

2/2 nyit-zár réz mágnesszelepek

- NC - alaphelyzeten zárt és
- NO - alaphelyzetben nyitott típusok

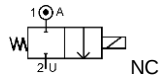
BRAVA BEAR
BRAVA BEAR



BRAVA BEAR KERESKEDELMI ÉS SZOLGÁLTATÓ BT.

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Media: air – water – gas – light oil – vacuum
 Pressure range: 0 to 16 bar max
 Media temperature: 80°C max
 Ambient temperature: -10°C to +50°C max
 Media viscosity: 40 centistokes max
 Mounting: any position
 Weight (including coil): 175 g, 255g, 475g
 Opening or Closing time: 20 mSec Max



2/2 Brass

1/8 – 3/8

NORMALLY CLOSED

2 WAY DIRECT ACTING

0 – 25 Bar

B220AR®



PRESSURE

Ø Port BSP	Ø Orifice (mm)	Flow Kv Ltr/ min	Coil	Pressure Rating (bar) ΔP			Seals	Max Media Temp °C	Part Number	
				Min	AC Max	DC Max				
1/8	1.5	1.2	22001	0	25	16	NBR EPDM FKM	80 160 130	B22001A + voltage B22001AE + voltage B22001AV + voltage	
1/4	2.3	2.0	22001	0	10	6	NBR EPDM FKM	80 160 130	B22002A + voltage B22002AE + voltage B22002AV + voltage	
3/8	8.0	19.0	22003	0.1	10	7	NBR EPDM FKM	80 160 130	B22003A + voltage B22003AE + voltage B22003AV + voltage	
3/8	8.0	19.0	22005	0.1	16	16	NBR EPDM FKM	80 160 130	B22003A + voltage + 18w B22003AE + voltage + 18W B22003AV + voltage + 18W	

OPTIONS

IP65 Coil & Connector PG9 – (DIN 43650 B 1/8 & 1/4 Ports) (DIN 43650A 3/8 Port)
 ATEX 22001EX Coil: ATEX EExmII T4 II 2G & 2D IP65 T130°C
 ATEX 22003EX Coil: ATEX EExmII T4 II 2G & 2D IP65 T130°C
 NPT thread

ELECTRICAL DATA

Voltage (-10% + 15%) Continuous duty 100%		Coil	Power Consumption		Insulation class	Enclosure	Electrical connections
			Inrush	Holding			
~	24 - 110 - 230 (50 or 60 Hz)	22001	11.6 VA	8.5 VA	F 155°C	IP 65 with connector	3 spades DIN 43650 DIN 40050 VDE 0110
=	12 - 24 (DC)		4.5 Watts				
~	24 - 48 - 110 - 230 - 380 (50 or 60 Hz)	22003	23VA	17VA	H 180°C		
=	12 - 24 - 48 (DC)		15 watts				
~	24 - 48 - 110 - 230 - 380 (50 or 60 Hz)	22005	33VA	24VA			
=	12 - 24 - 48 (DC)		18.5 Watts				

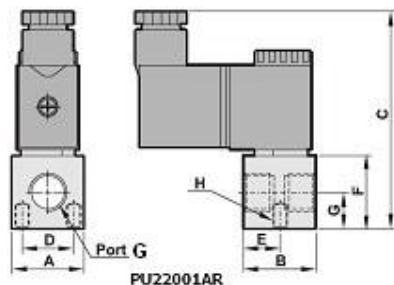
CONSTRUCTION

Body: Brass
 Tube and internal parts: stainless steel
 Seals and gaskets: NBR (Optional EPDM or FKM)
 Moulded Coil: ThermoSet Resin

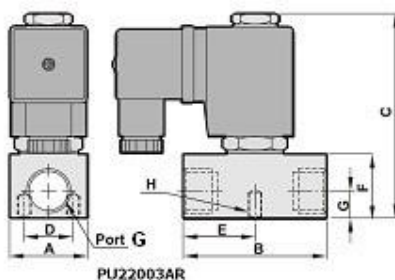
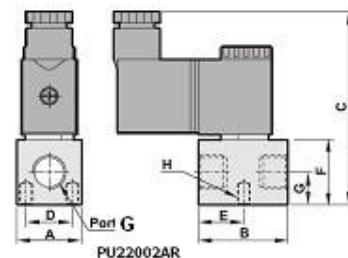
REPAIR KIT

Coil	Coil size (22001 or 22003 or 22005) + voltage
Complete plunger assembly	Coil size + seal material

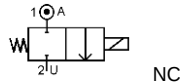
OVERALL DIMENSIONS



Port	1/8	1/4	3/8
A	22	25.4	30
B	22	35	55
C	72	75	79
D	15	18	18
E	11	17.5	27.5
F	22	25.4	25
G	7.5	12.7	11
H	M4 P0.7 L6.5	M5 P0.8 L7.0	M5 P0.8 L7.0



Media: air – water – gas – light oil - vacuum
 Pressure range: 0 to 10 bar max
 Media temperature: 120°C max
 Ambient temperature: -10° to +50° C max
 Media viscosity: 50 centistokes max
 Mounting: any position
 Opening / Closing time: 20 mSec Max



2/2 Brass

1/8 – 1/2

NORMALLY CLOSED

2 WAY DIRECT ACTING

0 – 10 Bar

BAT6-12



PRESSURE

Ø Port BSP	Ø Orifice (mm)	Coil	Flow	Pressure Rating (bar) ΔP			Seals	Part Number
			Kv Ltr/min	Min	Max AC	Max DC		
1/8	3.0	VPG1	4	0	10	7	NBR +80°C SILICONE +120°C EPDM +120°C FKM +120°C	BAT6A + seal + voltage
	4.0		5.5	0	7	5		BAT6B + seal + voltage
	5.0		7.2	0	5	3.5		BAT6C + seal + voltage
1/4	3.0		4	0	10	7		BAT8A + seal + voltage
	4.0		5.5	0	7	5		BAT8B + seal + voltage
	5.0		7.2	0	5	3.5		BAT8C + seal + voltage
3/8	4.0	VPG2	5.5	0	10	7	*PTFE +120°C *VST +120°C	BAT10A + seal + voltage
	6.0		10.5	0	5	3.5		BAT10B + seal + voltage
	8.0		16.2	0	2	1.4		BAT10C + seal + voltage
1/2	6.0		10.5	0	5	3.5		BAT12A + seal + voltage
	8.0		16.2	0	2	1.4		BAT12B + seal + voltage

OPTIONS

IP65 CSA + UL Approved Coil & LED Connector PG11 – DIN 43650 A
 Explosion Proof 22003EX Coil: EExmIIT4 ATEX IIG IP65 T 130°C (Pressure 70% of DC Rating)
 * PTFE or VST Seals
 Silver shading ring (ADxxS)
 Manual Over Ride AD8 – AD10
 Other custom made options available upon request

ELECTRICAL DATA

Voltage (-10% + 15%) Continuous duty 100%		Coil	Power Consumption		Insulation class	Enclosure	Electrical connections
			Inrush	Holding			
~	24 - 110 - 230 (50 or 60 Hz)	WPG1	11.2VA	8.2VA	H 180°C	IP 65 with connector	3 spades DIN 43650A DIN 40050 VDE 0110
=	12 - 24 (DC)		12 Watts				
~	24 - 110 - 230 (50 or 60 Hz)	WPG2	18.7VA	15.3VA			
=	12 - 24 (DC)		18 Watts				

