



# Electronic Dosing Systems Ltd

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Solutions For All Metering & Measurement Processes

## YR Series Dosing Pumps

**Integrated (pH/Redox) Instruments**

**Multi-Level Programming**

### Dosing Performance with Integrated Intelligence

The next generation in dosing technology where precision is non-negotiable.

Intelligent dosing system that delivers unparalleled control and chemical efficiency featuring fully integrated digital pH and Redox (orp) instrumentation coupled by our patented high-efficiency algorithm, continuously measures and automatically adjusts the dosing rate based on in real-time sensor readings to maintain the system balance.

### Features

- » Flow rates: 0.4 - 110 l/Hr
- » Max backpressure: up to 20 bar
- » Power Supply: 100÷240 Vac - 50/60 Hz
- » Stroke rate: 120 - 300 strokes/minute
- » Pump Head: PVDF (Viton Seals)
- » Diaphragm: PTFE
- » External enclosure: PP reinforced with IP65-rated fibreglass
- » Manual priming bleed valve
- » Installation kit Includes:
  - PVDF Injection Fitting - PVDF Footfilter
  - PVC Hose – Polythene Delivery Hose



## Key Functions & Features

The YR instrument pump with smart dosing technology ensures chemical parameters are maintained precisely at the desired set-point eliminating the need for multiple control systems simplifying installation, engineered for demanding high-precision process control applications these pumps can seamlessly integrated into the most sophisticated systems with operational parameters adapted to ensure process parameters are consistently maintained regardless of working conditions critical to optimising chemical consumption and system performance.

### Operating Modes

**Redox/pH Regulation:** Real-time monitoring and control of pH or redox levels with automatic regulation of dosing based on sensor measurements and user-defined set-point parameters for precise chemical balance in system.

**Measurements:** pH 0-14 - Redox  $\pm 2000$  mV

**Proportional Function:** The set-point can be configured to automatically adapt the pumps flow rate according to the real-time sensor readings reducing the dosage rate until the desired set-point has been achieved.

**On/Off Regulation:** The set-point can be configured for simple to operate in on/off mode where the pump activates when the measurement exceeds or drops below the desired set-point according to the real-time sensor readings.

**Manual Flow Regulation:** The pumps dosing rate output can be set for increased accuracy and chemical efficiency

**Set-Point Operational Functions:** Start Delay – Hysteresis Band – Max Dosing Time – Alarm Relay

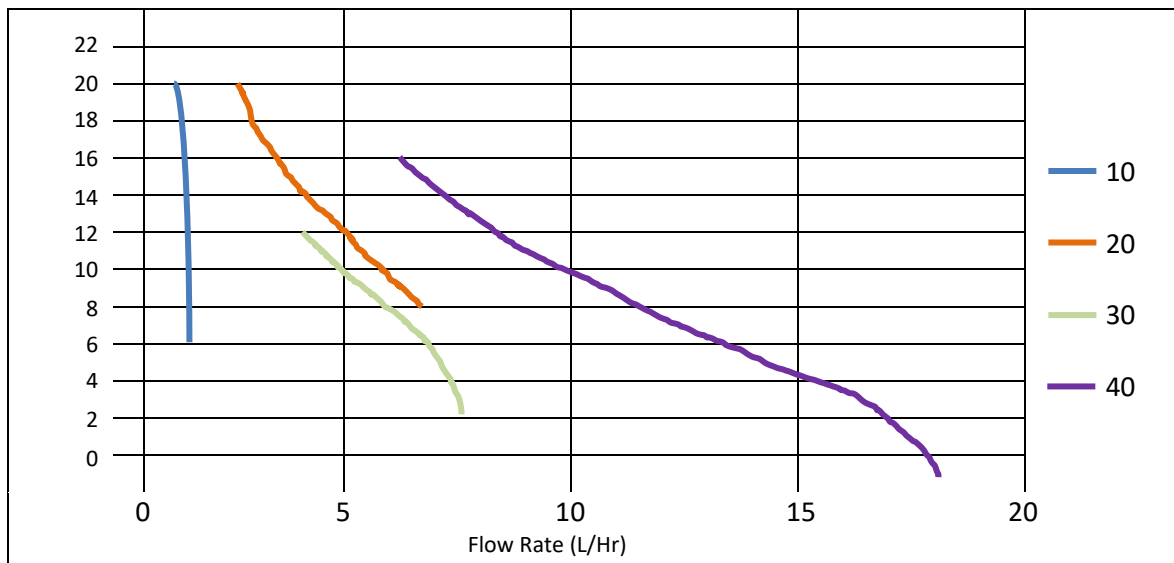
**Safety/Control Inputs:** Flow/Level Sensors – Temp Sensor (PT100) - Remote Start/Stop Function – Password

