

INJECTA
savršeno doziranje

A t h e n a



Athena AT.BX

Analogna elektromagnetna dozirna pumpa sa konstantnim protokom
Analogic electromagnetic dosing pump with constant flow



1

Athena AT.BL

Analogna elektromagnetna dozirna pumpa sa konstantnim protokom,
uz mogućnost priključenja nivo sonde
Analogic electromagnetic dosing pump with constant flow, level probe predisposition



2

Athena AT.AM

Analogna elektromagnetna dozirna pumpa proporcionalna digitalnom signalu
(sa merača protoka ili sl.) ili strujnom signalu 4...20 mA
*Analogic electromagnetic dosing pump proportional to an external digital signal
(water meter) or an analogic signal 4...20 mA*



3

Athena AT.AT

Analogna elektromagnetna dozirna pumpa sa jednostrukim ili dvostrukim zadavanjem
vremena
Analogic electromagnetic dosing pump with single or double temporization



4

Athena AT.MT

Digitalna elektromagnetna dozirna pumpa proporcionalna digitalnom signalu
(sa merača protoka ili sl.) ili strujnom signalu (4 - 20 mA)
*Digital electromagnetic dosing pump proportional to an external digital signal
(water meter) or analogic signal (4 - 20 mA)*



5

Athena AT.BT

Digitalna elektromagnetna dozirna pumpa sa ugradjenim tajmerom
Digital electromagnetic dosing pump with built-in timer



6

Athena AT.PR

Digitalna elektromagnetna pumpa sa protokom proporcionalnim ugradjenim pH ili
Redox (Rx) sondama
Digital electromagnetic dosing pump with flow proportional to a pH/Rx built in instrument



7

Caratteristiche tecniche
Technical Features

8

Accessori
Accessories

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OPŠTE KARAKTERISTIKE • *GENERAL FEATURES*

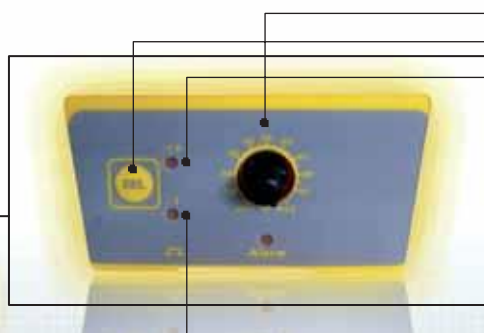
PUMPA SA KONSTANTNIM PROTOKOM • *PUMP WITH CONSTANT FLOW*

- Regulacija doziranja od 0 - 100% sa dvostrukom funkcijom
- "SEL" taster omogućava izbor 100% ili 20% kapaciteta. Ova funkcija omogućava da imate 2 pumpe u jednoj.
- Standardno napajanje 90-260 Vac sa "brzim" priključkom.
- Standardni odzračni ventil.

- *0 - 100 % double manual flow regulation.*
- *"SEL" button allows the selection of the 100% maximum working frequency - 20 % this function gives the possibility to have two pumps in one.*
- *Standard 90 - 260 Vac power supply with quick connection.*
- *Standard priming valve.*



Kontrolni panel i priključci • *Control panel and external connections*



- Regulator doziranja 0% - 100%
- *0% - 100% adjustment knob*

- Taster za izbor max. frekvencije 100% - 20%
- *100% - 20% max frequency button*

- Led indikator izabrane frekvencije
- *Led for selected frequency*

- Led indikator napajanja
- *Led for power supply*



- Brzi priključak za napajanje
- *Quick connection power supply*

OPŠTE KARAKTERISTIKE • *GENERAL FEATURES*

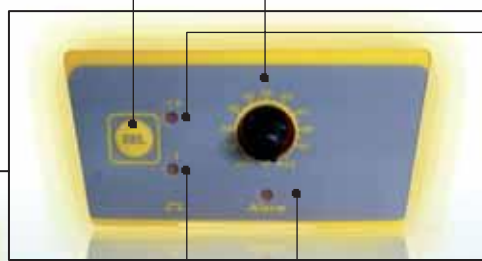
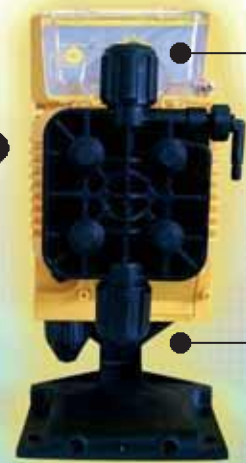
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- *Quick connection level probe predisposition.*
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Kontrolni panel i priključci • *Control panel and external connections*