CONSTRUCTION

Body: Brass
 Tube and Spring: 304 Stainless/ Brass Armature: 430F Stainless Other internal parts: Stainless
 Shading ring: copper (optional Silver)
 Seals and gaskets: FKM (Optional EPDM or NBR or SILICONE or PTFE or VST)
 Moulded coil: Resin

REPAIR KIT

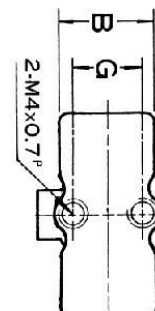
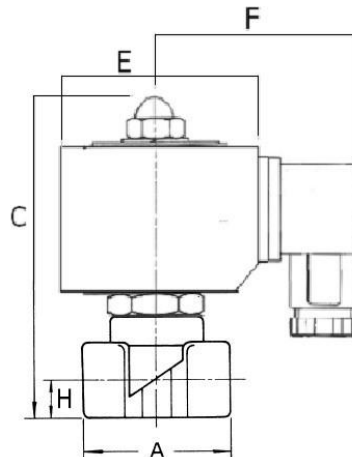
Coil	Coil size (WPG1 OR WPG2) + voltage
Armature + Seal	SP + Valve Part Number -ARMATURE

OVERALL DIMENSIONS

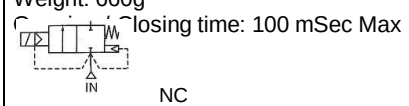


Model	A	B	C	D / E	F*	G	H	Kg
BAT8	41	19	89	53	63	15	10.5	0.47
BAT10	50	25	90	58	65	15	11.7	0.73
BAT12	55	27	91	58	65	17	13	0.78

* Includes Connector



Media: air – water – gas – light oil
 Pressure range: 1 to 100 bar max
 Media temperature: -10°C +120°C max
 Ambient temperature: -20° to +60°C
 Media viscosity: 50 centistokes max
 Mounting: coil upright
 Weight: 660g



2/2 Brass

1/8 – 3/8

NORMALLY CLOSED

2 WAY SERVO ASSISTED

1 – 100 Bar

B100B



PRESSURE

Ø Port BSP	Ø Orifice (mm)	Flow Kv Ltr/ min	Pressure Rating (bar) ΔP		Part Number
			Min	Max	
1/8	5.0	7.2	1	100	B100B1/8 + voltage
1/4	5.0	7.2	1	100	B100B1/4 + voltage
3/8	5.0	7.2	1	100	B100B3/8 + voltage

OPTIONS

IP68 (EN60529:1991+A1:2000) UL + CSA Approved Coil & IP65 LED Connector PG11 – DIN 43650 A
 EPDM, NBR, SILICONE, VST, CR, ECO, HNBR and Hypalon seals (40 Bar Max)
 NPT Thread
 Silver Shading Ring
 Other custom made options available upon request

ELECTRICAL DATA

Voltage (-10% + 10%) Continuous duty 100%		Coil	Power Consumption		Insulation class	Enclosure	Electrical connections
			Inrush	Holding			
~	24 - 48 - 110 - 230 (50 or 60 Hz)	WPG2	18.7VA	15.3VA	H 180°C	IP 65 with connector	3 spades DIN 43650 DIN 40050 VDE 0110
=	12 – 24 - 48 (DC)		18 Watts				

CONSTRUCTION

Body: Brass
 Tube and Spring: 304 Stainless Armature: 430F Stainless Other internal parts: Stainless steel
 Seals and gaskets: PTFE (Optional EPDM, NBR, SILICONE, VST, CR, ECO, HNBR and Hypalon)
 Moulded coil: Resin

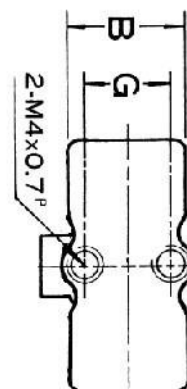
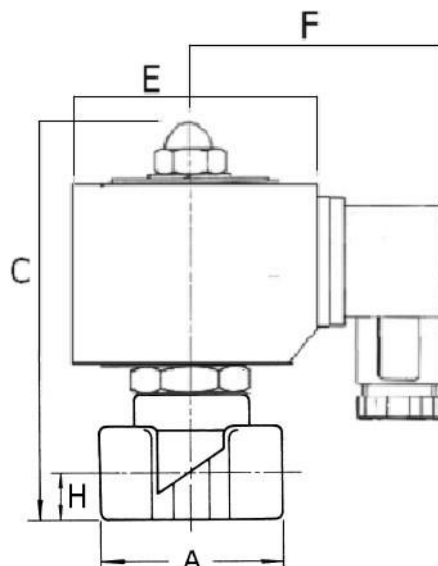
REPAIR KIT

Coil	WPG2 + voltage
Complete plunger + O' rings	SP + Valve Part Number -ARMATURE

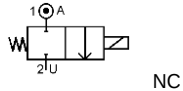
OVERALL DIMENSIONS



Part Number	A	B	C	D	E	F	G	H
B100B1/8	41	19	88	-	58	65	15	10.5
B100B1/4	41	19	88	-	58	65	15	10.5
B100B3/8	41	19	88	-	58	65	15	10.5



Media: air – water – gas – light oil - vacuum
 Pressure range: 0 to 150 bar max
 Media temperature: 120°C max
 Ambient temperature: -10° to +50° C max
 Media viscosity: 50 centistokes max
 Mounting: any position
 Opening / Closing time: 20 mSec Max



2/2 Brass

1/4

NORMALLY CLOSED

2 WAY DIRECT ACTING

0 – 150 Bar

BAT8000



PRESSURE

Ø Port BSP	Ø Orifice (mm)	Coil	Flow	Pressure Rating (bar) ΔP			Seals	Part Number
			Kv Ltr/min	Min	Max AC	Max DC		
1/4	1.2	WPG1	1.1	0	60	42	NBR +80°C SILICONE +120°C EPDM +120°C FKM +120°C *VST +180°C (40 Bar Max) *PTFE +180°C (150 Bar)	BAT8012 + seal + voltage
	1.6		1.5	0	40	28		BAT8016 + seal + voltage
	2.0		1.8	0	20	14		BAT8020 + seal + voltage
	1.2	WPG2	1.1	0	120	84		BAT8112 + seal + voltage
	1.6		1.6	0	60	42		BAT8116 + seal + voltage
	2.0		1.8	0	30	21		BAT8120 + seal + voltage
	3.0		4.3	0	20	14		BAT8130 + seal + voltage
	4.0		9.7	0	12	8.4		BAT8140 + seal + voltage
	5.0		10.7	0	10	7		BAT8150 + seal + voltage
	1.2	WPA3C	1.1	0	150	105		BAT8212 + seal + voltage
	1.6		1.5	0	80	56		BAT8216 + seal + voltage
	2.0		1.8	0	60	42		BAT8220 + seal + voltage
	3.0		4.3	0	40	28		BAT8230 + seal + voltage
	4.0		9.7	0	20	14		BAT8240 + seal + voltage
	5.0		10.7	0	15	10.5		BAT8250 + seal + voltage

