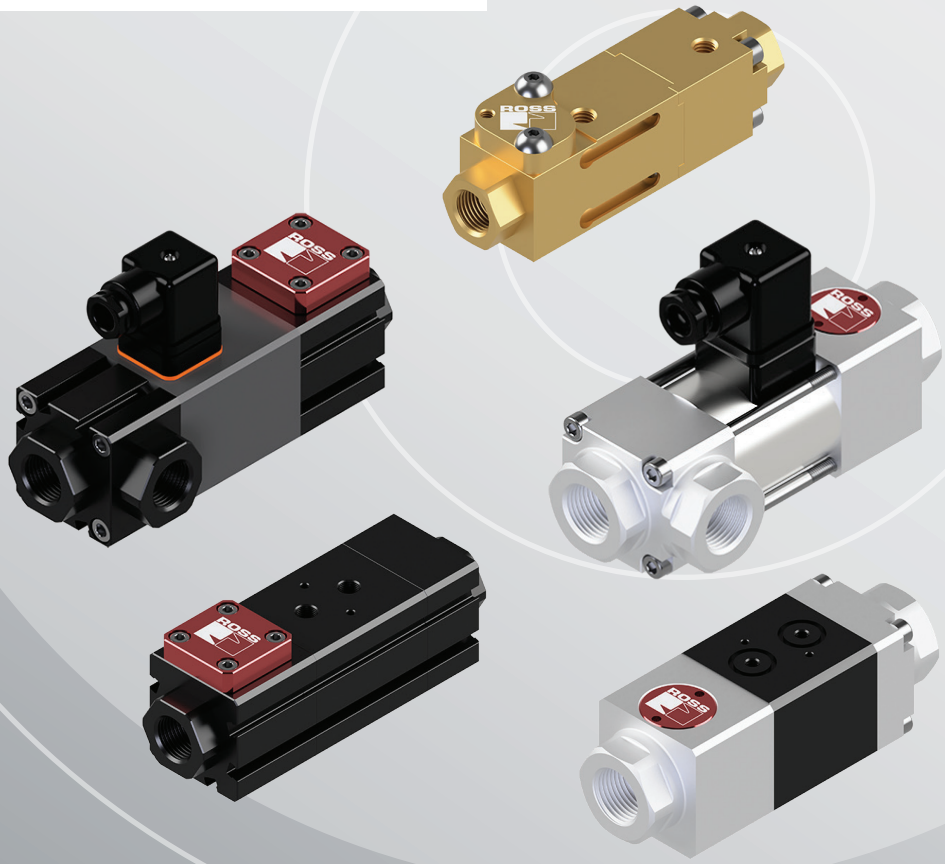
ROSS®
a global family

ROSS®
Coaxial Valve

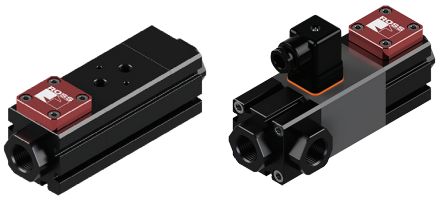
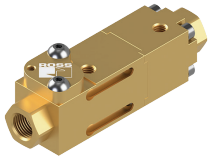
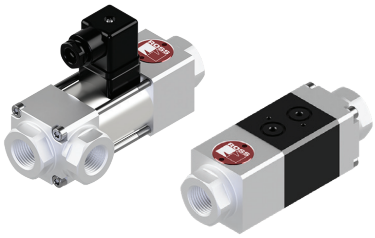
CV10 / CV20



PRODUCT CATALOG

Function of the Coaxial Valves

The ROSS coaxial valve consists of a valve seat (4-way adjustable), the control tube, an electromagnet and the connecting pieces.
By applying current, the control tube is moved in the axial direction towards the valve seat, thereby opening (NO) or closing (NC) the valve. The axial flow enables high k_v values and low pressure losses. No minimum differential pressure is required to operate the direct operated coaxial valve.

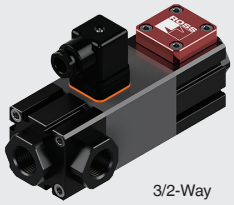
SERIES CV10		SERIES CV20
CLASSIC	COMPACT	ECO
		

VALVES FEATURES	
Media	liquid, highly viscous, contaminated, aggressive and abrasive media as well as neutral and reactive gases
Series	CLASSIC: DN10, DN15, DN25 COMPACT: DN04 ECO: DN08
Spherical valve seat	4-way rotation ensures longer service life and high flow rate
Fast and precise control	efficient process control, optimised system performance
Customised design	enables versatile use and different media
Maintenance	in many cases, it is not necessary to remove the coaxial valve for maintenance

	CLASSIC DN10, DN15, DN25		PAGE	COMPACT DN04	PAGE	ECO DN08		PAGE
	direct acting	externally controlled		externally controlled		direct acting	externally controlled	
SPECIFICATION	●	●	3, 13	●	25	●	●	30, 37
ORDER NUMBER	●	●	4–9, 14–19	●	26	●	●	31-32, 37-38
VALVE COMPONENTS	●	●	10, 20	●	27	●	●	33, 39
DIMENSIONS	●	●	11, 21	●	28	●	●	34, 40
ACCESSORIES	●	●	12, 22–24	●	29	●	●	35, 41-42

STANDARD SPECIFICATIONS, DIRECT ACTING


2/2-Way


3/2-Way

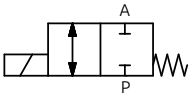
GENERAL	Sizes	DN10, DN15, DN25
	Construction design	coaxial control tube and rotating valve seat
	Functions	2/2- and 3/2-way, normally closed NC or normally open NO
	Operating mode	direct acting, electromagnetic
	Mounting position	any
	Fluidic connection	G 1/4 - G 1-1/2; NPT 1/4 - NPT 1-1/2
	k_v-Value	DN10 - max. 3.7 m³/h, DN15 - max. 8.4 m³/h, DN25: max. 21.9 m³/h
VALVE BODY	Housing material/color	aluminium black anodized or stainless steel
CONSTRUCTION MATERIAL	Valve seat	PTFE, others on request
	Sealing material	FKM, on demand EPDM, NBR and others available on request
	Materials in contact with media	aluminium black anodized; stainless steel on request
	Control tube	stainless steel
OPERATING CONDITIONS	Operating pressure*	0 - 16 bar / 0- 40 bar, higher pressure on request
	Back pressure**	max. 0 - 16 bar, higher back pressure on request
	Vacuum (special design)	< 1* 10-6 mbar*l/s
	Ambient temperature	-10°C to +50°C, other temperatures on request
	Media temperature	-10°C to 100°C, other temperatures on request
ELECTRICAL PARAMETER	Voltage	24 VDC / 230 V 50-60 Hz (with external rectifier), special voltage on request
	Drive	DC solenoid housing steel, surface-coated. Reset: spring 1.4310
	Voltage tolerance	± 10% to VDE 0580, special design on request
	Insulation class (wire)	H (180°C)
	Duty cycle	100% ED
	E-port	Cable plug connector DIN EN 175301-803, Form A, connection box IP 67 on request
	Enclosure rating	IP 65 with mounted cable plug Cable plug connector, IP 67 / cable port on request
	Power consumption DN10	N-Coil: 24 VDC 1 A H-Coil: 24 VDC 1.5 A H-Coil: 207 VDC (230 VAC) 0.175 A
	Power consumption DN15	N-Coil: 24 VDC 1.7 A H-Coil: 24 VDC 2.1 A H-Coil: 207 VDC (230 VAC) 0.19 A
	Power consumption DN25	N-Coil: 24 VDC 2.6 A H-Coil: 24 VDC 3.5 A H-Coil: 207 VDC (230 VAC) 0.3 A
MOUNTING	mounting brackets (see accessories) or mounting hole	
WEIGHT	DN10 - 1.5 kg, DN15 - 3.7 kg, DN25 - 7.7 kg	

*Operating pressure 2/2-way P → A – 3/2-way P → A / P → R
**Back pressure 2/2-way A → P – 3/2-way A → P / R → P

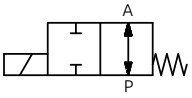
2/2-WAY-VALVE – DN10

Nominal pressure: P → A (back pressure: see general specifications)

Symbol:
normally closed (NC)



Symbol:
normally open (NO)



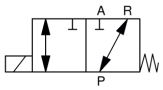
FLUIDIC CONNECTION	k_v-VALUE (m³/h)	NOMINAL PRESSURE (bar)	ORDER NUMBER 24 VDC	ORDER NUMBER 230 VAC*
2/2-Way-valve - direct acting, normally closed (NC)				
G 1/4	2.1	0 - 16	CV10100002	CV10100018
G 3/8	3.2		CV10100003	CV10100019
G 1/2	3.7		CV10100004	CV10100020
G 3/4	3.7		CV10100005	CV10100021
NPT 1/4	2.1		CV10100006	CV10100022
NPT 3/8	3.2		CV10100007	CV10100023
NPT 1/2	3.7		CV10100008	CV10100024
NPT 3/4	3.7		CV10100009	CV10100025
G 1/4	2.1	0 - 40	CV10100010	CV10100026
G 3/8	3.2		CV10100011	CV10100027
G 1/2	3.7		CV10100012	CV10100028
G 3/4	3.7		CV10100013	CV10100029
NPT 1/4	2.1		CV10100014	CV10100030
NPT 3/8	3.2		CV10100015	CV10100031
NPT 1/2	3.7		CV10100016	CV10100032
NPT 3/4	3.7		CV10100017	CV10100033
2/2-Way-valve - direct acting, normally open (NO)				
G 1/4	2.1	0 - 16	CV10100034	CV10100050
G 3/8	3.2		CV10100035	CV10100051
G 1/2	3.7		CV10100036	CV10100052
G 3/4	3.7		CV10100037	CV10100053
NPT 1/4	2.1		CV10100038	CV10100054
NPT 3/8	3.2		CV10100039	CV10100055
NPT 1/2	3.7		CV10100040	CV10100056
NPT 3/4	3.7		CV10100041	CV10100057
G 1/4	2.1	0 - 40	CV10100042	CV10100058
G 3/8	3.2		CV10100043	CV10100059
G 1/2	3.7		CV10100044	CV10100060
G 3/4	3.7		CV10100045	CV10100061
NPT 1/4	2.1		CV10100046	CV10100062
NPT 3/8	3.2		CV10100047	CV10100063
NPT 1/2	3.7		CV10100048	CV10100064
NPT 3/4	3.7		CV10100049	CV10100065

*** Operation with rectifier 207 VDC solenoid.** **Further versions, on request.**

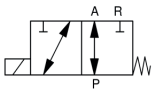
3/2-WAY-VALVE – DN10

Nominal pressure: P → A / P → R (back pressure: see general specifications)

Symbol:
normally closed (NC)



Symbol:
normally open (NO)



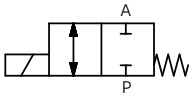
FLUIDIC CONNECTION	k_v-VALUE (m^3/h)	NOMINAL PRESSURE (bar)	ORDER NUMBER 24 VDC	ORDER NUMBER 230 VAC*
3/2-Way-valve - direct acting, normally closed (NC)				
G 1/4	2.1	0 - 16	CV10102002	CV10102018
G 3/8	3.2		CV10102003	CV10102019
G 1/2	3.7		CV10102004	CV10102020
G 3/4	3.7		CV10102005	CV10102021
NPT 1/4	2.1		CV10102006	CV10102022
NPT 3/8	3.2		CV10102007	CV10102023
NPT 1/2	3.7		CV10102008	CV10102024
NPT 3/4	3.7		CV10102009	CV10102025
G 1/4	2.1	0 - 40	CV10102010	CV10102026
G 3/8	3.2		CV10102011	CV10102027
G 1/2	3.7		CV10102012	CV10102028
G 3/4	3.7		CV10102013	CV10102029
NPT 1/4	2.1		CV10102014	CV10102030
NPT 3/8	3.2		CV10102015	CV10102031
NPT 1/2	3.7		CV10102016	CV10102032
NPT 3/4	3.7		CV10102017	CV10102033
3/2-Way-valve - direct acting, normally open (NO)				
G 1/4	2.1	0 - 16	CV10102034	CV10102050
G 3/8	3.2		CV10102035	CV10102051
G 1/2	3.7		CV10102036	CV10102052
G 3/4	3.7		CV10102037	CV10102053
NPT 1/4	2.1		CV10102038	CV10102054
NPT 3/8	3.2		CV10102039	CV10102055
NPT 1/2	3.7		CV10102040	CV10102056
NPT 3/4	3.7		CV10102041	CV10102057
G 1/4	2.1	0 - 40	CV10102042	CV10102058
G 3/8	3.2		CV10102043	CV10102059
G 1/2	3.7		CV10102044	CV10102060
G 3/4	3.7		CV10102045	CV10102061
NPT 1/4	2.1		CV10102046	CV10102062
NPT 3/8	3.2		CV10102047	CV10102063
NPT 1/2	3.7		CV10102048	CV10102064
NPT 3/4	3.7		CV10102049	CV10102065

*** Operation with rectifier 207 VDC solenoid.** **Further versions, on request.**

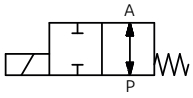
2/2-WAY-VALVE – DN 15

Nominal pressure: P → A (back pressure: see general specifications)

Symbol:
normally closed (NC)



Symbol:
normally open (NO)



