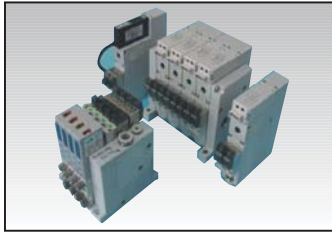
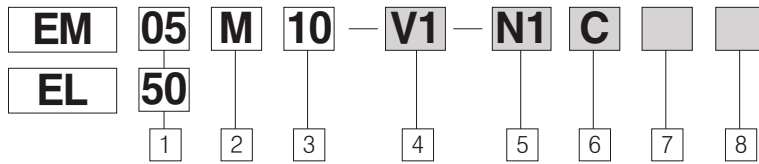


# MULTI-EJECTOR Series EM/EL

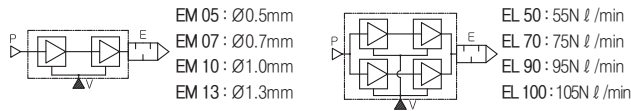


- Compact big-flow rate(two-stage nozzle)
  - With compact manifold(central, separate supply & exhaust)
  - Various function (generating a vacuum, vacuum release valve, vacuum pressure switch)
- Various vacuum flow rate (optimized high speedy response)
  - EM series (Max. vacuum flow rate 70N ℓ /min, 4 types)
  - EL series (Max. vacuum flow rate 100N ℓ /min, 4 types)
- Various exhausting ways
  - Single : open exhaust, piping port exhaust
  - Manifold : separate open exhaust, central exhaust

## How to Order



### 1 EM : NOZZLE DIA(mm) / EL : VACUUM VOLUME(N ℓ /min)



### 2 Supply and Exhaust method

Item	Symbol	Supply/Exhaust	Note
Single	S	Separate	Open, Exhaust by pipe
Manifold	MA	Separate	Open, Exhaust by pipe
	M	Central/Separate	Open, Exhaust by pipe
	MB	Central	Open, Two direction pipe
	MR	Central	Right pipe port exhaust(In front of V-Port)
	ML	Central	Left pipe port exhaust(In front of V-Port)

※ Ordering single, piping exhaust port, pld add S1, MA1 and M1  
 ※ Silencer for manifold central exhaust must be order separately(Part No. SN500-06R 3/4)

### Port Size

Item	Symbol	Port Size		
		Supply Port	Vacuum Port	Exhaust Port
Single	S	Rc(PT)1/8	PC(PT)1/8 or ø 10 Fitting	Rc(PT)1/8,
	MA	Rc(PT)1/8		Open type
Manifold	M	Rc(PT)1/4 (Central)	PC(PT)1/8 or ø 10 Fitting	Rc(PT)3/4
	MB			
	MR			
	ML			

### 3 Manifold Stating

Blank	Single	전 모델 단품 주문시
02	2station	매니폴드만 주문시
⋮	⋮	
10	10station	

### Max. Manifold station according to nuzzle dia

Item	MA	M, MB	MR, ML
EM05	10	10	10
EM07	10	10	8
EM10	10	8	5
EM13	10	6	4
EL50	5	5	4
EL70	5	3	3
EL90	5	3	3
EL100	5	2	2

### 4 Valve Spec

Item	For supply	For release	Valtage
Blank	-	-	DC 24V
V1	N.C	N.C	
V2	N.O	N.C	
V3	N.O	-	
V4	N.C	-	

※ AC110V, DC 12V have to be asked

### 5 Vacuum Switch

※ Voltage : DC24V

Item	Symbol	Note
-	Blank	Without Switch
VPS-*	NL	LED 3 Digit, NPN 2 Point+Analog output, Grommet type
	NK	LED 3 Digit, NPN 2 Point+Analog output, Connector type
VMS-*	N1	LED on/off, NPN 1 Point+Analog output, Connector type
	N2	LED on/off, NPN 2 Point, Connector type
VPS-*	PL	LED 3 Digit, NPN 2 Point+Analog output, Grommet type
	PK	LED 3 Digit, NPN 2 Point+Analog output, Connector type
VMS-*	P1	LED on/off, NPN 1 Point+Analog output
	P2	LED on/off, NPN 2 Point, Connector type

※ Ordering PNP type, pls let us know firstly

### 6 Switch Lead Wire Spec

Blank	with 0.6meter
C	with 2meter

※ Lead wire grommet is only 2meter

### 7 Check Valve

Blank	without
H	with

※ with check valve, vacuum release time will be delayed.