OPTIONS

IP65 UL + CSA Approved Coil & LED Connector PG11 – DIN 43650 A (Except WPA3C coil P54)
 ATEX 22003EX Coil: ATEX EExmIIT4 II 2G & 2D IP65 T130°C (Not WPA3C Coil) (Pressure rating reduce by 30%)
 * PTFE, VST, CR, ECO, HNBR or Hypalon Seals
 Silver shading ring (ADxxS)
 Manual Over Ride
 NPT Thread
 Other custom made options available upon request

ELECTRICAL DATA

Voltage (-10% + 15%) Continuous duty 100%		Coil	Power Consumption		Insulation class	Enclosure	Electrical connections
			Inrush	Holding			
~	24 - 110 - 230 (50 or 60 Hz)	WPG1	11.2VA	8.2VA	H 180°C	IP 65 with connector	3 spades DIN 43650A DIN 40050 VDE 0110
=	12 - 24 (DC)		12 Watts				
~	24 - 110 - 230 (50 or 60 Hz)	WPG2	18.7VA	15.3VA			
=	12 - 24 (DC)		18 Watts				
~	24 - 110 - 230 (50 or 60 Hz)	WPA3C	88VA	57VA		IP54	30 cm flying lead wires
=	12 - 24 (DC)		33.6 Watts				

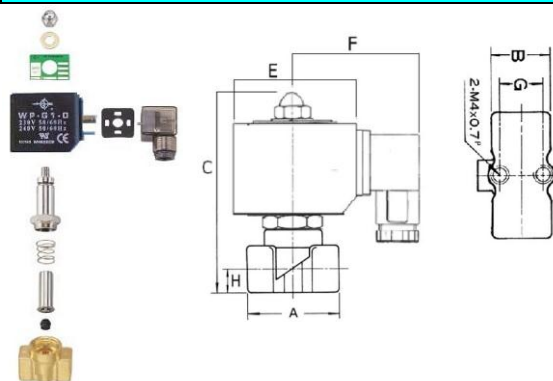
CONSTRUCTION

Body: Brass
 Tube and Spring: 304 Stainless/ Brass Armature: 430F Stainless Other internal parts: Brass
 Shading ring: copper (optional Silver)
 Seals and gaskets: FKM (Optional EPDM, NBR, SILICONE, PTFE, VST, CR, ECO, HNBR and Hypalon)
 Moulded coil: Resin

REPAIR KIT

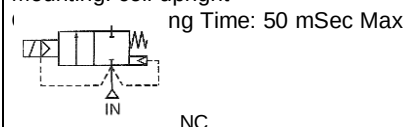
Coil	Coil size (WPG1 or WPG2 or WPA3C) + voltage
Armature + Seal	SP + Valve Part Number -ARMATURE

OVERALL DIMENSIONS



Model	A	B	C	D	E	F*	G	H	Kg
8012-8020	41	19	85	53		63	15	10.5	0.47
8112-8150	41	19	88		58	65	15	10.5	0.66
8212-8250	41	19	94		53	47	15	10.5	0.66

Media: air – water – light oil - vacuum
 Pressure range: 0 to 16 bar max
 Media temperature: 155°C max
 Ambient temperature: -20° to +60° C max
 Media viscosity: 50 centistokes max
 Mounting: coil upright



2/2 Brass

3/8 – 2

NORMALLY CLOSED

2 WAY ASSISTED LIFT

0 – 16 Bar

TYPE B220® & AT



PRESSURE

Ø Port BSP	Ø Orifice (mm)	Flow Kv Ltr/ min	Pressure Rating (bar)					Seals	Max Media Temp. °C	Part Number	
			Min	DC Coil		AC Coil					
				15 Watt	18.5 Watt	15 Watt	18.5 Watt				
3/8	13	35	0	5	12*	8.5	12*	NBR FKM EPDM	80 120 155	B22003 + voltage B22003V + voltage B22003E + voltage	
1/2	13	35	0	5	12*	8.5	12*	NBR FKM EPDM	80 120 155	B22004A + voltage B22004AV + voltage B22004AE + voltage	
3/4	20	72	0	5	16*	8.5	16*	NBR FKM EPDM	80 120 155	B22006A + voltage B22006AV + voltage B22006AE + voltage	
1	25	183	0	5	16*	7	16*	NBR FKM EPDM	80 120 155	B22008A + voltage B22008AV + voltage B22008AE + voltage	
1 1/4	35	400	0	-	7	-	10	NBR FKM EPDM Silicone	90 120 120 130	AT35N + voltage AT35V + voltage AT35E + voltage AT35S + voltage	
1 1/2	35	400	0	-	7	-	10	NBR FKM EPDM Silicone	90 120 120 130	AT40N + voltage AT40V + voltage AT40E + voltage AT40S + voltage	
2	51	580	0	-	5	-	7	NBR FKM EPDM Silicone	90 120 120 130	AT50N + voltage AT50V + voltage AT50E + voltage AT50S + voltage	

OPTIONS

22003 IP65 Coil & Connector PG9 – DIN 43650 A : WPG UL & CSA Approved Coil + LED Connector PG11 DIN 43650A
 ATEX 22003EX Coil: ATEX EExmIIT4 II 2G & 2D IP65 T130°C (Max ΔP 3 Bar)
 NPT Thread
 *18.5 Watt High Power 22005 Coil (PU series only)
 Manual Over Ride (Base Mounted Screw T Bar for AD Series)

ELECTRICAL DATA

Voltage (-10% + 10%) Continuous duty 100%			Coil	Power Consumption		Insulation class	Enclosure	Electrical connections
				Inrush	Holding			
~	24 - 48 - 110 - 240 - 380 (50 or 60 Hz)		2203	23VA	17VA	H 180°C	IP 65 with connector	3 spades DIN 43650A DIN 40050 VDE 0110
=	12 - 24 - 48 - 110 (DC)			15 Watts				
~	24 - 48 - 110 - 240 - 380 (50 or 60 Hz)		2205	33VA	24VA			
=	12 - 24 - 48 - 110 (DC)			18.5 Watts				
~	24 - 110 - 230 (50 or 60 Hz)		WBG2	18.7VA	15.3VA	F 155°C		
=	12 - 24 (DC)		AT Series	18 Watts				

CONSTRUCTION

Body: Brass
 Tube and internal parts: Stainless steel
 Seals and gaskets: NBR (Optional EPDM or FKM or Silicone)
 Moulded coil: Resin

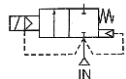
REPAIR KIT

Diaphragm seal	Valve part number + material
Coil	Coil size (22003 or WBG2) + voltage
Complete plunger assembly	SB + Valve Part Number -ARMATURE

OVERALL DIMENSIONS

Model	B22 003	B22 004A	B22 006A	B22 008A	AT35	AT40	AT50
Port R	3/8	1/2	3/4	1	1 1/4	1 1/2	2
A	66.5	66.5	71.0	96.0	120	120	150
B	101.0	101.0	107.0	120.5	140	140	160
C	48.0	48.0	58.0	70.0	90	90	120
Kg	0.74	0.715	0.945	1.485	2.87	2.77	4.81

Media: air – water – gas – light oil
 Pressure range: 0.5 to 15 bar max
 Media temperature: -10°C +160°C max
 Ambient temperature: -20° to +60°C
 Media viscosity: 50 centistokes max
 Mounting: coil upright
 Opening / Closing time: 50 mSec Max