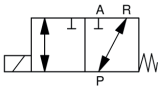
FLUIDIC CONNECTION	k_v-VALUE (m³/h)	NOMINAL PRESSURE (bar)	ORDER NUMBER 24 VDC	ORDER NUMBER 230 VAC*
2/2-Way-valve - direct acting, normally closed (NC)				
G 3/8	7	0 - 16	CV10150002	CV10150018
G 1/2	8.1		CV10150003	CV10150019
G 3/4	8.4		CV10150004	CV10150020
G 1	8.4		CV10150005	CV10150021
NPT 3/8	7		CV10150006	CV10150022
NPT 1/2	8.1		CV10150007	CV10150023
NPT 3/4	8.4		CV10150008	CV10150024
NPT 1	8.4		CV10150009	CV10150025
G 3/8	7	0 - 40	CV10150010	CV10150026
G 1/2	8.1		CV10150011	CV10150027
G 3/4	8.4		CV10150012	CV10150028
G 1	8.4		CV10150013	CV10150029
NPT 3/8	7		CV10150014	CV10150030
NPT 1/2	8.1		CV10150015	CV10150031
NPT 3/4	8.4		CV10150016	CV10150032
NPT 1	8.4		CV10150017	CV10150033
2/2-Way-valve - direct acting, normally open (NO)				
G 3/8	7	0 - 16	CV10150034	CV10150050
G 1/2	8.1		CV10150035	CV10150051
G 3/4	8.4		CV10150036	CV10150052
G 1	8.4		CV10150037	CV10150053
NPT 3/8	7		CV10150038	CV10150054
NPT 1/2	8.1		CV10150039	CV10150055
NPT 3/4	8.4		CV10150040	CV10150056
NPT 14	8.4		CV10150041	CV10150057
G 3/8	7	0 - 40	CV10150042	CV10150058
G 1/2	8.1		CV10150043	CV10150059
G 3/4	8.4		CV10150044	CV10150060
G 1	8.4		CV10150045	CV10150061
NPT 3/8	7		CV10150046	CV10150062
NPT 1/2	8.1		CV10150047	CV10150063
NPT 3/4	8.4		CV10150048	CV10150064
NPT 1	8.4		CV10150049	CV10150065

*** Operation with rectifier 207 VDC solenoid.** **Further versions, on request.**

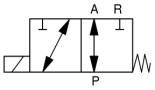
3/2-WAY-VALVE – DN15

Nominal pressure: P → A / P → R (back pressure: see general specifications)

Symbol:
normally closed (NC)



Symbol:
normally open (NO)



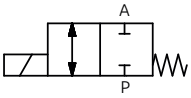
FLUIDIC CONNECTION	k_v-VALUE (m³/h)	NOMINAL PRESSURE (bar)	ORDER NUMBER 24 VDC	ORDER NUMBER 230 VAC*
3/2-Way-valve - direct acting, normally closed (NC)				
G 3/8	7	0 - 16	CV10152002	CV10152018
G 1/2	8.1		CV10152003	CV10152019
G 3/4	8.4		CV10152004	CV10152020
G 1	8.4		CV10152005	CV10152021
NPT 3/8	7		CV10152006	CV10152022
NPT 1/2	8.1		CV10152007	CV10152023
NPT 3/4	8.4		CV10152008	CV10152024
NPT 1	8.4		CV10152009	CV10152025
G 3/8	7	0 - 40	CV10152010	CV10152026
G 1/2	8.1		CV10152011	CV10152027
G 3/4	8.4		CV10152012	CV10152028
G 1	8.4		CV10152013	CV10152029
NPT 3/8	7		CV10152014	CV10152030
NPT 1/2	8.1		CV10152015	CV10152031
NPT 3/4	8.4		CV10152016	CV10152032
NPT 1	8.4		CV10152017	CV10152033
3/2-Way-valve - direct acting, normally open (NO)				
G 3/8	7	0 - 16	CV10152034	CV10152050
G 1/2	8.1		CV10152035	CV10152051
G 3/4	8.4		CV10152036	CV10152052
G 1	8.4		CV10152037	CV10152053
NPT 3/8	7		CV10152038	CV10152054
NPT 1/2	8.1		CV10152039	CV10152055
NPT 3/4	8.4		CV10152040	CV10152056
NPT 1	8.4		CV10152041	CV10152057
G 3/8	7	0 - 40	CV10152042	CV10152058
G 1/2	8.1		CV10152043	CV10152059
G 3/4	8.4		CV10152044	CV10152060
G 1	8.4		CV10152045	CV10152061
NPT 3/8	7		CV10152046	CV10152062
NPT 1/2	8.1		CV10152047	CV10152063
NPT 3/4	8.4		CV10152048	CV10152064
NPT 1	8.4		CV10152049	CV10152065

*** Operation with rectifier 207 VDC solenoid.** **Further versions, on request.**

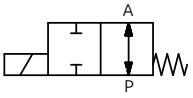
2/2-WAY-VALVE – DN 25

Nominal pressure: P → A (back pressure: see general specifications)

Symbol: normally closed (NC)



Symbol: normally open (NO)



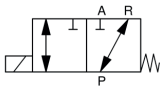
FLUIDIC CONNECTION	k_v-VALUE (m³/h)	NOMINAL PRESSURE (bar)	ORDER NUMBER 24 VDC	ORDER NUMBER 230 VAC*
2/2-Way-valve - direct acting, normally closed (NC)				
G 3/4	12.2	0 - 16	CV10250002	CV10250018
G 1	16.5		CV10250003	CV10250019
G 1-1/4	19.7		CV10250004	CV10250020
G 1-1/2	21.9		CV10250005	CV10250021
NPT 3/4	12.2		CV10250006	CV10250022
NPT 1	16.5		CV10250007	CV10250023
NPT 1-1/4	19.7		CV10250008	CV10250024
NPT 1-1/2	21.9		CV10250009	CV10250025
G 3/4	12.2	0 - 40	CV10250010	CV10250026
G 1	16.5		CV10250011	CV10250027
G 1-1/4	19.7		CV10250012	CV10250028
G 1-1/2	21.9		CV10250013	CV10250029
NPT 3/4	12.2		CV10250014	CV10250030
NPT 1	16.5		CV10250015	CV10250031
NPT 1-1/4	19.7		CV10250016	CV10250032
NPT 1-1/2	21.9		CV10250017	CV10250033
2/2-Way-valve - direct acting, normally open (NO)				
G 3/4	12.2	0 - 16	CV10250034	CV10250050
G 1	16.5		CV10250035	CV10250051
G 1-1/4	19.7		CV10250036	CV10250052
G 1-1/2	21.9		CV10250037	CV10250053
NPT 3/4	12.2		CV10250038	CV10250054
NPT 1	16.5		CV10250039	CV10250055
NPT 1-1/4	19.7		CV10250040	CV10250056
NPT 1-1/2	21.9		CV10250041	CV10250057
G 3/4	12.2	0 - 40	CV10250042	CV10250058
G 1	16.5		CV10250043	CV10250059
G 1-1/4	19.7		CV10250044	CV10250060
G 1-1/2	21.9		CV10250045	CV10250061
NPT 3/4	12.2		CV10250046	CV10250062
NPT 1	16.5		CV10250047	CV10250063
NPT 1-1/4	19.7		CV10250048	CV10250064
NPT 1-1/2	21.9		CV10250049	CV10250065

*** Operation with rectifier 207 VDC solenoid.** **Further versions, on request.**

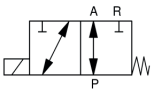
3/2-WAY-VALVE – DN 25

Nominal pressure: P → A / P → R (back pressure: see general specifications)

Symbol:
normally closed (NC)



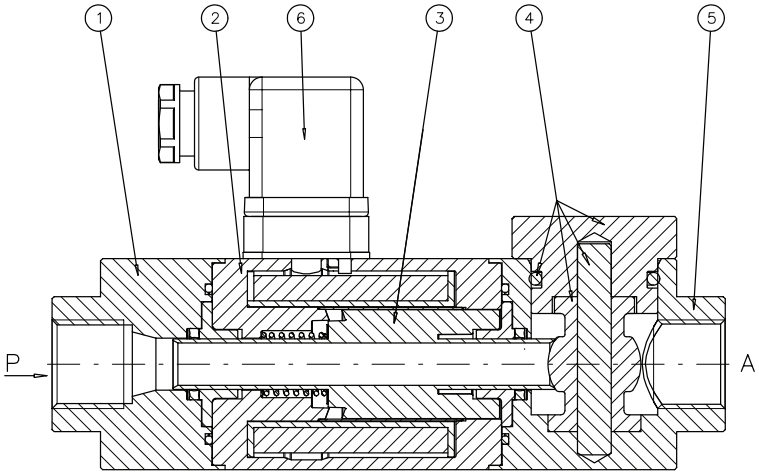
Symbol:
normally open (NO)



FLUIDIC CONNECTION	k_v-VALUE (m^3/h)	NOMINAL PRESSURE (bar)	ORDER NUMBER 24 VDC	ORDER NUMBER 230 VAC*
3/2-Way-valve - direct acting, normally closed (NC)				
G 3/4	10.9	0 - 16	CV10252002	CV10252018
G 1	14.7		CV10252003	CV10252019
G 1-1/4	17.5		CV10252004	CV10252020
G 1-1/2	19.5		CV10252005	CV10252021
NPT 3/4	10.9		CV10252006	CV10252022
NPT 1	14.7		CV10252007	CV10252023
NPT 1-1/4	17.5		CV10252008	CV10252024
NPT 1-1/2	19.5		CV10252009	CV10252025
G 3/4	10.9	0 - 40	CV10252010	CV10252026
G 1	14.7		CV10252011	CV10252027
G 1-1/4	17.5		CV10252012	CV10252028
G 1-1/2	19.5		CV10252013	CV10252029
NPT 3/4	10.9		CV10252014	CV10252030
NPT 1	14.7		CV10252015	CV10252031
NPT 1-1/4	17.5		CV10252016	CV10252032
NPT 1-1/2	19.5		CV10252017	CV10252033
3/2-Way-valve - direct acting, normally open (NO)				
G 3/4	10.9	0 - 16	CV10252034	CV10252050
G 1	14.7		CV10252035	CV10252051
G 1-1/4	17.5		CV10252036	CV10252052
G 1-1/2	19.5		CV10252037	CV10252053
NPT 3/4	10.9		CV10252038	CV10252054
NPT 1	14.7		CV10252039	CV10252055
NPT 1-1/4	17.5		CV10252040	CV10252056
NPT 1-1/2	19.5		CV10252041	CV10252057
G 3/4	10.9	0 - 40	CV10252042	CV10252058
G 1	14.7		CV10252043	CV10252059
G 1-1/4	17.5		CV10252044	CV10252060
G 1-1/2	19.5		CV10252045	CV10252061
NPT 3/4	10.9		CV10252046	CV10252062
NPT 1	14.7		CV10252047	CV10252063
NPT 1-1/4	17.5		CV10252048	CV10252064
NPT 1-1/2	19.5		CV10252049	CV10252065

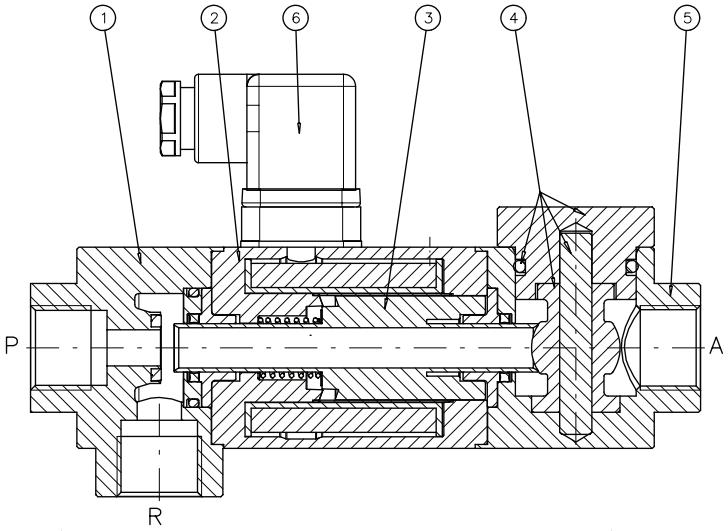
*** Operation with rectifier 207 VDC solenoid.** **Further versions, on request.**

2/2-WAY SOLENOID VALVE



POSITION	DESCRIPTION	QUANTITY
1	Connecting piece input	1
2	Solenoid	1
3	Control tube	1
4	Valve seat gaskets*	1
5	Connecting piece output	1
6	Standard cable plug connector	1

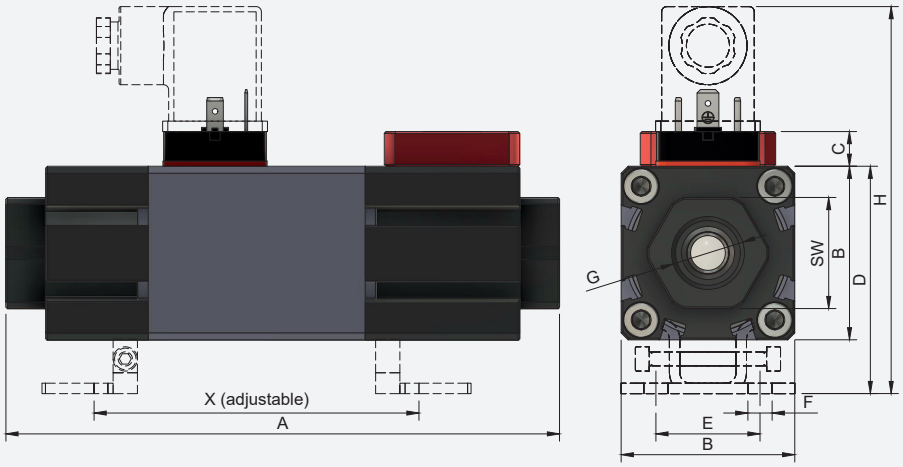
3/2-WAY SOLENOID VALVE



POSITION	DESCRIPTION	QUANTITY
1	Connecting piece input and 3rd way	1
2	Solenoid	1
3	Control tube	1
4	Valve seat gaskets*	1
5	Connecting piece output	1
6	Standard cable plug connector	1

