

DIGITAL DOSING PUMP

UNIVERSAL SOLUTION FOR ALL METROLOGICAL APPLICATIONS



FLUID QUANTITATIVE CONVEYING STATION





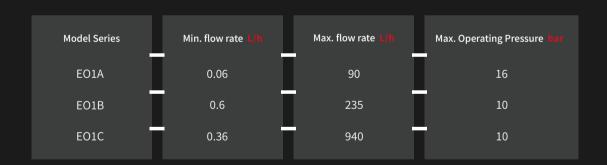


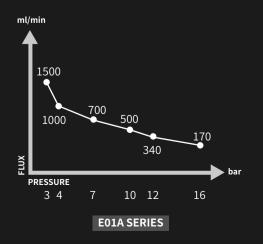
E01 DIGITAL DOSING PUMP

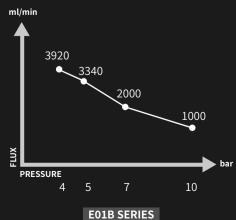
- **Q** Quick Installation
- **Easy Operation**
- Precise Measurement
- Condition Monitoring
- Multiple External Control Options
- **Various Operating Modes**
- Automatic flow control
- Flow&pressure Exception control

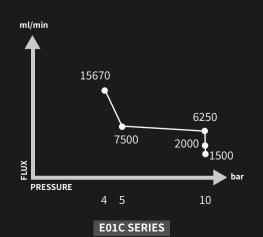


FLOW RANGE









ED1 SERIES MODEL PARAMETER TABLE

TECHNICAL PROJECT	UNIT	E01A 010-16	E01A 020-12	E01A 030-10	E01A 042-07	E01A 060-04	E01A 090-03
Turn-down ratio(Setting Range)	1:X	1:166	1:333	1:500	1:700	1:1000	1:1500
Maximum flow rate in standard mode	L/h	10	20	30	42	60	90
Maximum viscosity in 50% slow mode	L/h	5	10	15	21	30	45
Maximum viscosity in 25% slow mode	L/h	2.5	5	7.5	10.5	15	22.5
Minimum flow rate	L/h	0.06	0.06	0.06	0.06	0.06	0.06
Maximum operating pressure (Back Pressure)	Bar	16	12	10	7	4	3
Accuracy of repeatability	%	±0.2	±0.2	±0.2	±0.2	±0.2	±0.2
Standard installation maximum lift [1]	m	3	3	3	3	3	3
Maximum pressure difference between inlet and outlet [2]	Bar	1	1	1	1	1	1
Maximum viscosity in 25% slow mode	cР	1500	1500	1500	1500	1500	1500
Maximum viscosity in 50% slow mode	cР	800	800	800	800	800	800
Maximum viscosity in standard mode	cР	100	100	100	100	100	100
Type of inlet and outlet pipe	none	Hose	Hose	Hose	Hose	Hose	PVC pipe
Diamter of inlet and outlet pipe	mm	12*8	12*8	12*8	12*8	12*8	DN15
Minimum/Maximum liquid temperature for conveyance [3]	°C	0-45	0-45	0-45	0-45	0-45	0-45
Minimum/Maximum operating environment temperature	°C	0-45	0-45	0-45	0-45	0-45	0-45
Maximum operating altitude	m	3200	3200	3200	3200	3200	3200
Rated power	W	120	120	120	120	120	120

MARGINAL NOTES

- [1] Test results based on an altitude below 100 meters, using pure water as the medium at a temperature of 20°C.
- [2] Pressure differential can be increased by adding a back pressure valve to the outlet.
- [3] Optional flow components with different materials are available to extend the temperature range of the medium. For more details, please consult the manufacturer.