NC

2/2 Brass

3/8 - 3

NORMALLY CLOSED

2 WAY SERVO ASSISTED

0.5 – 15 Bar

TYPE B225



PRESSURE

Ø Port BSP	Ø Orifice (mm)	Flow Kv Ltr/ min	Coil	Pressure Rating (bar) ΔP		Max Working	Seals	Max Media Temp. °C	Part Number	
				Min	Max					
3/8	13	40.0	22003	0.5	10	15	NBR FKM EPDM	80 130 160	B22503 + voltage B22503V + voltage B22503E + voltage	
1/2	13	40.0	22003	0.5	10	15	NBR FKM EPDM	80 130 160	B22504A + voltage B22504AV + voltage B22504AE + voltage	
3/4	25	165.0	22003	0.5	10	15	NBR FKM EPDM	80 130 160	B22506A + voltage B22506AV + voltage B22506AE + voltage	
1	25	165.0	22003	0.5	10	15	NBR FKM EPDM	80 130 160	B22508A + voltage B22508AV + voltage B22508AE + voltage	
1 1/4	38	367	22003	0.5	10	15	NBR FKM EPDM	80 130 160	B22512A + voltage B22512AV + voltage B22512AE + voltage	
1 1/2	38	500	22003	0.5	10	15	NBR FKM EPDM	80 130 160	B22514A + voltage B22514AV + voltage B22514AE + voltage	
2	50	600	22003	0.5	10	15	NBR FKM EPDM	80 130 160	B22520A + voltage B22520AV + voltage B22520AE + voltage	
2 1/2	65	1050	16W	0.3	10	15	NBR FKM EPDM	80 120 120	B22524A + voltage B22524AV + voltage B22524AE + voltage	
3	75	1380	16W	0.3	10	15	NBR FKM EPDM	80 120 120	B22528A + voltage B22528AV + voltage B22528AE + voltage	

OPTIONS

IP65 Coil & Connector PG9 – DIN 43650 A
 ATEX 2203EX Coil: ATEX EExmIIT4 II 2G & 2D IP65 T130°C
 Explosion Proof Enclosure ATEX II 2 G/D EExdIICT6 IP65 85°C
 NPT Thread (Not available 2 1/2 + 3")
 Manual Over ride custom made option

ELECTRICAL DATA

Voltage (-10% + 10%) Continuous duty 100%		Coil	Power Consumption		Insulation class	Enclosure	Electrical connections
~			Inrush	Holding			
24 – 48 – 110 – 240 – 380 (50 or 60 Hz)		2203	23VA	17VA	H 180°C	IP 65 with connector	3 spades DIN 43650A DIN 40050 VDE 0110
= 12 – 24 – 48 (DC)			15 Watts				
24 – 48 – 110 – 220 – 380 (50 or 60 Hz)		16W	25VA	15VA	F 155°C		
= 12 – 24 – 48 (DC)			16 Watts				

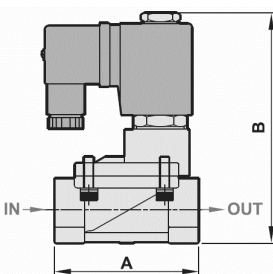
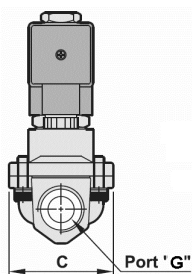
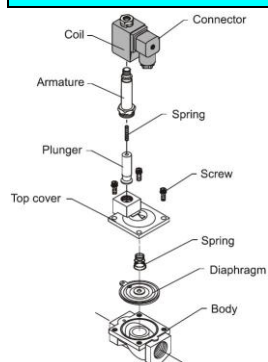
CONSTRUCTION

Body: Brass
 Tube and internal parts: Stainless steel
 Seals and gaskets: NBR (Optional EPDM & FKM)
 Moulded coil: 16 W Resin / 2203 DuroPlast ThermoSet Resin

REPAIR KIT

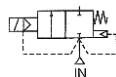
Diaphragm Seal	225 + orifice + seal material
Coil	Coil size (2203 or 16W) + voltage
Armature assembly (Normally Closed)	0543-95.6-00 (not 2 1/2 + 3")

OVERALL DIMENSIONS



Port	3/8 1/2	3/4 1	1 1/4 1 1/2	2	2 1/2	3
A	66.5	96	131	160	243	250
B	106.5	126.5	145.5	160.5	178	188
C	48	70	96	112	184	184
Kg	0.725	1.565	2.56	3.9	9.4	11.4

Media: air – water – light oil
 Pressure range: 0.5 – 50 Bar
 Media temperature: +90°C Max
 Ambient temperature: -20°C to +60°C
 Media viscosity: 50 centistokes max
 Mounting: Coil upright
 Opening/Closing time: 500 mSec Max



NC

2/2 Brass

3/8 – 1

NORMALLY CLOSED

2 WAY SERVO ASSISTED

0.5 – 50 Bar

B225X®



PRESSURE

Ø Port BSP	Ø Orifice (mm)	Flow Kv Ltr/ min	Pressure Rating (bar) ΔP		Part Number	
			Min	Max		
3/8	13	40	0.5	50	B225X03 + voltage	
1/2	13	40	0.5	50	B225X04 + voltage	
3/4	25	95	0.5	50	B225X06 + voltage	
1	25	165	0.5	50	B225X08 + voltage	

OPTIONS

IP65 Coil & Connector PG9 – DIN 43650 A
 ATEX 22003EX Coil: ATEX EExmIIT4 II 2G & 2D IP65 T130°C
 NPT Thread
 Other custom made and flanges options available upon request

ELECTRICAL DATA

Voltage (-10% + 10%) Duty rating 100%		Coil	Power Consumption		Insulation class	Enclosure	Electrical connections
			Inrush	Holding			
~	24 - 48 - 110 - 230 - 380 (50 or 60 Hz)	22003	23VA	17VA	H 180°C	IP 65 with connector	3 spades DIN 43650 DIN 40050 VDE 0110
=	12 - 24 - 48 (DC)		15 Watts				

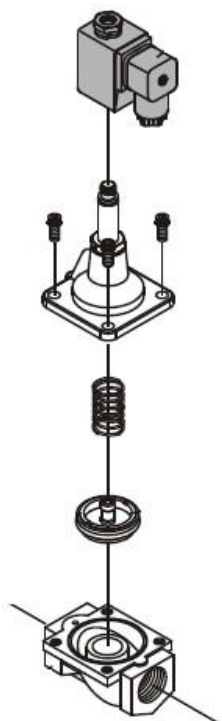
CONSTRUCTION

Body: Die Cast Brass
 Tube, Piston and internal parts: Stainless steel
 Seals and gaskets: PTFE + NBR
 Moulded coil: Resin
 Test Pressure: 75 bar

