



THE COMPLETE SOLUTION
for **COFFEE MACHINES**



SOLENOID VALVES & PUMPS

THE CONCEPT OF QUALITY HAS ALWAYS BEEN PART OF ODE CULTURE AND MISSION.

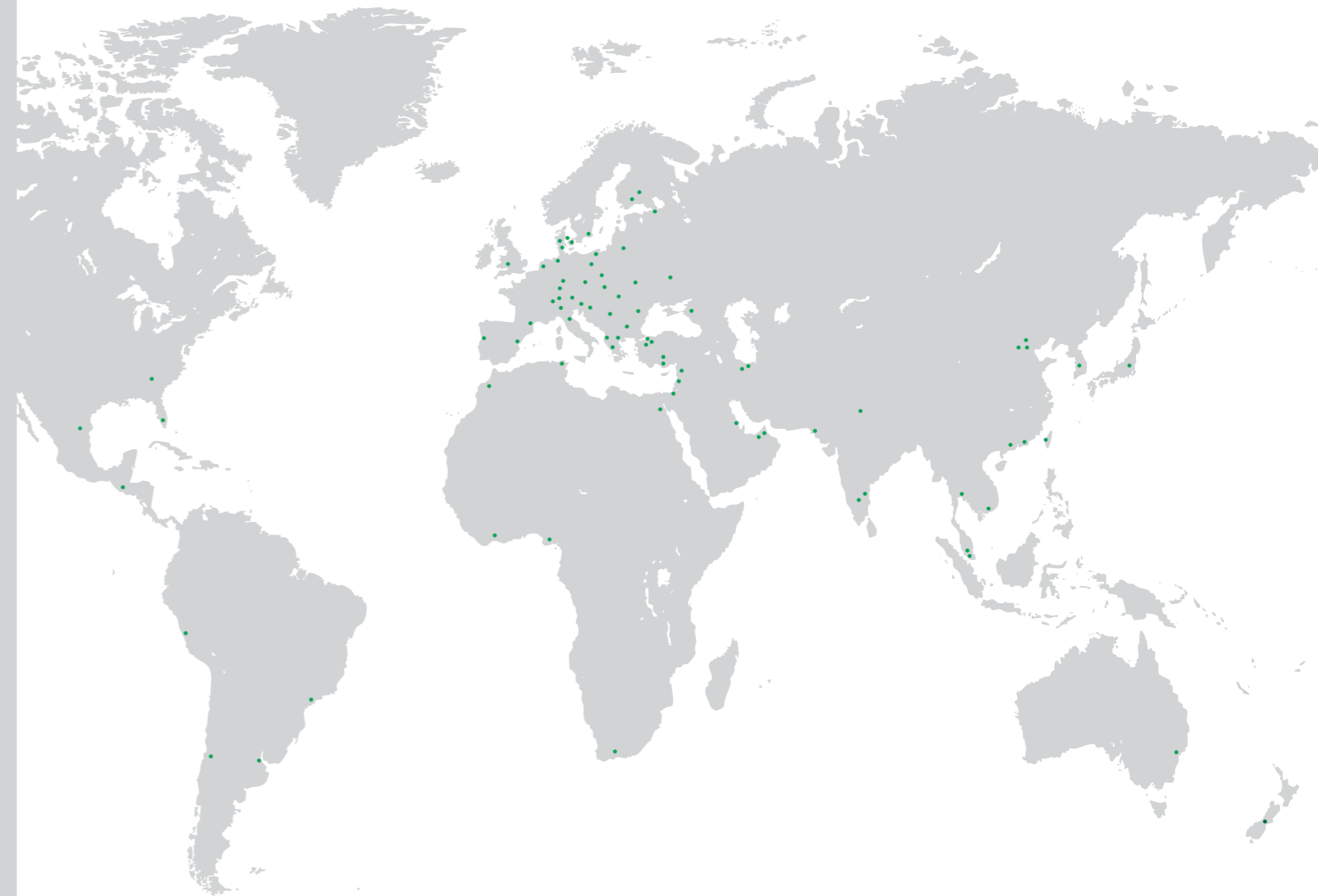
ODE is a leading company since 1960 in designing and manufacturing a complete line of solenoid valves and pumps able to respond to all our customers needs.

