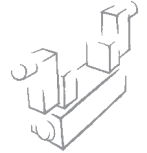
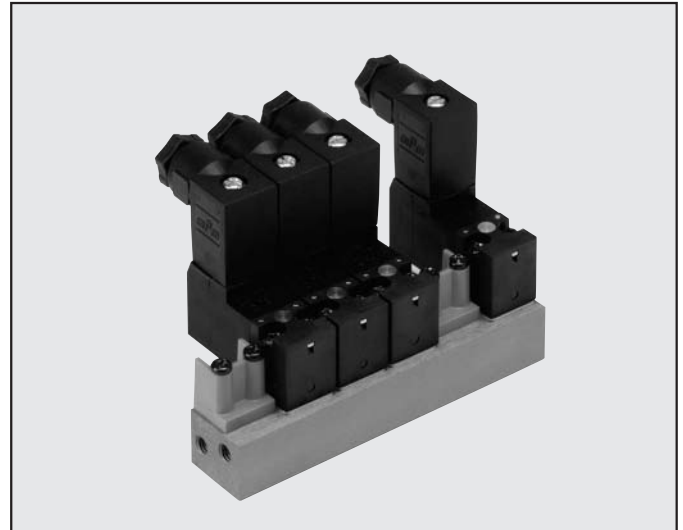


# SOLENOID VALVES

## PIV.M 15 mm



- 3/2 NC/NO direct control microvalves
- Possible assembly on single and multiple bases
- Monostable manual actuation as standard
- Assembly in any position
- Operation with filtered lubricated or unlubricated air
- Maximum ambient temperature: 50°C
- Low power absorption



2

### TECHNICAL DATA

Voltage tolerance	$\Delta V$	-10-+15%
Alternating current frequency (AC)	f	50/60 Hz
Maximum operation frequency	f	30 Hz
Solenoid rating		100% ED
Response time	t	≈ 10 msec.
Type of protection		IP 65 EH 60529
Electrical connection		9.4 mm micro centre distance
Insulation class	F	155
Ambient temperature	T <sub>e</sub>	-10°C to 50°C
Fluid temperature	T <sub>g</sub>	-10°C to 50°C
Fluid		Filtered lubricated or unlubricated air
Working life		100 million cycles
Materials		Body: PPS Spring: 302 stainless steel FKM/FPM gaskets
Weight	[g]	30 g
Manual control		monostable
Assembly position		in any position

### KEY TO CODES

P	I	V	1	3	M	0	1	N	C	
FAMILY	AIR HOLE		NUMBER OF WAYS		PORT	THREAD	VERSION		FURTHER DETAILS	
	1	1 mm	3	3 ways	M	15x15	0	on base	1 24 VDC 3 24 VAC 5 110 VAC 7 220 VAC	NC normally closed NO normally open





# PIV VALVES ON BASE

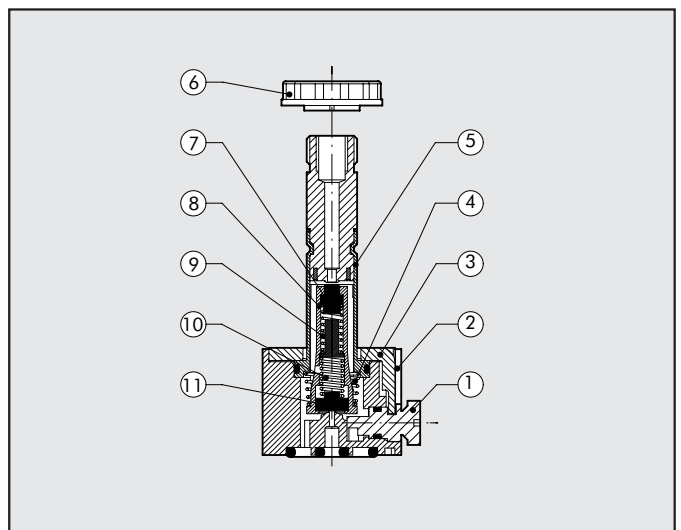
- PIV.I – PIV.T and PIV.B solenoid valves
- Assembly on base
- Bistable manual actuation
- Normally closed / normally open solenoid valves 2/2 – 3/2
- Installation in any position
- Particularly suitable for high operating frequencies and low response times