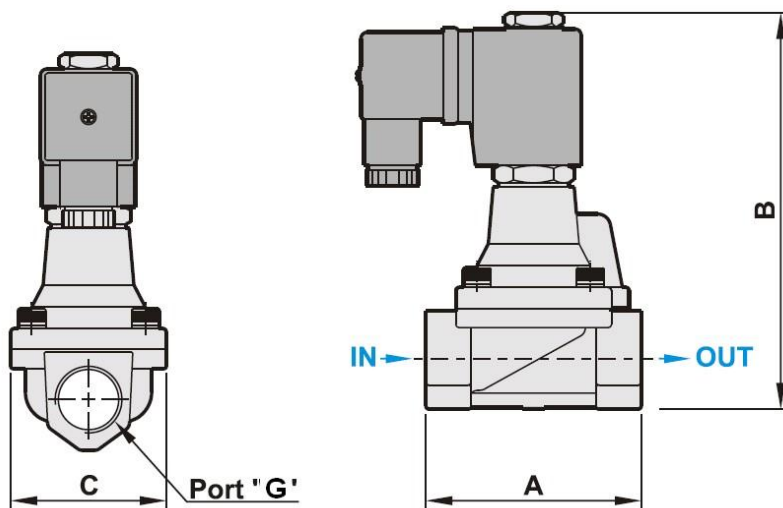
REPAIR KIT

Coil	22003 + Voltage
Complete Armature assembly	SP + Valve Part Number -ARMATURE
Piston Set	SP + Valve Part Number -PISTON

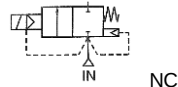
OVERALL DIMENSIONS



Model	Port	A	B	C	Kg
B225X03	3/8	66.5	106.5	48	0.86
B225X04	1/2	66.5	106.5	48	0.84
B225X06	3/4	100	126.5	70	1.8
B225X08	1	100	126.5	70	1.75



Media: air – water – light oil - steam
 Pressure range: 0.5 to 20 bar max
 Media temperature: +200°C Max
 Ambient temperature: -20° to +60° C
 Media viscosity: 50 centistokes max
 Mounting: coil upright
 Opening / Closing 200 mSec Max



2/2 Steam

1/8 - 2

NORMALLY CLOSED

2 WAY SERVO + DIRECT ASSISTED

0 – 20 Bar

BSA



PRESSURE

Ø Port BSP	Ø Orifice (mm)	Flow Kv Ltr/ min	Coil	Pressure Rating (bar) Max ΔP			Part Number
				Min	Steam	Air/ Water	
1/8	3	5.2	WBG1	0	10	10	BSA6A + voltage
1/4	3	5.2	WBG1	0	10	10	BSA8A + voltage
3/8	4	9.7	WBG2	0	10	10	BSA10A + voltage
3/8	15	75	WBG2	0.5	12	20	BSA14 + voltage
1/2	15	75	WBG2	0.5	12	20	BSA15 + voltage
3/4	20	155	WBG2	0.5	12	20	BSA20 + voltage
1	25	220	WBG2	0.5	12	20	BSA25 + voltage
1 ¼	35	433	WBG2	0.5	12	20	BSA35 + voltage
1 ½	35	433	WBG2	0.5	12	20	BSA40 + voltage
2	50	800	WBG2	0.5	12	20	BSA50 + voltage

OPTIONS

IP65 UL + CSA Approved Coil & PG11 LED Connector DIN43650A
 NPT Thread
 ATEX 22003EX Coil: ATEX EExmIIT4 II 2G & 2D IP65 T130°C 
 WPA3C (100% Rated H rated coil with 30cm flying leads 33.6 Watts 57VA)
 Stainless Steel Body, High Pressure, Flanged and other custom made options available upon request

ELECTRICAL DATA

Voltage (-10% + 10%) Continuous duty 90%		Coil	Power Consumption		Insulation class	Enclosure	Electrical connections
			Inrush	Holding			
~ 24 - 110 - 240 (50 or 60 Hz) DIN	WBG1		11.2VA	8.2VA	H 180℃	IP 65 With Connector	3 spades DIN 43650 DIN 40050 VDE0110
= 12 – 24 (DC)			12 Watts				
~ 24 - 110 - 240 (50 or 60 Hz) DIN	WBG2		18.7VA	15.3VA			
= 12 – 24 (DC)			18 Watts				

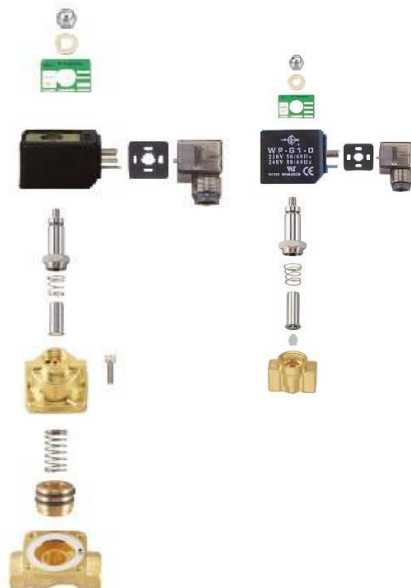
CONSTRUCTION

Body: Brass
 Tube and internal parts: Stainless steel
 Seals and gaskets: PTFE
 Moulded coil: Resin

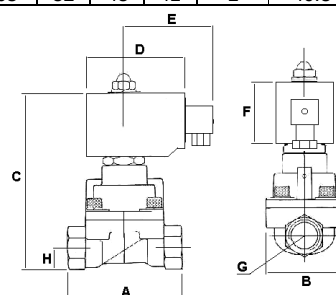
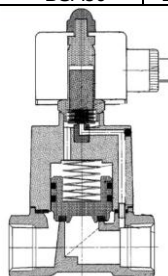
REPAIR KIT

Coil	WBG2 + voltage
Piston	SB + Valve Part Number -PISTON
Armature	SB + Valve Part Number -ARMATURE

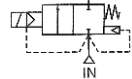
OVERALL DIMENSIONS



Model	A	B	C	D	E	F	G	H	Weight
BSA	41	19	86	41	40	-	1/8	10.5	470g
BSA	41	19	86	41	40	-	¼	10.5	430g
BSA10	50	25	91	52	45	-	3/8	11.7	560g
BSA14	67	48	123	67	52	42	3/8	15	1130g
BSA15	67	48	123	67	52	42	1/2	15	1100g
BSA20	96	72	149	67	52	42	3/4	25	1530g
BSA25	96	72	149	67	52	42	1	25	1850g
BSA35	120	90	168	52	45	41	1 1/4	33	3300g
BSA40	120	90	168	52	45	41	1 1/2	33	3250g
BSA50	150	122	203	52	45	41	2	40.5	6800g



Media: air – water – light oil - steam
 Pressure range: 0.5 to 120 bar max
 Media temperature: +180°C Max
 Ambient temperature: -20° to +60° C
 Media viscosity: 50 centistokes max
 Mounting: coil upright
 Closing 200 mSec Max



NC

2/2 Brass

3/8 – 2

NORMALLY CLOSED

2 WAY SERVO ASSISTED

0.5 – 120 Bar

BSA-3H



PRESSURE

Ø Port BSP	Ø Orifice (mm)	Flow Kv Ltr/ min	Pressure Rating (bar) ΔP			Part Number	
			Min	Max Steam	Max Air/ Water		
3/8	15	75	0.5	12	120	BSA14-3H + voltage	
1/2	15	75	0.5	12	120	BSA15-3H + voltage	
3/4	20	155	0.5	12	120	BSA20-3H + voltage	
1	25	220	0.5	12	120	BSA25-3H + voltage	
1 1/4	35	433	0.5	12	120	BSA35-3H + voltage	
1 1/2	35	433	0.5	12	120	BSA40-3H + voltage	
2	50	800	0.5	12	120	BSA50-3H + voltage	

OPTIONS

IP68 (EN60529:1991+A1:2000) UL + CSA approved Coil + IP65 LED Connector PG11 DIN43650A