ODE is headquartered in Milan, Italy, with the manufacturing plant in Colico, close to the Swiss border. In 2010 we celebrated 50 years of design and manufacturing excellence in the solenoid valves industry. Our general purpose and customized valves are designed to operate very effectively in the coffee machines industry.

ODE's products are manufactured, assembled and tested in our factory in Italy using lean manufacturing techniques driven by Six Sigma quality practices.

ODE quality is based on the platform of process control granting the elimination of variances, a computerized integrated system able to guarantee the conformity of products, the recording each production step able to ensure effective data analysis as well as a complete and efficient traceability of both components and finished products, always maintaining standards of high competitiveness in the marketplace.

All the above allowed Ode to obtain the ISO 9001, UL, CSA, UR, VDE, NSF, PED and ATEX certifications.

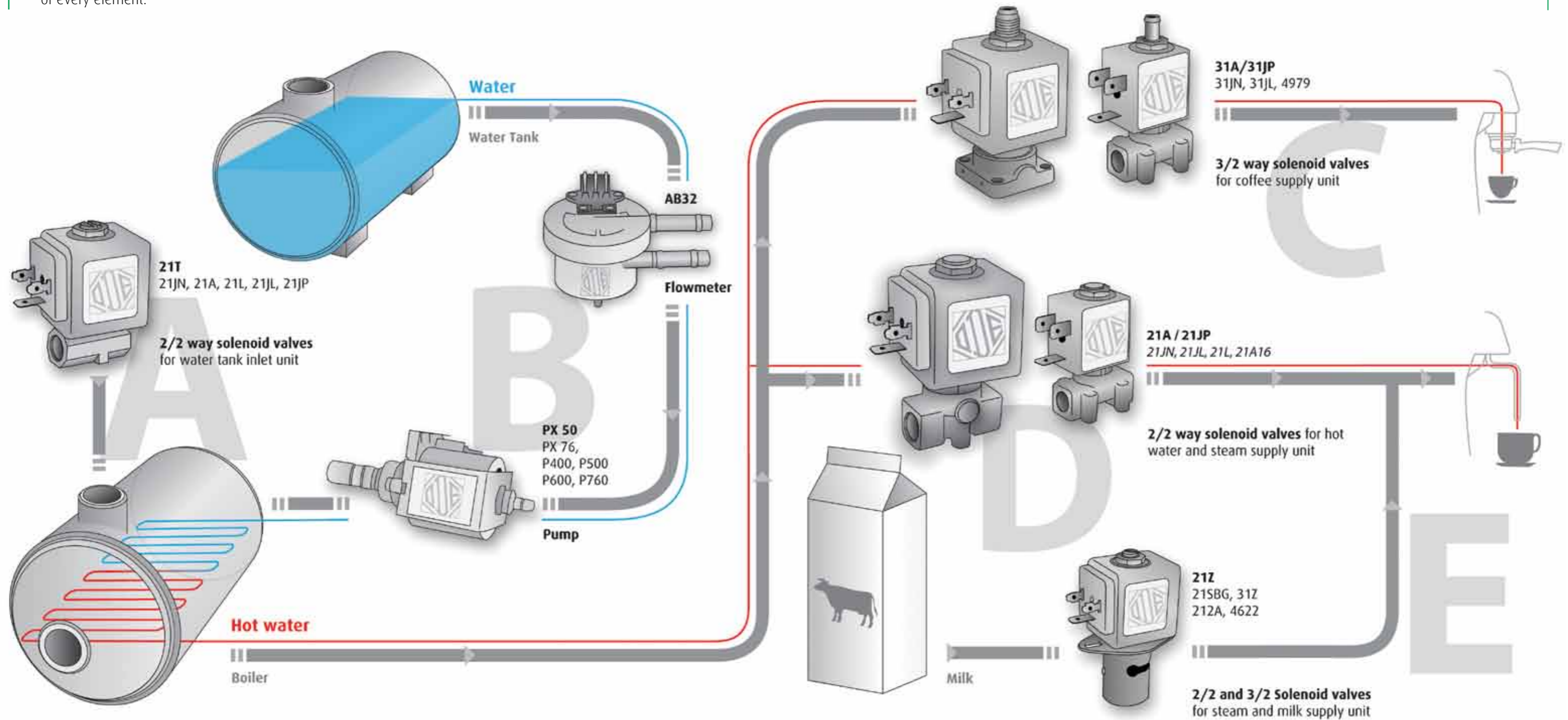


