

TA-MC Actuators

High performance proportional actuators –
TA-MC15, TA-MC15-C, TA-MC50-C, TA-MC55, TA-MC100,
TA-MC160, TA-MC100 FSE/FSR



TA

Pressurisation & Water Quality › Balancing & Control › Thermostatic Control

ENGINEERING ADVANTAGE

High performance proportional actuators with automatic stroke adaptation which provide accurate modulating, 3-point or on/off control when used together with combined control and balancing valves – both with or without integrated Δp controller – as well as stand-alone 2-way and 3-way control valves from TA Hydraulics.

> **Easy commissioning**

Automatic measurement and adaptation to the stroke path as well as load-dependent end position switch-off help to reduce commissioning time and protect the valve and actuator from overloading.

> **Easy troubleshooting**

Safe handwheel for manual override enables easy troubleshooting.

> **Ease of service**

The actuator housing cover is easy to remove (without screws) and parameters can be easily changed on site without using a Laptop.



> Actuator overview

TA-MC15



TA-MC15-C



TA-MC50-C



TA-MC55Y/
TA-MC55



TA-MC100



TA-MC160



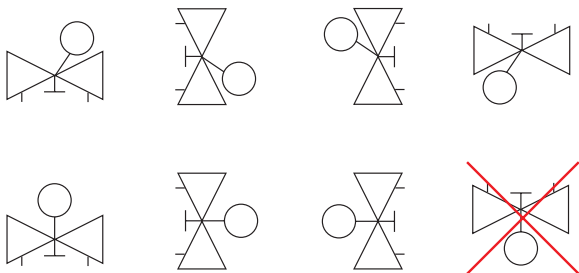
TA-MC100 FSE/FSR



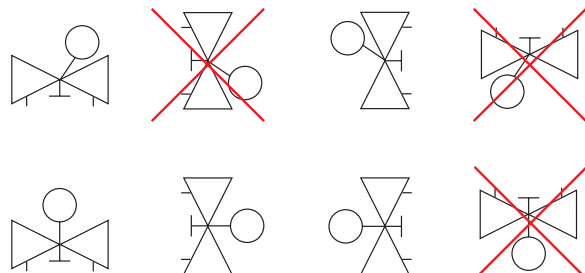
> Actuator positions

Note: Read carefully the installation instruction of the actuator. Intended for indoor installation applications. For outdoor installation applications please contact TA Hydraulics. In cooling systems, the pipe and valve must be insulated.

TA-MC15, TA-MC15-C, TA-MC50-C, TA-MC55Y/TA-MC55,
TA-MC100, TA-MC160



TA-MC100 FSE/FSR



Selection table

	TA-MC15	TA-MC15-C	TA-MC50-C	TA-MC55Y/ TA-MC55	TA-MC100	TA-MC160	TA-MC100 FSE/FSR
Stroke (max.) [mm]	9	6	10	20	20	30	30
Adjusting force [N]	150	200	500	600	1000	1600	1000
Supply voltage [V]	TA-MC15/24: 24V AC/DC ±10% TA-MC15/230: 230V AC ±10%	TA-MC15/24-C: 24V AC/DC ±10% TA-MC15/230-C: 230V AC ±10%	TA-MC50/24-C: 24V AC/DC ±10% TA-MC50/230-C: 230V AC ±10%	TA-MC55Y, TA-MC55/24: 24V AC/DC ±10% TA-MC55/230: 230V AC +6%, -10% TA-MC55/115: 115V AC +6%, -10%	TA-MC100/24: 24V AC/DC ±10% TA-MC100/230: 230V AC +6%, -10% TA-MC100/115: 115V AC +6%, -10%	TA-MC160/24: 24V AC/DC ±10% TA-MC160/230: 230V AC +6%, -10% TA-MC160/115: 115V AC +6%, -10%	TA-MC100FS_/24: 24V AC ±15% TA-MC100FS_/230: 230V AC ±15%
Input signal	TA-MC15/24: DC 0(2)-10 V, 3-point or on/off control. TA-MC15/230: 3-point or on/off control.	TA-MC15/24-C: DC 0(2)-10 V, 3-point or on/off control. TA-MC15/230-C: 3-point or on/off control.	TA-MC50/24-C: DC 0(2)-10 V, 3-point or on/off control. TA-MC50/230-C: 3-point or on/off control.	TA-MC55Y: 0(2)-10 VDC 77 kΩ, 0(4)-20 mA 0,51 kΩ TA-MC55/24, TA-MC55/230, TA-MC55/115: 3-point or on/off control.	0(2)-10 VDC 77 kΩ, 0(4)-20 mA 0,51 kΩ, 3-point or on/off control.	0(2)-10 VDC 77 kΩ, 0(4)-20 mA 0,51 kΩ, 3-point or on/off control.	TA-MC100FS_/24: 0(2)-10 VDC, 0(4)-20 mA, 3-point or on/off control. TA-MC100FS_/230: 3-point or on/off control.
Actuating time [s/mm]	20	15	22	9 or 5* 1)	12, 9*, 4 or 1.9 1)	6 or 4* 1)	TA-MC100FS_/24: 2 TA-MC100FS_/230: 9
Enclosure class	IP40	IP40	IP40	IP54 (IP30 manual operation)	IP54	IP54	IP54
Fail-safe	-	-	-	-	-	-	Yes
Connection 2)	M30x1,5	M30x1,5	M30x1,5	2xM8	2xM8	2xM8	2xM8
Product compatibility Combined valves	-	TBV-C/-CM/-CMP DN 15-25	KTM 512 DN 15-50	TA-FUSION-C/-P DN 32-80 KTM 512 DN 15-50, DN 65-100 3)	TA-FUSION-C/-P DN 100-125 KTM 512 DN 15-50, DN 65-125 3) KTM 50 DN 100-200	TA-FUSION-C/-P DN 150 KTM 512 DN 65-125 3) KTM 50 DN 100-200	TA-FUSION-C/-P DN 32-125 KTM 512 DN 15-50, DN 65-125 3) KTM 50 DN 100-200
Product compatibility Stand-alone 2-way / 3-way control valves	CV216MZ CV316MZ	-	-	CV216-316RGA CV206-306GG DN 15-50 CV216-316GG DN 15-50	CV216-316RGA CV206-306GG DN 15-50 CV216-316GG DN 15-50	CV206-306GG DN 65-100 CV216-316GG DN 65-100	CV216-316RGA CV206-306GG DN 15-50 CV216-316GG DN 15-50

