

MF20-R Butterfly Valve Actuator

The MF20-R is a robust, reliable rotary actuator for the control of the installed TRV-S DN25-125 butterfly valves.



Features

- Models for Floating/Proportional and On/Off control
- Latching Manual override
- Direct Hand Lever / position indicator

Technical Data

Product	MF20-24F-R	MF20-24M-R	MF20-230F-R
Description	3-Point Floating, 24V	2-10 V Modulating	3-Point Floating, 230V
Torque (nominal)	Min. 20 Nm at nominal voltage		
Motor Voltage	24V ac±20% 50/60 Hz or 24 Vdc±20%		230 VA -60%/+15%, 50/60 Hz
Power Consumption: Operation	2.5 W	2.5 W	3 W
Power Consumption: At Rest	0.2 W	0.4 W	0.4 W
Power Consumption: For wire sizing	5.5 Vac	5 Vac	7 Vac
Electrical Connection	Terminals 4 mm ² (Cable ø 6... 8 mm, three-core)	Terminals 4 mm ² (Cable ø 6... 8 mm, four-core)	Terminals 4 mm ² (Cable ø 6... 8 mm, three-core)
Control: Signal	Open/Close or 3-Point,	DC 0 ... 10 V, typical input impedance 100 kΩ	Open/Close or 3-Point,
Control: Operating Range	–	DC 2 ... 10 V	–
Position Feedback (Measuring voltage U)	–	DC 2 ... 10 V, max. 1 mA	–
Position Accuracy	–	±5%	–
Sound power level	Max. 45 dB (A)		
Operating Time	90 s/90°		
EMC	CE according to 89/336/EEC		CE according to 89/336/EEC Low voltage directive CE according to 73/23/EWG
Rated impulse voltage	0.8 kV (to EN 60730-1)		4 kV (to EN 60730-1)
Enclosure	IP 54		
Protection Class	III Extra Low Voltage		II Total Insulated
Max Ambient Temp.	0 to 50°C		

Ordering Information

Voltage	Control	Torque	Part Number	Type Designation	Suitable TRV-S Valve Sizes
24V AC/DC	Floating & On/Off	20Nm	MF20-24F-R	MF20-24F-T54 R0	DN25-125
230V AC	Floating & On/Off	20Nm	MF20-230F-R	MF20-230F-T54 R0	DN25-125
24V AC/DC	0(2)-10V Proportional	20Nm	MF20-24M-R	MF20-24M T54 R0	DN25-125