ODE IN THE WORLD Argentina, Australia, Austria, Belgium, Brazil, Bulgaria, Chile, China, Croatia, Czech Republic, Denmark, Egypt, El Salvador, Finland, France, Germany, Greece, Guatemala, Hungary, India, Iran, Israel, Italy, Ivory Coast, Japan, Korea, Lebanon, Lithuania, Malaysia, Mexico, Morocco, Netherlands, New Zealand, Norway, Pakistan, Perú, Poland, Portugal, Romania, Russia, San Marino, Saudi Arabia, Serbia and Montenegro, Singapore, Slovakia, Slovenia, Spain, South Africa, Sweden, Switzerland, Syria, Taiwan, Tunisia, Turkey, Ukraine, United Arab Emirates, United Kingdom, Usa, Vietnam.



THE COFFEE MACHINE SYSTEM

50 years experience allows us to look ahead to the future with optimism: the solutions we offer to your coffee machines are always innovative and customized upon your needs. What lies beneath a tasty cup of coffee? The key factor of excellence is the accurate choice of every element.



LEGEND

Group A - 2/2 way solenoid valves for water tank inlet unit

Group B - pumps + flowmeter

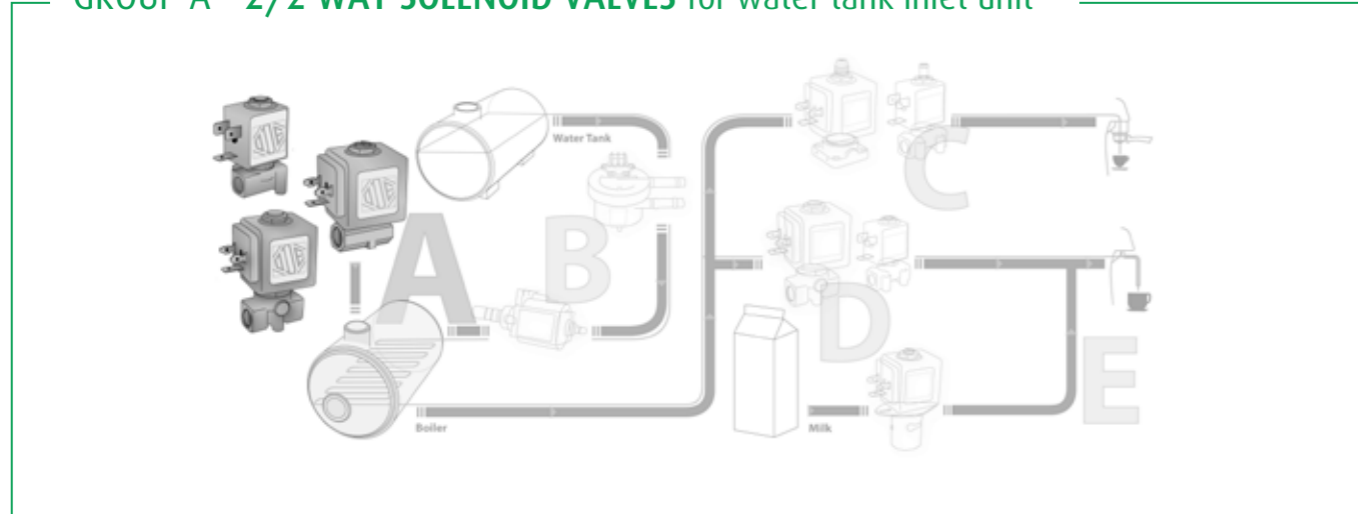
Group C - 3/2 way solenoid valves for coffee supply unit