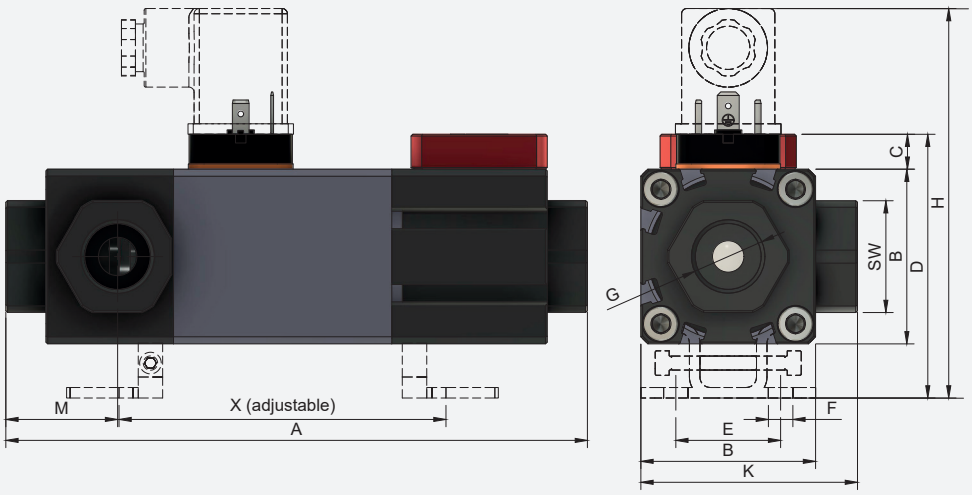
***See accessories**

2/2- WAY-VALVE



	DIMENSIONS (mm)									
	A	B	C	D	E	F	G / NPT	H	SW	X
DN 10	159.5	50	10	65.5	30	ø 7	1/4, 3/8, 1/2, 3/4	ca. 111.5	32	37.5 - 167
DN 15	184	70	10	85	40	ø 6.5	3/8, 1/2, 3/4, 1	CA 131	41	48 - 196
DN 25	243	90	10	112	50	ø 8.5	3/4, 1, 1-1/4, 1-1/2	ca. 151	60	66 - 250

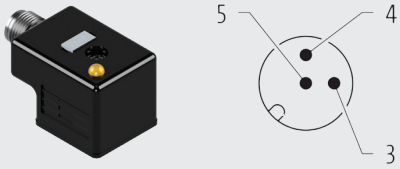
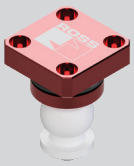
3/2-WAY-VALVE



	DIMENSIONS (mm)											
	A	B	C	D	E	F	G / NPT	H	K	M	SW	X
DN 10	166.5	50	10	65.5	30	ø 7	1/4, 3/8, 1/2, 3/4	ca. 111.5	62	32	32	37.5 - 174
DN 15	208.7	70	10	85	40	ø 6.5	3/8, 1/2, 3/4, 1	ca. 131	99	38	41	48 - 220
DN 25	281	90	10	112	50	ø 8.5	3/4, 1, 1-1/4, 1-1/2	ca. 151	145	50	60	66 - 285

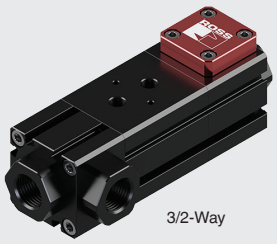
Note: Standard cable plug connector is supplied pre-assembled.

2/2- AND 3/2-WAY COAXIAL VALVE

	DESCRIPTION	ORDER NUMBER (separate Position)
Cable plug connector to DIN EN 175301-803, Form A		
	**Cable plug connector 24 VDC, M12x1, 3-pole with LED Adapter**	RESK4610.1
	**Cable plug connector 24 VDC with LED**	936K87-A
	Cable plug connector 24 VDC power reduction with LED	RESK4610.3
	Cable plug connector 230 VAC with rectifier and varistor, and LED for operation 207 VDC	RESK4610.5
Replacement part (standard cable plug connector)		
	**Cable plug connector 24 VDC without wiring**	937K87
	Cable plug connector 230 VAC with rectifier and varistor for operation with 207 VDC	RESK4610.4
Mounting		
	**Mounting brackets consisting of two brackets. Materials: Stainless steel 1.4301**	HTW-CV10-DN10
		HTW-CV10-DN15
		HTW-CV10-DN25
Valve Seat		
	**Valve seat repair kit DN10 FKM, aluminium anodized**	DICH-CV10-DN10-FA
	Valve seat repair kit DN15 FKM, aluminium anodized	DICH-CV10-DN15-FA
	Valve seat repair kit DN25 FKM, aluminium anodized	DICH-CV10-DN25-FA
Limit switch (mounted)		
	**Single query Multiple query**	on request (**ATTENTION**: Limit switch only available mounted, no loose delivery)

STANDARD SPECIFICATIONS, EXTERNALLY CONTROLLED


2/2-Way


3/2-Way

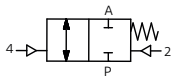
GENERAL	Sizes	DN10, DN15, DN25
	Construction design	coaxial control tube and rotating valve seat
	Functions	2/2- and 3/2-way, normally closed NC or normally open NO
	Operating mode	externally controlled, alternatively with flange-mounted pilot valve (see accessories)
	Mounting position	any
	Fluidic connection	G 1/4 - G 1-1/2; NPT 1/4 - NPT 1-1/2
	k_v-Value	DN10 - max. 3.7 m³/h, DN15 - max. 8.4 m³/h, DN25: max. 21.9 m³/h
VALVE BODY	Housing material/color	aluminium black anodized or stainless steel
CONSTRUCTION MATERIAL	Valve seat	PTFE others on request
	Sealing material	FKM, on demand EPDM, NBR and others on request
	Materials in contact with media	aluminium black anodized; stainless steel on request
	Control tube	stainless steel
OPERATING CONDITIONS	Operating pressure*	0 -16 bar / 0-40 bar / 0-64 bar / 0-100 bar, higher pressure on request
	Back pressure**	max. 0 - 16 bar, higher back pressure on request
	Vacuum (special design)	< 1* 10-6 mbar*l/s
	Ambient temperature	-10°C to +80°C, other temperatures on request
	Media temperature	-10°C to 130°C, other temperatures on request
PNEUMATIC DRIVE	Control	double-acting with spring return (spring made of 1.4310), preferably controlled via 5/2-way pilot valve. Alternative single-acting controlled with 3/2-way pilot valve.
	Operating pressure	3 to 10 bar, other pressure on request
	Air consumption	7 cm³ - 10 cm³/stroke
	Cycle time	adjustable via 20-3000 ms exhaust throttle, cushioning piston on request
	Flow media	filtered air, neutral gases, other media on request
	Control connections cylinder	G1/8 (port size 2 + 4), NPT 1/8 (port size 2 + 4) on request
	Control connections for pilot valve	Adapter plate NAMUR, ISO 1 on request
MOUNTING	mounting bracket (see accessories) or mounting hole	
WEIGHT	DN10 - 0.9 kg, DN15 - 2.2 kg, DN25 - 4.5 kg	

*Operating pressure 2/2-way P → A – 3/2-way P → A / P → R
**Back pressure 2/2-way A → P – 3/2-way A → P / R → P

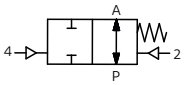
2/2-WAY-VALVE – DN10

Nominal pressure: P → A (back pressure: see general specifications)

Symbol:
normally closed (NC)



Symbol:
normally open (NO)



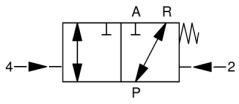
FLUIDIC CONNECTION	k_v-VALUE (m^3/h)	NOMINAL PRSSURE (bar)	ORDER NUMBER	NOMINAL PRESSURE (bar)	ORDER NUMBER
2/2-Way-valve, externally controlled, normally closed (NC)					
G 1/4	2.1	0 - 16	CV10103002	0 - 64	CV10103018
G 3/8	3.2		CV10103003		CV10103019
G 1/2	3.7		CV10103004		CV10103020
G 3/4	3.7		CV10103005		CV10103021
NPT 1/4	2.1		CV10103006		CV10103022
NPT 3/8	3.2		CV10103007		CV10103023
NPT 1/2	3.7		CV10103008		CV10103024
NPT 3/4	3.7		CV10103009		CV10103025
G 1/4	2.1	0 - 40	CV10103010	0 - 100	CV10103026
G 3/8	3.2		CV10103011		CV10103027
G 1/2	3.7		CV10103012		CV10103028
G 3/4	3.7		CV10103013		CV10103029
NPT 1/4	2.1		CV10103014		CV10103030
NPT 3/8	3.2		CV10103015		CV10103031
NPT 1/2	3.7		CV10103016		CV10103032
NPT 3/4	3.7		CV10103017		CV10103033
2/2-Way-valve, externally controlled, normally open (NO)					
G 1/4	2.1	0 - 16	CV10103034	0 - 64	CV10103050
G 3/8	3.2		CV10103035		CV10103051
G 1/2	3.7		CV10103036		CV10103052
G 3/4	3.7		CV10103037		CV10103053
NPT 1/4	2.1		CV10103038		CV10103054
NPT 3/8	3.2		CV10103039		CV10103055
NPT 1/2	3.7		CV10103040		CV10103056
NPT 3/4	3.7		CV10103041		CV10103057
G 1/4	2.1	0 - 40	CV10103042	0 - 100	CV10103058
G 3/8	3.2		CV10103043		CV10103059
G 1/2	3.7		CV10103044		CV10103060
G 3/4	3.7		CV10103045		CV10103061
NPT 1/4	2.1		CV10103046		CV10103062
NPT 3/8	3.2		CV10103047		CV10103063
NPT 1/2	3.7		CV10103048		CV10103064
NPT 3/4	3.7		CV10103049		CV10103065

Further versions, on request.

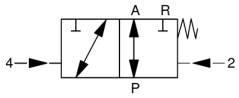
3/2-WAY-VALVE – DN 10

Nominal pressure: P → A / P → R (back pressure: see general specifications)

Symbol: normally closed (NC)



Symbol: normally open (NO)



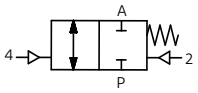
FLUIDIC CONNECTION	k_v-VALUE (m^3/h)	NOMINAL PRSSURE (bar)	ORDER NUMBER	NOMINAL PRESSURE (bar)	ORDER NUMBER
3/2-Way-valve, externally controlled, normally closed (NC)					
G 1/4	2.1	0 - 16	CV10105002	0 - 64	CV10105018
G 3/8	3.2		CV10105003		CV10105019
G 1/2	3.7		CV10105004		CV10105020
G 3/4	3.7		CV10105005		CV10105021
NPT 1/4	2.1		CV10105006		CV10105022
NPT 3/8	3.2		CV10105007		CV10105023
NPT 1/2	3.7		CV10105008		CV10105024
NPT 3/4	3.7		CV10105009		CV10105025
G 1/4	2.1	0 - 40	CV10105010	0 - 100	CV10105026
G 3/8	3.2		CV10105011		CV10105027
G 1/2	3.7		CV10105012		CV10105028
G 3/4	3.7		CV10105013		CV10105029
NPT 1/4	2.1		CV10105014		CV10105030
NPT 3/8	3.2		CV10105015		CV10105031
NPT 1/2	3.7		CV10105016		CV10105032
NPT 3/4	3.7		CV10105017		CV10105033
3/2-Way-valve, externally controlled, normally open (NO)					
G 1/4	2.1	0 - 16	CV10105034	0 - 64	CV10105050
G 3/8	3.2		CV10105035		CV10105051
G 1/2	3.7		CV10105036		CV10105052
G 3/4	3.7		CV10105037		CV10105053
NPT 1/4	2.1		CV10105038		CV10105054
NPT 3/8	3.2		CV10105039		CV10105055
NPT 1/2	3.7		CV10105040		CV10105056
NPT 3/4	3.7		CV10105041		CV10105057
G 1/4	2.1	0 - 40	CV10105042	0 - 100	CV10105058
G 3/8	3.2		CV10105043		CV10105059
G 1/2	3.7		CV10105044		CV10105060
G 3/4	3.7		CV10105045		CV10105061
NPT 1/4	2.1		CV10105046		CV10105062
NPT 3/8	3.2		CV10105047		CV10105063
NPT 1/2	3.7		CV10105048		CV10105064
NPT 3/4	3.7		CV10105049		CV10105065

Further versions, on request.