**Pump Statistics:** Pump Starts – Chemical Dosed – Number of Pump Strokes – Reset Counters

Pump Models						
YL	Analogue Interface: - Constant operation with digital manual flow adjustment / Low level sensor input					
YG	Multifunction: - Constant Operation - Proportional flow rate according to external (4-20 mA) current signal - water meter: - (1:n or n:1). Timed dosing with a weekly programmable timer; Dosage in ppm; Dosage batch; Statistics; Password; - Input ON-OFF (remote switch)					
YR	Digital interface - Manually adjustable output. Proportional dosing according the measured pH or Redox value. Temperature compensation input: - PT100 probe - Repetition alarm relay. Remote control On-Off input signal. Current 4÷20 mA output for measure transmission. Remote communication via ModBus protocol (Optional).					
	Pressure (Bar)		Flow Rate (l/hr)	Capacity (cc/stroke)	Frequency Stroke/min	Ø Hydraulic Connections IN / EXT.[mm]
	12	4	0.42	160	4x6	
	10	3	0.52	160	4x6	
	8	6	0.63	160	4x6	
	2	8	0.83	160	4x6	
	16	7	0.38	300	4x6	
	10	10	0.55	300	4x6	
	5	15	0.83	300	4x6	
	1	18	1.00	300	4x6	
	5	20	1.11	300	8x12	
	4	32	1.78	300	8x12	
	2	62	3.44	300	8x12	
	0.1	110	6.11	300	8x12	
	Power Supply					
	All Models	Stabilised Power Supply 110÷240 Vac 50/60Hz		Ambient Temperature: 40° Max		Humidity: 90° Max
		12 Vdc 50/60Hz ( Upon Request )				
	Pump Body			Liquid End's		
	PVDF	PVDF – Stainless Steel (316L) – PVDF (automatic degassing)				
	Installation Kit					
	PVDF	Standard				
	Pump Seals					
	FKM-B (Viton)	PTFE	EPDM (Ethylene Propylene Diene Monomer)		FFKM (Perfluoroelastomer)	
	Note: - Guidance purposes only manufacturer reserves right to amend specifications					

- The YR Series has struck the perfect balance between the use of premium materials and components that guarantee chemical compatibility in multiple water treatment applications whilst ensuring affordability for the operator.
- In order satisfy various chemical demands four models are available each offer three different flow rates according to the process working conditions allows the operator to maximise chemical accuracy .

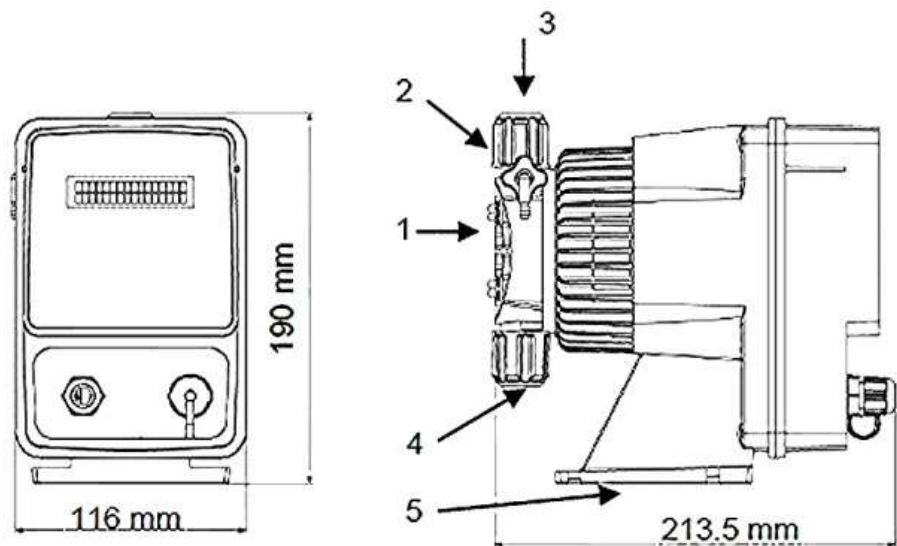
## YR Series Performance Curves



N.B. Flow rates are guild only and subject to manufacturer changes

## Dosing Pump Overall Dimensional Drawing

- 1 Pump Body\*
- 2 Priming Valve
- 3 Delivery Connector
- 4 Suction Connector
- 5 Mounting Bracket



N.B. Recommend Pump Mounted On Steady Flat Horizontal Surface

Dosing heads and seals are manufactured from premium grade materials to meet today's constantly evolving demands providing years of service, chosen to guarantee perfect compatibility with most chemical agents used in domestic, commercial and industrial water treatment markets.

N.B Some pump models aren't equipped with on/off power switch by pressing the SEL key for at least 5 seconds the pump will stop functioning pressing again the SEL key the pump returns to its working state.

# Y Series

## TANK MOUNTED SOLENOID DOSING PUMPS

The multi-model Y Series metering pumps delivers precise and consistent chemical metering for a wide range of demanding process control applications including complex high-end processes.

Built with premium-grade mechanical & electronic components these pumps provide the perfect solution for discerning professional responsible for maintaining chemical efficiency.

Commitment to continuous refinement of these systems meaning they always meet up-to-date legislation.



## APPLICATIONS

- Commercial swimming pools
- Industrial water treatment
- Cooling water treatment
- Potable water treatment
- Wastewater treatment
- Power generation
- Food & beverage

## PUMP MODELS

- YL Model: - Manually Adjustable - Low Level Interface
- YG Model: - Multifunction Software Programs  
| 4-20mA | water meter | n:1 & 1:n | PPM |  
Timed: - Day-Weekly batch program
- YR Model: - Integrated pH-redox instruments  
N.B. (pH-redox mode selectable in menu)

Remote Wi-Fi interface available  
With full programming authority

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