1) Actuating time freely adjustable, factory pre-setting is marked with *.

2) Adapters for different valves might be required – see individual accessories sections or “Adapter codes for actuator exchange – Summary overview”.

3) For KTM 512 DN 65-125 other actuators may be required depending upon the maximum static inlet pressure of the system. Please see full KTM 512 datasheet selection table for further details.

TA-MC15



Technical description

Applications:

TA-MC15/24:

For modulating, 3-point or on/off control.

TA-MC15/230:

For 3-point or on/off control.

Supply voltage:

TA-MC15/24: 24V AC/DC $\pm 10\%$

TA-MC15/230: 230V AC $\pm 10\%$

Frequency 50-60 Hz $\pm 5\%$

Power consumption:

2,5 VA

Input signal:

TA-MC15/24: DC 0(2)-10 V, 3-point or on/off control.

TA-MC15/230: 3-point or on/off control.

Control speed:

20 s/mm

Adjusting force:

150 N

Operation mode:

S3-100% ED

End position switch-off:

Load-dependent

Temperature:

Max. ambient temperature: 50°C

Min. ambient temperature: 0°C

Enclosure class:

IP 40

Cable:

1,5 m, 0,34 mm², with wire end ferrule.

Stroke:

9 mm

Weight:

0,18 kg

Connection to valve:

Retainer nut M30x1,5 of brass.

Colour:

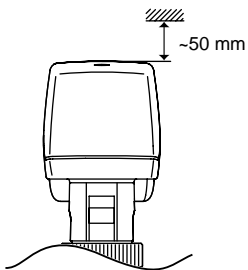
Black body and red cover.

Marking:

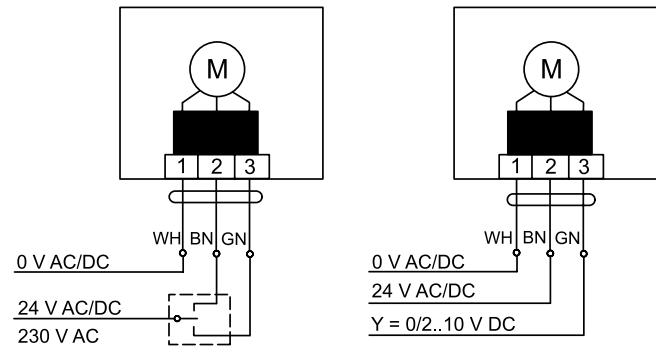
TA, Article No, product name and technical specification.

Installation – TA-MC15

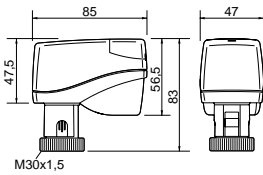
Note!



Wiring diagram



Articles – TA-MC15



Type	Supply voltage	Adjusting force [N]	Input signal	EAN	Article No
TA-MC15/24	24 VAC/DC	150	3-point, 0(2)-10 V		61-015-001
TA-MC15/230	230 VAC	150	3-point		61-015-002

TA-MC15-C



Technical description

Applications:

TA-MC15/24-C:

For modulating, 3-point or on/off control.

TA-MC15/230-C:

For 3-point or on/off control.

Supply voltage:

TA-MC15/24-C: 24V AC/DC $\pm 10\%$

TA-MC15/230-C: 230V AC $\pm 10\%$

Frequency 50-60 Hz $\pm 5\%$

Power consumption:

2,5 VA

Input signal:

TA-MC15/24-C: DC 0(2)-10 V, 3-point or on/off control.

TA-MC15/230-C: 3-point or on/off control.

Control speed:

15 s/mm

Adjusting force:

200 N

Operation mode:

S3-100% ED

End position switch-off:

Load-dependent

Temperature:

Max. ambient temperature: 50°C

Min. ambient temperature: 0°C

Enclosure class:

IP 40

Cable:

1,5 m, 0,34 mm², with wire end ferrule.

