

# Siemens Modulating Valve

## Category: M2FP

Capacity requirements: 6 - 354 Kvs [ $m^3/h$ ]



### Functional description:

M2FP03GX is a modulating valve for the connection to the refrigerant level control sensor type HBLC. It can be used for all refrigerants and has a fast reaction time. The modulating valve requires only supply and connection from the HBLC.

- 2-port modulating pilot valve with magnetic actuator, PN32, AC 24 V, DC 0...10 V / 4...20 mA / 0...20 Phs to control main valves
- Hermetically sealed 2-port valve as a control valve for main valves from 2" to 5".
- PN32 with threaded connections
- For use with refrigerants such as R22, R134a, R404A, R407C, R507 and ammonia R717

The Siemens M2FP Series is for capacity requirements of 6 – 354 Kvs [ $m^3/h$ ]

**We recommend Siemens valves for evaporators larger than 150 kw.**

## Technical data

Electrical specifications		Mechanical specifications	
Operating voltage	AC 24 V		
Power consumption	13 VA	Material – valve body	Steel / CrNi steel
Positioning signal	DC 0...10 V; DC 4...20 mA; DC 0...20 V Phs	Material – inside set	CrNi steel
Environmental conditions			
Ambient temperature, operation	-40...50 C		
Medium temperature	-40...100 C		
Mounting position	Any		
Permissible operating pressure	3200 kPa		
Valve characteristic	Linear		
Protection degree	IP54		



## Choose the valve ordering code and the sensor family based on capacity requirements – Kvs [m<sup>3</sup>/h]

Valve and sensor selection:

MVS 661 IP valve with built in heater „Siemens ASR61-IP

[3]

[2]

[1]

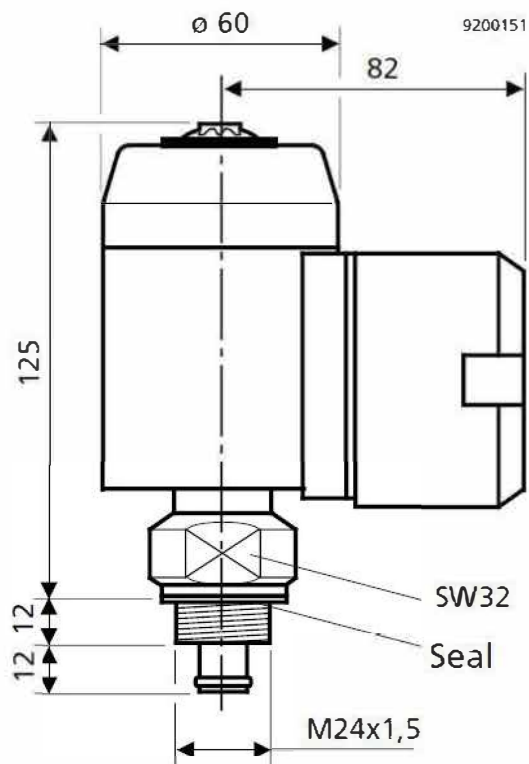
Sensor Family	Producer	Ordering code	Refrigerant	Actuator/Coil	Kvs [m <sup>3</sup> /h]	Size	MOPD
HBLC/C/S-xxx	Carel	E2B05CS000	NH3,HFC,CO2	Integrated	0.016	10 mm	140 bar
		E2B09CS000	NH3,HFC,CO2	Integrated	0.0275	10 mm	140 bar
		E2B11CS000	NH3,HFC,CO2	Integrated	0.0475	10 mm	140 bar
		E2B14CS000	NH3,HFC,CO2	Integrated	0.0725	10 mm	140 bar
		E2B18CS000	NH3,HFC,CO2	Integrated	0.106	10 mm	140 bar
		E2B24CS000	NH3,HFC,CO2	Integrated	0.21	10 mm	140 bar
		E2B35CS000	NH3,HFC,CO2	Integrated	0.34	10 mm	140 bar
HBLC/C-xxx	Siemens	MVS661.25-016N	NH3,HFC,CO2	Integrated	0.16	DN25	53 bar
		MVS661.25-0.4N	NH3,HFC,CO2	Integrated	0.40	DN25	53 bar
		MVS661.25-1.0N	NH3,HFC,CO2	Integrated	1.00	DN25	53 bar
		MVS661.25-2.5N	NH3,HFC,CO2	Integrated	2.50	DN25	53 bar
		MVS661.25-6.3N	NH3,HFC,CO2	Integrated	6.30	DN25	53 bar
HBLC/C-xxx	Danfoss/Siemens	ICS25	NH3,HFC,CO2	Siemens M2FP	6-12	DN25	18 bar
		ICS32	NH3,HFC,CO2	Siemens M2FP	9-17	DN32	18 bar
		ICS40	NH3,HFC,CO2	Siemens M2FP	15-26	DN40	18 bar
		ICS50	NH3,HFC,CO2	Siemens M2FP	23-40	DN50	18 bar
		ICS65	NH3,HFC,CO2	Siemens M2FP	23-70	DN65	18 bar
		ICS100	NH3,HFC,CO2	Siemens M2FP	142	DN100	18 bar
		ICS125	NH3,HFC,CO2	Siemens M2FP	207	DN125	18 bar
		ICS150	NH3,HFC,CO2	Siemens M2FP	354	DN150	18 bar

The Danfoss/Siemens combination consists of the ICSxx pilot valve from Danfoss and the Siemens M2FP actuator

## Ordering code

Valve type	Kvs [m³/h]	QoE [kW]	DN	Ordering code
Siemens-M2FP03GX + Zm101/A	6 - 354		25	Siemens-M2FP/ZM101A

## Mechanical dimensions



## Spare parts

Valve type	Specification	Type	Ordering code
Siemens M2FP03GX	Mechanical part	Siemens M2FP03GX	Siemens M2FP03GX
Siemens M2FP03GX	Terminal housing for modulating pilot valve	Siemens ZM121/A	Siemens ZM121/A

"Siemens Refrigeration Valve Selection Program" can be downloaded from the website: <http://www.hbproducts.dk/en/accessories/modulating-valve>

*\*The calculation program for dimensioning of Siemens modulating valves is indicative and developed by Siemens. HB Products is not responsible for calculations and cannot be held liable for any damages or other liability arising from calculations from this Siemens Refrigeration Valve Selection Program.*