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- *0% - 100% adjustment knob*

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- *Led for selected frequency*

- Led indikator napajanja
- *Led for power supply*

- Led indikator nivoa
- *Led for level alarm*



- Brzi priključak za napajanje
- *Quick connection power supply*

- Priključak za nivo sondu
- *Level probe connection*

OPŠTE KARAKTERISTIKE • *GENERAL FEATURES*

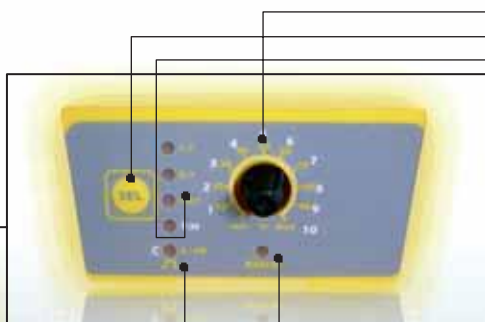
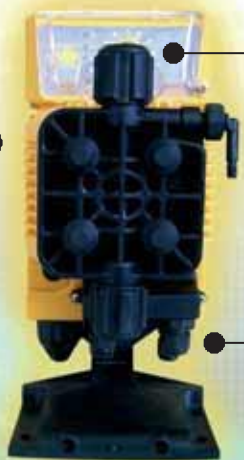
PUMPA SA PROPORCIONALNIM PROTOKOM • *PROPORTIONAL FLOW DOSING PUMP*

- Proporcionalno digitalnom signalu (sa merača protoka) sa mogućnošću množenja ili deljenja impulsa.
- Proporcionalno strujnom signalu (4- 20 mA) sa mogućnošću zadavanja maksimalnog protoka u procentima.
- "SEL" taster za izbor načina rada.
- Standardno napajanje 90-260 Vac sa "brzim" priključkom.
- "Brzi" priključak za nivo sondu.
- "Brzi" priključci za sve spoljne signale.
- Standardni odzračni ventil.

- *To a digital signal (water meter) with the possibility to multiply or divide the received impulses.*
- *To an analogic signal (4-20 mA) with the possibility to regulate in percentage the maximum flow.*
- *The "SEL" button allows the selection of the working mode.*
- *90-260 Vac Power supply with quick connection.*
- *Level probe predisposition.*
- *Quick connection for all the external signals.*
- *Standard priming valve*



Kontrolni panel i priključci • *Control panel and external connections*



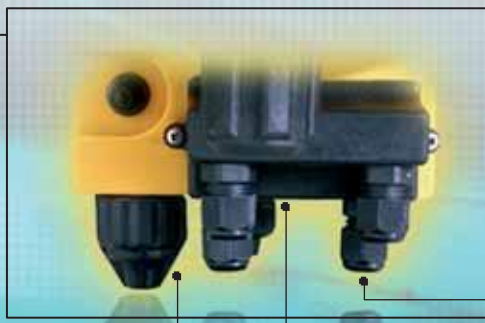
- Potencijometar za finu regulaciju
- *FINE adjustment knob*

- "SEL" taster • *Selection button*

- Led indikator radnog režima
- *Led for working mode*
1:1 / 4:1 • 10:1 / 1:N

- Led indikator nivoa • *Led for level alarm*

- Led za režim mA ulaz , doziranje i napajanje
- *Led for mA working, dosing and power supply*