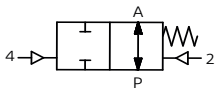
2/2-WAY-VALVE – DN 15

Nominal pressure: P → A (back pressure: see general specifications)

Symbol: normally closed (NC)



Symbol: normally open (NO)



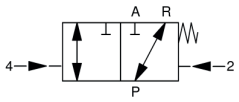
FLUIDIC CONNECTION	k_v-VALUE (m^3/h)	NOMINAL PRSSURE (bar)	ORDER NUMBER	NOMINAL PRESSURE (bar)	ORDER NUMBER
2/2-Way-valve - externally controlled, normally closed (NC)					
G 3/8	7	0 - 16	CV10153002	0 - 64	CV10153018
G 1/2	8.1		CV10153003		CV10153019
G 3/4	8.4		CV10153004		CV10153020
G 1	8.4		CV10153005		CV10153021
NPT 3/8	7		CV10153006		CV10153022
NPT 1/2	8.1		CV10153007		CV10153023
NPT 3/4	8.4		CV10153008		CV10153024
NPT 1	8.4		CV10153009		CV10153025
G 3/8	7	0 - 40	CV10153010	0 - 100	CV10153026
G 1/2	8.1		CV10153011		CV10153027
G 3/4	8.4		CV10153012		CV10153028
G 1	8.4		CV10153013		CV10153029
NPT 3/8	7		CV10153014		CV10153030
NPT 1/2	8.1		CV10153015		CV10153031
NPT 3/4	8.4		CV10153016		CV10153032
NPT 1	8.4		CV10153017		CV10153033
2/2-Way-valve - externally controlled, normally open (NO)					
G 3/8	7	0 - 16	CV10153034	0 - 64	CV10153050
G 1/2	8.1		CV10153035		CV10153051
G 3/4	8.4		CV10153036		CV10153052
G 1	8.4		CV10153037		CV10153053
NPT 3/8	7		CV10153038		CV10153054
NPT 1/2	8.1		CV10153039		CV10153055
NPT 3/4	8.4		CV10153040		CV10153056
NPT 14	8.4		CV10153041		CV10153057
G 3/8	7	0 - 40	CV10153042	0 - 100	CV10153058
G 1/2	8.1		CV10153043		CV10153059
G 3/4	8.4		CV10153044		CV10153060
G 1	8.4		CV10153045		CV10153061
NPT 3/8	7		CV10153046		CV10153062
NPT 1/2	8.1		CV10153047		CV10153063
NPT 3/4	8.4		CV10153048		CV10153064
NPT 1	8.4		CV10153049		CV10153065

Further versions, on request.

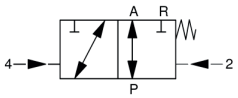
3/2-WAY-VALVE – DN 15

Nominal pressure: P → A / P → R (back pressure: see general specifications)

Symbol: normally closed (NC)



Symbol: normally open (NO)



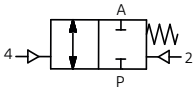
FLUIDIC CONNECTION	k_v-VALUE (m^3/h)	NOMINAL PRSSURE (bar)	ORDER NUMBER	NOMINAL PRESSURE (bar)	ORDER NUMBER
3/2-Way-valve - externally controlled, normally closed (NC)					
G 3/8	7	0 - 16	CV10155002	0 - 64	CV10155018
G 1/2	8.1		CV10155003		CV10155019
G 3/4	8.4		CV10155004		CV10155020
G 1	8.4		CV10155005		CV10155021
NPT 3/8	7		CV10155006		CV10155022
NPT 1/2	8.1		CV10155007		CV10155023
NPT 3/4	8.4		CV10155008		CV10155024
NPT 1	8.4		CV10155009		CV10155025
G 3/8	7	0 - 40	CV10155010	0 - 100	CV10155026
G 1/2	8.1		CV10155011		CV10155027
G 3/4	8.4		CV10155012		CV10155028
G 1	8.4		CV10155013		CV10155029
NPT 3/8	7		CV10155014		CV10155030
NPT 1/2	8.1		CV10155015		CV10155031
NPT 3/4	8.4		CV10155016		CV10155032
NPT 1	8.4		CV10155017		CV10155033
3/2-Way-valve - externally controlled, normally open (NO)					
G 3/8	7	0 - 16	CV10155034	0 - 64	CV10155050
G 1/2	8.1		CV10155035		CV10155051
G 3/4	8.4		CV10155036		CV10155052
G 1	8.4		CV10155037		CV10155053
NPT 3/8	7		CV10155038		CV10155054
NPT 1/2	8.1		CV10155039		CV10155055
NPT 3/4	8.4		CV10155040		CV10155056
NPT 14	8.4		CV10155041		CV10155057
G 3/8	7	0 - 40	CV10155042	0 - 100	CV10155058
G 1/2	8.1		CV10155043		CV10155059
G 3/4	8.4		CV10155044		CV10155060
G 1	8.4		CV10155045		CV10155061
NPT 3/8	7		CV10155046		CV10155062
NPT 1/2	8.1		CV10155047		CV10155063
NPT 3/4	8.4		CV10155048		CV10155064
NPT 1	8.4		CV10155049		CV10155065

Further versions, on request.

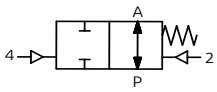
2/2-WAY-VALVE – DN 25

Nominal pressure: P → A (back pressure: see general specifications)

Symbol: normally closed (NC)



Symbol: normally open (NO)



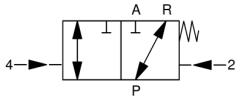
FLUIDIC CONNECTION	k_v-VALUE (m^3/h)	NOMINAL PRSSURE (bar)	ORDER NUMBER	NOMINAL PRESSURE (bar)	ORDER NUMBER
2/2-Way-valve - externally controlled, normally closed (NC)					
G 3/4	12.2	0 - 16	CV10253002	0 - 64	CV10253018
G 1	16.5		CV10253003		CV10253019
G 1-1/4	19.7		CV10253004		CV10253020
G 1-1/2	21.9		CV10253005		CV10253021
NPT 3/4	12.2		CV10253006		CV10253022
NPT 1	16.5		CV10253007		CV10253023
NPT 1-1/4	19.7		CV10253008		CV10253024
NPT 1-1/2	21.9		CV10253009		CV10253025
G 3/4	12.2	0 - 40	CV10253010	0 - 100	CV10253026
G 1	16.5		CV10253011		CV10253027
G 1-1/4	19.7		CV10253012		CV10253028
G 1-1/2	21.9		CV10253013		CV10253029
NPT 3/4	12.2		CV10253014		CV10253030
NPT 1	16.5		CV10253015		CV10253031
NPT 1-1/4	19.7		CV10253016		CV10253032
NPT 1-1/2	21.9		CV10253017		CV10253033
2/2-Way-valve - externally controlled, normally open (NO)					
G 3/4	12.2	0 - 16	CV10253034	0 - 64	CV10253050
G 1	16.5		CV10253035		CV10253051
G 1-1/4	19.7		CV10253036		CV10253052
G 1-1/2	21.9		CV10253037		CV10253053
NPT 3/4	12.2		CV10253038		CV10253054
NPT 1	16.5		CV10253039		CV10253055
NPT 1-1/4	19.7		CV10253040		CV10253056
NPT 1-1/2	21.9		CV10253041		CV10253057
G 3/4	12.2	0 - 40	CV10253042	0 - 100	CV10253058
G 1	16.5		CV10253043		CV10253059
G 1-1/4	19.7		CV10253044		CV10253060
G 1-1/2	21.9		CV10253045		CV10253061
NPT 3/4	12.2		CV10253046		CV10253062
NPT 1	16.5		CV10253047		CV10253063
NPT 1-1/4	19.7		CV10253048		CV10253064
NPT 1-1/2	21.9		CV10253049		CV10253065

Further versions, on request.

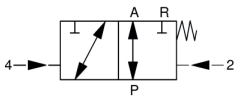
3/2-WAY-VALVE – DN 25

Nominal pressure: P → A / P → R (back pressure: see general specifications)

Symbol: normally closed (NC)



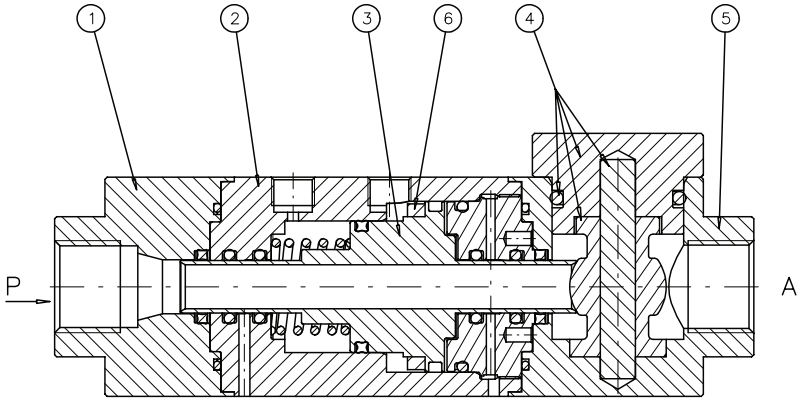
Symbol: normally open (NO)



FLUIDIC CONNECTION	k_v-VALUE (m^3/h)	NOMINAL PRSSURE (bar)	ORDER NUMBER	NOMINAL PRESSURE (bar)	ORDER NUMBER
3/2-Way-valve - externally controlled, normally closed (NC)					
G 3/4	10.9	0 - 16	CV10255002	0 - 64	CV10255018
G 1	14.7		CV10255003		CV10255019
G 1-1/4	17.5		CV10255004		CV10255020
G 1-1/2	19.5		CV10255005		CV10255021
NPT 3/4	10.9		CV10255006		CV10255022
NPT 1	14.7		CV10255007		CV10255023
NPT 1-1/4	17.5		CV10255008		CV10255024
NPT 1-1/2	19.5		CV10255009		CV10255025
G 3/4	10.9	0 - 40	CV10255010	0 - 100	CV10255026
G 1	14.7		CV10255011		CV10255027
G 1-1/4	17.5		CV10255012		CV10255028
G 1-1/2	19.5		CV10255013		CV10255029
NPT 3/4	10.9		CV10255014		CV10255030
NPT 1	14.7		CV10255015		CV10255031
NPT 1-1/4	17.5		CV10255016		CV10255032
NPT 1-1/2	19.5		CV10255017		CV10255033
3/2-Way-valve - externally controlled, normally open (NO)					
G 3/4	10.9	0 - 16	CV10255034	0 - 64	CV10255050
G 1	14.7		CV10255035		CV10255051
G 1-1/4	17.5		CV10255036		CV10255052
G 1-1/2	19.5		CV10255037		CV10255053
NPT 3/4	10.9		CV10255038		CV10255054
NPT 1	14.7		CV10255039		CV10255055
NPT 1-1/4	17.5		CV10255040		CV10255056
NPT 1-1/2	19.5		CV10255041		CV10255057
G 3/4	10.9	0 - 40	CV10255042	0 - 100	CV10255058
G 1	14.7		CV10255043		CV10255059
G 1-1/4	17.5		CV10255044		CV10255060
G 1-1/2	19.5		CV10255045		CV10255061
NPT 3/4	10.9		CV10255046		CV10255062
NPT 1	14.7		CV10255047		CV10255063
NPT 1-1/4	17.5		CV10255048		CV10255064
NPT 1-1/2	19.5		CV10255049		CV10255065

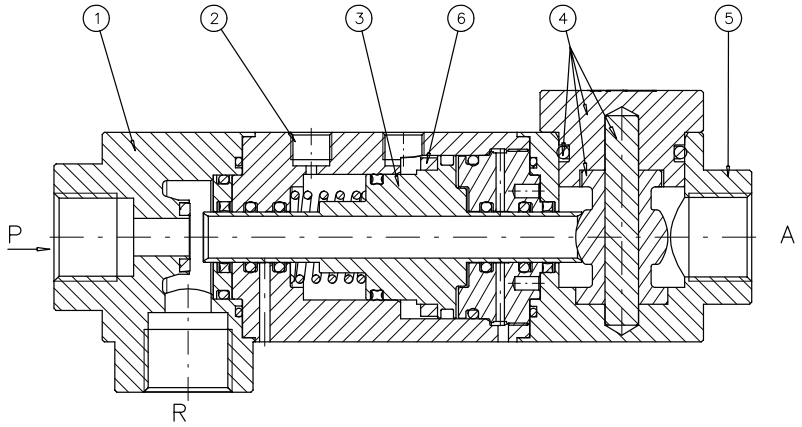
Further versions, on request.