Stroke:

6 mm

Weight:

0,18 kg

Connection to valve:

Retainer nut M30x1,5 of brass.

Colour:

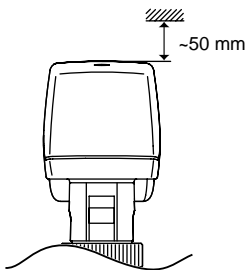
Black body and red cover.

Marking:

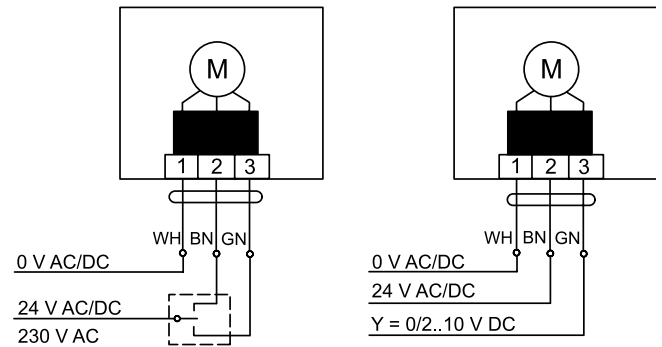
TA, Article No, product name and technical specification.

Installation – TA-MC15-C

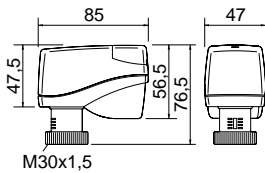
Note!



Wiring diagram



Articles – TA-MC15-C



Type	Supply voltage	Adjusting force [N]	Input signal	EAN	Article No
TA-MC15/24-C	24 VAC/DC	200	3-point, 0(2)-10 V	3831112527799	61-015-011
TA-MC15/230-C	230 VAC	200	3-point	3831112527805	61-015-012

TA-MC50-C



Technical description

Applications:

TA-MC50/24-C:

For modulating, 3-point or on/off control.

TA-MC50/230-C:

For 3-point or on/off control.

Supply voltage:

TA-MC50/24-C: 24V AC/DC $\pm 10\%$

TA-MC50/230-C: 230V AC $\pm 10\%$

Frequency 50-60 Hz $\pm 5\%$

Power consumption:

TA-MC50/24-C: 2,6 W(DC)/6 VA(AC)

TA-MC50/230-C: 3,5 VA

Input signal:

TA-MC50/24-C: DC 0(2)-10 V, 3-point or on/off control.

TA-MC50/230-C: 3-point or on/off control.

Control speed:

22 s/mm

Adjusting force:

500 N

Operation mode:

S3-100% ED

End position switch-off:

Load-dependent

Temperature:

Max. ambient temperature: 50°C

Min. ambient temperature: 0°C

Enclosure class:

IP 40

Cable:

TA-MC50/24-C: 1,5 m, 0,25 mm², with wire end ferrule.

TA-MC50/230-C: 1,5 m, 0,34 mm², with wire end ferrule.

Stroke:

10 mm

Weight:

0,20 kg

Connection to valve:

Retainer nut M30x1,5 of brass.

Colour:

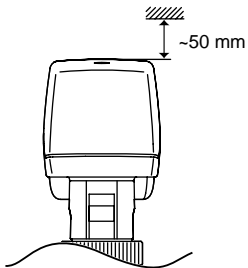
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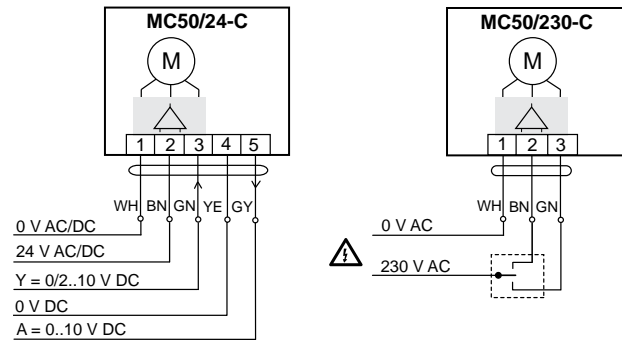
TA, Article No, product name and technical specification.

Installation – TA-MC50-C

Note!

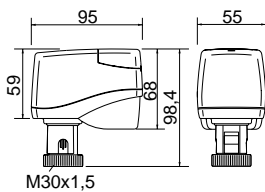


Wiring diagram



For TA-MC50/230-C 3-point control, the actuation direction can be changed by switching the supply lines to terminals 2 and 3 on the actuator.

Articles – TA-MC50-C



Type	Supply voltage	Adjusting force [N]	Input signal	EAN	Article No
TA-MC50/24-C	24 VAC/DC	500	3-point, 0(2)-10 V	3831112527768	61-050-011
TA-MC50/230-C	230 VAC	500	3-point	3831112527775	61-050-012

TA-MC55Y, TA-MC55



Technical description

Applications:

TA-MC55Y:
For modulating control.
TA-MC55/24/230/115:
For 3-point or on/off control.