- Spoljni priključci • *External connections*

- Brzi priključak za napajanje
- *Quick connection power supply*

- Priključak za nivo sondu
- *Level probe connection*

OPŠTE KARAKTERISTIKE • *GENERAL FEATURES*

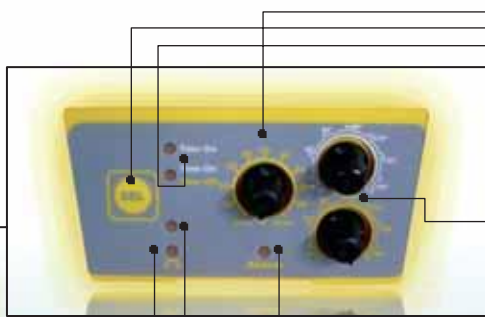
PUMPA SA ZADAVANJEM VREMENA • *ANALOGIC TEMPORISED PUMP*

- Sa dvostrukim (vreme - pauza) ili jednostrukim zadavanjem vremena i ručnom regulacijom doziranja 0-100% ; 0-180 sec. Uključena; 0-180 sec. Isključena.
- Vremensko doziranje aktivirano spoljnim digitalnim signalom
- "SEL" taster za izbor načina rada
- Standardno napajanje 90-260 Vac sa "brzim" priključkom.
- "Brzi" priključak za nivo sondu.
- "Brzi" priključci za sve spoljne signale.
- Standardni odzračni ventil.

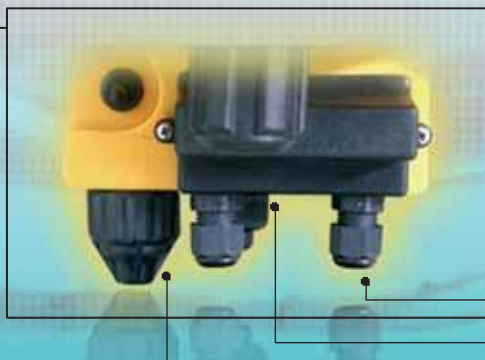
- *With double (time - pause) or single temporization and 0-100% flow manual regulation; 0-180 sec. Time.On; 0-180 sec Time-Off.*
- *Temporised dosage asserved to a digital signal*
- *"SEL" button allows the selection of the working mode.*
- *90-260 Vac power supply with quick connection.*
- *"Brzi" priključak za nivo sondu.*
- *Quick connection for all the external signals.*
- *Standard priming valve*



Kontrolni panel i priključci • *Control panel and external connections*



- Regulator doziranja • *Regulation knob*
- "SEL" taster • *Selection button*
- Led indikatori T.On/T.Off
- Potencijometri • *Knobs T.On/T.Off*
- Led indikator napajanja • *Led for power supply*
- Led indikator nivoa • *Led for level alarm*
- Led za konstantni mod • *Led for constant mode*



- Spoljni priključci • *External connections*
- "Brzi" priključak za napajanje • *Quick connection power supply*
- Priključak za nivo sondu • *Level probe connection*

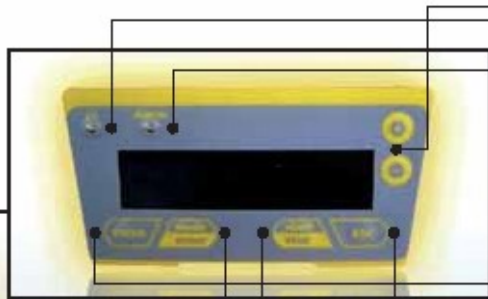
OPŠTE KARAKTERISTIKE • *GENERAL FEATURES*