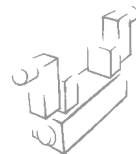


TECHNICAL DATA		PIV.I ON BASE	PIV.T ON BASE	PIV.B ON BASE
Absorption	W	5W - 5VA	3,8W - 6.5VA	10W - 13VA
Voltage available	V	12-24Vdc - 24-110-220 Vac	24Vdc - 24-110-220 Vac	24Vdc - 24-110-220 Vac
		50/60 Hz	50/60 Hz	50/60 Hz
Voltage tolerance	$\Delta V$	-10 to +15%	-10 to +15%	-10 to +15%
Maximum operating frequency	f	30 Hz	30 Hz	15 Hz
Solenoid rating	ED	100%	100%	100%
Response time	t	8 ÷ 15 msec	8 ÷ 15 msec	10 ÷ 15 msec
Type of protection		IP 65	IP 65	IP 65
Type of coil		Coil side 22 Ø 8 DIN 43650	Coil side 22 Ø 9 DIN 43650	Coil side 30 DIN 43650
Insulation class	F	155	155	155
Ambient temperature	$T_e$	-15 ÷ 50°C	-15 ÷ 50°C	-15 ÷ 50°C
Fluid temperature	$T_g$	-15 ÷ 50°C	-15 ÷ 50°C	-15 ÷ 50°C
Fluid		Filtered lubricated or unlubricated air	Filtered lubricated or unlubricated air	Filtered lubricated or unlubricated air
Working life		25 million cycles	25 million cycles	-
Weight	[g]	80 to 120 g (according to the version)	85 g	250 g
Maximum coil/nut torque		1 Nm	1 Nm	1 Nm

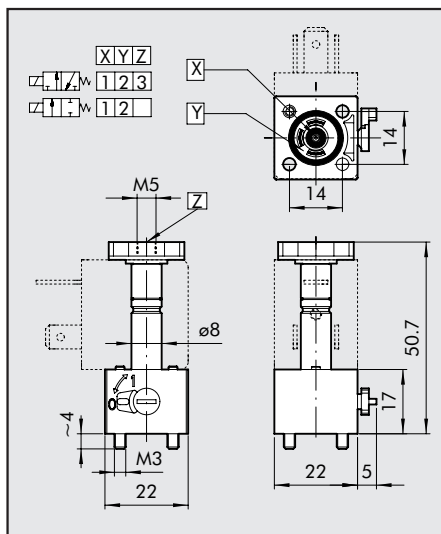
## COMPONENTS

- ① Manual control: technopolymer
- ② Body: technopolymer
- ③ Sleeve locking plate
- ④ Spring: stainless steel
- ⑤ Sleeve: brass OT 58
- ⑥ Ring nut for coil fixing
- ⑦ Gasket: NBR
- ⑧ Mobile core
- ⑨ Spring: stainless steel
- ⑩ Spring: stainless steel
- ⑪ Gasket: NBR



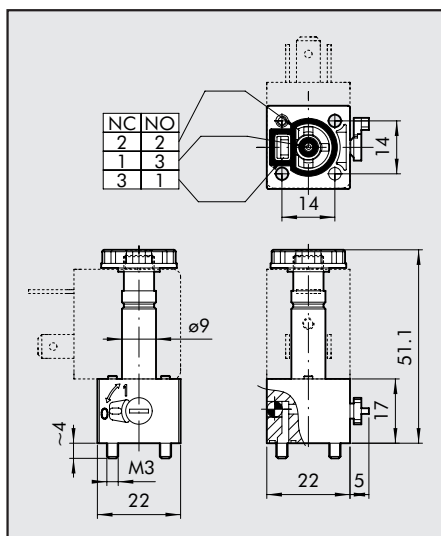


### PIV.I VALVES, OPERATOR Ø 8, ON BASE



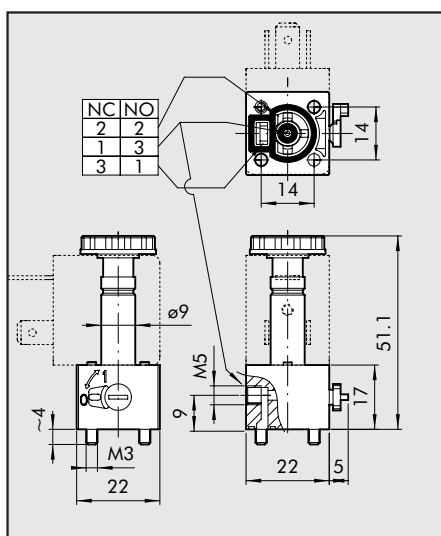
Symbol	Code	Description	Air hole diameter mm	kv Factor	Maximum operating pressure (bar)	
					DC = 5W	AC 5VA
	W4018000200	PIV42I0S NC	1.2	0.65	10	10
	W4018000300	PIV72I0S NC	1.6	1	8	8
	W4018001200	PIV43I0S NC	1.2	0.65	10	10
	W4018001300	PIV73I0S NC	1.6	1	8	8

### PIV.T VALVES, OPERATOR Ø 9, ON BASE



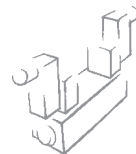
Symbol	Code	Description	Air hole diameter mm	kv Factor	Pressure range (bar)	
					DC = 3,8W	AC 6,5VA
	W4025002101	PIV73T0B NO	1.6	0.75	0.5÷7	0.5÷7
	W4025002301	PIV83T0B NO	1.8	0.85	0.5÷6.5	0.5÷6.5
	W4025002100	PIV73T0B NC	1.6	0.8	0.5÷10	0.5÷10
	W4025002300	PIV83T0B NC	1.8	1	0.5÷8	0.5÷8