Group D - 2/2 way solenoid valves for hot water and steam supply unit

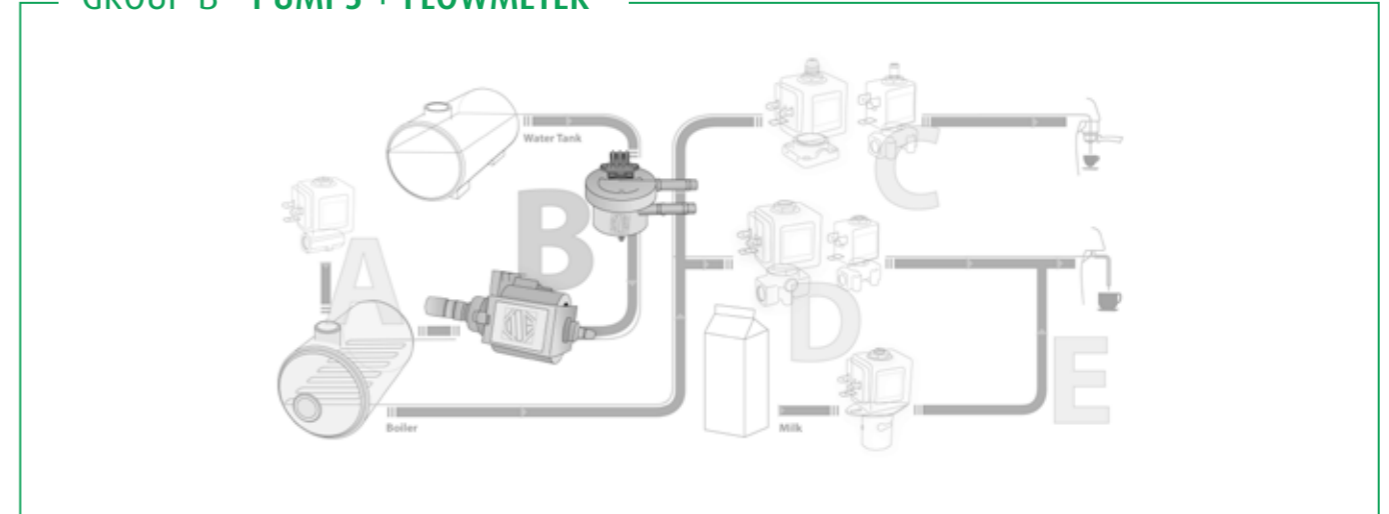
Group E - 2/2 and 3/2 way solenoid valves for steam and milk supply unit



GROUP A - 2/2 WAY SOLENOID VALVES for water tank inlet unit



GROUP B - PUMPS + FLOWMETER



GROUP A					PRESSURE			2/2 WAY SOLENOID VALVES						
					MIN	M.O.P.D								
SERIES	PORT SIZE	Ø mm	Kv l/mm	POWER	BAR	AC BAR	DC BAR	BODY	ARMATURE TUBE	PLUNGER	SEAL	TEMPERATURE		SUPPORT SYSTEM UNIT
21A1KR *	SUBPLATE MOUNTING	1 - 3	0,45 - 4	8	0	10 - 40	4 - 23	BRASS	AISI 300	AISI 300	RUBY	-40°C	+ 180°C	A
21A1KV *	SUBPLATE MOUNTING	1,5 - 3	1,4 - 4	8 - 14	0	10 - 35	6 - 30	BRASS	AISI 300	AISI 400	FKM	-10°C	+ 140°C	A
21A3KR *	G 1/8	1,5 - 3	1,4 - 4	8	0	10 - 35	4 - 15	BRASS	AISI 300	AISI 400	RUBY	-40°C	+ 180°C	A D
21A3KV *	G 1/8	1,5 - 4,5	1,4 - 6,5	8 - 14	0	5 - 35	2 - 30	BRASS	AISI 300	AISI 400	FMK	-10°C	+ 140°C	A D
21A2KR *	G 1/4	1,5 - 3	1,4 - 4	8	0	10 - 35	4 - 15	BRASS	AISI 300	AISI 400	RUBY	-40°C	+ 180°C	A D
21A2KV *	G 1/4	1,5 - 5,5	1,4 - 9	8 - 14	0	3 - 35	1 - 30	BRASS	AISI 300	AISI 400	FKM	-10°C	+ 140°C	A D
21JL1R1V *	G 1/8	2,3	2,3	2,5 - 5	0	6 - 18	8	AISI 316	AISI 300	AISI 400	FKM	-10°C	+ 140°C	D
21JN1ROV *	G 1/8	1,2 - 2,3	1 - 2,3	2,5 - 5	0	6 - 25	3,5 - 12	BRASS	AISI 300	AISI 400	FKM	-10°C	+ 140°C	A D
21JP1ROV *	G 1/8	1,2 - 2,3	1 - 2,1	2,5 - 5	0	6 - 15	8	PPS	AISI 300	AISI 400	FKM	-10°C	+ 140°C	A D
21JPAR1V *	G 1/8 MALE	1,2 - 2,3	1 - 2,1	2,5 - 5	0	6 - 15	3,5 - 12	PPS	AISI 300	AISI 400	FKM	-10°C	+ 140°C	A D
21L1K1V *	G 1/8	2,5 - 4	3,2 - 5	8 - 14	0	6 - 30	1,7 - 25	AISI 316	AISI 300	AISI 400	FKM	-10°C	+ 140°C	A D
21L1K1T *	G 1/8	2,5 - 4	3,2 - 5	8 - 14	0	6 - 30	1,7 - 25	AISI 316	AISI 300	AISI 400	PTFE	-40°C	+ 180°C	D
21L2K1V *	G 1/4	2,5 - 5,5	3,2 - 9	8 - 14	0	3,5 - 30	1,7 - 25	AISI 316	AISI 300	AISI 400	FKM	-10°C	+ 140°C	A D
21L2K1T *	G 1/4	2,5 - 5,5	3,2 - 9	8 - 14	0	3,5 - 30	1 - 25	AISI 316	AISI 300	AISI 400	PTFE	-40°C	+ 180°C	A D
21T1BV *	G 1/8	1,7 - 4	1,5 - 5	8	0	6 - 30	2 - 25	BRASS	BRASS	AISI 400	FKM	-10°C	+ 140°C	A
21T2BV *	G 1/4	4	5	8	0	2	-	BRASS	BRASS	AISI 400	FKM	-10°C	+ 140°C	A