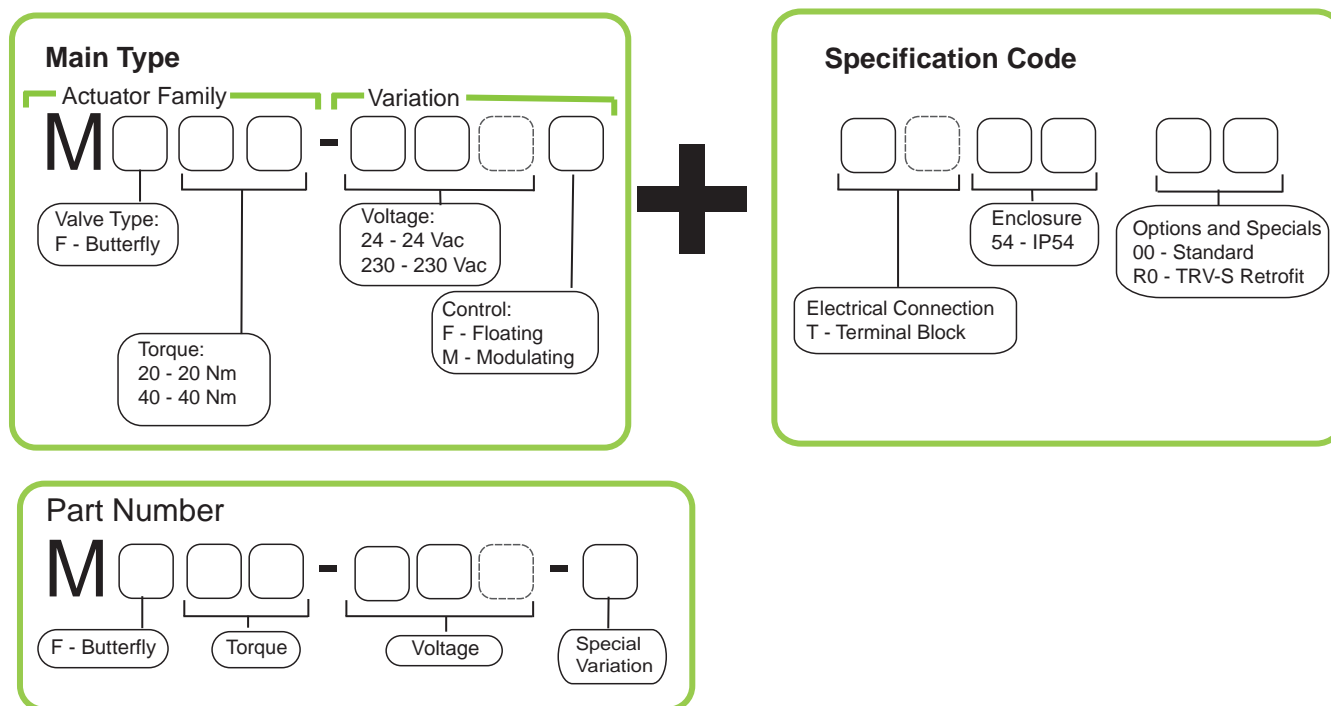
Accessories

Type	Description	Rating	Part Number
MD-S1	1xSPDT auxiliary switch	AC1: 1mA to 3A, 250V (AC3: Max 0.5A)	914-1060-000
MD-S2	2xSPDT auxiliary switch	AC1: 1mA to 3A, 250V (AC3: Max 0.5A)	914-1061-000

Pressure Table

Max ΔP (kPa) MF20-..R on TRV-S							
DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125
600	600	600	600	600	600	600	250

Type Designation and Part Number

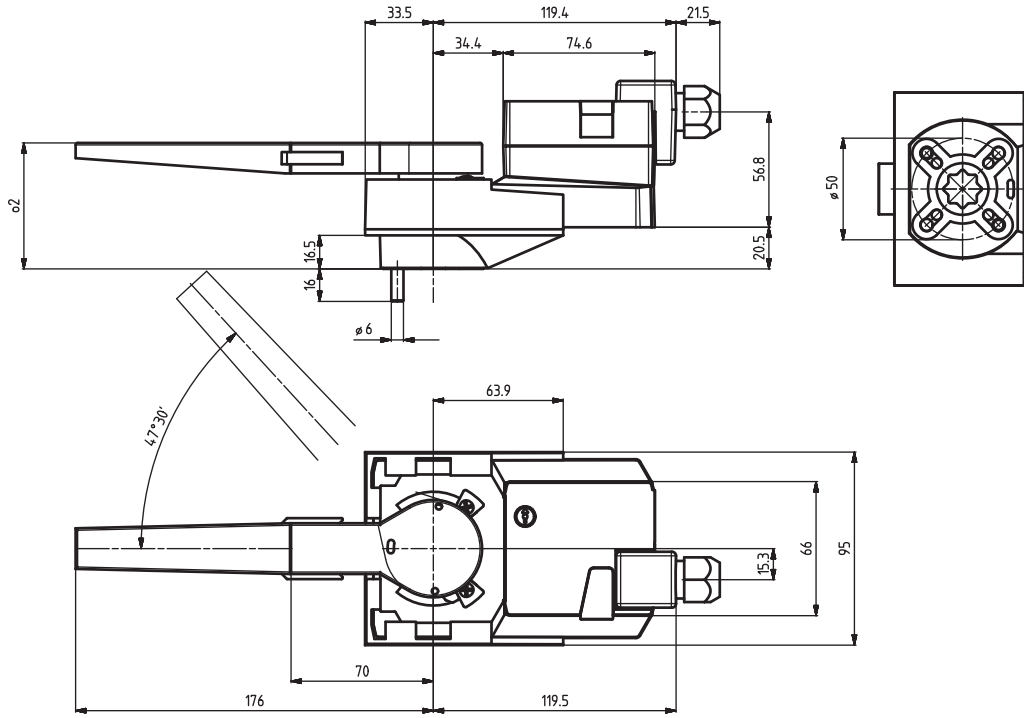


Literature Directory

Product	Description	Document Number
MF40 Actuator	MF40 Datasheet (standard model fits TRV-S Valves DN150/200)	F-27640
MF20-R	Installation Instruction	OFL-02-00054-01

Actuator Dimensions

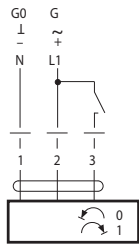
MF20-24F-R, MF20-24M-R, and MF20-230F-R



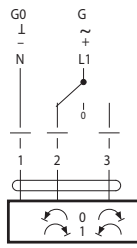
Wiring Diagrams



AC 24 V / DC 24 V

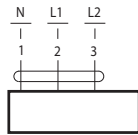
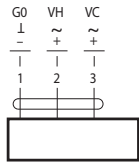


MF20-24F

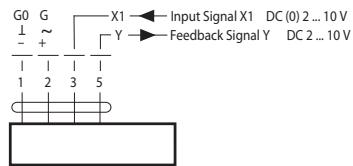


MF20-230F

AC 100 ... 240 V



AC 24 V / DC 24 V



MF20-24M

Input Signal X1 DC (0) 2 ... 10 V
Feedback Signal Y DC 2 ... 10 V