### PIV.T VALVES, OPERATOR Ø 9, ON BASE WITH CONVEYED EXHAUST

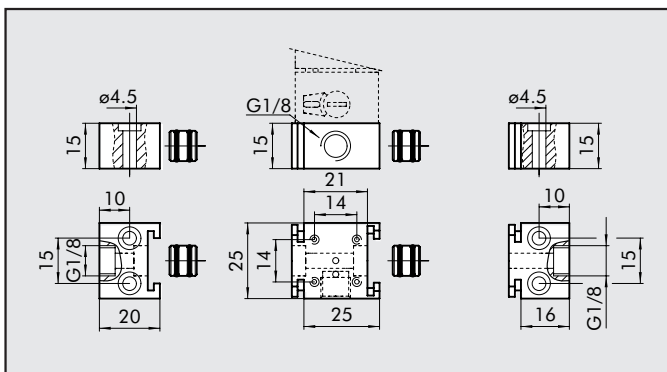


Symbol	Code	Description	Air hole diameter mm	kv Factor	Pressure range (bar)	
					DC = 3,8W	AC 6,5VA
	W4025002001	PIV73T00 NO	1.6	0.75	0.5÷7	0.5÷7
	W4025002501	PIV83T00 NO	1.8	0.85	0÷6	0.5÷6.5
	W4025002000	PIV73T00 NC	1.6	0.8	0.5÷10	0.5÷10
	W4025002500	PIV83T00 NC	1.8	1	0.5÷8	0.5÷8



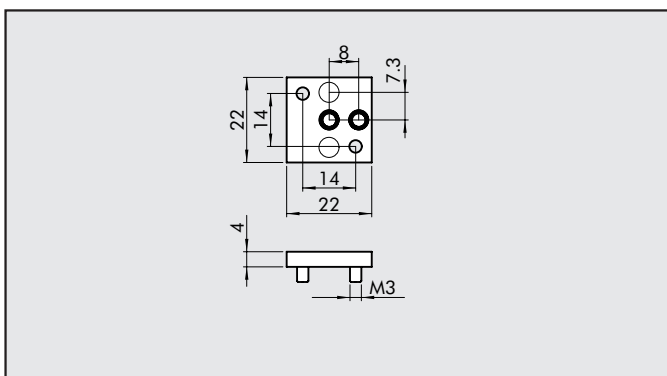


### MANIFOLD BASES FOR PIV.I SOLENOID VALVES, OPERATOR Ø 8



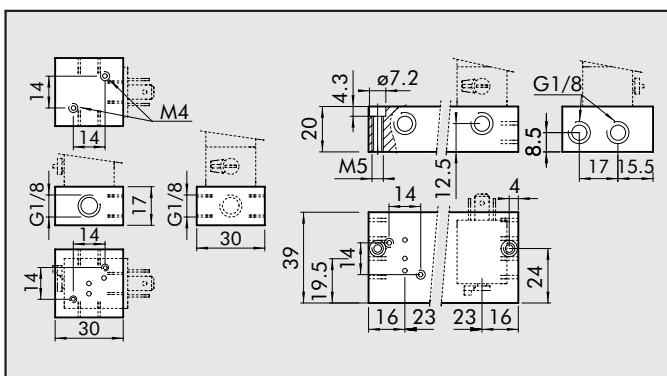
Code	Description	Abbrev.	Weight [g]
W040011200	Manifold base	EB 8000 I	24
W040011201	LH end plate	EB 8000 T1	17
W040011202	RH end plate	EB 8000 T2	15

### BLANKING PLATE FOR PIV.I PIV.T VALVES, UNUSED POSITION



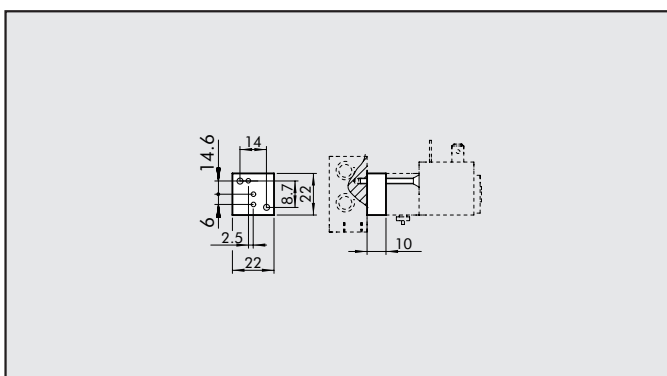
Code	Description	Abbrev.	Weight [g]
W040012000	Unused position	EB 6000	5