Supply voltage:

TA-MC55Y, TA-MC55/24: 24V AC/DC $\pm 10\%$
TA-MC55/230: 230V AC +6%, -10%
TA-MC55/115: 115V AC +6%, -10%
Frequency 50-60 Hz $\pm 5\%$

Power consumption:

TA-MC55Y, TA-MC55/24: 3,5 VA
TA-MC55/230/115: 7 VA

Input signal:

TA-MC55Y: 0(2)-10 VDC 77 k Ω , 0(4)-20 mA 0,51 k Ω .
TA-MC55/24/230/115: 3-point or on/off control.

Output signal:

0-10 VDC, max. 8 mA, min. 1,2 k Ω .

Hysteresis:

0,3 V

Resolution:

Electric: 0,04 VDC
Mechanical: 0,06 mm

Control speed:

9 or 5 s/mm

Adjusting force:

600 N

Operation mode:

S3-50% ED c/h 1200 EN 60034-1

End position switch-off:

Load-dependent

Temperature:

Max. ambient temperature: 60°C
Min. ambient temperature: 0°C

Enclosure class:

Automatic operation: IP 54
Manual operation: IP 30

Stroke:

20 mm

Mains connection:

24 VAC, 230 VAC and 115 VAC: Actuator with terminal

Connection to valve:

Simple attachment to the valve by means of M8 screws. For some valve types an adapter may be needed, please see accessories section.

Weight:

1,5 kg

Colour:

Black body and red cover.

Marking:

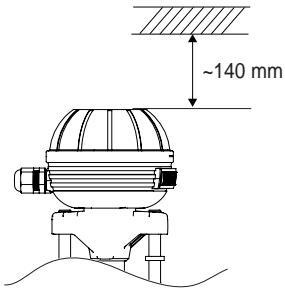
TA, Article No, product name and technical specification.

Actuator variants:

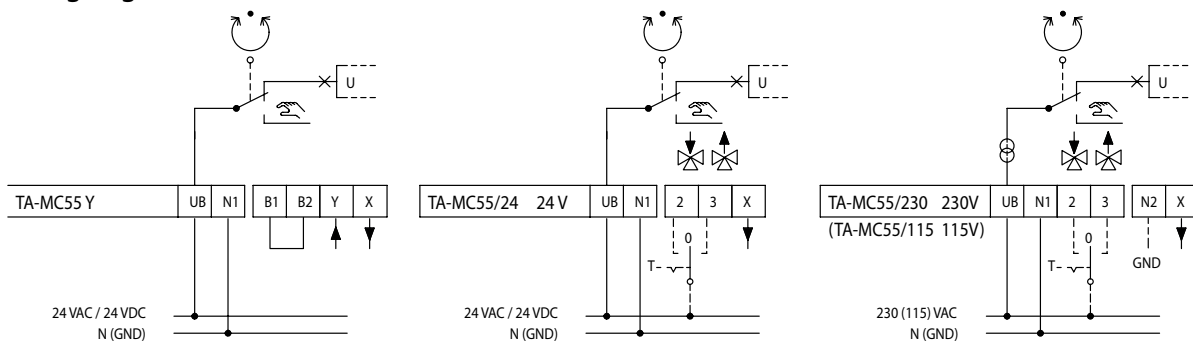
- Adapter with coupling for external products
For variants and accessories please contact TA Hydraulics.

Installation – TA-MC55Y, TA-MC55

Note!

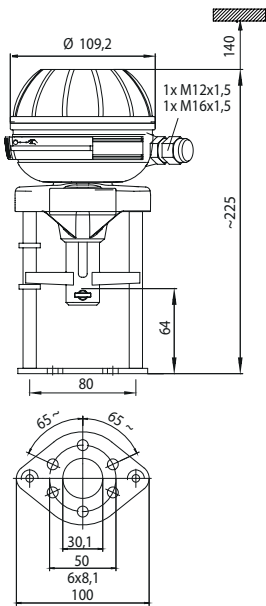


Wiring diagram



Terminal	Description
UB, N1	Supply voltage
2	Control voltage for downward movement during three-point mode
3	Control voltage for upward movement during three-point mode
B1, B2	Connection of a binary signal (e.g. frost safety)
N2	Zero potential of signal X at 230 V AC (115 V AC) - If you run the actuator in three-point mode at 230 V (115 V) you will have to connect N2 before you can use X.
Y	Input signal continuous mode
X	Output signal

Articles – TA-MC55Y, TA-MC55



Type	Supply voltage	Adjusting force [N]	Input signal	EAN	Article No
TA-MC55Y	24 VAC/DC	600	0(2)-10 VDC	3831112506510	61-055-003
TA-MC55/24	24 VAC/DC	600	3-point	3831112527812	61-055-001
TA-MC55/230	230 VAC	600	3-point	3831112506503	61-055-002
TA-MC55/115	115 VAC	600	3-point		61-055-302

Accessories

Adapters

TA-MC55Y, TA-MC55

Valve	DN	EAN	Article No
TA-FUSION-C/-P	32-50	7318794001404	22412-001055
TA-FUSION-C/-P	65-80	3831112529748	22413-001055
KTM 512	15-50	3831112512023	52 757-035
KTM 512	65-125	3831112509269	52 757-905

Stem heaters

TA-MC55, TA-MC100, TA-MC160

	EAN	Article No
ACV 13	24 VAC	68-013-015

TA-MC100



Technical description

Applications:

For modulating , 3-point or on/off control.