DOZIRNA PUMPA SA PROPORCIONALNIM PROTOKOM • *PROPORTIONAL FLOW DOSING PUMP*

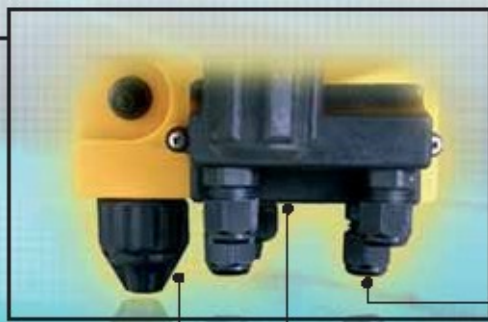
- Proporcionalno 0/4 - 20 mA ili 20 - 4 mA opciono.
- Proporcionalno digitalnom signalu: 1:n ; n:1 ; 1:c (batch) ili direktno u ppm.
- Digitalna regulacija protoka sa mogućnošću zadavanja maksimalnog protoka.
- Doziranje sa zadavanjem vremenskih intervala.
- Priključak za nivo sondu.
- "Brzi" priključci za sve spoljne signale.
- Standardni ručni odzračni ventil.
- LCD displej sa pozadinskim svetlom, 2 reda po 16 karaktera.
- Programiranje i rad na 5 jezika.
- Prikazivanje protoka tokom doziranja.
- Mogućnost postavljanja sigurnosne lozinke.
- Mogućnost priključenja senzora protoka.
- Prikazivanje statistike rada.
- Rele ponavljanja alarma.
- *To an analogic signal 0/4 - 20 mA 20 - 4 mA selectable*
- *To a digital signal: 1:n ; n:1; 1:c (batch), or directly in ppm.*
- *Digital flow regulation, with the possibility to set the maximum flow*
- *Temporized dosage with settable intervals.*
- *Level probe predisposition.*
- *Quick connection for all the external signals.*
- *Standard priming valve.*
- *Lcd back-lighting display with two 16 digits rows.*
- *Programming and working in 5 selectable languages.*
- *Flashing of flow rate during the dosage.*
- *Security password settable*
- *Flow sensor predisposition.*
- *Flashing of functioning statistics.*
- *Alarm repetition rele.*



Kontrolni panel i priključci • *Control panel and external connections*



- Povećaj/smanji parametar
- *Parameter increase/decrease*
- Led indikacija napajanja • *Led for power supply*
- Led indikacija nivoa • *Led for level alarm*
- Taster za programiranje • *Programming button*
- Taster izbora režima/enter • *Mode/enter button*
- Taster start/stop • *Start/stop button*
- Programiranje izlaza • *Programming output*



- Spoljni priključci • *External connections*
- "Brzi" priključak za napajanje
- *Quick connection power supply*
- Priključak za nivo sondu
- *Level probe connection*

OPŠTE KARAKTERISTIKE • *GENERAL FEATURES*

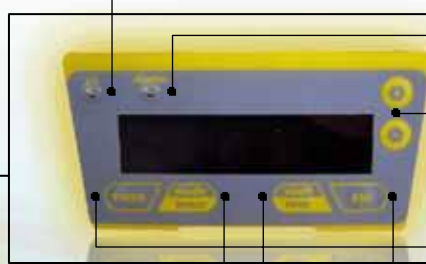
DIGITALNA PUMPA SA UGRAĐENIM TAJMEROM • *DIGITAL PUMP WITH BUILT-IN TIMER*

- Dnevno i nedeljno programiranje, max 10 programa sa postavljanjem vremena, količine i doziranja.
- Mogućnost pogona elektromagnetnog ventila sa ugrađenim relejem.
- Mogućnost doziranja u zadatim vremenskim intervalima
- Standardno napajanje 90 -260 Vac sa "brzim" priključkom
- Priključak za nivo sondu.
- "Brzi" priključci za sve spoljne signale.
- Standardni ručni odzračni ventil.
- LCD displej sa pozadinskim svetlom i 2 reda po 16 karaktera.
- Programiranje i rad na 5 jezika.
- Prikazivanje protoka tokom doziranja.
- Mogućnost postavljanja sigurnosne lozinke.
- Mogućnost priključenja senzora protoka.
- Prikazivanje statistike rada.
- Rele ponavljanja alarma..