### MULTIPLE BASES FOR PIV.T SOLENOID VALVES, OPERATOR Ø 9



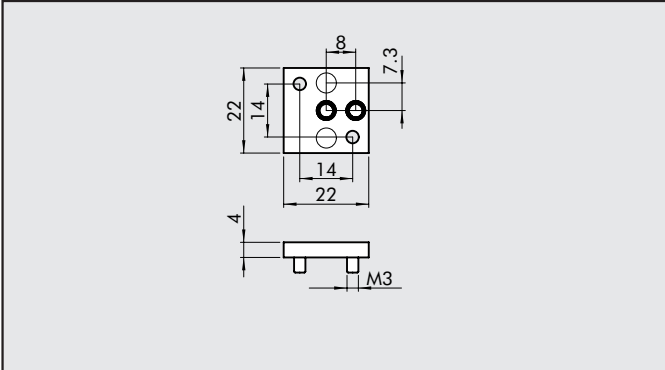
Code	Description	Posn.	Weight [g]
W0400101101	ACC. BASE 190, 1 POSN. PIV.T	1	36
W0400101102	ACC. BASE 190, 2 POSN. PIV.T	2	104
W0400101103	ACC. BASE 190, 3 POSN. PIV.T	3	148
W0400101104	ACC. BASE 190, 4 POSN. PIV.T	4	192
W0400101105	ACC. BASE 190, 5 POSN. PIV.T	5	236
W0400101106	ACC. BASE 190, 6 POSN. PIV.T	6	280
W0400101107	ACC. BASE 190, 7 POSN. PIV.T	7	324
W0400101108	ACC. BASE 190, 8 POSN. PIV.T	8	368
W0400101109	ACC. BASE 190, 9 POSN. PIV.T	9	452
W0400101110	ACC. BASE 190, 10 POSN. PIV.T	10	456

### NC/NO ADAPTER FOR PIV.T VALVES



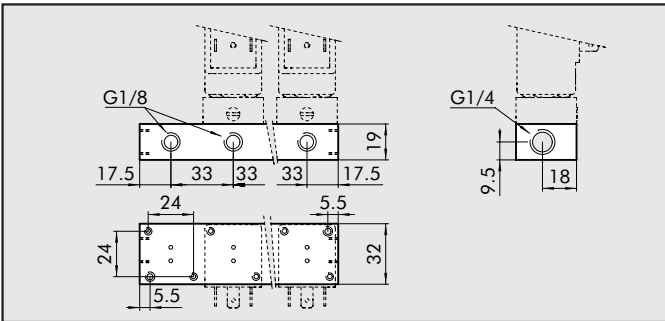
Code	Description	Abbrev.	Weight [g]
W0400101190	ACC. NC/NO ADAPTER	I-9000	15

### BASE BLANKING PLATE FOR PIV.T VALVES, UNUSED POSITIONS



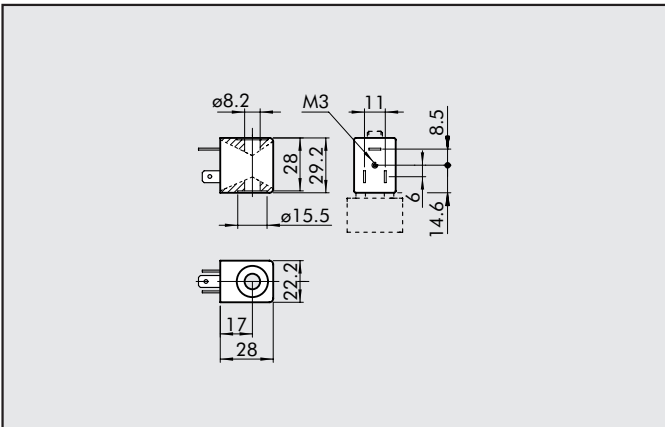
Code	Description	Abbrev.	Weight [g]
W0400112000	Accessories: blanking plate	B6000	5

### MULTIPLE BASES FOR PIV.B VALVES



Code	Function	Sigla	Weight [g]
W0400101201	1 position	B4001	42
W0400101202	2 positions	B4002	94
W0400101203	3 positions	B4003	142
W0400101204	4 positions	B4004	188
W0400101205	5 positions	B4005	234
W0400101206	6 positions	B4006	280
W0400101207	7 positions	B4007	326
W0400101208	8 positions	B4008	372
W0400101209	9 positions	B4009	418

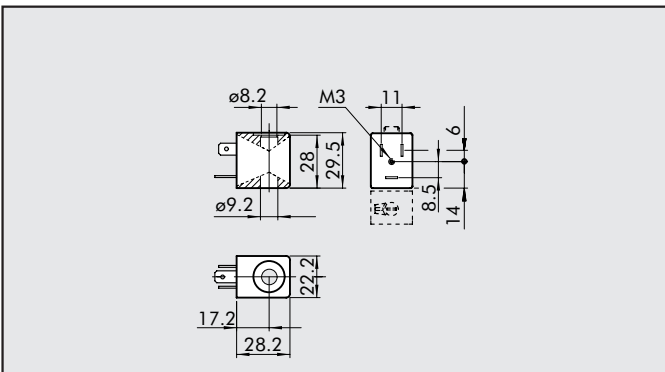
### COILS, SIDE 22 mm FOR PIV.I SOLENOID VALVES, OPERATOR Ø 8