NPT Thread

SASXXX – L (Liquid Media) SASXXX-G (Gas Media)

Please advise Liquid or Gas media when ordering

Other custom made options available upon request

ELECTRICAL DATA

Voltage (-10% + 10%) Continuous duty 100%		Coil	Power Consumption		Insulation class	Enclosure	Electrical connections
			Inrush	Holding			
=	12 - 24 DC DIN	WPG2	18.7VA	15.3VA	H 180°C	IP 65 With Connector	3 spades DIN 43650 DIN 40050 VDE0110
~	24 – 110 – 220 (50 or 60 Hz) DIN		18 Watts				

CONSTRUCTION

Body: Brass

Tube and Spring: 304 Stainless Armature: 430F Stainless Other internal parts: Stainless steel

Seals and gaskets: PTFE

Moulded coil: Resin

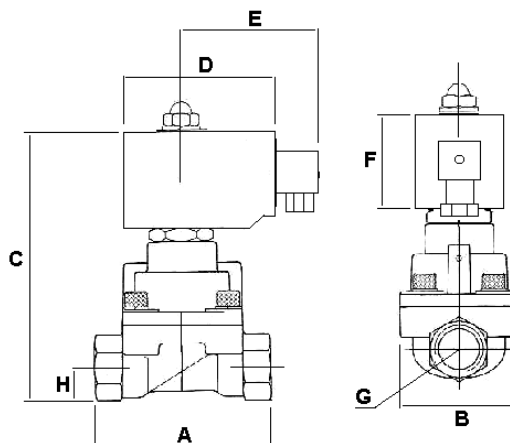
REPAIR KIT

Coil	WPG2 + voltage
Piston	SP + Valve Part Number -PISTON
Armature	SP + Valve Part Number -ARMATURE

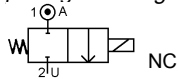
OVERALL DIMENSIONS



Model	A	B	C	D	E	F	G	H	Kg
BSA14	67	48	123	67	52	42	1/2	15	1.1
BSA15	67	48	123	67	52	42	1/2	15	1.1
BSA20	96	72	149	67	52	42	3/4	25	1.53
BSA25	96	72	149	67	52	42	1	25	1.85
BSA35	120	90	168	52	45	41	1 1/4	33	3.3
BSA40	120	90	168	52	45	41	1 1/2	33	3.25
BSA50	150	122	203	52	45	41	2	40.5	6.8



Media: vacuum - air – water – steam
 Pressure range: 0 to 10 bar max
 Media temperature: -10 to +180 °C Max
 Ambient temperature: -20 ° to +50 °C
 Media viscosity: 50 centistokes max
 Mounting: upright (+/- 15° from vertical)
 Opening / Closing 200 mSec Max



2/2 Bronze Steam

11/4 - 2
 N/CLOSED
 2 WAY DIRECT ACTING
 0 – 10 Bar
 TYPE BS120



PRESSURE

Ø Port BSP	Ø Orifice (mm)	Flow Cv Ltr/ min	Pressure Rating (bar)ΔP				Part Number	
			Min	Max Steam	Max Air/ Water	Max Oil		
1 1/4	33	217	0	10	8	7	S/N1200001 + voltage	
1 1/2	43	300	0	10	8	7	S/N1200002 + voltage	
2	53	383	0	10	8	7	S/N1200003 + voltage	

OPTIONS

IP65 Coil & Connector
 Flange PN16 or ANSI150Lb

ELECTRICAL DATA

Voltage (-10% + 10%) Continuous duty 50%	Coil	Power		Insulation class	Enclosure	Electrical Connections
		Inrush	Holding			
~ 110 - 230 (50 or 60 Hz)	M20	106VA	79VA	H 180°C	IP65 with connector	3 spades DIN43650 DIN40050 VDE0110

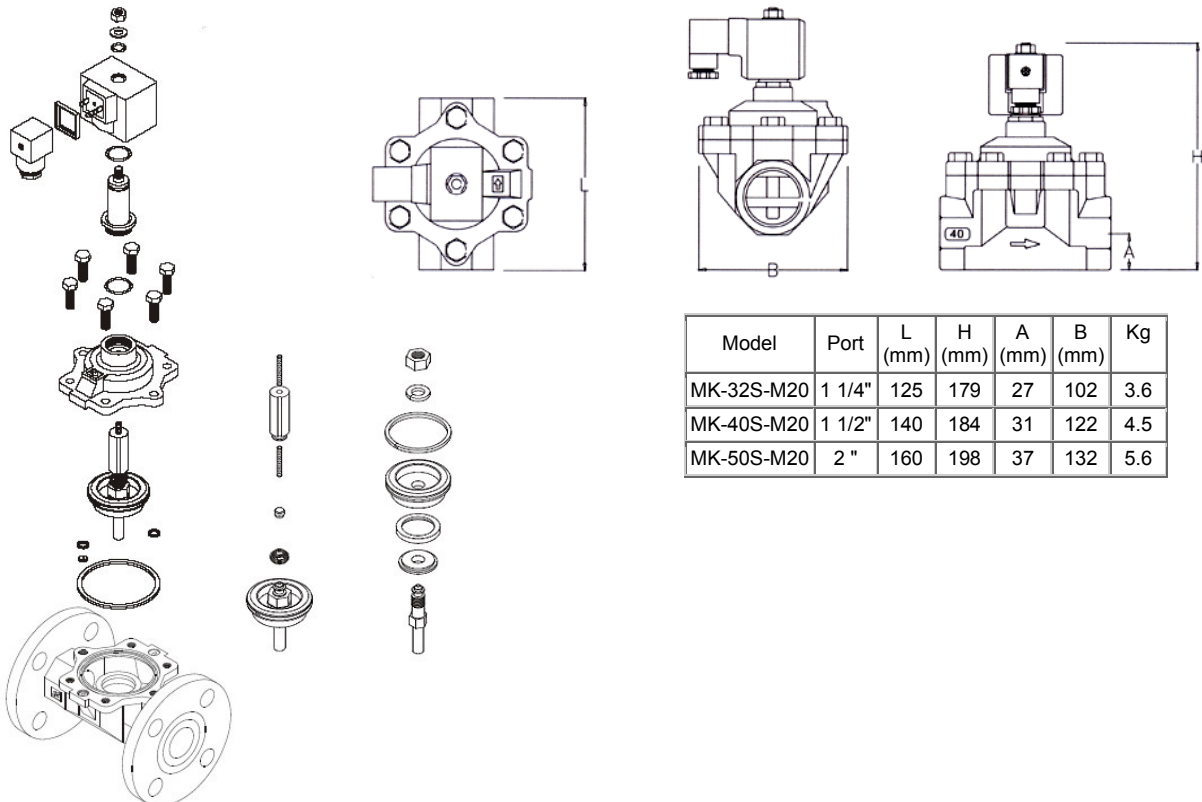
CONSTRUCTION

Body: Bronze BC6
 Piston: Stainless steel 303,304, KM31 and Bronze BC6, PTFE
 Tube: Stainless steel 304 & KM31
 Seals and gaskets: PTFE & Graphite impregnated PTFE

REPAIR KIT

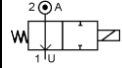
Coil	M20 + Voltage
Complete plunger + O' rings	KIT + valve part number