ED1 SERIES MODEL PARAMETER TABLE

TECHNICAL DOCUMENT		E01B	E01B	E01B	E01B
TECHNICAL PROJECT	UNIT				
				4 0000	
Turn-down ratio(Setting Range)	1:X	1:1000	1:2000	1:3333	1:3916
Maximum flow rate in standard mode	L/h	60	120	200	235
Maximum viscosity in 50% slow mode	L/h	30	60	100	117.5
Maximum viscosity in 25% slow mode	L/h	15	30	50	58.75
Minimum flow rate	L/h	0.6	0.6	0.6	0.6
Maximum operating pressure (Back Pressure)	Bar	10	7	5	4
Accuracy of repeatability	%	±0.2	±0.2	±0.2	±0.2
Standard installation maximum lift [1]	m	3	3	3	3
Maximum pressure difference between inlet and outlet [2]	Bar	1	1	1	1
Maximum viscosity in 25% slow mode	cР	1500	1500	1500	1500
Maximum viscosity in 50% slow mode	сР	800	800	800	800
Maximum viscosity in standard mode	сР	100	100	100	100
Type of inlet and outlet pipe	none	PVC pipe	PVC pipe	PVC pipe	PVC pipe
Diamter of inlet and outlet pipe	mm	DN15	DN15	DN20	DN20
Minimum/Maximum liquid temperature for conveyance [3]	°C	0-45	0-45	0-45	0-45
Minimum/Maximum operating environment temperature	°C	0-45	0-45	0-45	0-45
Maximum operating altitude	m	3200	3200	3200	3200
Rated power	W	150	150	150	150

MARGINAL NOTES

- [1] Test results based on an altitude below 100 meters, using pure water as the medium at a temperature of 20°C.
- Pressure differential can be increased by adding a back pressure valve to the outlet.

 [3] Optional flow components with different materials are available to extend the temperature range of the medium. For more details, please consult the manufacturer.









ED1 SERIES MODEL PARAMETER TABLE

TECHNICAL PROJECT		E01C	E01C	E01C	E01C	E01C
TECHNICAL PROJECT	UNIT					
		4.050	4.000			
Turn-down ratio(Setting Range)	1:X	1:250	1:333	1:1041	1:1266	1:2611
Maximum flow rate in standard mode	L/h	90	120	375	450	940
Maximum viscosity in 50% slow mode	L/h	45	60	187.5	225	470
Maximum viscosity in 25% slow mode	L/h	22.5	30	93.75	112.5	235
Minimum flow rate	L/h	0.36	0.36	0.36	0.36	0.36
Maximum operating pressure (Back Pressure)	Bar	16	16	10	5	4
Accuracy of repeatability	%	±0.2	±0.2	±0.2	±0.2	±0.2
Standard installation maximum lift [1]	m	3	3	3	3	3
Maximum pressure difference between inlet and outlet	Bar	1	1	1	1	1
Maximum viscosity in 25% slow mode	cР	1500	1500	1500	1500	1500
Maximum viscosity in 50% slow mode	cР	800	800	800	800	800
Maximum viscosity in standard mode	cР	100	100	100	100	100
Type of inlet and outlet pipe	none	PVC pipe				
Diamter of inlet and outlet pipe	mm	DN20	DN20	DN25	DN25	DN25
Minimum/Maximum liquid temperature for conveyance [3]	°C	0-45	0-45	0-45	0-45	0-45
Minimum/Maximum operating environment temperature	°C	0-45	0-45	0-45	0-45	0-45
Maximum operating altitude	m	3200	3200	3200	3200	3200
Rated power	W	400	400	400	400	400

MARGINAL NOTES

- [1] Test results based on an altitude below 100 meters, using pure water as the medium at a temperature of 20°C.
- Pressure differential can be increased by adding a back pressure valve to the outlet.

 [3] Optional flow components with different materials are available to extend the temperature range of the medium. For more details, please consult the manufacturer.







E01C 120-16



E01C 375-10



E01C 450-05



E01C 940-04

T ELECTRIC DIFFERENTIAL PUMP

DOMINANCE

BU%

DOWNSIZE

502







High Precision

resolutions of up to

18K enables the

highest level of flow

accuracy, reaching a

maximum of 0.2%.