2/2-WAY-VALVE



POSITION	DESCRIPTION	QUANTITY
1	Connecting piece input	1
2	Cylinder	1
3	Piston with control tube	1
4	Valve seat gaskets*	1
5	Connecting piece output	1
6	Magnetic ring	1

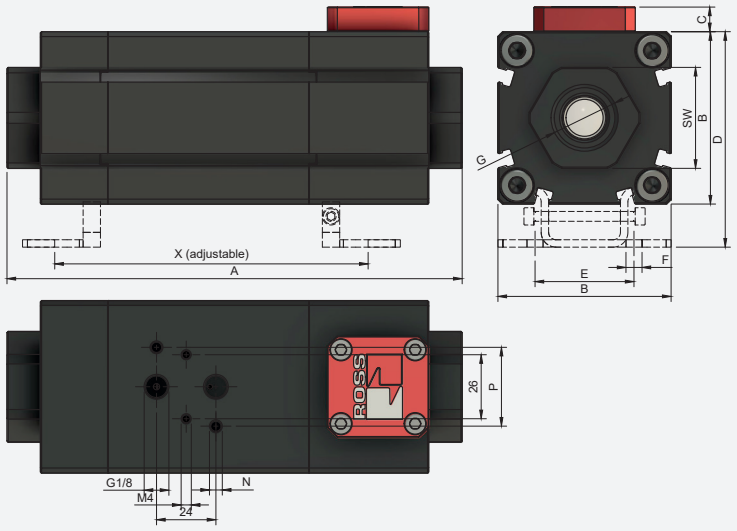
3/2-WAY-VALVE



POSITION	DESCRIPTION	QUANTITY
1	Connecting piece input and 3rd way	1
2	Cylinder	1
3	Control tube	1
4	Valve seat gaskets*	1
5	Connecting piece output	1
6	Magnetic ring	1

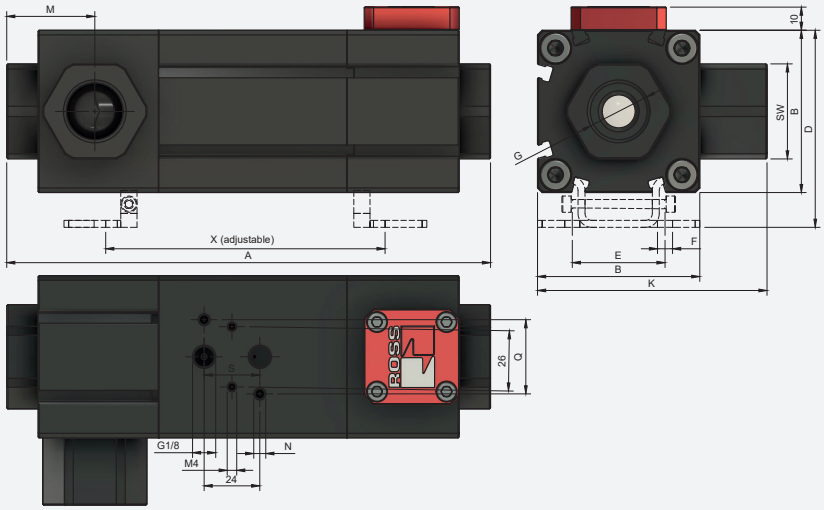
***See accessories.**

2/2-WAY-VALVE



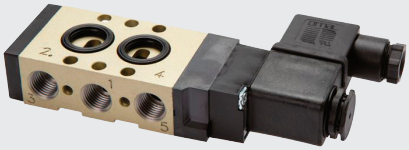
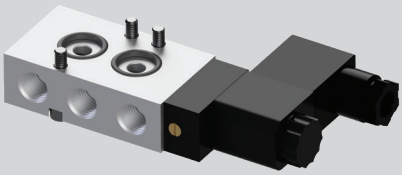
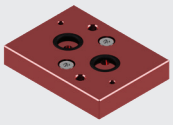
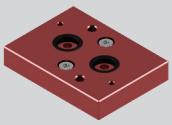
	DIMENSIONS (mm)											
	A	B	C	D	E	F	G / NPT	N	P	S	SW	X
DN 10	159.5	50	10	65.5	30	7	1/4, 3/8, 1/2, 3/4	-	-	23	32	35 - 167
DN 15	184	70	10	85	40	6.5	3/8, 1/2, 3/4, 1	M 5	32	24	41	37 - 196
DN 25	243	90	10	112	50	8.5	3/4 - 1-1/2	115	32	24	60	64 - 254

3/2-WAY-VALVE

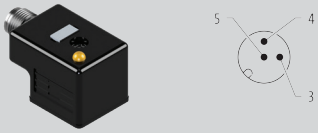


	DIMENSIONS (mm)													
	A	B	C	D	E	F	G / NPT	K	M	N	Q	S	SW	X
DN 10	166.5	50	10	65.5	30	7	1/4, 3/8, 1/2, 3/4	62	32	-	-	23	32	35 - 174
DN 15	208.7	70	10	85	40	6.5	3/8, 1/2, 3/4, 1	99	38	M 5	32	24	41	37 - 220
DN 25	281	90	10	112	50	8.5	3/4 - 1-1/2	145	50	115	32	24	60	64 - 293

2/2- AND 3/2-WAY COAXIAL VALVE

	DESCRIPTION	ORDER NUMBER (separate position)
Throttle check valve		
	G 1/8 throttle check valves for speed control (valve open/close) for control with external pilot valves or valve terminals	D1968A1008
5/2-Way pilot valve		
	Pilot valve NAMUR G 1/4, 5/2-way - 24 VDC incl. cable plug connector. Technical data, see page 24.	D9576K2901W
	Pilot valve NAMUR G 1/4, 5/2-way - 230 VAC incl. cable plug connector. Technical data, see page 24.	D9576K2901Y
	Pilot valve NAMUR G 1/4, 5/2-way - 24 VDC, 3 watts incl. cable plug connector **Actuating solenoid: certificate to UL 1446 UR cable plug connector**	RESK 3981.18
Adapter plate for 5/2-way pilot valve		
	Adapter plate for actuating a normally closed (NC) coaxial valve via a flange-mounted 5/2-way pilot valve	ZP-KN-CV10NC
	Adapter plate for actuating a normally open (NO) co-axial valve via a flange-mounted 5/2-way pilot valve	ZP-KN-VC10NO

2/2- AND 3/2-WAY COAXIAL VALVE

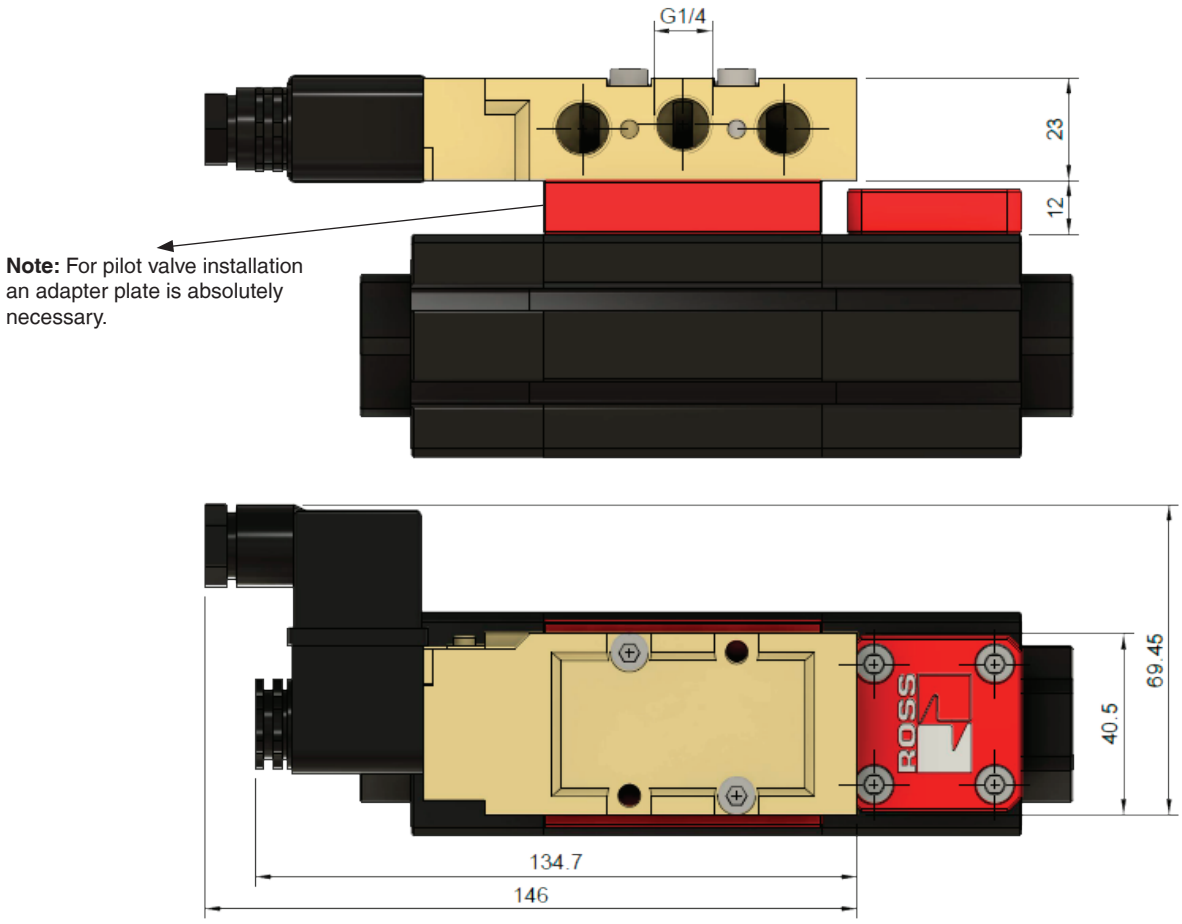
	DESCRIPTION	ORDER NUMBER (separate position)
Accessories 5/2-way pilot valve		
	Exhaust air silencer G 1/4 (2 pieces required per pilot valve 3+5)	RESK2865.3
	Throttle silencer G 1/4 (2 pieces per pilot valve for opening and closing regulation)	RESK2938.2
	Cable plug connector 24 VDC, M12x1, 3-pin, with LED, DIN EN 175301-803, Form B Industry and M12 connection diagram	R-3142081
End switch T-slot mounting, magnetic field sensor*		
	3-wire LED yellow PNP normally open 10-30 VDC 10 m free cable end	D0100IFM0031
	3-wire LED yellow PUR PNP normally open 10-30 VDC 0.3 m cable with M12x1 connection	D0100IFM0032-0,3M
	3-wire LED yellow PNP normally open 10-30 VDC 6 m free cable end, explosion-proof	D0100IFM0033-6M
Mounting		
	Mounting brackets consisting of two brackets. Materials: stainless steel 1.4301	HTW-CV10-DN10 HTW-CV10-DN15 HTW-CV10-DN25
Valve seat		
	Valve seat repair kit DN10 FKM, aluminium anodized	DICH-CV10-DN10-FA
	Valve seat repair kit DN15 FKM, aluminium anodized	DICH-CV10-DN15-FA
	Valve seat repair kit DN25 FKM, aluminium anodized	DICH-CV10-DN25-FA

***Complete assembly of pilot valves and end switches on coaxial valve possible upon request**

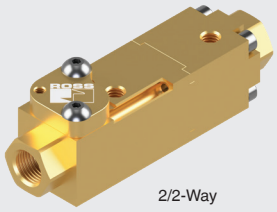
TECHNICAL DATA

NAMUR Valve (acc. to VDI/VDE 3845)	Parameter	Special Design
Voltage	24 VDC, 230 VAC 40 to 60 Hz	
Voltage tolerance	± 10% according to VDE 0580	
Power consumption	DC 2.5 Watt / AC 5.5 VA at 50/60 Hz	
Duty rating	100% ED	
E-port	Cable plug connector DIN EN 175301-803, Form B Industry	on request M12x1 (see accessories)
Enclosure rating	IP 65	explosion-proof
Ambient-/Media temperature	+5° to +60°C	
Flow media	filtered air, lubricated or unlubricated	
Pipe size	G 1/4	

Dimensions - mm



STANDARD SPECIFICATIONS, EXTERNALLY CONTROLLED



2/2-Way

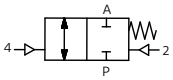
GENERAL	Size	DN04
	Construction design	coaxial control tube and rotating valve seat
	Functions	2/2-way, normally closed NC or normally open NO
	Operating mode	externally controlled, alternatively with flange-mounted pilot valve (see accessories)
	Mounting position	any
	Fluidic connection	G 1/8; NPT 1/8
	k_v-Value	max. 0.6 m³/h
VALVE BODY	Housing material/color	brass
CONSTRUCTION MATERIAL	Valve seat	PTFE, others on request
	Sealing material	FKM, EPDM, NBR and others on request
	Materials in contact with media	brass; stainless steel on request
	Control tube	stainless steel
OPERATING CONDITIONS	Operating pressure*	0 - 16 bar / 0- 40 bar / 0-64 bar / 0-100 bar, higher pressure on request
	Back pressure**	max. 0 - 16 bar, higher back pressure on request
	Vacuum (special design)	< 1* 10-6 mbar*l/s
	Ambient temperature	-10°C to +80°C, other temperatures on request
	Media temperature	-10°C to 130°C, other temperatures on request
PNEUMATIC DRIVE	Control	double-acting with spring return (spring made of 1.4310), preferably controlled via 5/2-way pilot valve. Alternative single-acting controlled with 3/2-way pilot valve
	Operating pressure	4 to 10 bar, other on request
	Cycle time	adjustable via 20-3000 ms exhaust throttle
	Flow media	filtered air, neutral gases, other media on request
	Control connections cylinder	M5 (port size 2 + 4), alternatively adapter plate pilot valve
MOUNTING	Mounting hole M5	
WEIGHT	0.175 kg	

*Operating pressure 2/2-way P → A
**Back pressure 2/2-way A → P

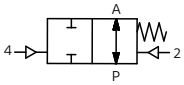
2/2-WAY-VALVE – DN04

Nominal pressure: P → A (back pressure: see general specifications)

Symbol:
normally closed (NC)



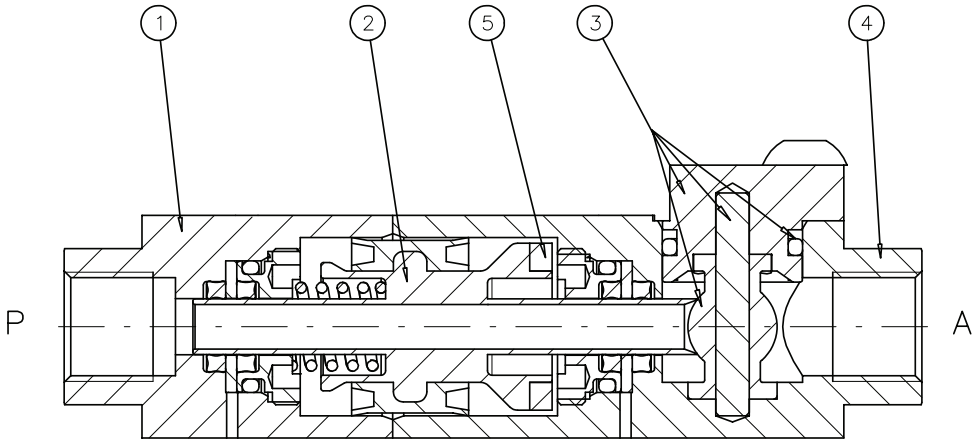
Symbol:
normally open (NO)



FLUIDIC CONNECTION	k_v-VALUE (m^3/h)	NOMINAL PRESSUER (bar)	ORDER NUMBER	NOMINAL PRESSURE (bar)	ORDER NUMBER
2/2-Way-valve, externally controlled closed (NC)					
G 1/8	0.6	0 - 16	CV10043002	0 - 64	CV10043006
NPT 1/8			CV10043003		CV10043007
G 1/8		0 - 40	CV10043004	0 - 100	CV10043008
NPT 1/8			CV10043005		CV10043009
2/2-Way-valve, externally controlled open (NO)					
G 1/8	0.6	0 - 16	CV10043010	0 - 64	CV10043014
NPT 1/8			CV10043011		CV10043015
G 1/8		0 - 40	CV10043012	0 - 100	CV10043016
NPT 1/8			CV10043013		CV10043017

Further versions, on request.