OVERALL DIMENSIONS



Model	Port	L (mm)	H (mm)	A (mm)	B (mm)	Kg
MK-32S-M20	1 1/4"	125	179	27	102	3.6
MK-40S-M20	1 1/2"	140	184	31	122	4.5
MK-50S-M20	2 "	160	198	37	132	5.6

Media: air – water – gas – light oil - vacuum
 Pressure range: 0 to 10 bar max
 Media temperature: 120°C max
 Ambient temperature: -10° to +50° C max
 Media viscosity: 50 centistokes max
 Mounting: any position
 Opening / Closing time: 20 mSec Max



NO

2/2 Brass

1/8 – 1/2

NORMALLY OPEN

2 WAY DIRECT ACTING

0 – 10 Bar

NO-BAT6-12



PRESSURE

Ø Port BSP	Ø Orifice (mm)	Flow	Pressure Rating (bar) ΔP			Seals	Part Number
		Kv Ltr/min	Min	Max AC	Max DC		
1/8	3.0	4	0	10	7	NBR +80°C SILICONE +120°C EPDM +120°C FKM +120°C *PTFE +120°C *VST +120°C	NO-BAT6A + seal + voltage
	4.0	9.7	0	7	5		NO-BAT6B + seal + voltage
	5.0	10.7	0	5	3.5		NO-BAT6C + seal + voltage
1/4	3.0	4.3	0	10	7		NO-BAT8A + seal + voltage
	4.0	9.7	0	6	4.2		NO-BAT8B + seal + voltage
	5.0	10.7	0	4	2.8		NOBAT8C + seal + voltage
3/8	4.0	9.7	0	6	4		NOBAT10A + seal + voltage
	6.0	13.2	0	2	1.4		NOBAT10B + seal + voltage
1/2	6.0	13.2	0	2	1.4		NOBAT12A + seal + voltage

OPTIONS

IP68 (EN60529:1991+A1:2000) UL + CSA Approved Coil & IP65 LED Connector PG11 – DIN 43650 A

* VST, CR, ECO, HNBR or Hypalon Seals

* PTFE seals 1/8 to 3/8

* PTFE seals 1/2

NPT Thread

Other custom made options available upon request

ELECTRICAL DATA

Voltage (-10% + 15%) Continuous duty 100%		Coil	Power Consumption		Insulation class	Enclosure	Electrical connections
			Inrush	Holding			
~	24 - 110 - 230 (50 or 60 Hz)	WPG2	18.7VA	15.3VA	H 180°C	IP 65 with connector	3 spades DIN 43650A DIN 40050 VDE 0110
=	12 - 24 (DC)		18 Watts				

CONSTRUCTION

Body: Brass

Tube 304 stainless steel, armature 430F stainless steel

Shading ring: copper (optional Silver)

Seals and gaskets: FKM (Optional EPDM, NBR, SILICONE, PTFE, VST, CR, ECO, HNBR and Hypalon)

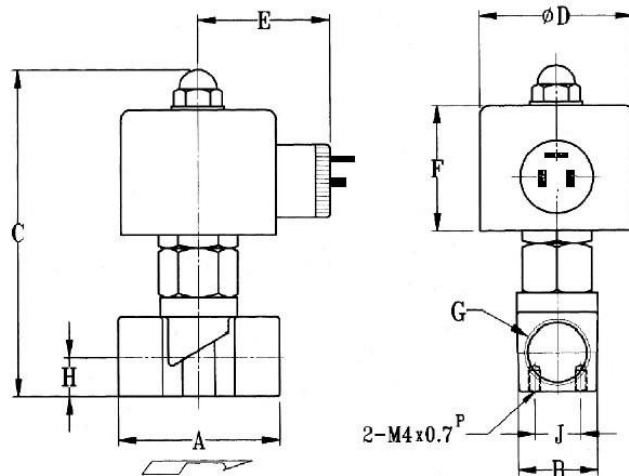
Moulded coil: Resin

REPAIR KIT

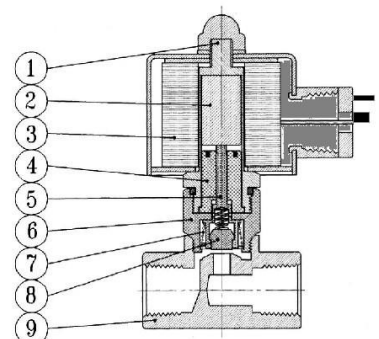
Coil	WPG2 + voltage
Complete Armature Assembly	SP + Valve Part Number -ARMATURE

OVERALL DIMENSIONS

Model	A	B	C	D / E	F*	G	H	Kg
NOBAT 6/8	41	19	108	40/65	38	15	10.5	0.52
NOBAT 10	50	25	110	40/65	38	15	11.7	0.8
NOBAT 12	55	27	112	40/65	38	-	13	0.95

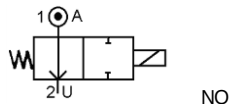


Item	Article	Material
1	Solenoid Tube	Stainless
2	Slide Core	Stainless
3	Coil	Brass Wire
4	Armature Core	Stainless
5	Operating Spindle	Brass
6	Joint Sleeve	Stainless
7	Spring	Stainless
8	Seat	NBR, Silicone, EPDM, FKM
9	Valve Body	Forged Brass



Direction of Flow
when power is off

Media: air – water – light oil – vacuum 10⁻³
 Pressure range: 0 to 7 bar max
 Media temperature: 130°C max
 Ambient temperature: -5° to +60°C max
 Media viscosity: 20 centistokes max
 Mounting: coil upright



2/2 Brass

3/8 – 2

NORMALLY OPEN

2 WAY ASSISTED CLOSE

0 – 10 Bar

UVNO



PRESSURE

Ø Port BSP	Ø Orifice (mm)	Flow	Pressure Rating (bar) ΔP			Max Working	Seals	Max Media Temp. °C	Part Number	
		Kv Ltr/Min	Min	Max DC	Max AC					
3/8	15	75	0	5	7	10	NBR FKM SILICONE	80 120 130	UV 10NON + voltage UV 10NOV + voltage UV 10NOS + voltage	
1/2	15	75	0	5	7	10	NBR FKM SILICONE	80 120 130	UV 15NON + voltage UV 15NOV + voltage UV 15NOS + voltage	
3/4	20	143	0	5	7	10	NBR FKM SILICONE	80 120 130	UV 20NON + voltage UV 20NOV + voltage UV 20NOS + voltage	
1	25	200	0	5	7	10	NBR FKM SILICONE	80 120 130	UV 25NON + voltage UV 25NOV + voltage UV 25NOS + voltage	
1 1/4	35	400	0	5	7	10	NBR FKM SILICONE	80 120 130	UV 35NON + voltage UV 35NOV + voltage UV 35NOS + voltage	
1 1/2	40	460	0	5	7	10	NBR FKM SILICONE	80 120 130	UV 40NON + voltage UV 40NOV + voltage UV 40NOS + voltage	
2	50	800	0	5	7	10	NBR FKM SILICONE	80 120 130	UV 50NON + voltage UV 50NOV + voltage UV 50NOS + voltage	

OPTIONS

IP65 Coil & Connector PG9 – DIN 43650 A (Except UW50NOS flying lead only coil type 22512S)
 NPT + BSPT