Modular Design

Fully modular

Intelligent Features

Automated Monitoring

Extended Lifespan

integrated design for easy installation and convenient usage.

High-speed pulse control with

Internal integration of AI algorithm module, without access to PLC can realize PH,liquid level, concentration of PID control, timing on/off quantitative dlivery and other functions, equipped with communication interface.

Pipe network status monitoring, self-contained flushing function, multiple high viscosity liquid

delivery strategies.

Anti-clogging

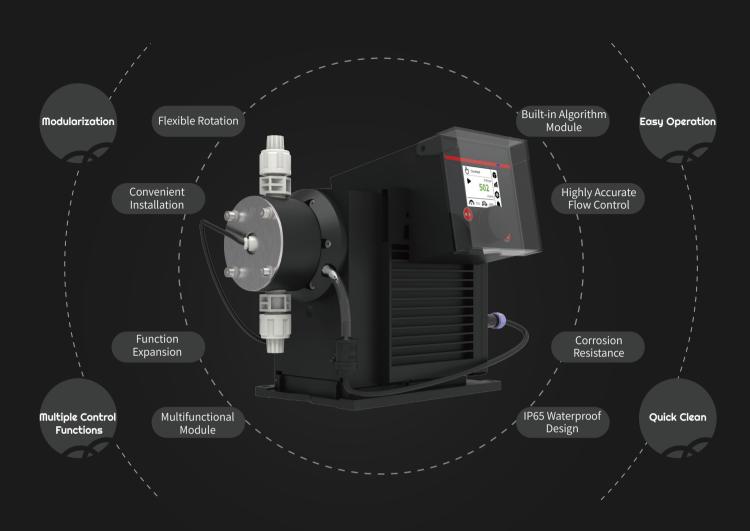
Cell phone through WIFI or 4G access to the centralized control center, wireless remote monitoring can be realized, the entire metering system, including: flow adjustment, cost reports, consumption on duty, wear parts life, fault alarm and other monitoring.

The life of wearing parts is higher than traditional metering pumps,with damage warning function.

E01 DIGITAL DOSING PUMP

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Control Module

The pump can beoperated locally for flow rate setting, pressuremonitoring, wear parts monitoring, automatic concentration proportioning and function switching.

Communication Interface

Multiple external control interfaces for including: current, voltage, Modbus, DP, pulse and otherexternal control modes.

Quick Release Base

Strong, stable and fast, from removal toinstallation in just 10 seconds.

Pipe Networkpressure Monitoring

STOCKTM technology and Fourier algorithm to determine the operating status within the pipe network in real time.

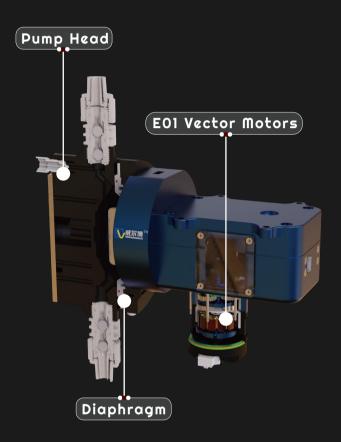
Diaphragm Monitoring

LDC-technology monitors the internal conductivity of the diaphragm.The LDC-technology monitors the internal conductivity of the diaphragm.cracks in thediaphragm, an alarm message is issued.



OPERATING PRINCIPLE •

The E01 digital dosing pump uses vector motor control technology, achieving a maximum controllable flow range ratio of 1:1500, with the highest output accuracy of ± 0.2 , wwhich can meet the requirements of high-precision fluid transfer applications.