- Voltage tolerance: - 10 to + 15%
- Insulation class: F155
- Degree of protection: IP65 – EN60529 with connector
- Avoid prolonged exposure to the atmospheric agents.
- Maximum coil temperature at 100% use: 70°C at 20° ambient temperature
- According to Atex 94/9 CE rule, group 2, category 3 GD

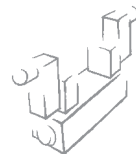
Code	Nominal voltage	Absorption		Abbrev.
		Inrush	Holding	
W 0215 000051	12Vcc	5W	5W	Coil 22 Ø8 5W-12VDC
W 0215 000001	24Vcc	5W	5W	Coil 22 Ø8 5W-24VDC
W 0215 000011	24V 50/60Hz	8VA	5VA	Coil 22 Ø8 5VA-24VAC
W 0215 000021	110V 50/60Hz	8VA	5VA	Coil 22 Ø8 5VA-110VAC
W 0215 000031	220V 50/60Hz	8VA	5VA	Coil 22 Ø8 5VA-220VAC

### COILS, SIDE 22 mm FOR PIV.T SOLENOID VALVES, OPERATOR Ø 9

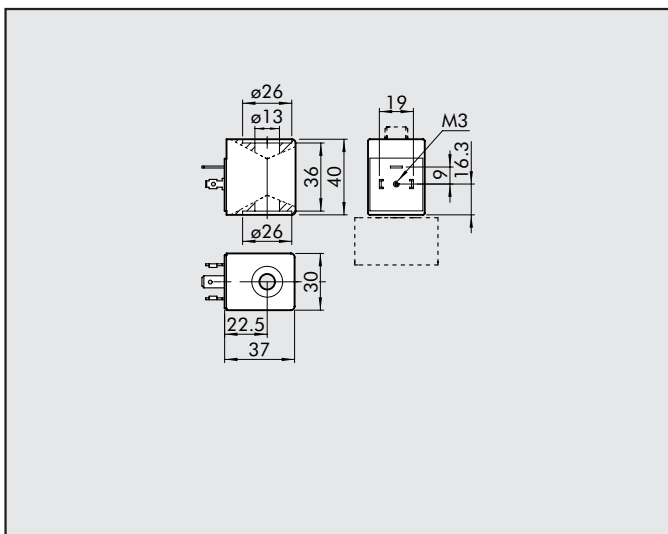


- Voltage tolerance: - 10 / + 15%
- Insulation class: F155
- Degree of protection: IP65 – EN60529 with connector
- Avoid prolonged exposure to the atmospheric agents
- Maximum coil temperature at 100% use: 70°C at 20° ambient temperature

Code	Nominal voltage	Absorption		Abbrev.
		Inrush	Holding	
W0216000001	24Vcc	3.8W	3.8W	Coil 22 Ø9 3.8W-24VDC
W0216000011	24V 50/60Hz	9VA	6.5VA	Coil 22 Ø9 6.5VA-24VAC
W0216000021	110V 50/60Hz	9VA	6.5VA	Coil 22 Ø9 6.5VA-110VAC
W0216000031	220V 50/60Hz	9VA	6.5VA	Coil 22 Ø9 6.5VA-220VAC



## COILS, SIDE 22 mm FOR PIV.B SOLENOID VALVES

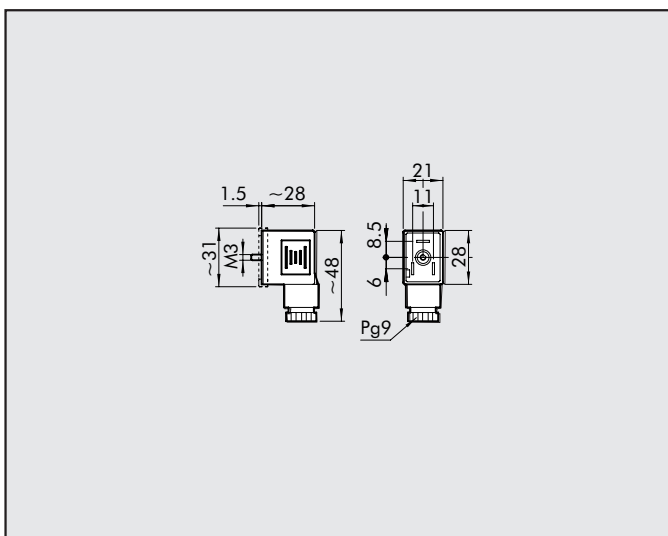


- Voltage tolerance: - 10 / + 15%
- Insulation class: M180
- Degree of protection: IP65 – EN60529 with connector
- Avoid prolonged exposure to the atmospheric agents