Supply voltage:

TA-MC100/24: 24V AC/DC $\pm 10\%$
 TA-MC100/230: 230V AC +6%, -10%
 TA-MC100/115: 115V AC +6%, -10%
 Frequency 50-60 Hz $\pm 5\%$

Power consumption:

TA-MC100/24: 6 VA
 TA-MC100/230/115: 12 VA

Input signal:

0(2)-10 VDC 77 k Ω , 0(4)-20 mA 0,51 k Ω .
 3-point or on/off control.

Output signal:

0-10 VDC, max. 8 mA, min. 1,2 k Ω .

Hysteresis:

0,15 or 0,5 V

Resolution:

Electric: 0,04 VDC
 Mechanical: 0,095 mm

Control speed:

12 or 9 s/mm
 4 or 1,9 s/mm

Adjusting force:

1000 N

Operation mode:

S3-50% ED c/h 1200 EN 60034-1

End position switch-off:

Load-dependent

Temperature:

Max. ambient temperature: 60°C
 Min. ambient temperature: 0°C

Enclosure class:

IP 54

Stroke:

20 mm

Mains connection:

24 VAC, 230 VAC and 115 VAC: Actuator with terminal

Connection to valve:

Simple attachment to the valve by means of M8 screws. For some valve types an adapter may be needed, please see accessories section.

Weight:

2,5 kg

Colour:

Black body and red cover.

Marking:

TA, Article No, product name and technical specification.

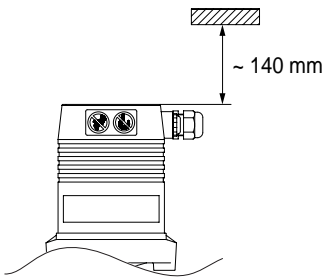
Actuator variants:

- Position switch unit ¹⁾:
 - 2 switches (WE1 /WE2), potential free, infinitely adjustable.
 - Rated load: 8 A / 250 VAC, 8 A / 30 VDC.
 - Turn-on voltage: max. 400 VAC, max. 125 VDC
 - Enclosure protection: IP 65
 - Output signal ¹⁾: X=0(4)...20 mA
 - Adapter with coupling for external product
- For variants and accessories please contact TA Hydraulics.

¹⁾ Position switch unit and output signal 0(4)...20 mA not in combination.

Installation – TA-MC100

Note!

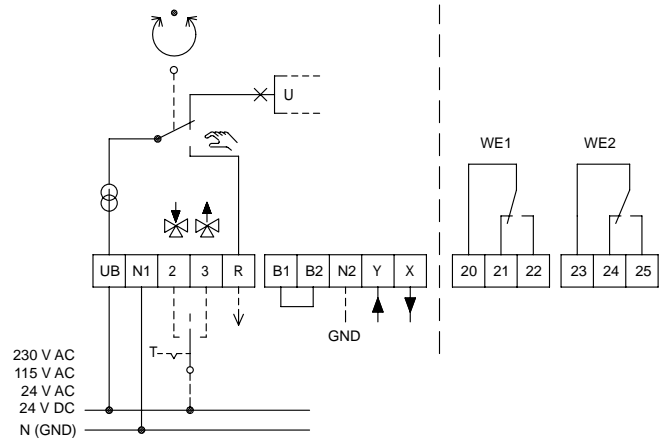


Wiring diagram:

B1 /B2 Connection of a binary signal (e.g. frost safety)

Standard design

Special accessories



Terminal	Description
UB, N1	Supply voltage
2	Control voltage for downward movement during three-point mode
3	Control voltage for upward movement during three-point mode
R	Response signal during “manual” mode - R= 24 VDC max. 35 mA for actuators in 230 VAC (115 VAC) design.
B1, B2	Binary input / frost protection function
N2	Zero potential of signals X, Y and R - When the zero potentials of signals X, Y and R are identical to the zero potential of the supply voltage it is possible to bridge terminals N1 and N2. - If you run the actuator in continuous mode at 230 V (115 V) you will have to connect N2. - If you run the actuator in three-point mode at 230 V (115 V) you will have to connect N2 if you wish to use X or R at the same time.
Y	Input signal continuous mode
X	Output signal continuous mode
WE1, WE2	Position switch units - see “Actuator variants”
20, 21, 22	Terminals path switch unit PS1
23, 24, 25	Terminals path switch unit PS2

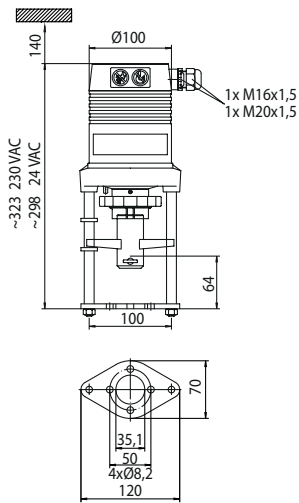
R Feedback signal in “Manual” mode of operation

- R = 24 VAC max. 100 mA for actuators in 24 VAC design.
- R = 24 VDC max. 100 mA for actuators in 24 VDC design.
- R = 24 VDC max. 35 mA for actuators in 230 VAC (115 VAC) design.