ELECTRICAL DATA

Voltage (AC -10% + 10%) (DC -1% + 1%) Continuous duty 90%		Coil	Power Consumption		Insulation class	Enclosure	Electrical connections
~	24 - 110 – 220 (50 or 60 Hz)		Inrush	Holding			
		VPC2	60VA	36VA	H 180°C	IP 65 with connector	3 spades DIN 43650 DIN 40050 VDE 0110
=	24 (DC)		29 Watts				

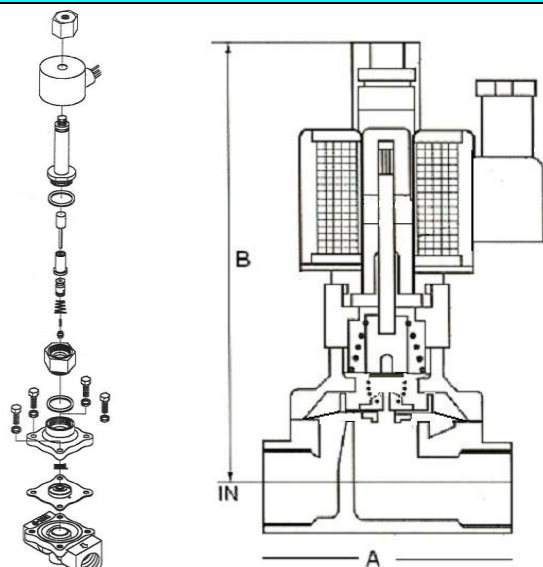
CONSTRUCTION

Body: up to 1" Forged Brass 1 1/4 – 2" Cast Bronze body
 Tube and internal parts: Stainless steel
 Seals and gaskets: Silicone (Optional FKM or NBR)
 Moulded coil: Resin

REPAIR KIT

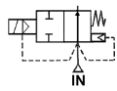
Diaphragm seal	UV + orifice + seal material
Coil	WPC2 + voltage
Armature assembly	SB + Valve Part Number -ARMATURE

OVERALL DIMENSIONS



Model	UV10	UV15	UV20	UV25	UV35	UV40	UV50
Port R	3/8	1/2	3/4	1	1 1/4	1 1/2	2
A	70	70	73	93	125	125	167
B	126	132	139	154	156	175	175
Width	56.5	56.5	78	78	94	94	120
Kg	1.1	1.1	1.2	1.8	3.2	3.5	5.4

Media: air – water – gas – light oil
 Pressure range: 0.5 to 15 bar max
 Media temperature: -10°C +90°C max
 Ambient temperature: -20° to +60° C
 Media viscosity: 50 centistokes max
 Mounting: coil upright
 Opening / Closing time: 50 mSec Max



NO

2/2 Brass

3/8 - 3

NORMALLY OPEN

2 WAY SERVO ASSISTED

0.5 – 15 Bar

BU225-NO



PRESSURE

Ø Port BSP	Ø Orifice (mm)	Flow Kv Ltr/ min	Coil	Pressure Rating (bar) ΔP		Max Working	Seals	Max Media Temp. °C	Part Number	
				Min	Max					
3/8	13	40.0	22003	0.5	10	15	NBR FKM EPDM	80 120 120	BU225NO-03 + voltage BU225NO-03V + voltage BU225NO-03E + voltage	
1/2	13	40.0	22003	0.5	10	15	NBR FKM EPDM	80 120 120	BU225NO-04A + voltage BU225NO-04AV + voltage BU225NO-04AE + voltage	
3/4	25	165.0	22003	0.5	10	15	NBR FKM EPDM	80 120 120	BU225NO-06A + voltage BU225NO-06AV + voltage BU225NO-06AE + voltage	
1	25	165.0	22003	0.5	10	15	NBR FKM EPDM	80 120 120	BU225NO-08A + voltage BU225NO-08AV + voltage BU225NO-08AE + voltage	
1 1/4	38	367	22003	0.5	10	15	NBR FKM EPDM	80 120 120	BU225NO-12A + voltage BU225NO-12AV + voltage BU225NO-12AE + voltage	
1 1/2	38	500	22003	0.5	10	15	NBR FKM EPDM	80 120 120	BU225NO-14A + voltage BU225NO-14AV + voltage BU225NO-14AE + voltage	
2	50	600	22003	0.5	15	15	NBR FKM EPDM	80 120 120	BU225NO-20A + voltage BU225NO-20AV + voltage BU225NO-20AE + voltage	
2 1/2	65	1050	16W	0.3	10	15	NBR FKM EPDM	80 120 120	BU225NO-24A + voltage BU225NO-24AV + voltage BU225NO-24AE + voltage	
3	75	1380	16W	0.3	10	15	NBR FKM EPDM	80 120 120	BU225NO-28A + voltage BU225NO-28AV + voltage BU225NO-28AE + voltage	

OPTIONS

IP65 Coil & Connector PG9 – DIN 43650 A
 ATEX 22003EX Coil: ATEX EExmIIT4 II 2G & 2D IP65 T130°C (21/2 + 3" Custom made)
 NPT Thread (Not available 2 1/2 + 3")

ELECTRICAL DATA

Voltage (-10% + 10%) Continuous duty 100%		Coil	Power Consumption		Insulation class	Enclosure	Electrical connections
~			Inrush	Holding			
24 – 48 – 110 – 240 – 380 (50 or 60 Hz)		2203	23VA	17VA	H 180°C	IP 65 with connector	3 spades DIN 43650A DIN 40050 VDE 0110
= 12 – 24 – 48 (DC)			15 Watts				
24 – 48 – 110 – 220 – 380 (50 or 60 Hz)		16W	25VA	15VA	F 155°C		
= 12 – 24 – 48 (DC)			16 Watts				

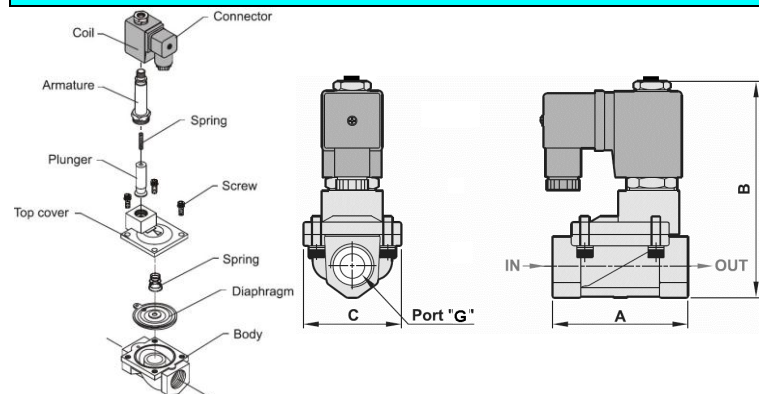
CONSTRUCTION

Body: Brass
 Tube and internal parts: Stainless steel
 Seals and gaskets: NBR (Optional EPDM & FKM)
 Moulded coil: 16 W Resin / 22003 DuroPlast ThermoSet Resin

REPAIR KIT

Diaphragm Seal	225 + orifice + seal material
Coil	Coil size (2203 or 16W) + voltage
Armature assembly (Normally Open)	0543-95.6-00 (not 2 1/2 + 3")

OVERALL DIMENSIONS



Port	3/8 1/2	3/4 1	1 1/4 1 1/2	2	2 1/2	3
A	66.5	96	131	160	243	250
B	106.5	126.5	145.5	160.5	178	188
C	48	70	96	112	184	184
Kg	0.725	1.565	2.56	3.9	9.4	11.4