2/2-WAY-VALVE

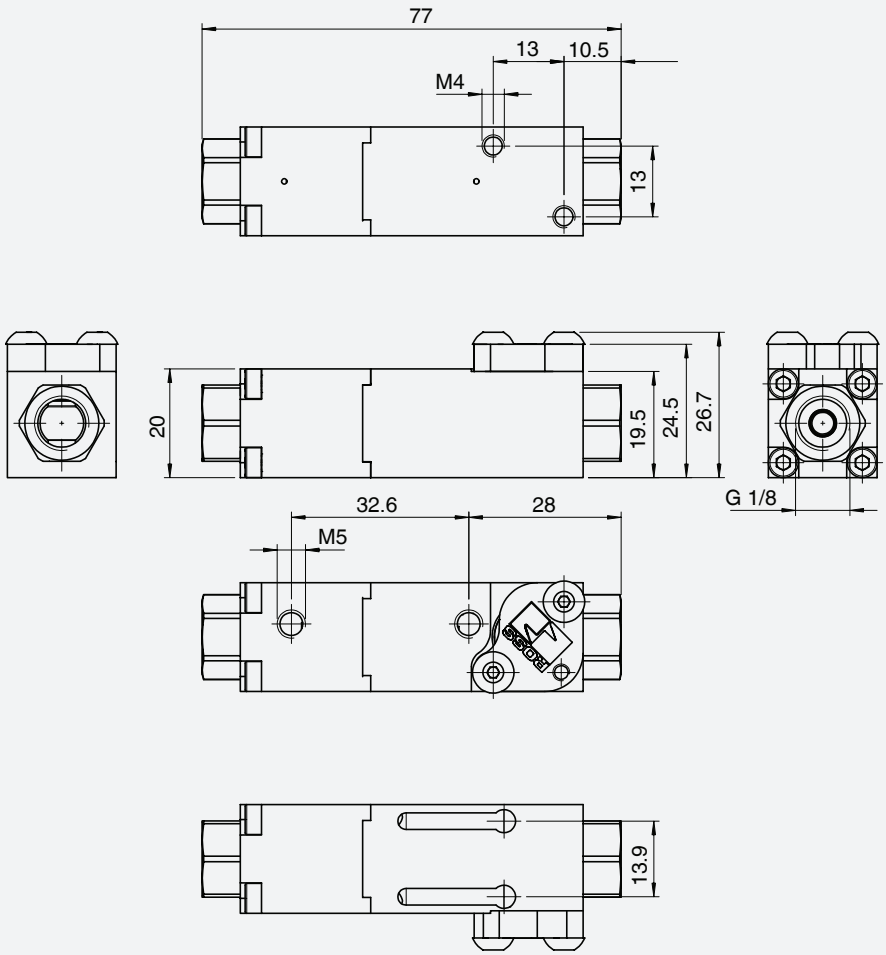


POSITION	DESCRIPTION	MENGE
1	Cable plug connector inlet port	1
2	Piston with control tube	1
3	Complete valve seat gasket set*	1
4	Cable plug connector outlet port	1
5	Magnetic ring	1

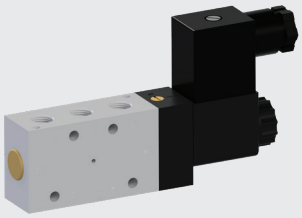
***See accessories**

2/2-WAY-VALVE

DIMENSIONS - mm



2/2-WAY COAXIAL VALVE

	DESCRIPTION	ORDER NUMBER (separate position)
Throttle check valves		
	Throttle check valves M5 for speed regulation (open and close valve) 4-piece hose connection	DRÜ-VEN-WFM54
5/2-Way pilot valve*		
	Pilot valve G 1/8, 5/2-way - 24 VDC including cable plug connector	D9576K1001W
	Pilot valve G 1/8, 5/2-way - 24 VDC including cable plug connector **Actuating solenoid: certificate to UL 1446 cable plug connector UR**	RESK 3981.27
End switch C-slot mount, magnetic field sensor		
	Three-wire, PNP contact, 10 -30 VDC, 0.5 m cable M8 3-pin connector	D0100SICK0032
Valve seat		
	Repair kit for sealing body DN04 FKM, brass	DICH-CV10-DN04-FM

***Complete assembly of pilot valves and end switches on coaxial valve possible upon request.**
Other accessories for external pilot valves, see ROSS catalog series 95.

STANDARD SPECIFICATIONS, DIRECT ACTING

2/2-Way

3/2-Way

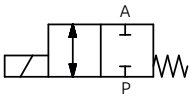
GENERAL	Size	DN08
	Construction design	coaxial control tube and rotating valve seat
	Functions	2/2- and 3/2-way, normally closed NC or normally open NO
	Operating mode	direct acting, electromagnetic
	Mounting position	any
	Fluidic connection	G 1/4 - G 3/4; NPT 1/4 - NPT 3/4
	k_v-Value	DN08 - max. 2.5 m³/h
VALVE BODY	Housing material/color	aluminium blanc, special design on request
CONSTRUCTION MATERIAL	Valve seat	PTFE, others on request
	Sealing material	FKM, on demand EPDM, NBR and others
	Materials in contact with media	aluminium blanc, special design on request
	Control tube	stainless steel
OPERATING CONDITIONS	Operating pressure*	0- 40 bar, other pressures on request
	Back pressure**	max. 0 - 16 bar, other back pressures on request
	Vacuum (special design)	< 1* 10-6 mbar*l/s
	Ambient temperature	-10°C to +50°C, other temperatures on request
	Media temperature	-10°C to 100°C, other temperatures on request
ELECTRICAL PARAMETER	Voltage	24 VDC / 230 V 50-60 Hz (with external rectifier), special voltages on request
	Drive	DC solenoid housing steel, surface-coated. Reset: spring 1.4310
	Voltage tolerance	± 10% to VDE 0580, special design on request
	Insulation class (wire)	H (180°C)
	Duty cycle	100% ED
	E-port	cable plug connector DIN EN 175301-803, Form A, connection box IP 67 on request
	Enclosure rating	IP 65 with mounted cable plug connector, IP 67 / cable port on request
	Power consumption DN08	24 VDC 1.32 A 207 VDC (230 VAC) 0.15 A
MOUNTING	mounting brackets, mounting hole (see accessories)	
WEIGHT	DN08 - 0.9 kg	

*Operating pressure 2/2-way P → A
**Back pressure 2/2-way A → P

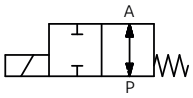
2/2-WAY-VALVE – DN08

Nominal pressure: P → A (back pressure: see general specifications)

Symbol:
normally closed (NC)



Symbol:
normally open (NO)



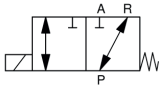
FLUIDIC CONNECTION	k_v-VALUE (m^3/h)	NOMINAL PRESSURE (bar)	ORDER NUMBER 24 VDC
2/2-Way-valve - direct acting, normally closed (NC)			
G 1/4	1.9	0 - 40	CV20080002
G 3/8	2.3		CV20080003
G 1/2	2.5		CV20080004
G 3/4	2.5		CV20080005
NPT 1/4	1.9		CV20080006
NPT 3/8	2.3		CV20080007
NPT 1/2	2.5		CV20080008
NPT 3/4	2.5		CV20080009
2/2-Way-valve - direct acting, normally open (NO)			
G 1/4	1.9	0 - 40	CV20080018
G 3/8	2.3		CV20080019
G 1/2	2.5		CV20080020
G 3/4	2.5		CV20080021
NPT 1/4	1.9		CV20080022
NPT 3/8	2.3		CV20080023
NPT 1/2	2.5		CV20080024
NPT 3/4	2.5		CV20080025

Further versions, on request.

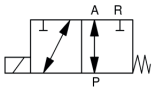
3/2-WAY-VALVE – DN08

Nominal pressure P → A (back pressure: see general specifications)

Symbol:
normally closed (NC)



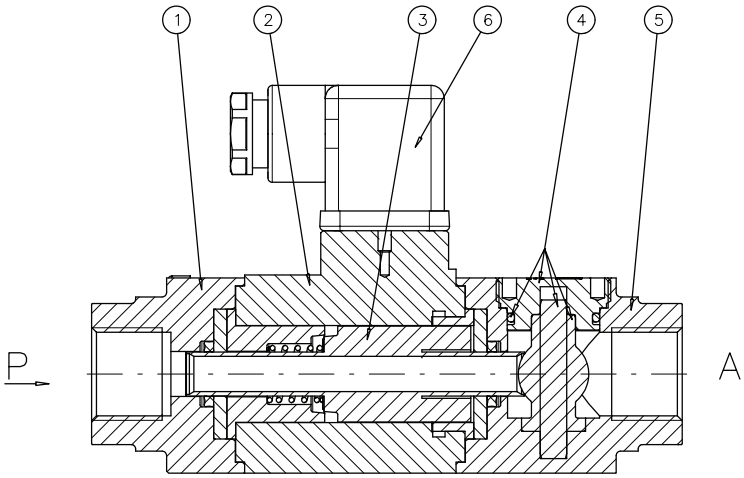
Symbol:
normally open (NO)



FLUIDIC CONNECTION	k_V-VALUE (m^3/h)	NOMINAL PRESSURE (bar)	ORDER NUMBER 24 VDC
3/2-Way-valve - direct acting, normally closed (NC)			
G 1/4	1.9	0 - 40	CV20082002
G 3/8	2.3		CV20082003
G 1/2	2.5		CV20082004
G 3/4	2.5		CV20082005
NPT 1/4	1.9		CV20082006
NPT 3/8	2.3		CV20082007
NPT 1/2	2.5		CV20082008
NPT 3/4	2.5		CV20082009
3/2-Way-valve - direct acting, normally open (NO)			
G 1/4	1.9	0 - 40	CV20082018
G 3/8	2.3		CV20082019
G 1/2	2.5		CV20082020
G 3/4	2.5		CV20082021
NPT 1/4	1.9		CV20082022
NPT 3/8	2.3		CV20082023
NPT 1/2	2.5		CV20082024
NPT 3/4	2.5		CV20082025

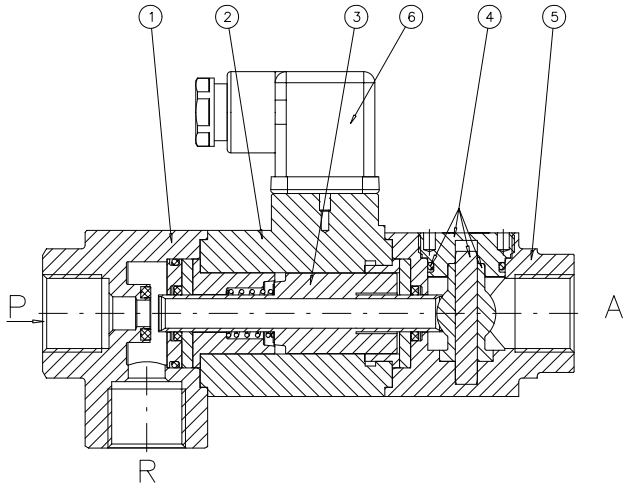
Further versions, on request.