N2 Zero potential of the “X”, “Y” and “R” signals.

- If the actuators in 230 VAC (115 VAC) design are to be triggered on the “continuous” mode of operation, i.e. by analogue signal “Y”, the connection of N2 (zero potential of the controller) is absolutely necessary.
- For actuators in 230 VAC (115 VAC) design the connection N2 in the “3-position” mode of operation is only necessary if “X” and/or “R” are to be use by the actuator.
- If the zero potentials of the signals X, Y and R are identical with the zero potential of the supply voltage, a bridge can be laid between N1 and N2 in order to save an additional lead to N2.

Articles – TA-MC100



Type	Supply voltage	Adjusting force [N]	Input signal	EAN	Article No
TA-MC100/24	24 VAC/DC	1000	0(2)-10 VDC, 3-point	3831112511675	61-100-001
TA-MC100/230	230 VAC	1000	0(2)-10 VDC, 3-point	3831112500235	61-100-002
TA-MC100/115	115 VAC	1000	0(2)-10 VDC, 3-point		61-100-302

Accessories

Adapters

TA-MC100

Valve	DN	EAN	Article No
TA-FUSION-C/-P	32-50	7318794001404	22412-001055
TA-FUSION-C/-P	65-125	3831112529748	22413-001055
KTM 512	15-50	3831112512023	52 757-035
KTM 512	65-125	3831112512085	52 757-907
KTM 50	100-200	3831112512085	52 757-907

General actuator accessories

	EAN	Article No
ACA 71	Position Switch Unit (2 switches)	67-071-100
ACA 72	Enclosure protection IP65	67-072-100
ACA 76	Output signal: 0(4)-20mA	67-076-100

Stem heaters

TA-MC55, TA-MC100, TA-MC160

	EAN	Article No
ACV 13	24 VAC	68-013-015

TA-MC160



Technical description

Applications:

For modulating , 3-point or on/off control.

Supply voltage:

TA-MC160/24: 24V AC/DC $\pm 10\%$
 TA-MC160/230: 230V AC +6%, -10%
 TA-MC160/115: 115V AC +6%, -10%
 Frequency 50-60 Hz $\pm 5\%$

Power consumption:

TA-MC160/24: 6 VA
 TA-MC160/230/115: 12 VA

Input signal:

0(2)-10 VDC 77 k Ω , 0(4)-20 mA 0,51 k Ω .
 3-point or on/off control.

Output signal:

0-10 VDC, max. 8 mA, min. 1,2 k Ω .

Hysteresis:

0,05 V, 0,15 V, 0,3 V or 0,5 V

Resolution:

Electric: 0,04 VDC
 Mechanical: 0,05 mm

Control speed:

6 or 4 s/mm

Adjusting force:

1600 N

Operation mode:

S3-50% ED c/h 1200 EN 60034-1

End position switch-off:

Load-dependent

Temperature:

Max. ambient temperature: 60°C
 Min. ambient temperature: 0°C

Enclosure class:

IP 54

Stroke:

30 mm

Mains connection:

24 VAC, 230 VAC and 115 VAC: Actuator with terminal

Connection to valve:

Simple attachment to the valve by means of M8 screws. For some valve types an adapter may be needed, please see accessories section.

Weight:

3,2 kg

Colour:

Black body and red cover.

Marking:

TA, Article No, product name and technical specification.

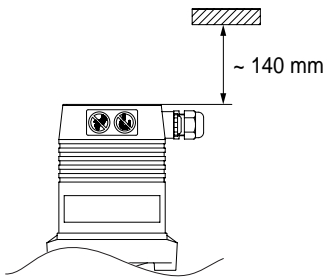
Actuator variants:

- Position switch unit ¹⁾:
 - 2 switches (WE1 /WE2), potential free, infinitely adjustable.
 - Rated load: 8 A / 250 VAC, 8 A / 30 VDC.
 - Turn-on voltage: max. 400 VAC, max. 125 VDC
 - Enclosure protection: IP 65
 - Output signal ¹⁾: X=0(4)...20 mA
 - Adapter with coupling for external product
- For variants and accessories please contact TA Hydraulics.

1) Position switch unit and output signal 0(4)...20 mA not in combination.

Installation – TA-MC160

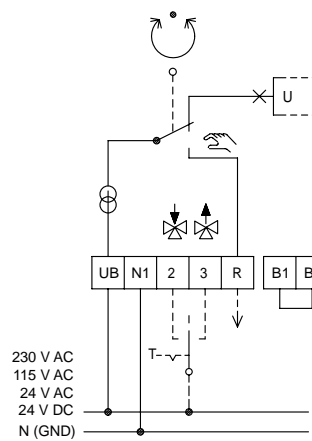
Note!