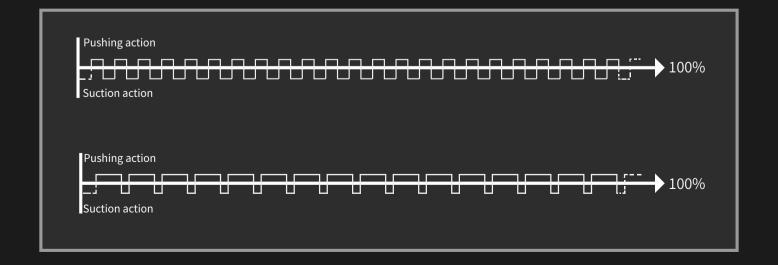




A vector motor drives the diaphragm in a reciprocating motion to draw liquid into and out of the pump head.

Vector motors achieve precise and uniform output control of liquids by using calculus algorithms to establish a linear relationship between the motor rotation angle and the output flow rate.

Vector motors enable precise delivery of highly viscous liquids by controlling the suction speed.



FUNCTION •

Conveys Fluids Of Various Viscosities

Viscosity range 0-1500C.P



(Multiple remote control interfaces)

Access to various external signals

Easy operation

Quick Setup Workstation

Easy Installation

Small footprint



Integrated Modular Architecture

• • •

Integration of up to 20 pumps

Multiple modules can be

connected in parallel/series

Unlimited expansion

FSS Fluid Specialization Module





Scan code for details



Wear parts life monitoring

Pipe Leakage Alarm

Fluid deficiency monitoring

Automatic exhaust

PERSONALIZED INTEGRATED RACKS

Space saving and cost reduction



- **□ I Modularization**
- **□2** Standard Universal Interface
- **□∃** Portfolio Flexibility
- **U4** Multiple Mounting Options



1 rack for 1 spare





Vertical stand-alone





Vertical Duplex





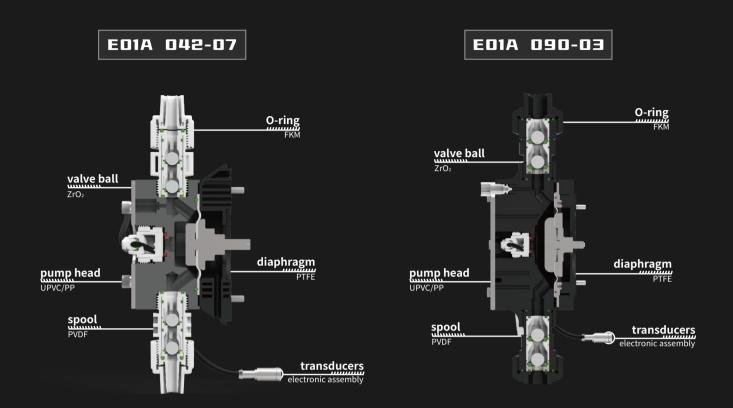
Wall-mounted single/double



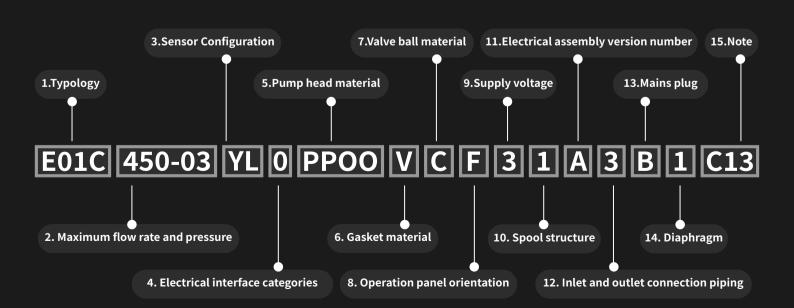


Integrated Vertical

OVERCURRENT MATERIAL 👨



model identification •





1.Typology (E01 Range)

CODE (4 DIGITS)	DEFINITIONS
E01A	E01A Maximum flow rate 90L/h
E01B	E01B Maximum flow rate 225L/h
E01C	E01C Maximum flow rate 940L/h