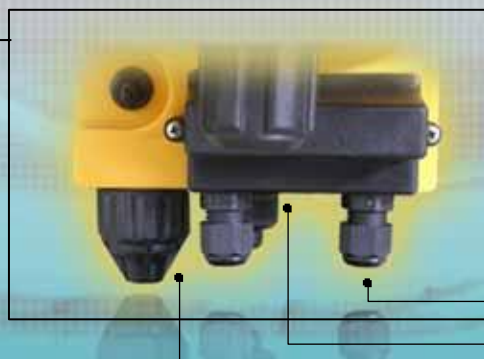
- *Daily and weekly programming, max 10 actions where time, quantity and dosing can be set.*
- *Possibility to drive a solenoid valve through the rele output.*
- *Possibility of dosing with timed intervals. 90-260 Vac power supply with quick connection.*
- *Level probe predisposition.*
- *Quick connection for all the external signals.*
- *Standard manual air eliminator valve*
- *Lcd back-lighting display with two 16 digits rows.*
- *Programming and working in 5 selectable languages.*
- *Flashing of flow rate during the dosage.*
- *Security password settable*
- *Flow sensor predisposition.*
- *Flashing of functioning statistics.*
- *Alarm repetition rele.*



Kontrolni panel i priključci • *Control panel and external connections*



- Povećaj/smanji parametar • *Parameter increase/decrease*
- Led indikacija napajanja • *Led for power supply*
- Led indikacija nivoa • *Led for level alarm*
- Taster za programiranje • *Programming button*
- Taster izbora režima/enter • *Mode/enter button*
- Taster start/stop • *Start/stop button*
- Programiranje izlaza • *Programming output*



- Spoljni priključci • *External connections*
- "Brzi" priključak za napajanje • *Quick connection power supply*
- Priključak za nivo sondu • *Level probe connection*

OPŠTE KARAKTERISTIKE • *GENERAL FEATURES*

PUMPA PROPORCIONALNA PH / REDOX SONDI • *PROPORTIONAL PUMP WITH PH/RX INSTRUMENT*

- Merni opseg: pH 0...14, Rx -999... + 999 mV.
- Ručna ili automatska kompenzacija temperature za pH.
- 4-20 mA strujni izlaz za pisace ili sl..
- Ručna ili automatska kalibracija sa ocenom stanja sonde.
- Standardno napajanje 90 -260 Vac sa "brzim" priključkom.
- Priključak za nivo sondu.
- "Brzi" priključci za sve spoljne signale.
- Standardni ručni odzračni ventil.
- LCD displej sa pozadinskim svetlom i 2 reda po 16 karaktera.
- Programiranje i rad na 5 jezika.
- Prikazivanje protoka tokom doziranja.
- Mogućnost postavljanja sigurnosne lozinke.
- Mogućnost priključenja senzora protoka.
- Prikazivanje statistike rada.
- Rele ponavljanja alarma..

- *Measure range: ph 0...14, Rx -999... +999 mV.*
- *Manual/automatic temperature compensation (ph).*
- *4-20 mA output on all the recording scale.*
- *Manual/automatic calibration with probe efficiency evaluation.*
- *90-260 Vac power supply with quick connection.*
- *Level probe predisposition.*
- *Quick connection for all the external signals.*
- *Standard priming valve.*
- *Lcd back-lighting display with two 16 digits rows.*
- *Programming and working in 5 selectable languages.*
- *Flashing of flow rate during the dosage.*
- *Security password settable.*
- *Flow sensor predisposition.*
- *Flashing of functioning statistics.*
- *Alarm repetition rele.*