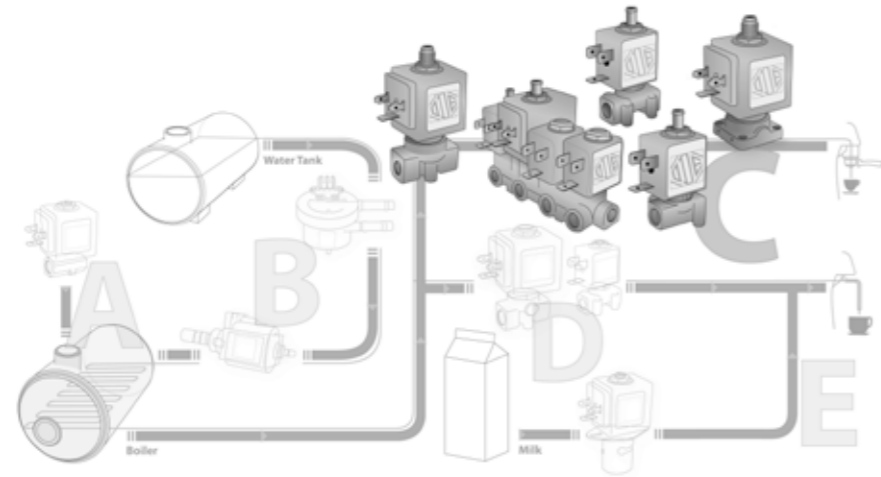
GROUP B					PUMPS					
SERIES	PLUNGER	SEAL	PLASTICS PARTS	FLUIDS	FLUID TEMPERATURE	OPERATING VOLTAGE (V/Hz)	POWER	PRESSURE (BAR)	AGENCY APPROVAL	SUPPLY SYSTEM UNIT
PX50	STAINLESS STEEL	NBR	PA66	TAP AND DISTILLED WATER	35°C	120/60 - 230/50	53	17,5	VDE / NSF / UL	B
PX76	STAINLESS STEEL	NBR	PA66	TAP AND DISTILLED WATER	35°C	120/60 - 230/50	53	3	VDE / NSF / UL	B
P400	STAINLESS STEEL	NBR	PA66	WATER	35°C	100/50 - 120/60 - 230/50	53	19	VDE / UL / JET	B
P500	STAINLESS STEEL	NBR	PA66	WATER	35°C	100/50 - 120/60 - 230/50	53	15	VDE / UL / JET	B
P600	STAINLESS STEEL	PTFE / NBR / EDPM	PA66	WATER	35°C	100/50 - 120/60 - 230/50	53	9	VDE or UL or JET/ NSF / LFGB	B
P760	STAINLESS STEEL	PTFE / NBR / EDPM	PA66	WATER	35°C	100/50 - 120/60 - 230/50	40 or 53	2,5	VDE or UL or JET/ NSF / LFGB	B