2/2-WAY-VALVE



POSITION	DESCRIPTION	QUANTITY
1	Connection piece, inlet	1
2	Cylinder	1
3	Piston with control tube	1
4	Seal kit, valve seat, complete*	1
5	Connection piece, outlet	1
6	Standard cable plug connector	1

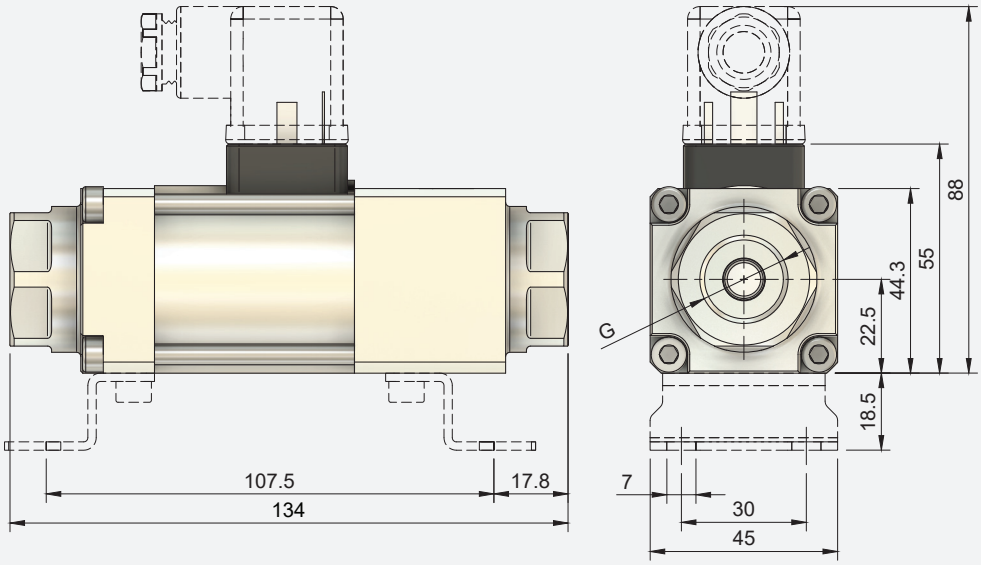
3/2-WAY-VALVE



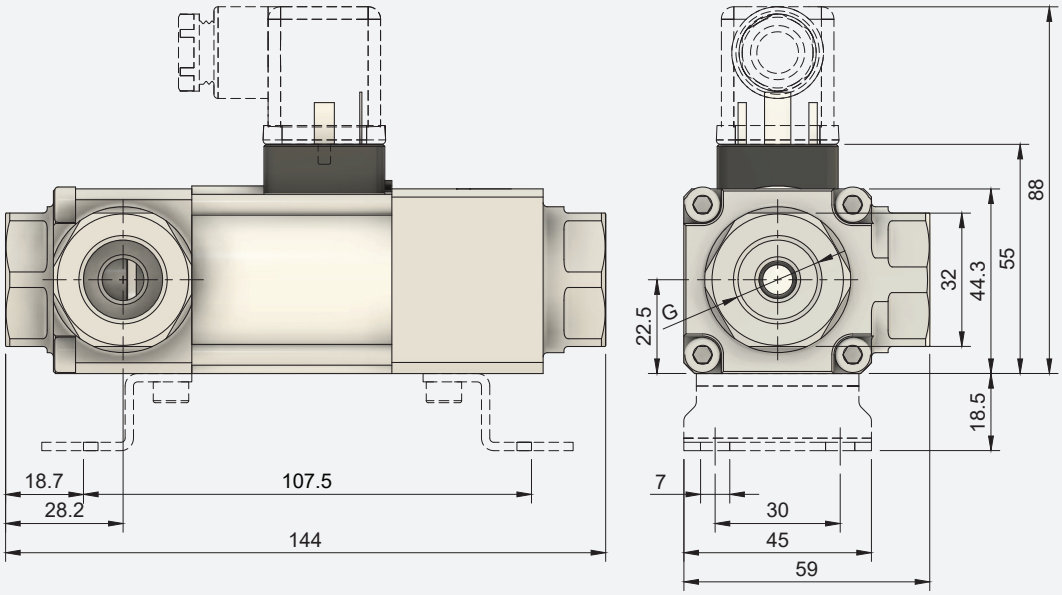
POSITION	DESCRIPTION	QUANTITY
1	Connection piece input and 3rd connection	1
2	Cylinder	1
3	Piston with control tube	1
4	Seal kit, valve seat, complete*	1
5	Connection piece, outlet	1
6	Standard cable plug connector	1

***See accessories**

2/2- WAY-VALVE

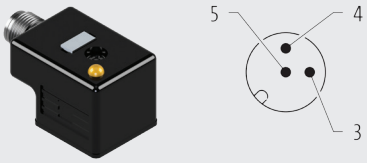
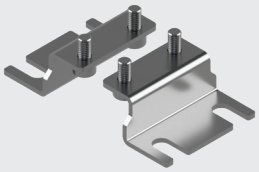


3/2-WAY-VALVE

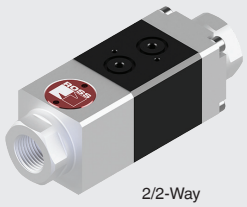


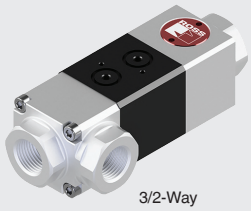
Note: Standard cable plug connector is supplied pre-assembled.

2/2- AND 3/2-WAY COAXIAL VALVE

	DESCRIPTION	ORDER NUMBER (separate Position)
Cable plug Cable plug connector to DIN EN 175301-803, Form A		
	**Cable plug connector 24 VDC, M12x1, 3-pole with LED Adapter**	RESK4610.1
	**Cable plug connector 24 VDC with LED**	936K87-A
	Cable plug connector 24 VDC power reduction with LED	RESK4610.3
	Cable plug connector 230 VAC with rectifier and varistor, and LED for operation 207 VDC	RESK4610.5
Replacement part (standard cable plug connector)		
	**Cable plug connector 24 VDC without wiring**	937K87
Mounting		
	**Mounting brackets consisting of two brackets. Materials: Stainless steel 1.4301**	HTW-CV10-DN08
Valve Seat		
	**Valve seat repair kit DN08 FKM, aluminium blanc**	DICH-CV10-DN08-FA

STANDARD SPECIFICATIONS, EXTERNALLY CONTROLLED


2/2-Way


3/2-Way

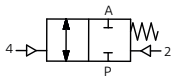
GENERAL	Sizes	DN08
	Construction design	coaxial control tube and rotating valve seat
	Functions	2/2- and 3/2-way, normally closed NC or normally open NO
	Operating mode	externally controlled, alternatively with flange-mounted pilot valve (see accessories)
	Mounting position	any
	Fluidic connection	G 1/4 - G 3/4; NPT 1/4 - NPT 3/4
	k_v-Value	DN08 - max. 2.5 m³/h
VALVE BODY	Housing material/color	aluminium blanc, special design on request
CONSTRUCTION MATERIAL	Valve seat	PTFE, other on request
	Sealing material	FKM, on demand EPDM, NBR and others
	Materials in contact with media	aluminium blanc, special design on request
	Control tube	stainless steel
OPERATING CONDITIONS	Operating pressure*	0- 40 bar, other pressures on request
	Back pressure**	max. 0 - 16 bar, higher back pressure on request
	Vacuum (special design)	< 1* 10-6 mbar*l/s
	Ambient temperature	-10°C to +80°C, other temperatures on request
	Media temperature	-10°C to 130°C, other temperatures on request
PNEUMATIC DRIVE	Control	double-acting with spring return (spring made of 1.4310), preferably controlled via 5/2-way pilot valve. Alternative single-acting controlled with 3/2-way pilot valve.
	Operating pressure	3 to 10 bar, other pressures on request
	Air consumption	7 cm³ - 10 cm³/stroke
	Cycle time	adjustable via 20-3000 ms exhaust throttle, cushioning piston on request
	Flow media	filtered air, neutral gases, other media on request
	Control connections cylinder	M5 (port size 2 + 4)
	Control connections for pilot valve	connection diagram for ROSS pilot valve
MOUNTING	mounting bracket, mounting hole (see accessories)	
WEIGHT	DN08 - 0.55 kg	

*Operating pressure 2/2-way P → A
**Back pressure 2/2-way A → P

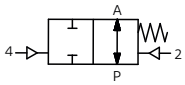
2/2-WAY-VALVE – DN08

Nominal pressure: P → A (back pressure: see general specifications)

Symbol:
normally closed (NC)



Symbol:
normally open (NO)

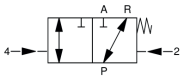


FLUIDIC CONNECTION	k_v-VALUE (m^3/h)	NOMINAL PRESSURE (bar)	ORDER NUMBER	NOMINAL PRESSURE (bar)	ORDER NUMBER
2/2-Way-valve - externally controlled, normally closed (NC)					
G 1/4	1.9	0 - 40	CV20083002	0 - 100	CV20083010
G 3/8	2.3		CV20083003		CV20083011
G 1/2	2.5		CV20083004		CV20083012
G 3/4	2.5		CV20083005		CV20083013
NPT 1/4	1.9		CV20083006		CV20083014
NPT 3/8	2.3		CV20083007		CV20083015
NPT 1/2	2.5		CV20083008		CV20083016
NPT 3/4	2.5		CV20083009		CV20083017
2/2-Way-valve - externally controlled, normally open (NO)					
G 1/4	1.9	0 - 40	CV20083018	0 - 100	CV20083026
G 3/8	2.3		CV20083019		CV20083027
G 1/2	2.5		CV20083020		CV20083028
G 3/4	2.5		CV20083021		CV20083029
NPT 1/4	1.9		CV20083022		CV20083030
NPT 3/8	2.3		CV20083023		CV20083031
NPT 1/2	2.5		CV20083024		CV20083032
NPT 3/4	2.5		CV20083025		CV20083033

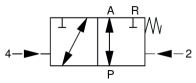
3/2-WAY-VALVE – DN08

Nominal pressure: P → A (back pressure: see general specifications)

Symbol:
normally closed (NC)

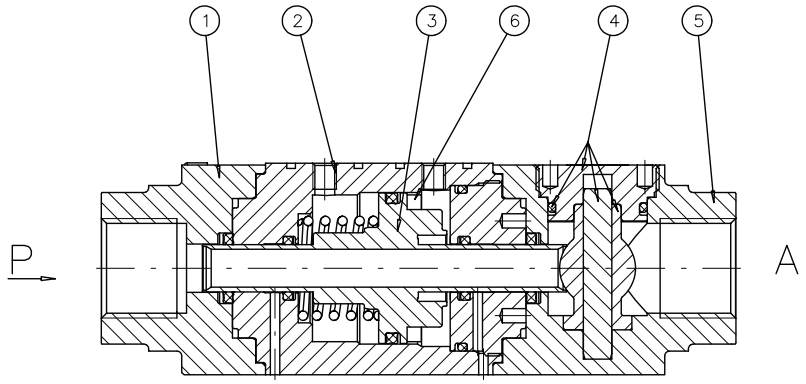


Symbol:
normally open (NO)



FLUIDIC CONNECTION	k_v-VALUE (m^3/h)	NOMINAL PRSSURE (bar)	ORDER NUMBER	NOMINAL PRESSURE (bar)	ORDER NUMBER
3/2-Way-valve - externally controlled, normally closed (NC)					
G 1/4	1.9	0 - 40	CV20085002	0 - 100	CV10085010
G 3/8	2.3		CV20085003		CV10085011
G 1/2	2.5		CV20085004		CV10085012
G 3/4	2.5		CV20085005		CV10085013
NPT 1/4	1.9		CV20085006		CV10085014
NPT 3/8	2.3		CV20085007		CV10085015
NPT 1/2	2.5		CV20085008		CV10085016
NPT 3/4	2.5		CV20085009		CV10085017
3/2-Way-valve - externally controlled, normally open (NO)					
G 1/4	1.9	0 - 40	CV20085018	0 - 100	CV20085026
G 3/8	2.3		CV20085019		CV20085027
G 1/2	2.5		CV20085020		CV20085028
G 3/4	2.5		CV20085021		CV20085029
NPT 1/4	1.9		CV20085022		CV20085030
NPT 3/8	2.3		CV20085023		CV20085031
NPT 1/2	2.5		CV20085024		CV20085032
NPT 3/4	2.5		CV20085025		CV20085033

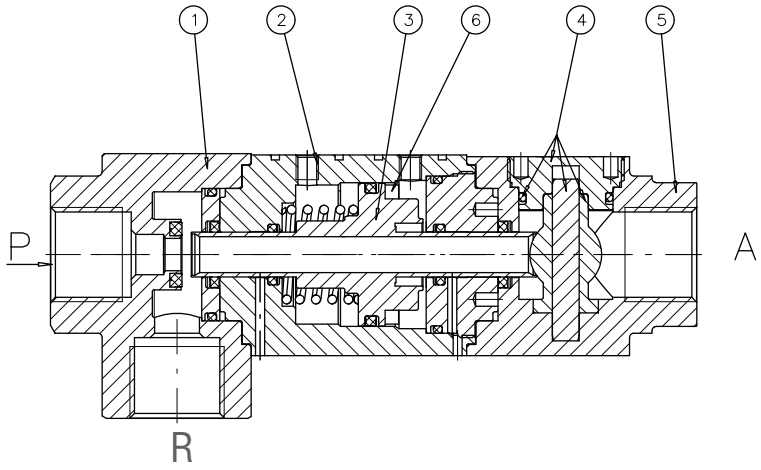
2/2-WAY-VALVE



POSITION	DESCRIPTION	QUANTITY
1	Connecting piece input	1
2	Cylinder	1
3	Piston with control tube	1
4	Valve seat gaskets*	1
5	Connecting piece output	1
6	Magnetic ring (optional)*	1