Kontrolni panel i priključci • *Control panel and external connections*

- Povećaj/Smanji parametar
- *Parameter increase/decrease*

- Led indikator napajanja • *Led for power supply*

- Led indikator nivoa • *Led for level alarm*

- Taster za programiranje • *Programming button*

- Taster izbora režima/enter • *Mode/enter button*

- Taster start/stop • *Start/stop button*

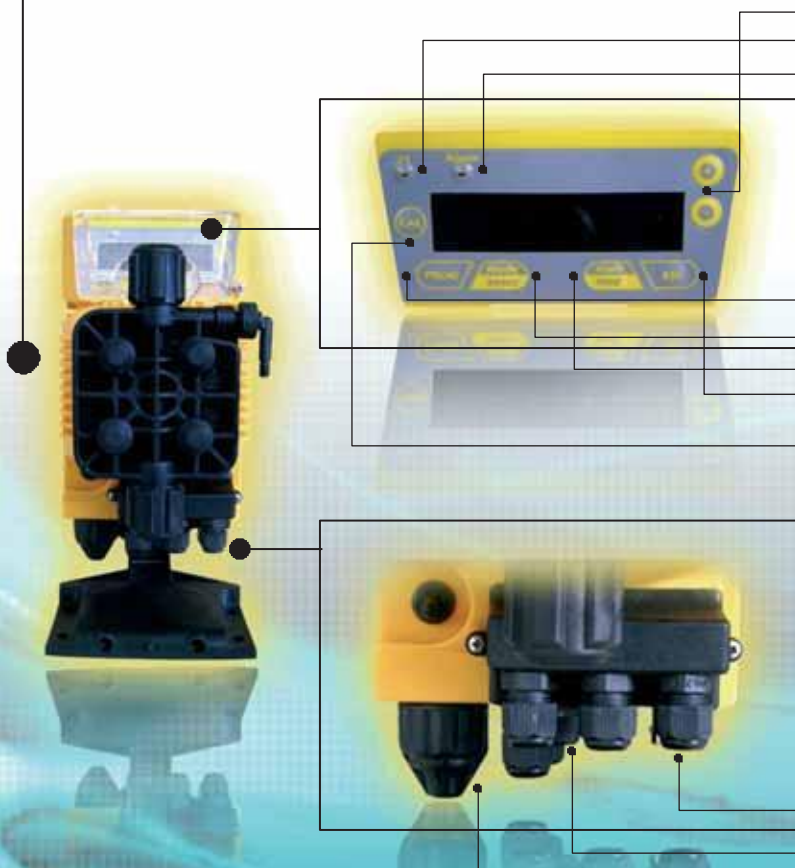
- Programiranje izlaza • *Programming output*

- Taster kalibracije • *Calibration button*

- Spoljni priključci • *External connections*

- "Brzi" priključak za napajanje
- *Quick connection power supply*

- Priključak za nivo sondu
- *Level probe connection*



TEHNIČKE KARAKTERISTIKE • TECHNICAL FEATURES

Sve tehničke karakteristike date su za sobnu temperaturu i visinu usisa od 1,5 m. Za spoljnu instalaciju sa direktnom izloženošću sunčevim zracima preporučuje se crno potisno crevo

All characteristics have to be considered at ambient temperature water and 1,5 mt suction height. For external installation with direct exposure to solar rays black delivery hose is suggested.

MATERIJALI U KONTAKTU SA FLUIDOM • LIQUID AND MATERIALS

TIP TYPE	KUČIŠTE PUMP BODY	KUGLICE BALLS	ZAPTIVKE SEALS	MEMBRANA DIAPHRAGM
PP 0	PP	Pyrex	FPM standard ili EPDM na zahtev on request	PTFE
PP C	PP	Ceramica		
PV 0	PVC	Pyrex		
PV C	PVC	Ceramica		
PF C	PVDF	Ceramica		

NAPAJANJE POWER SUPPLY	N = 90...260 Vac (standard) O = 20...60 Vac (na zahtev • on request)
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KLASA IZOLACIJE • INSULATION CLASS	F
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NIVO ZAŠTITE KUČIŠTA • PROTECTION DEGREE	IP 65
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RADNA TEMPERATURA • WORKING TEMPERATURE	-10...40 °C
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MODEL	PRITISAK PRESSURE	PROTOK FLOW RATE	cm ³ /ubrizgaj cc/stroke	PRIKLJUČCI CONNECTIONS	ubrizgaja/min. stroke/min.	TEŽINA WEIGHT
	bar	lit./h.		in/out		
Athena 1	20	1,5	0,21	4/6-4/7	120	1,5 Kg
	18	2	0,28			
Athena 2	12	3	0,31	4/6	160	1,5 Kg
	10	4	0,42			
	8	5	0,52			
	2	8	0,83			
Athena 3	16	7	0,36	8 / 12	320	1,8 Kg
	10	10	0,52			
	6	14	0,73			
	2	16	0,83			
Athena 4	5	20	1,47	8 / 12	300	1,8 Kg
	4	22	1,72			
	2	35	2,21			
	1	50	2,77			