FLOWMETER											
SERIES	BODY	FLOW RATE	SEAL	Ø mm INLET	Ø mm OUTLET	FLUIDS	TEMPERATURE	SUPPLY VOLTAGE (V)	NOZZLE SIZE (mm)	PRESSURE	SUPPLY SYSTEM UNIT
AB32	PBT 30%GF	0,025 - LITRE / MIN	SILICON	6	6	WATER	-10°C - 65°C	4,5 - 24VDC	1-2	-1 0,3	B

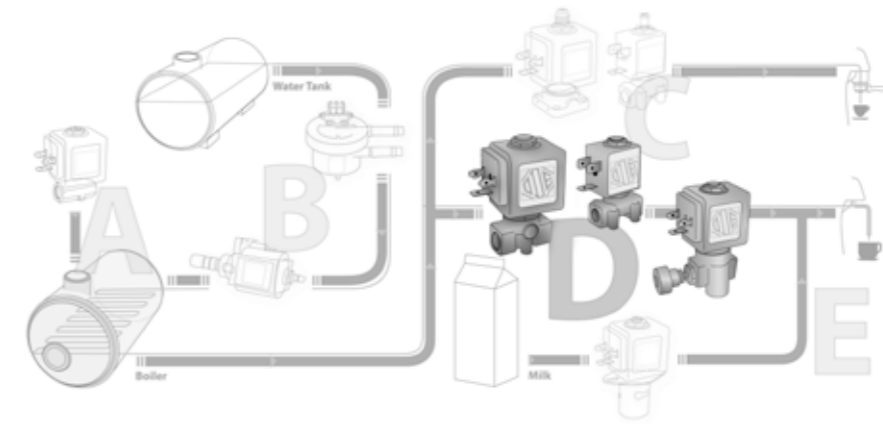
* The above series are available also in NSF certified version



GROUP C - 3/2 WAY SOLENOID VALVES for coffee supply unit



GROUP D - 2/2 WAY SOLENOID VALVES for hot water and steam supply unit



GROUP C					PRESSURE			3/2 WAY SOLENOID VALVES						
					MIN	M.O.P.D.								
SERIES	PORT SIZE	Ø mm	Kv l/mm	POWER	BAR	AC BAR	DC BAR	BODY	ARMATURE TUBE	PLUNGER	SEAL	TEMPERATURE		SUPPORT SYSTEM UNIT
31A1AV *	SUBPLATE MOUNTING	1 - 2,5	0,45 - 3,2	8	0	6 - 20	6 - 20	BRASS	AISI 300	AISI 400	FKM	-10°C	+ 140°C	C
31A1AR *	SUBPLATE MOUNTING	1 - 2,5	0,45 - 3,2	8	0	6 - 20	6 - 20	BRASS	AISI 300	AISI 400	RUBY	-40°C	+ 180°C	C
31A3AR *	G 1/8	1 - 2,5	0,45 - 3,2	8	0	6 - 20	6 - 20	BRASS	AISI 300	AISI 400	RUBY	-40°C	+ 180°C	C
31A3AV *	G 1/8	1 - 3	0,45 - 4	8	0	5 - 20	5 - 20	BRASS	AISI 300	AISI 400	FMK	-10°C	+ 140°C	C
31A2AR *	G 1/4	1 - 2,5	0,45 - 3,2	8	0	6 - 20	6 - 20	BRASS	AISI 300	AISI 400	RUBY	-40°C	+ 180°C	C
31A2AV *	G 1/4	1 - 3	0,45 - 4	8	0	5 - 20	5 - 20	BRASS	AISI 300	AISI 400	FKM	-10°C	+ 140°C	C
31JL1XPV *	G 1/8	1,2 - 2,3	1 - 2,3	5	0	5 - 15	-	BRASS	AISI 300	AISI 400	FKM	-10°C	+ 140°C	C
31JN1XPV *	G 1/8	1,2 - 2,3	1 - 2,3	5	0	5 - 15	-	BRASS	AISI 300	AISI 400	FKM	-10°C	+ 140°C	C
31JP1XPV *	G 1/8	1,2 - 2,3	0,75 - 2,1	5	0	5 - 30	-	PPS	AISI 300	AISI 400	FKM	-10°C	+ 140°C	C
31JPAXPV *	G 1/8 MALE	1,2 - 2,3	0,75 - 2,1	5	0	5 - 30	-	PPS	AISI 300	AISI 400	FKM	-10°C	+ 140°C	C
GC4979-DD *	G 1/8	-	0	-	0	6	6	BRASS	AISI	AISI	FKM	-10°C	+ 140°C	C