Code	Nominal voltage	Power absorption (average power input)	Abbrev.
W0216001001	24Vcc	10W	Coil 30 Ø13 10W-24VDC
W0216001011	24V 50/60Hz	13VA	Coil 30 Ø13 13VA-24VAC
W0216001021	110V 50/60Hz	13VA	Coil 30 Ø13 13VA-110VAC
W0216001031	220V 50/60Hz	13VA	Coil 30 Ø13 13VA-220VAC

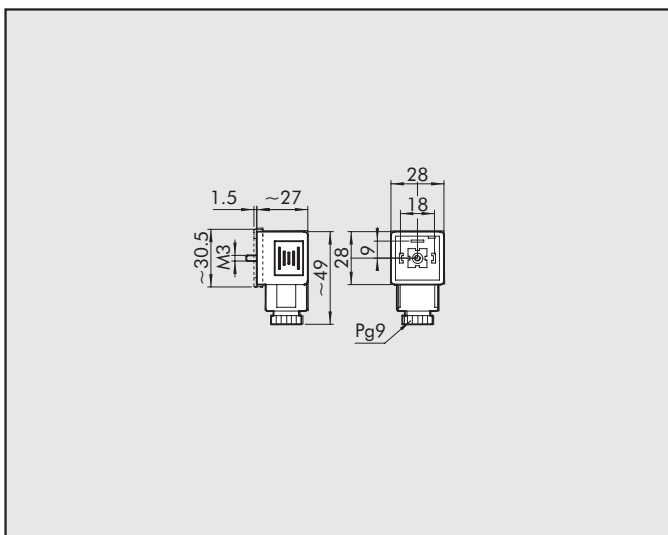
2

## CONNECTORS, SIDE 22 mm FOR PIV.I-PIV.T



Code	Colour	Cable diameter	Type
W0970510011	black	PG9	Standard
W0970510012	transparent	PG9	LED 24V
W0970510013	transparent	PG9	LED 110V
W0970510014	transparent	PG9	LED 220V
W0970510015	transparent	PG9	LED + VDR 24V
W0970510016	transparent	PG9	LED + VDR 110V
W0970510017	transparent	PG9	LED + VDR 220V

## CONNECTORS, SIDE 30 mm FOR PIV.B



Code	Colour	Cable diameter	Type
W0970520033	black	PG9	Standard
W0970520034	transparent	PG9	LED 24V
W0970520035	transparent	PG9	LED 110V
W0970520036	transparent	PG9	LED 220V
W0970520037	transparent	PG9	LED + VDR 24V
W0970520038	transparent	PG9	LED + VDR 110V
W0970520039	transparent	PG9	LED + VDR 220V

# PIV VALVES IN LINE

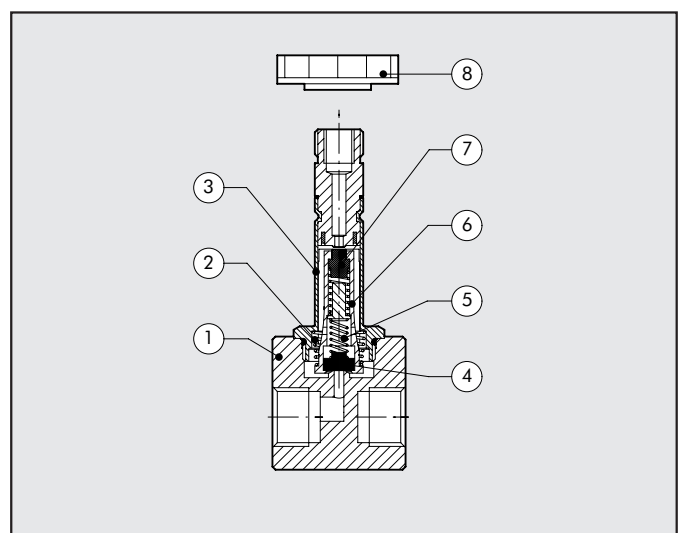
- PIV.I – PIV.B in-line solenoid valves
- Threaded ports: M5 G1/8" G1/4"
- 2/2 – 3/2 solenoid valves - normally closed/normally open
- Installation in any position
- Particularly suitable for high operating frequencies and low response times.

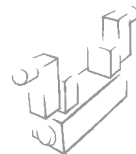


TECHNICAL DATA		PIV.I IN LINEA	PIV.B IN LINE
Absorption	W	5.5W - 5.5VA	10W - 13VA
Voltage available	V	24Vdc - 24-110-220 Vac - 50/60 Hz	24Vdc - 24-110-220 Vac - 50/60 Hz
Voltage tolerance	$\Delta V$	-10 to +15%	-10 to +15%
Maximum operating frequency	f	30 Hz	15 Hz
Solenoid rating	ED	100%	100%
Response time	t	8 ÷ 15 msec	10 ÷ 15 msec
Type of protection		IP 65	IP 65
Type of coil		coil side 22 Ø 8 DIN 43650	coil side 30 DIN 43650
Insulation class	F	155	155
Ambient temperature	Te	-15 ÷ 50°C	-15 ÷ 50°C
Fluid temperature	Tg	-15 ÷ 50°C	-15 ÷ 50°C
Fluid		filtered lubricated or unlubricated air	filtered lubricated or unlubricated air
Working life		25 million cycles	-
Weight	[g]	35 to 140 g (depending on version)	130 g
Maximum coil/nut torque		1 Nm	1 Nm
Note on use		<b>The 2/2 NC and 2/2 NO valves work only with inlet pressure ≥ outlet pressure</b>	