KODOVI PUMPE • PUMP CODING

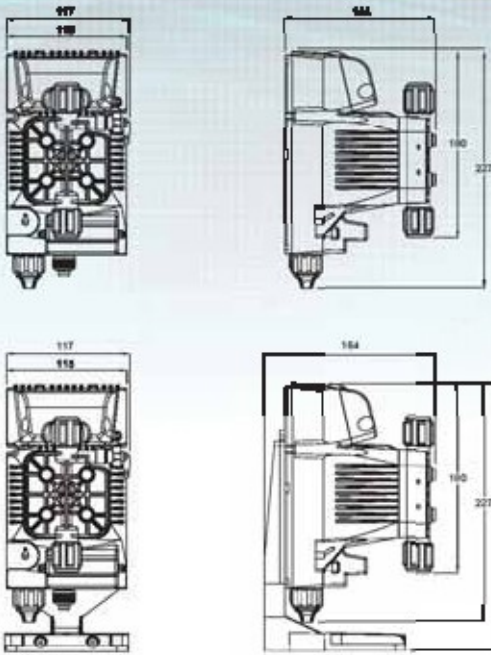
PRIMER KODIRANJA • CODIFYING EXAMPLE

POLJE 1 FIELD 1	POLJE 2 FIELD 2	POLJE 3 FIELD 3	POLJE 4 FIELD 4	POLJE 5 FIELD 5	POLJE 6 FIELD 6	POLJE 7 FIELD 7	POLJE 8 FIELD 8	POLJE 9 FIELD 9
AT	BL	1	L	N	PP	F	0	00
Tip pumpe Pump type	Funkcija Function	Hiraulika Hydraulic	Tip magneta Magnet type	Napajanje Power supply	Material glave pumpe Pump head material	Sedišta ventila Valves seat	Kuglice Balls	Optional

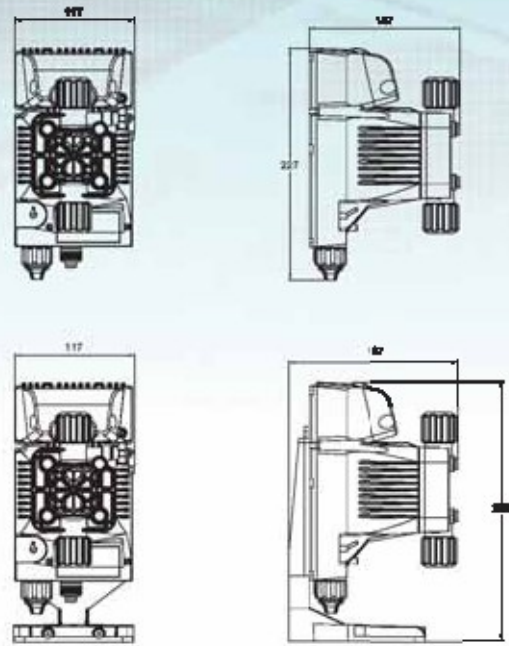
POLJE 1 FIELD 1	POLJE 2 FIELD 2	POLJE 3 FIELD 3	POLJE 4 FIELD 4	POLJE 5 FIELD 5	POLJE 6 FIELD 6	POLJE 7 FIELD 7	POLJE 8 FIELD 8	POLJE 9 FIELD 9
AT (Athena)	BX	1	L	N = 90-265 Vac O = 24-48 V	PP polypropylene PV PVC PF PVDF	F = FPM E = EPDM P = PTFE	0 = pyrex C = ceramic	Optional
	BL	2	H					
	AM	3						
	AT	4						
	MT							
	BT							
PR								

