

A1005FM-...Electric Modulating Seat Valve Series



**Electric Modulating Seat Valve
A1005FM-...Series
Flanged Connection
PN16/PN25**

Performance & Features:

- ◆ Nominal diameter: DN15...DN400, flanged connection
- ◆ Flow range 4-2700m³/h;
- ◆ Ideal flow regulation characteristic, with a linear relationship between relative flow rate and relative stroke.
- ◆ Precision-cast valve bodies, ensuring a long service life.
- ◆ Valve body surface coated with high-temperature resistant paint, which will not peel off or fade under high temperature and long-term service.
- ◆ Flanged connection conforming to EN10226 and EN1092-1/2.

Applications:

This series of valves can be used in air conditioning systems in HVAC systems, and plate heat exchanger units in heating systems

Ethylene Glycol ≤50%;	-15°C~130°C Cold and warm water valve
Low Temperature Water High Temperature Water	
Saturated Steam (≤130°C)	
Saturated Steam (0.6MPa) Superheated Steam (≤180°C)	2°C~180°C Steam valve

Model Designation:

For example: A1005FM-80-16P/(Actuator model)

1. "A10" Electric Modulating Seat Valve Series;
2. "0" :2-way valve; "3" :3-way valve;
3. "5" : Seated valve structure ;
4. "F" : Flanged connection; "T" : Threaded connection;
5. "M" : Modulation type; "S" : On-off type;
6. "-" : separator;
7. "80" : Nominal Diameter DN80;
8. "16" Nominal Pressure, PN25/PN16;
9. "P" : Stainless Steel, "T" : Brass, "B" : Bronze, "Q" : Ductile Iron, C: Cast Steel;



Technical Specification:

PN (Nominal Pressure)	PN16, PN25 for option
Connection Standard	Flanged connection EN1092-1/2, ISO 7005, JB/T 4700-200 or ANSI B 16.5
Leakage rate	< 0.02% Kvs
Working Temperature:	
Water control valve	(-15°C~130°C)
Steam	(2°C~+180°C)
Allowable working pressure	1.6MPa, 2.5MPa
Stroke	Below DN100: 20mm, DN100:20 or DN100:40 available Above DN100: 40mm
Body	Brass/Bronze/ Ductile iron / Cast Steel / Stainless Steel
Stem, balancing valve core	Stainless Steel
Sealing ring	PTFE
Seal housing	Spring-energized Seal +PTFE

Parameter Table:

Model	Pipe Diameter (in.)	DN (mm)	Kvs (m ³ /h)	Stroke (mm)	ME Actuator	Maximum Shut-off Differential Pressure Δ Ps (Mpa)
A1005FM-15-16Q	1/2"	15	4	20	2000N	≤ 0.80
A1005FM-20-16Q	3/4"	20	5	20	2000N	≤ 0.60
A1005FM-25-16Q	1"	25	7.5	20	2000N	≤ 0.60
A1005FM-32-16Q	1 1/4"	32	16	20	2000N	≤ 0.60
A1005FM-40-16Q	1 1/2"	40	20	20	2000N	≤ 1.00
A1005FM-50-16Q	2"	50	31	20	2000N	≤ 0.90
A1005FM-65-16Q	2 1/2"	65	63	20	2000N	≤ 1.60
A1005FM-80-16Q	3"	80	78	20	2000N	≤ 1.60
A1005FM-100-16Q	4"	100	124/156	20/40	4000N	≤ 1.60
A1005FM-125-16Q	5"	125	200	40	4000N	≤ 1.20
A1005FM-150-16Q	6"	150	300	40	4000N	≤ 1.00

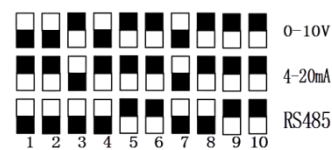
Electric Actuator (ME Series):



Green terminal, with pins from the left side defined as follows in sequence:

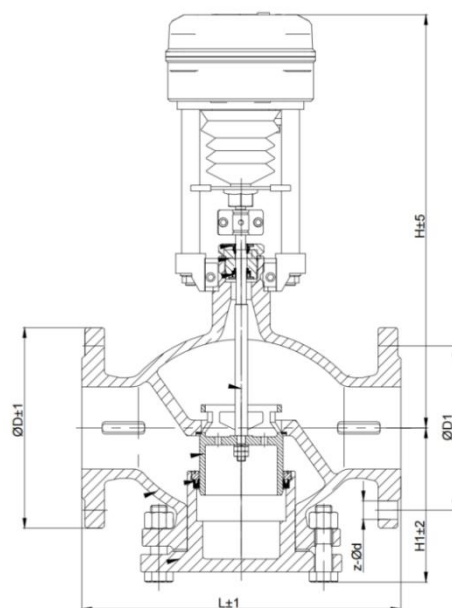
B-AC/DC24V+
 O-AC/DC24V
 O- Control signal -
 E- Control signal +
 Y- Feedback signal +
 B-RS485-B
 A-RS485-A

Note: The 9th position of the DIP switch must be set to ON for the first power-on.



DIP Switch No.	Function	Setting Value & Function Description
S2-1	Control/Valve Position Feedback Signal Start Point Setting	ON: 20%: The start point of the control/valve position feedback signal is 20% (applicable for 4~20mA or 2~10VDC control/valve position feedback signals) OFF: 0: The start point of the control/valve position feedback signal is 0 (applicable for 0~20mA or 0~10VDC control/valve position feedback signals) (Factory default setting)
S2-2	Control Signal Type Setting	ON: II: Control signal is current type OFF: UI: Control signal is voltage type (Factory default setting)
S2-3	Input Signal Impedance Matching Setting	ON: UI: Control signal is voltage type (Factory default setting) OFF: II: Control signal is current type
S2-4	Valve Position Feedback Signal Type Setting	ON: IO: Valve position feedback signal is current type OFF: UO: Valve position feedback signal is voltage type (Factory default setting)
S2-5	Operating Mode Setting	ON: FM: When the control signal increases, the driver shaft extends; when the control signal decreases, the driver main shaft retracts OFF: ZM: When the control signal increases, the driver shaft retracts; when the control signal decreases, the driver main shaft extends
S2-6	Signal Loss Mode Setting (Signal loss hold function must be specified before ordering, can be configured at the factory)	ON: 1) SX: When the control signal type is set to voltage or current type, if the signal line is cut off, the driver will automatically provide a minimum control signal internally; 2) When the control signal type is set to current type, if the signal line is cut off, the driver will automatically provide a minimum control signal internally OFF: When the control signal type is set to voltage type, if the signal line is cut off, the driver will automatically provide a maximum control signal internally
S2-7	Sensitivity Setting	ON: GJ: High sensitivity of control signal $\leq 1.5\%$ OFF: DJ: Standard sensitivity of control signal $\leq 2.5\%$
S2-8	RS485/Signal Selection	ON: Analog OFF: RS485
S2-9	Self-Test Setting	ON: Self-test on power-on OFF: No self-test on power-on
S2-10	Operating Speed Setting	ON: Low speed operation OFF: High speed operation
Note: If signal hold function is required, please specify in advance. (Signal loss hold function is only applicable for 2-10V or 4-20mA signals.)		

Dimension Chart: A1005FM-...-16Q



DN	L	ΦD	ΦD1	z-Φd	H+H1
50	230	160	125	4-18	524
65	290	180	145	4-18	517
80	310	195	160	8-18	506
100	350	215	180	8-18	540
125	400	245	210	8-18	555
150	480	280	240	8-23	607