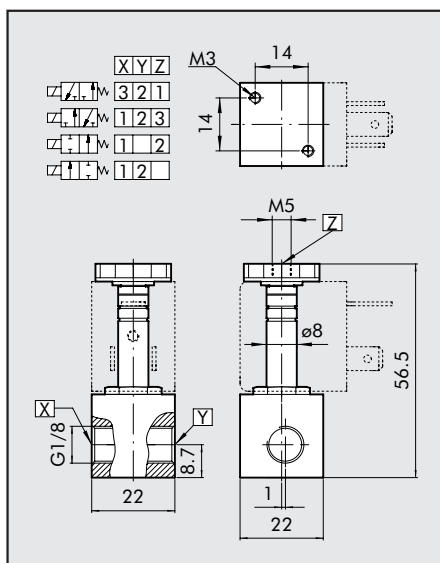
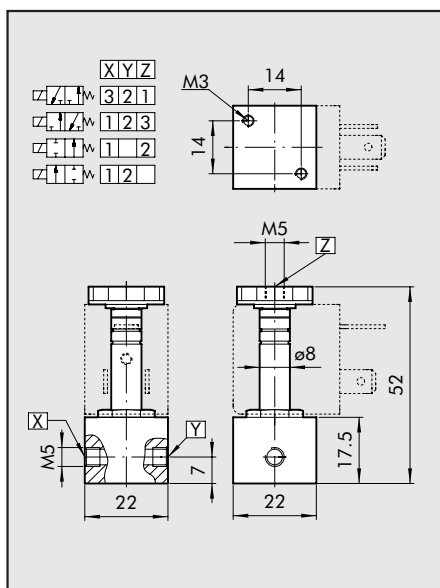
## COMPONENTS

- ① Body: aluminium
- ② Springs: steel
- ③ Sleeve
- ④ Gasket: NBR
- ⑤ Springs: steel
- ⑥ Mobile core
- ⑦ Gasket: FKM/FPM
- ⑧ Coil locking ring



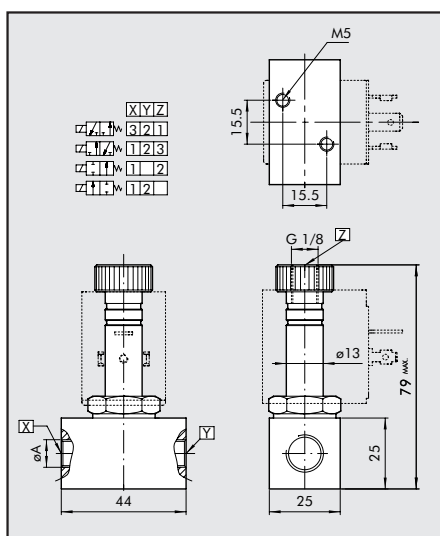


**PIV.I VALVES, OPERATOR Ø 8 mm, IN LINE – M5 – 1/8"**



Symbol	Ordering code	Description	Input thread	Diameter of air hole mm	kv factor	Maximum operating pressure (bar)	
						DC = 5W	AC = 5VA
	W4017000100	PIV42I5S NC	M5	1.2	0.65	30	30
	W4017001300	PIV92I8S NC	G1/8"	2.4	2	6	7
	W4017001100	PIV42I8S NC	G1/8"	1.2	0.65	30	30
	W4017001200	PIV72I8S NC	G1/8"	1.6	1.2	15	14
	W4017000101	PIV72I5S NO	M5	1.4	0.8	10	10
	W4017001201	PIV72I8S NO	G1/8"	1.4	0.8	10	10
	W4017003100	PIV43I5S NC	M5	1.2	0.65	10	10
	W4017004100	PIV43I8S NC	G1/8"	1.2	0.65	10	10
	W4017004200	PIV73I8S NC	G1/8"	1.6	1	6.5	6.5
	W4017004201	PIV73I8S NO	G1/8"	1.4	0.7	6	7