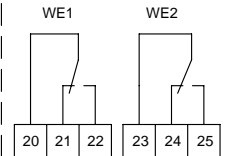
Wiring diagram:

B1 /B2 Connection of a binary signal (e.g. frost safety)

Standard design



Special accessories



Terminal	Description
UB, N1	Supply voltage
2	Control voltage for downward movement during three-point mode
3	Control voltage for upward movement during three-point mode
R	Response signal during "manual" mode - R= 24 VDC max. 35 mA for actuators in 230 VAC (115 VAC) design.
B1, B2	Binary input / frost protection function
N2	Zero potential of signals X, Y and R - When the zero potentials of signals X, Y and R are identical to the zero potential of the supply voltage it is possible to bridge terminals N1 and N2. - If you run the actuator in continuous mode at 230 V (115 V) you will have to connect N2. - If you run the actuator in three-point mode at 230 V (115 V) you will have to connect N2 if you wish to use X or R at the same time.
Y	Input signal continuous mode
X	Output signal continuous mode
WE1, WE2	Position switch units - see "Actuator variants"
20, 21, 22	Terminals path switch unit PS1
23, 24, 25	Terminals path switch unit PS2

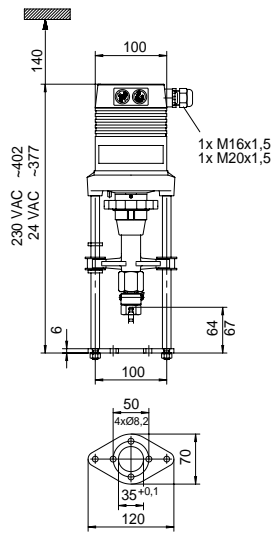
R Feedback signal in "Manual" mode of operation

- R = 24 VAC max. 100 mA for actuators in 24 VAC design.
- R = 24 VDC max. 100 mA for actuators in 24 VDC design.
- R = 24 VDC max. 35 mA for actuators in 230 VAC (115 VAC) design.

N2 Zero potential of the "X", "Y" and "R" signals.

- If the actuators in 230 VAC (115 VAC) design are to be triggered on the "continuous" mode of operation, i.e. by analogue signal "Y", the connection of N2 (zero potential of the controller) is absolutely necessary.
- For actuators in 230 VAC (115 VAC) design the connection N2 in the "3-position" mode of operation is only necessary if "X" and/or "R" are to be use by the actuator.
- If the zero potentials of the signals X, Y and R are identical with the zero potential of the supply voltage, a bridge can be laid between N1 and N2 in order to save an additional lead to N2.

Articles – TA-MC160



Type	Supply voltage	Adjusting force [N]	Input signal	EAN	Article No
TA-MC160/24	24 VAC/DC	1600	0(2)-10 VDC, 3-point	3831112512160	61-160-001
TA-MC160/230	230 VAC	1600	0(2)-10 VDC, 3-point	3831112527829	61-160-002
TA-MC160/115	230 VAC	1600	0(2)-10 VDC, 3-point		61-160-302

Accessories

Adapters

TA-MC160

Valve	DN	EAN	Article No
TA-FUSION-C/-P	150	3831112527751	22413-001160
KTM 512	65-125	3831112511910	52 757-913
KTM 50	100-200	3831112511910	52 757-913

General actuator accessories

	EAN	Article No
ACA 71	Position Switch Unit (2 switches)	67-071-100
ACA 72	Enclosure protection IP65	67-072-100
ACA 76	Output signal: 0(4)-20mA	67-076-100

Stem heaters

TA-MC55, TA-MC100, TA-MC160

	EAN	Article No
ACV 13	24 VAC	68-013-015

TA-MC100 FSE/FSR – with fail-safe extending (FSE) or retracting (FSR) function



Technical description

Applications:

TA-MC100FSE/FSR/24:
For modulating, 3-point or on/off control.
TA-MC100FSE/FSR/230:
For 3-point or on/off control.

Fail-safe function:

TA-MC100FSE: Stem extended on power failure
TA-MC100FSR: Stem retracted on power failure

Supply voltage:

TA-MC100FSE/FSR/24: 24V AC $\pm 15\%$
TA-MC100FSE/FSR/230: 230V AC $\pm 15\%$
Frequency 50-60 Hz $\pm 5\%$

Power consumption:

TA-MC100FSE/FSR/24: 26 VA
TA-MC100FSE/FSR/230: 30 VA

Input signal:

TA-MC100FSE/FSR/24: 0(2)-10 VDC, 0(4)-20 mA, 3-point or on/off control.
TA-MC100FSE/FSR/230: 3-point or on/off control.

Output signal:

TA-MC100FSE/FSR/24: 0(2)-10 VDC, max. 5 mA, 0(4)-20 mA.
TA-MC100FSE/FSR/230: 0(2)-10 VDC, max. 5 mA.

Control speed:

TA-MC100FSE/FSR/24: 2 s/mm
TA-MC100FSE/FSR/230: 9 s/mm

Adjusting force:

1000 N

Operation mode:

S3-50% ED c/h 1200 EN 60034-1

End position switch-off:

Load-dependent

Temperature:

Max. ambient temperature: 50°C
Min. ambient temperature: 0°C

Enclosure class:

IP 54

Stroke:

20 mm

Mains connection:

24 VAC and 230 VAC: Actuator with terminal

Connection to valve:

Simple attachment to the valve by means of M8 screws. For some valve types an adapter may be needed, please see accessories section.