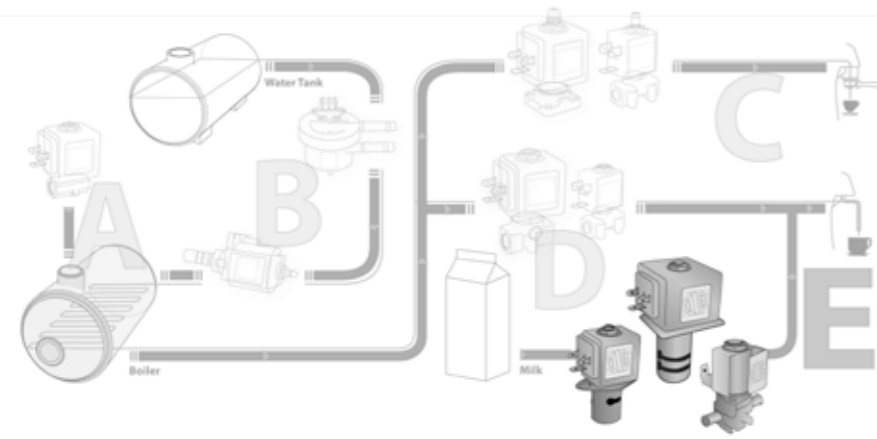
GROUP D					PRESSURE			2/2 WAY SOLENOID VALVES						
					MIN	M.O.P.D.								
SERIES	PORT SIZE	Ø mm	Kv l/mm	POWER	BAR	AC BAR	DC BAR	BODY	ARMATURE TUBE	PLUNGER	SEAL	TEMPERATURE		SUPPORT SYSTEM UNIT
21A3KR *	G 1/8	1,5 - 3	1,4 - 4	8	0	10 - 35	4 - 15	BRASS	AISI 300	AISI 400	RUBY	-40°C	+ 180°C	A C D
21A3KV *	G 1/8	1,5 - 4,5	1,4 - 6,5	8 - 14	0	5 - 35	2 - 30	BRASS	AISI 300	AISI 400	FKM	-10°C	+ 140°C	A C D
21A2KR *	G 1/4	1,5 - 3	1,4 - 4	8	0	10 - 35	4 - 15	BRASS	AISI 300	AISI 400	RUBY	-40°C	+ 180°C	A C D
21A2KV *	G 1/4	1,5 - 5,5	1,4 - 9	8 - 14	0	3 - 35	2 - 30	BRASS	AISI 300	AISI 400	FKM	-10°C	+ 140°C	A C D
21A16KE *	G 1/4	2,5 - 3	AISI	8	0	10 - 14	6 - 9	BRASS	AISI 300	AISI 400	EPDM	-10°C	+ 140°C	D
21A16KT *	G 1/4	2,5 - 3	3,2 - 4	8	0	10 - 14	4 - 5	BRASS	AISI 300	AISI 400	PTFE	-40°C	+ 180°C	D
21JL1R1V *	G 1/8	2,3	2,3	2,5 - 5	0	6 - 18	8	INOX	AISI 300	AISI 400	FKM	-10°C	+ 140°C	A D
21JN1ROV *	G 1/8	1,2 - 2,3	1 - 2,3	2,5 - 5	0	6 - 25	3,5 - 12	BRASS	AISI 300	AISI 400	FKM	-10°C	+ 140°C	A D
21JP1ROV *	G 1/8	1,2 - 2,3	1 - 2,1	2,5 - 5	0	6 - 15	8	PPS	AISI 300	AISI 400	FKM	-10°C	+ 140°C	A D
21JPARR *	G 1/8 MALE	1,2 - 2,3	1 - 2,1	2,5 - 5	0	6 - 15	3,5 - 12	PPS	AISI 300	AISI 400	FKM	-10°C	+ 140°C	A D
21L1K1V *	G 1/8	2,5 - 4	3,2 - 3	8 - 14	0	6 - 30	1,7 - 25	AISI 316	AISI 300	AISI 400	FKM	-10°C	+ 140°C	A D
21L1K1T *	G 1/8	2,5 - 4	3,2 - 3	8 - 14	0	6 - 30	1,7 - 25	AISI 316	AISI 300	AISI 400	PTFE	-40°C	+ 180°C	D
21L2K1V *	G 1/4	2,5 - 5,5	3,2 - 9	8 - 14	0	3,5 - 30	1,7 - 25	AISI 316	AISI 300	AISI 400	FKM	-10°C	+ 140°C	A D
21L2K1T *	G 1/4	2,5 - 5,5	3,2 - 9	8 - 14	0	3,5 - 30	1 - 25	AISI 316	AISI 300	AISI 400	PTFE	-40°C	+ 180°C	A D

