

## AMI 900 Fertilizer Mixer with irrigation control

### **Compact and advanced**

The AMI900 fertilizer mixer has been developed to meet the growers demand for user-friendly equipment with great reliability. AMI900 is extremely sturdy and has a number of new functions. With an AMI900 a perfect fertilizer mixing and a quick performance of the irrigation is ensured.

The irrigation controller in AMI900 can be divided into 3 valve groups where each group is set individually for EC value, mixing ratio and pH together with alarms for minimum and maximum EC and pH. This gives the possibility to irrigate several cultures with different demands to the fertilizer without reprogramming the fertilizer mixer. For each group there is a free combination of 7 different starting conditions. All in all, it is possible to irrigate exactly according to the needs of the plants. Besides the 3 automatic irrigation groups it is possible to make a manual irrigation of one or more valves.



- Perfect Fertilizer Control
- Precise Dosing Pumps
- EC, pH and Ratio Control
- Flexible control of irrigation Valves
- Advanced EC Control

### **Perfect supply of fertilizer**

AMI900 controls 5 stock solutions or 4 stock solutions and 1 acid or alkaline. The irrigation water can be programmed for 3 different fertilizer recipes. The dosing pumps, instead of venturies, give the possibility to mix uneven ratios of fertilizer. The fertilizer mixer's ability to work according to the local climatic conditions has been given high priority. The conductivity of the irrigation water can be controlled according to the solar radiation. By high radiation the mixer can be programmed to lower the conductivity in proportion to an increasing radiation. This means that a constant fertilizer concentration around the plant roots is maintained even though the evaporation is fluctuating.

### **Extended functions**

As a further development of the AMI900 fertilizer mixer is able to work with two sets of EC- and pH-sensors. Hereby sensor 2 can supervise sensor 1 and by large deviations give alarm. Another way of using the double sensor set is relative EC control. This means that regardless of the conductivity in the fresh water the AMI 900 doses the same amount of fertilizer into the irrigation water. This function is particularly interesting by irrigation with fresh water with a fluctuating conductivity.

### **Total Control**

AMI900 is a part of System 9000 and can be hooked up with other climate- and irrigation computers. This gives the possibility to read and program the activities in AMI 900 from a random system 9000 computer in the nursery. Simultaneously, the AMI900 can be connected to one or several central PC's with a SuperLink 3 program.

<i>Technical</i>	
<b>Water Output:</b>	4, 8, 16 or 32m <sup>3</sup> /hour, 3 to 8 bars. (18, 35, 70, 141 gal./min, 42 to 115 psi)
<b>Water Input:</b>	2 to 7 bars (28 to 100 psi)
<b>Fertilizer dosing pumps:</b>	5 pcs, each max. 6,5 l/min (1.7 gal/min)
<b>Recycle control:</b>	1 Tank
<b>Supply Voltage:</b>	3 x 230/400V AC + 10 % - 15 %, 50/60 Hz, (115V, 200V, 208V, 460V, 575V on request)
<b>Relay outputs for valves:</b>	10 24V AC, 2A
<b>Relay outputs for dosing:</b>	5 24V AC, 2A, solid state
<b>Relay outputs for pump:</b>	2 24V AC, 2A, solid state
<b>Alarm output:</b>	1 Potential free contact max. 42V AC, 2A
<b>Digital inputs:</b>	4 Potential free 5V, 10mA
<b>Analogue inputs:</b>	8 0 - 5V standard DGT-Volmatic
<b>Converters:</b>	EC1, pH1 build in EC2 and pH2 as check sensors or relative dosing, optional Sun radiation, optional Water flow sensor, optional Temperature and Humidity inputs direct Flow switch and Pressostat, inputs direct
<b>Control area:</b>	0 - 15 mS, 0 - 14 pH
<b>Communication:</b>	ARC-net with RS 485 interface
<i>Physical</i>	
<b>Dimensions L X W X H:</b>	915 x 785 x 1185 mm (36 x 31 x 47")
<b>Weight:</b>	130 - 220kg (286 - 485 lbs)
<b>Proofing:</b>	IP54
<b>Emission:</b>	EN50081-1
<b>Immunity:</b>	EN50082-1
<b>Temperature:</b>	0 - 50°C (32 - 122°F), without direct sun radiation
<b>Humidity:</b>	0 - 95% RH without condensation

### *Accurate and reliable*

AMI900 is equipped with the new fertilizer dosing pump PP40S. The PP40S pumps do not only dose fertilizer with great accuracy, they also take care of the stirring of the stock solutions. AMI900 demands a minimum of service, which is quick and easy to perform.

### *Program Contents*

EC control, 4 or 5 stock solutions  
 EC ratio control  
 PH control, acid or alkaline  
 10 irrigation solenoid valves  
 1 return tank  
 EC depending of solar radiation  
 3 irrigation groups  
 1 manual irrigation group  
 Start conditions:

- Fixed interval
- Week program
- Low humidity
- High temperature
- Frost protection
- Extern sensor

Drain control, 3 groups  
 Alarms:

- EC and pH min/max absolute
- EC and pH relative
- Check sensor
- Lack of freshwater
- Power failure

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**Distributor:**

**Head office:**

**Senmatic A/S**  
 DGT Volmatic  
 Industrivej 8 - DK-5471 Søndersø,  
 Denmark  
 Phone: +45 64 89 22 11  
 Fax: +45 64 89 33 11  
 dgt@senmatic.com - www.senmatic.com