DIMENZIJE • OVERALL DIMENSIONS

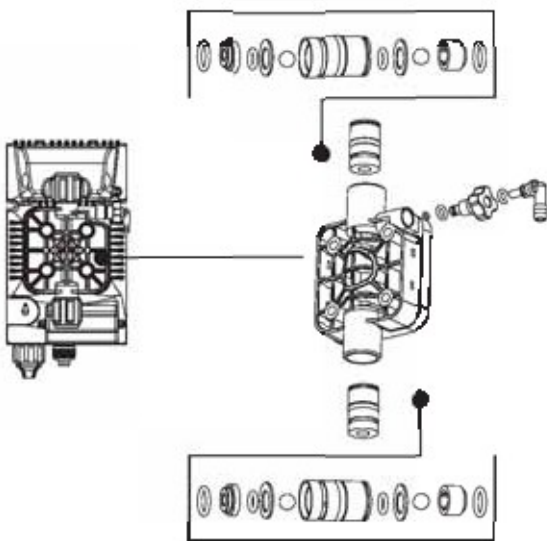
POMPA ATHENA • ATHENA PUMP



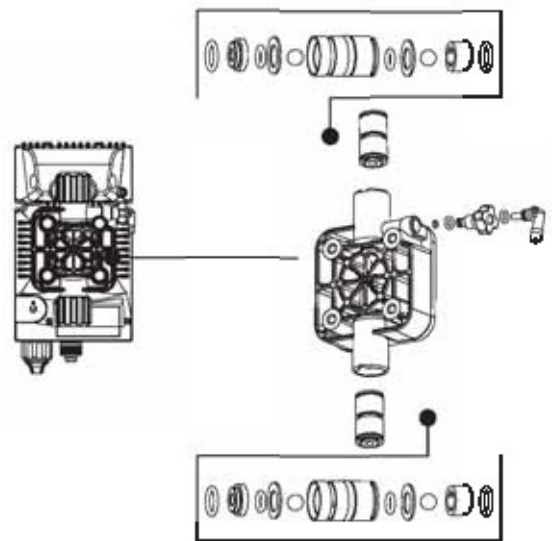
POMPA ATHENA GP • ATHENA GP PUMP



CORPO POMPA ATHENA • ATHENA PUMP HEAD



CORPO POMPA ATHENA GP • ATHENA GP PUMP HEAD



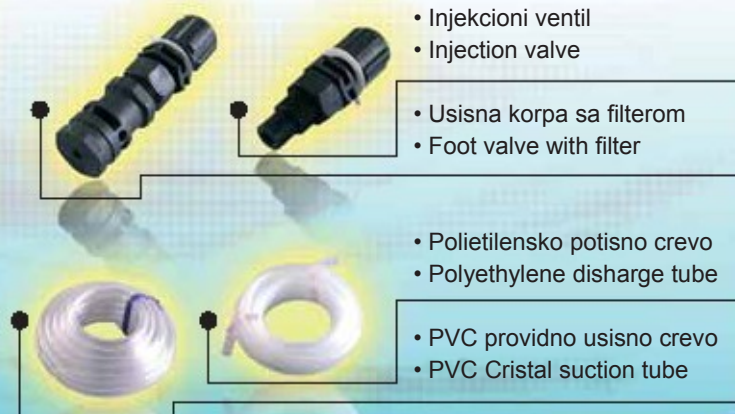
DODATNA OPREMA • ACCESSORIES



- Stalak za horizontalnu montažu (opciono)
- Horizontal mounting bracket (optional)

- Stalak za vertikalnu montažu
- Vertical mounting bracket

PRIKLJUČNI KOMPLET • INSTALLATION KIT



- Injekcioni ventil
- Injection valve

- Usisna korpa sa filterom
- Foot valve with filter

- Polietilensko potisno crevo
- Polyethylene discharge tube

- PVC providno usisno crevo
- PVC Cristal suction tube


INJECTA

for



• ***Hidrosanitas*** •
PREDUZEĆE ZA TRETMAN VODA

BEOGRAD, Bul. despota Stefana 68-b, Tel/Fax 011/2765-777, 2764-161
www.hidrosanitas.rs e-mail: hidrosanitas@sezampro.rs