* The above series are available also in NSF certified version

* The above series are available also in NSF certified version



GROUP E - 2/2 and 3/2 WAY SOLENOID VALVES for steam and milk supply unit



21SBG

31Z

21Z

GROUP E					PRESSURE			2/2 WAY SOLENOID VALVES						
					MIN	M.O.P.D.								
SERIES	PORT SIZE	Ø mm	Kv l/mm	POWER	BAR	AC BAR	DC BAR	BODY	ARMATURE TUBE	FIXED CORE	SEAL	TEMPERATURE		SUPPORT SYSTEM UNIT
212A4	G 1/8	2,5	3,2	8	0	14	9	BRASS	AISI 300	AISI 400	FKM	-10°C	+140°C	E
4622 *	G 1/8	1,5	1,4	8	0	30	18	BRASS	AISI 300	AISI 400	FKM	-10°C	+140°C	E

TOTAL SEPARATION

SERIES	TUBINGS		PINCH VALVES SERIES						
	Ø INT. (mm)	Ø EXT. (mm)	PINCHING FORCE (g)	POWER (W)	BODY	PINCHING DEVICE	TEMPERATURE		SUPPLY SYSTEM UNIT
21225	3,5	6	650 - 2100	8 - 12	ANODIZED ALUMINIUM	POM C	-10°C	+40°C	E
21230	7	12	2600	14	ANODIZED ALUMINIUM	POM C	-10°C	+40°C	E
31230	6,4	9	1250	14	ANODIZED ALUMINIUM	POM C	-10°C	+40°C	E

TOTAL SEPARATION

TOTAL SEPARATION					PRESSURE			VALVES SERIES				
					MIN	M.O.P.D.						
SERIES	PORT SIZE	Ø mm	Kv l/mm	POWER	BAR	AC BAR	DC BAR	BODY	SEAL	TEMPERATURE		SUPPLY SYSTEM UNIT
21SB654E *	7 mm	3 - 5	4 - 6	7,5	0	-	1	PEI	EPDM	0°C	+95°C	E

* The above series are available also in NSF certified version



ISO 9001
Identifies a series of norms and guidelines developed by ISO to provide a system of process quality control, aimed at improving efficiency and effectiveness and customer satisfaction.



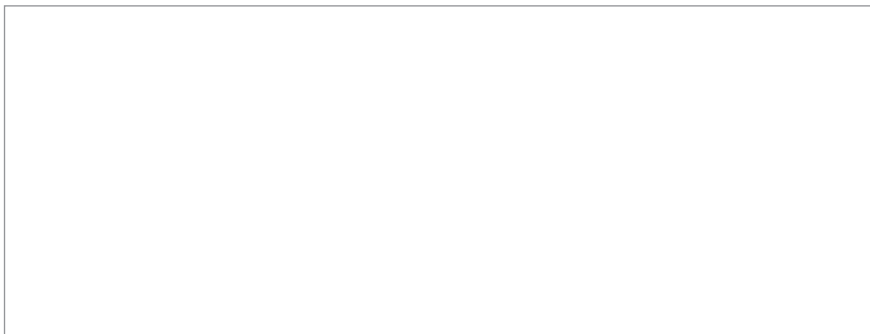
UL Certificate
The Component Mark UL "Recognised" is used for components that are part of a larger assembly or installation. The ODE solenoid valve range includes coils approved both UL and CSA for Canadian market.



NSF Certificate
* The ODE range includes solenoid valve version NSF approved for alimentary fluid compatibility.



VDE Certificate
The Verband Deutscher Elektrotechniker is the Association for Electrical, Electronic and Information Technologies and their related sciences, technologies and applications. The ODE solenoid valve range includes coils VDE certified.



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