**PIV.B VALVES, OPERATOR Ø 13, IN LINE**

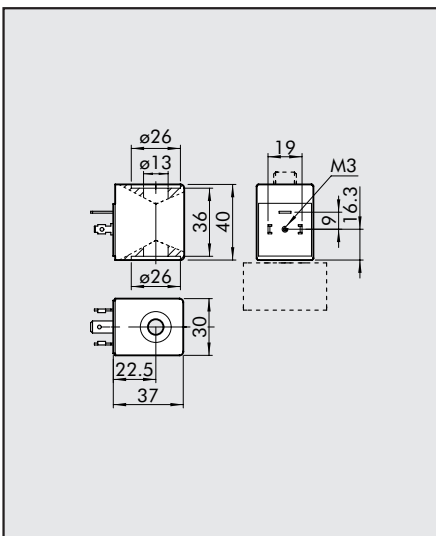


Symbol	Ordering code	Description	Input thread	Diameter of air hole mm	kv factor	Maximum operating pressure (bar)	
						DC = 10W	AC = 13VA
	W4026005001	PIV73B8S NO	G1/8"	1.6	1.2	6	12
	W4026005101	PIV73B4S NO	G1/4"	1.6	1.2	6	12
	W4026005111	PIV93B4S NO	G1/4"	2.4	2	3	4
	W4026005010	PIV93B8S NC	G1/8"	2.4	2.8	8	10
	W4026005020	PIVW3B8S NC	G1/8"	3	4	5.5	6
	W4026005000	PIV73B8S NC	G1/8"	1.6	1.4	14	17
	W4026005100	PIV73B4S NC	G1/4"	1.6	1.4	14	17
	W4026005110	PIV93B4S NC	G1/4"	2.4	2.8	8	8
	W4026005120	PIVW3B4S NC	G1/4"	3	4	5.5	6
	W4026004000	PIV92B4S NC	G1/4"	2.4	3	15	30
	W4026004010	PIVX2B4S NC	G1/4"	4	7	6	12
	W4026004020	PIV22B4S NC	G1/4"	6	9	1.5	5
	W4026004001	PIV92B4S NO	G1/4"	2.4	2.6	13	15

### KEY TO CODES

P	I	V	7	2	B	4	S	N	C
FAMILY	AIR HOLE		NUMBER OF WAYS		CONNECTION	THREAD	VERSION	FURTHER DETAILS	
	4	1.2 mm	2	2 ways	I	22x22	5	M5	S Standard NC normally closed NO normally open
	7	1.6 mm	3	3 ways		operator Ø 8	4	G1/4"	
	9	2.4 mm			B	30x30	8	G1/8"	
	W	3 mm				operator Ø 13			
	X	4 mm							
	Z	6 mm							

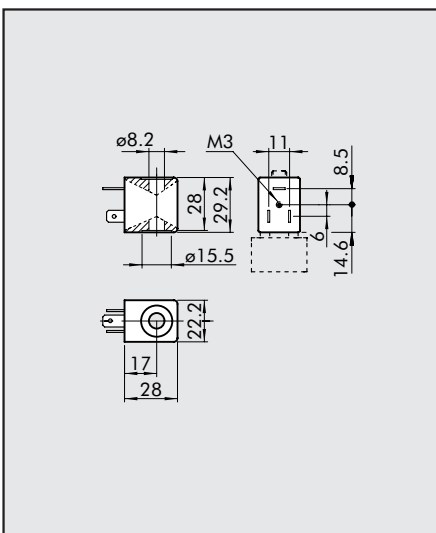
### COIL, SIDE 30 mm - FOR PIV.B SOLENOID VALVES



- Voltage tolerance: - 10 / + 15%
- Insulation class: M180
- Degree of protection: IP65 – EN60529 with connector
- Avoid prolonged exposure to the atmospheric agents

Code	Nominal voltage	Absorption (average)	Abbrev.
W0216001001	24Vcc	10W	Coil 30 Ø13 10W-24VDC
W0216001011	24V 50/60Hz	13VA	Coil 30 Ø13 13VA-24VAC
W0216001021	110V 50/60Hz	13VA	Coil 30 Ø13 13VA-110VAC
W0216001031	220V 50/60Hz	13VA	Coil 30 Ø13 13VA-220VAC

### COIL, SIDE 22 mm - FOR PIV.I SOLENOID VALVES



- Voltage tolerance: - 10 / + 15%
- Insulation class: F155
- Degree of protection: IP65 – EN60529 with connector
- Avoid prolonged exposure to the atmospheric agents
- Maximum temperature of coil at 100% use: 70°C at 20° ambient temperature
- According to Atex 94/9 CE rule, group 2, category 3 GD

Code	Nominal voltage	Absorption		Abbrev.
		Inrush	Holding	
W 0215 000051	12Vcc	5W	5W	Coil 22 Ø8 5W-12VDC
W 0215 000001	24Vcc	5W	5W	Coil 22 Ø8 5W-24VDC
W 0215 000011	24V 50/60Hz	8VA	5VA	Coil 22 Ø8 5VA-24VAC
W 0215 000021	110V 50/60Hz	8VA	5VA	Coil 22 Ø8 5VA-110VAC
W 0215 000031	220V 50/60Hz	8VA	5VA	Coil 22 Ø8 5VA-220VAC