### 8 Vacuum(V) Port

Blank	Rc(PT) 1/8
F	ø 10 Fitting

## Specification

DS3000  
DS5000  
DP300/  
3000/5000  
DS6000  
DS3000  
(Base Ported)  
DX1,2  
DX2R  
DH  
DW  
DM  
DT220/  
UDT220/DC  
TPC-1000  
/1200  
PC  
PF  
PR  
PL  
PP  
PFH/  
PFU  
PLV  
TXF  
PVR/PNR  
PER2000  
/3000  
TAD  
EP  
**EM/EL**  
SPSA  
SPS  
SQ  
SC  
SP  
SP4000  
/SPM  
SP2000  
SN  
SQ2  
SH  
DCH  
SF  
ST  
W1  
W2/W3  
W4/W5  
W6/W7  
Mini  
Auto Switch

### Flow Charactor

Model	EM05□	EM07□	EM10□	EM13□	EL50□	EL70□	EL90□	EL100□
Max. suction flow(N l /min)	15	30	60	70	55	75	95	105
Air consumption(N l /min)	12	23	46	95	46	66	92	141
Max. vacuum pressure	-84kPa(-630mmHg)							

### Ejector Spec

Fluid	Air	
Max. operating pressure	0.7MPa(7.1kgf/cm <sup>2</sup> )	
Supply pressure range	0.5MPa(4.5kgf/cm <sup>2</sup> ~5.5kgf/cm <sup>2</sup> )	
Operating temperature range	5 ~ 50℃	
Filteration	PE, 30μm	
Port	Supply	Rc(PT) 1/8
	Suction	Rc(PT) 1/8, ∅ 10 Fitting
Weight	350g	
Mounting direction	Free	

### Valve Spec

Pressure range	0.25~0.7MPa(7.1kgf/cm <sup>2</sup> )
Control Method	N.C / N.O
Voltage	DC24V
Allowable Voltage	Voltage ± 10
Effective area	0.18mm <sup>2</sup>
Electrical entry	Plug connector
Power consumption	DC 0.6W or less
Electrical color	red(+), black(-)
Lamp, Surge voltage suppress	with LED, surge suppressor

### Vacuum Switch

Model	VMS- □□- □□	VPS- □- □- □□□
Display	LED(Red, light) indicator	LED 3 digit
Setting vacuum rate	-53.3kPa(-400mmHg)/1점	
Voltage	DC12-24V	
Output ways	NPN/PNP open collect 30V, 200mA	NPN/PNP open collect 30V, 80mA
Output points	1 point output + setting hysteresis(analog output) or 2 points output	2 points output + analog output
Current consumption	30mA	under 50mA
Setting pressure range	0kPa~101kPa	
Guaranteed pressure	0.2MPa(정격압력의 2배)	
Applied fluid	공기, 비부식성 기체	
Temp. range	0~60℃	
Temp. characteristics	under ±3% F.S	
Setting hysteresis	Setting pressure 0.5~10% F.S	3% F.S (fixed)
Response	under 2.5ms	under 2.0ms
Repeatability error	within ±1% F.S	±0.2% F.S
Electrical entry	connector	connetor or grommet
Function	hysteresis setting trimmer(210°) pressure setting trimmer(210°)	-

### Color of Switch Reed Wire

VMS	brown	DC(+)
	black	output 1
	white	output 2(or analog output)
	blue	DC(-)

VPS	brown	DC(+)
	black	output 1
	white	output 2
	blue	DC(-)
	yellow	analog output