2. Maximum flow rate and pressure

CODE (6 DIGITS)	DEFINITIONS
010 -16	Flow rate of 10 L/h at 16 bar pressure
020-12	Flow rate of 20 L/h at 12 bar pressure
030-10	— Flow rate of 30 L/h at 10 bar pressure
042-07	Flow rate of 42 L/h at 7 bar pressure
060-04	Flow rate of 60 L/h at 4 bar pressure
090-03	Flow rate of 90 L/h at 3 bar pressure
060-10	— Flow rate of 60 L/h at 10 bar pressure
	Flow rate of 120 L/h at 7 bar pressure
200-05	Flow rate of 200 L/h at 5 bar pressure
235-04	— Flow rate of 235 L/h at 4 bar pressure
090-16	— Flow rate of 90 L/h at 16 bar pressure
120-16	Flow rate of 120 L/h at 16 bar pressure
375-10	Flow rate of 375 L/h at 10 bar pressure
450-05	— Flow rate of 450 L/h at 5 bar pressure
940-04	— Flow rate of 940 L/h at 4 bar pressure

3. Configuring Sensors

CODE (2 DIGITS)	DEFINITIONS
Y0	YLC (Pressure) Sensor
OL	 LDC (Liquid Drainage) Sensor
YL	YLC (pressure) sensorand LDC (Liquid Leakage) Sensor

4. Electrical Interface Category

CODE (1 DIGIT)	DEFINITIONS
0	Basic version 1 (with 485 interface only)
1	Standard version 1 (equipped with 485 interface,LDC sensorinterface, 4-20 mAinput interface)
2	Standard version 2 (equipped with all interfacesexcept 4-20mAinput interface)
3	Digital version (with all interfaces)
4	Basic version 2 (with 485 interface and leakage interface only)

5. Pump Head Material

CODE (4 DIGITS)	DEFINITIONS
PVDF	Polyvinylidene fluoride
PVC0	Polyvinyl chloride
S001	304 stainless steel
S002	316L stainless steel
S003	Aluminium alloy
PP00	Polypropylene
PTFE _	Polytetrafluoroethylene
CPVC	Chlorinated polyvinyl chloride

6.Gasket Material

CODE (1 DIGIT)	DEFINITIONS
Е	EPDM EPDM rubber
т	PTFE polytetrafluoroethylene
V	FPM Fluorine Rubber
F	FEPM tetrapropylene fluorine rubber

MODEL DESCRIPTION II

7. Valve Ball Material

CODE (1 DIGIT)	DEFINITIONS
С	Ceramics
G	 Fiberglass
S	Stainless steels
A	Upper zirconium beads and lower glass balls

12.Inlet And Outlet Connection Piping

CODE (1 DIGIT)	DEFINITIONS
1	φ12x8 hose
2	φ12x17 hose
3	DN15
4	 DN20
5	 DN25

8. Operation Panel Orientation

CODE (1 DIGIT)	DEFINITIONS
F	Anterior
R	Right side
L	 Left side
C	 Lateral side

9. Supply Voltage

CODE (1 DIGIT)	DEFINITIONS
3	110~240Vac/50Hz
2	24VDC

10.Spool Structure

CODE (1 DIGIT)	DEFINITIONS
1	standard
2	sprung

13. Mains Plug

CODE (1 DIGIT)	DEFINITIONS
В	China
J	 Japan
E	 Europe
A	 America
D	— DC2P aircraft carrier

14.Diaphragm

CODE (1 DIGIT)	DEFINITIONS
1	Diaphragm assembly (without PTFE)
2	— Diaphragm assembly (PTFE coated)
3	Composite diaphragm (brass)
4	— Composite diaphragm (carbon steel)

11. Electrical assembly version number

Manufacturing non-standard codes

15.Note

Manufacturing non-standard codes

AREAS OF APPLICATION 📮



SITE OF USE

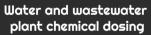




New energy copper foil manufacturing additive dosing

Chemical and smelting acid additives







Bio-energy various enzyme additives



Industrial cooling system scale inhibitor addition



Metallic and non-metallic beneficiation chemicals dosing



Automobile manufacturing: Paint color mixing masterbatch feeding





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