***See accessories**

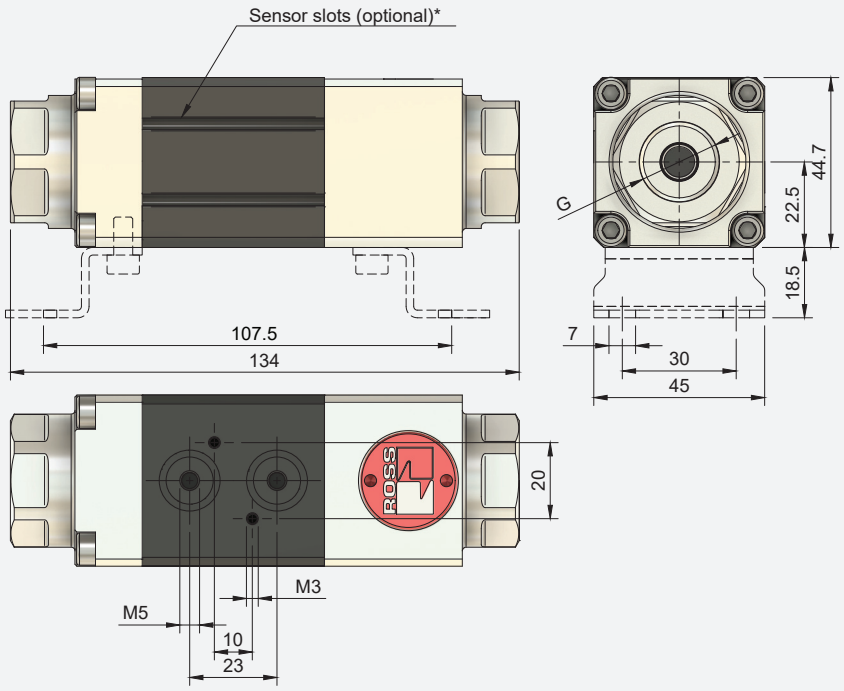
3/2-WAY-VALVE



POSITION	DESCRIPTION	QUANTITY
1	Connecting piece input and 3rd way	1
2	Cylinder	1
3	Control tube	1
4	Valve seat gaskets*	1
5	Connecting piece output	1
6	Magnetic ring (optional)*	1

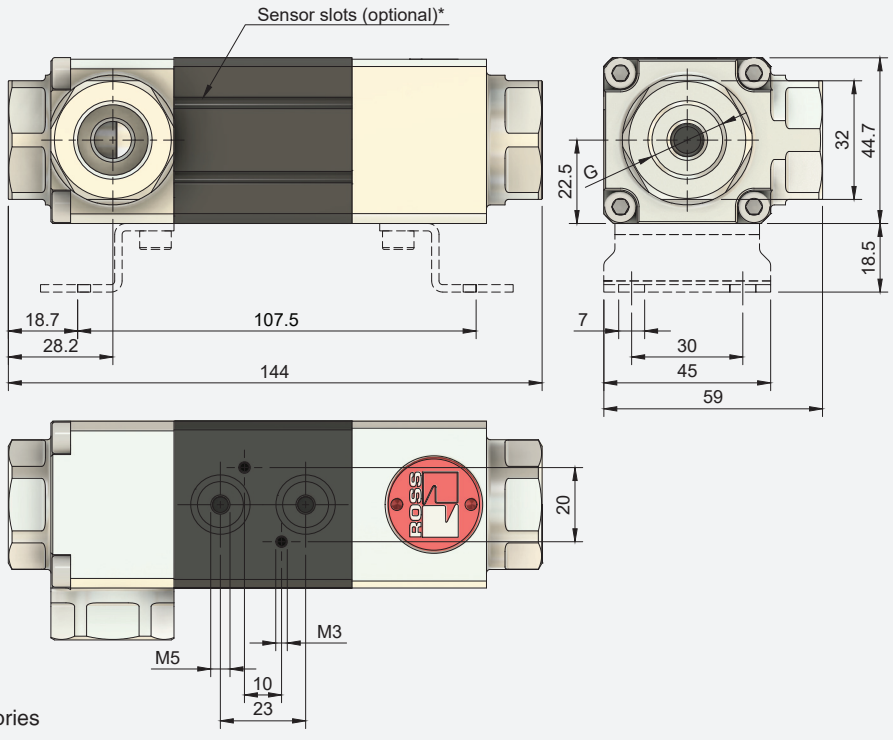
***See accessories**

2/2-WAY-VALVE



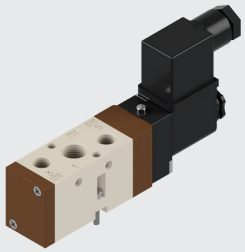
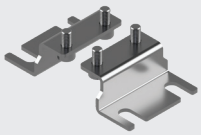
*see accessories

3/2-WAY-VALVE



*see accessories

2/2- AND 3/2-WAY COAXIAL VALVE

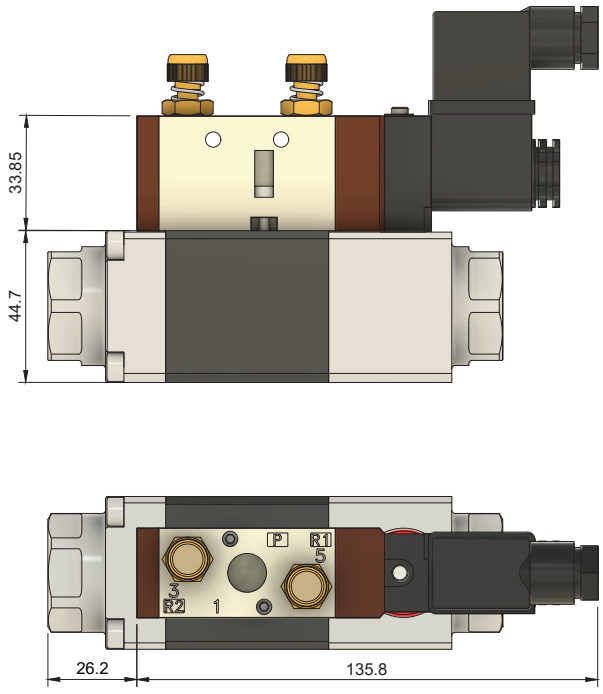
	DESCRIPTION	ORDER NUMBER (separate position)
5/2-Way pilot valve[1)]		
	Pilot valve*, 5/2-way - 24 VDC incl. device connection box	CS10520002
	Pilot valve*, 5/2-way - 24 VDC incl. device connection box **Actuating solenoid according to UR MH 13513 and CSA LR 51090 Device connection box UR**	CS10520004
	Pilot valve*, 5/2-way - 230 VAC incl. device connection box	CS10520003
	Pilot valve*, 5/2-way - 230 VAC incl. device connection box **Actuating solenoid according to UR MH 13513 and CSA LR 51090 Device connection box UR**	CS10520005
Accessories 5/2-way pilot valve[1)]		
	Exhaust air silencer G 1/8 (2 pieces required per pilot valve 3+5)	RESK2865.2
	Throttle silencer G 1/8 (2 pieces per pilot valve for opening and closing regulation)	RESK2938.1
	Cable plug connector 24 VDC, M12x1, 3-pin, with LED, DIN EN 175301-803, Form B Industry	R-3142081
Mounting[1)]		
	Mounting brackets consisting of two brackets. Materials: stainless steel 1.4301	HTW-CV10-DN08
Valve seat		
	Valve seat repair kit DN08 FKM, aluminium blanc	DICH-CV10-DN08-FA

[1] **Complete assembly of pilot valves and end switches on coaxial valve possible upon request**

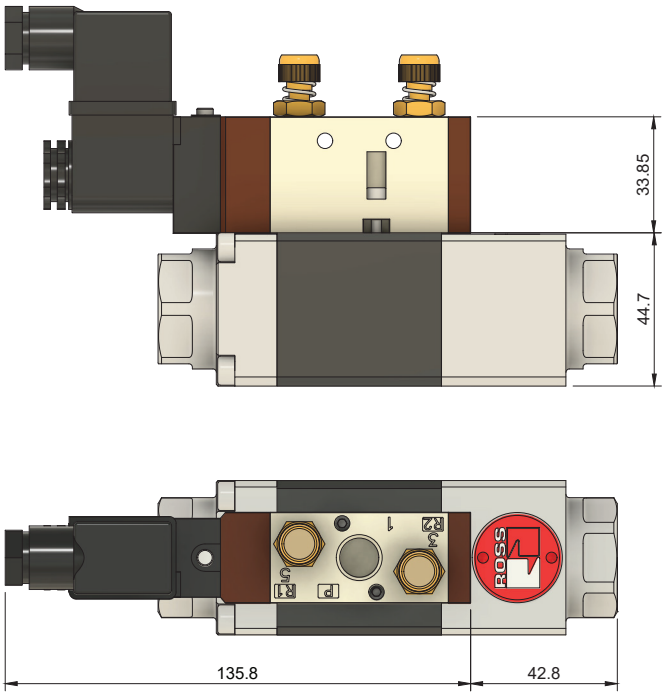
TECHNICAL DATA

PILOT VALVE (acc. to VDI/VDE 3845)	Parameter	Special Design
Voltage	24 VDC, 230 VAC 40 at 60 Hz	
Voltage tolerance	± 10% according to VDE 0580	
Power consumption	DC 2.5 Watt / AC 4,0 VA at 50/60 Hz	
Duty rating	100% ED	
E-port	Cable plug connector DIN EN 175301-803, Form B Industry	on request M12x1 (see accessories)
Enclosure rating	IP 65	explosion-proof
Ambient-/Media temperature	+5° to +60°C	
Flow media	filtered air, lubricated or unlubricated	
Fluidic connection	P1 = G 1/4, P3 and P5 = G 1/8	
Manual override	resting	

Dimensions - mm
Normally closed



Dimensions - mm
Normally open



PRE-INSTALLATION or SERVICE

1. Before servicing a valve or other pneumatic component, be sure all sources of energy are turned off, the entire pneumatic system is shut down and exhausted, and all power sources are locked out (ref: OSHA 1910.147, EN 1037).

2. All ROSS Group Products, including service kits and parts, should be installed and/or serviced only by persons having training and experience with pneumatic equipment. Because any product can be tampered with and/or need servicing after installation, persons responsible for the safety of others or the care of equipment must check ROSS Group Products on a regular basis and perform all necessary maintenance to ensure safe operating conditions.

3. All applicable instructions should be read and complied with before using any fluid power system to prevent harm to persons or equipment. In addition, overhauled or serviced valves must be functionally tested prior to installation and use. If you have any questions, call your nearest ROSS Group location.

4. Each ROSS Group Product should be used within its specification limits. In addition, use only ROSS Group components to repair ROSS Group Products.

WARNINGS:
Failure to follow these instructions can result in personal injury and/or property damage.

FILTRATION and LUBRICATION

1. Dirt, scale, moisture, etc., are present in virtually every air system. Although some valves are more tolerant of these contaminants than others, best performance will be realized if a filter is installed to clean the air supply, thus preventing contaminants from interfering with the proper performance of the equipment. The ROSS Group recommends a filter with a 5-micron rating for normal applications.

2. All standard ROSS Group filters and lubricators with polycarbonate plastic bowls are designed for compressed air applications only. Use the metal bowl guard, where provided, to minimize danger from high pressure fragmentation in the event of bowl failure. Do not expose these products to certain fluids, such as alcohol or liquefied petroleum gas, as they can cause bowls to rupture, creating a combustible condition and hazardous leakage. Immediately replace crazed, cracked, or deteriorated bowls.

3. Only use lubricants which are compatible with materials used in the valves and other components in the system. Normally, compatible lubricants are petroleum base oils with oxidation inhibitors, an aniline point between 180°F (82°C) and 220°F (104°C), and an ISO 32, or lighter, viscosity. Avoid oils with phosphate type additives which can harm polyurethane components, potentially leading to valve failure which risks personal injury, and/or damage to property.

WARNINGS:
Failure to follow these instructions can result in personal injury and/or property damage.

AVOID INTAKE/EXHAUST RESTRICTION

1. Do not restrict air flow in the supply line. To do so could reduce the pressure of the supply air below minimum requirements for the valve and thereby causing erratic action.

2. Do not restrict a valve's exhaust port as this can adversely affect its operation. Exhaust silencers must be resistant to clogging and must have flow capacities at least as great as the exhaust capacities of the valves. Contamination of the silencer can result in reduced flow and increased back pressure.

WARNINGS: ***Failure to follow these instructions can result in personal injury and/or property damage.***

SAFETY APPLICATIONS

1. Mechanical Power Presses and other potentially hazardous machinery using a pneumatically controlled clutch and brake mechanism must use a press control double valve with a monitoring device. A double valve without a self-contained monitoring device should be used only in conjunction with a control system which assures monitoring of the valve. All double valve installations involving hazardous applications should incorporate a monitoring system which inhibits further operation of the valve and machine in the event of a failure within the valve mechanism.

2. Safe Exhaust (dump) valves without a self-contained monitoring device should be used only in conjunction with a control system which assures monitoring of the valve. All Safe Exhaust valve installations should incorporate a monitoring system which inhibits further operation of the valve and machine in the event of a failure within the valve mechanism.

3. Per specifications and regulations, the ROSS L-O-X® and L-O-X® with EEZ-ON®, N06 and N16 Series operation products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

WARNINGS:
Failure to follow these instructions can result in personal injury and/or property damage.

STANDARD WARRANTY

All products sold by the ROSS Group are warranted for a one-year period [with the exception of Filters, Regulators and Lubricators ("FRLs") which are warranted for a period of seven (7) years] from the date of purchase. All products are, during their respective warranty periods, warranted to be free of defects in material and workmanship. The ROSS Group's obligation under this warranty is limited to repair, replacement or refund of the purchase price paid for products which the ROSS Group has determined, in its sole discretion, are defective. All warranties become void if a product has been subject to misuse, misapplication, improper maintenance, modification or tampering. Products for which warranty protection is sought must be returned to the ROSS Group freight prepaid.

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