Weight:

2,75 kg

Colour:

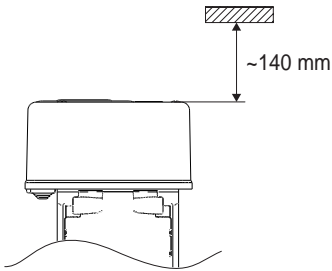
Black body and red cover.

Marking:

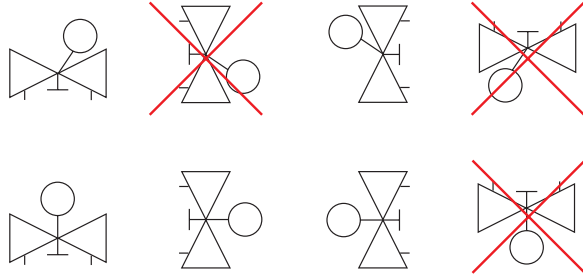
TA, Article No, product name and technical specification.

Installation – TA-MC100FSE/FSR

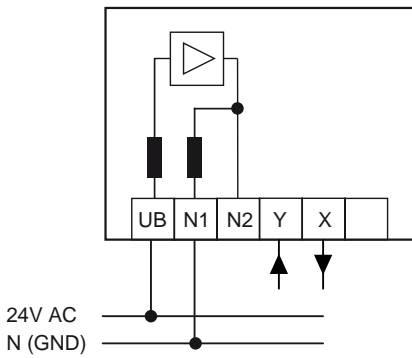
Note!



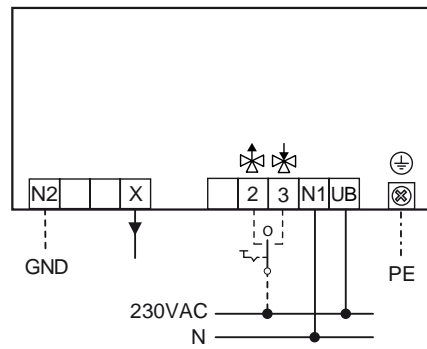
Note: Read carefully the installation instruction of the actuator. Intended for indoor installation applications. For outdoor installation applications please contact TA Hydronics. In cooling systems, the pipe and valve must be insulated.



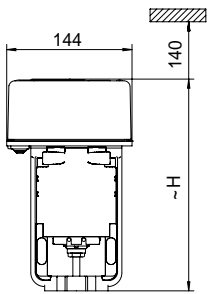
Wiring diagram TA-MC100FSE/24 and TA-MC100FSR/24:



Wiring diagram TA-MC100FSE/230 and TA-MC100FSR/230:



Articles – TA-MC100FSE/FSR



Type	Supply voltage	Adjusting force [N]	Input signal	EAN	Article No
TA-MC100FSE/24	24 VAC	1000	0(2)-10 VDC, 3-point	3831112512122	61-100-101
TA-MC100FSR/24	24 VAC	1000	0(2)-10 VDC, 3-point	3831112512146	61-100-201
TA-MC100FSE/230	230 VAC	1000	3-point	3831112512139	61-100-102
TA-MC100FSR/230	230 VAC	1000	3-point	3831112512153	61-100-202

Adapters for TA Hydraulics “Standard control valves” (CVxxx) are included. Additional adapters for other TA Hydraulics valves see below.

Accessories

Adapters

TA-MC100 FSE/FSR

Valve	DN	EAN	Article No
TA-FUSION-C/-P	32-50	7318794001404	22412-001055
TA-FUSION-C/-P	65-125	3831112529748	22413-001055
KTM 512	15-50	3831112511538	52 757-026
KTM 512	65-125 ¹⁾	3831112511781	52 757-912
KTM 50	100-200	3831112511781	52 757-912

1) For KTM 512 DN 65+ other actuators may be required depending upon the maximum static inlet pressure of the system. Please see full KTM 512 datasheet selection table for further details.

Adapter codes for actuator exchange – Summary overview



Valve	DN	TA-MC55Y/ TA-MC55	TA-MC100	TA-MC160	TA-MC100 FSE/FSR
TA-FUSION-C/-P	32-50	22412-001055	22412-001055	-	22412-001055
TA-FUSION-C/-P	65-80	22413-001055	22413-001055	-	22413-001055
TA-FUSION-C/-P	100-125	-	22413-001055	-	22413-001055
TA-FUSION-C/-P	150	-	-	22413-001160	-
KTM 512	15-50	52 757-035	52 757-035	-	52 757-026
KTM 512	65-125 ¹⁾	52 757-905	52 757-907	52 757-913	52 757-912
KTM 50	100-200	-	52 757-907	52 757-913	52 757-912
Connection		2xM8	2xM8	2xM8	2xM8

All other actuator/valve combinations either do not require an adapter or the adapter is supplied as standard together with the replacement actuator.

1) For KTM 512 DN 65+ other actuators may be required depending upon the maximum static inlet pressure of the system. Please see full KTM 512 datasheet selection table for further details.

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