



## Single-Syringe Pump **AP 12** and Double-Syringe Pump **AP 22**

### Simple, safe & reliable

Designed to meet the needs of modern I.V. therapy in neonatal/pediatric/adult ICU, CCU, anesthesia, cardiology and oncology.



### Key features:

- user friendly software simplifies set-up and operation
- wide range of infusion rate
- over 40 types of compatible syringes (10-60 ml)
- automatic & manual bolus capability
- automatic reduction of residual bolus after occlusion release
- easy modification of infusion parameters in running course
- comprehensive system of audible and visual alarms & warnings
- drug library with user selectable drug names
- long battery life
- data lock with a software-controlled passkey system
- 4 modes of operation: flow rate, flow rate and volume, flow rate and time, volume over time

Please visit our web-site: [www.ascor.com.pl](http://www.ascor.com.pl) to get a detailed information about our whole product range.

# Single-Syringe Pump AP 12 and Double-Syringe Pump AP 22

## Performances:

Flow rate range:	0.1 - 500 ml/h for 50 ml syringe 0.1 - 300 ml/h for 30 ml syringe 0.1 - 250 ml/h for 20 ml syringe 0.1 - 150 ml/h for 10 ml syringe (0.1 - 99.9 ml/h in 0.1 ml/h steps; 100 - 500 ml/h in 1 ml/h steps)
Volume to be infused:	0.1 - 1000 ml, programmable in 0.1 ml steps
Maximum bolus rate:	2000 ml/h for 50 ml syringe 1200 ml/h for 30 ml syringe 1000 ml/h for 20 ml syringe 600 ml/h for 10 ml syringe
Bolus dose / Induction dose:	limited to syringe size
Infusion time:	up to 99 h 59 min 59 sec
KVO rate:	0.1 - 5 ml/h, programmable in 0.1 ml/h steps
Flow rate accuracy:	±2% (complies with EN 60601-2-24)
Occlusion pressure limit:	4 - level selection: high - 120 kPa ± 30 medium - 90 kPa ± 20 low - 60 kPa ± 20 minimum - 40 kPa ± 10
Compatible syringes:	10, 20, 30 and 50/60 ml
Syringe brands:	B.BRAUN, BD, MONOJECT, CODAN, TERUMO, IVAC, INJECTOMAT, PENTAFERTE and other (see operating manual)
Extended system of alarms and warnings (both audible and visual):	Alarms: no syringe, wrong syringe, empty syringe, end of infusion, occlusion, no mains, discharged battery, internal malfunction Prealarms: 5 minutes left to the end of infusion or till the syringe gets empty, low battery

## Technical specifications:

Power supply:	230 VAC ± 10%, 50/60 Hz, max. 10 VA or from a built-in rechargeable battery, optional 10 - 15 V DC for transport applications
Power consumption:	max. 10 VA
Built-in battery:	rechargeable, NiCd of increased durability
Battery life:	24 h at a flow rate of 5 ml/h
Battery charging time:	24 h
Electrical safety:	Class I, type BF, IP31
Conformity standards:	EN 60601-1, EN 60601-1-2, EN 60601-2-24, MDD 93/42/EEC
Weight:	<b>AP 12</b> - 3,1 kg • <b>AP 22</b> - 4,7 kg
Dimensions (W x D x H):	<b>AP 12</b> - 320 x 180 x 140 mm • <b>AP 22</b> - 320 x 250 x 140 mm
Operating conditions:	5° - 40° C; relative humidity: 20 - 90%

## Other features:

External alarm socket:	24 V, 1A
Other functions:	<ul style="list-style-type: none"><li>• anti-bolus system (ABS)</li><li>• automatic syringe size recognition</li><li>• battery life indicator</li><li>• user selectable drug names</li><li>• programmable name of ward</li><li>• infusion pressure monitoring</li><li>• infusion parameters protected by a password</li><li>• priming</li><li>• STAND-BY</li><li>• extended menu of user tests and service tests</li></ul>

**Note:** Specifications and design are subject to change for improvement without notice

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