

Climate
Control

IMI TA

TA Fast-Fit – NPT threads



Prefabricated solutions
For small terminal units

TA Fast-Fit – NPT threads

Comprehensive range of pre-fabricated solutions for small terminal units. Suitable for both heating and cooling applications.

Key features

Highly reliable

Fully assembled and factory pressure tested to ensure reliability.

Easy installation

Each unit comes ready to install and uniquely labelled saving time on site.

Quick hydronic balancing

The pressure independent solution provides direct setting of the max flow.

Precise flow control

The modulating version provides uniquely shaped EQM characteristic for best modulating control.



Technical description

Applications:

Heating and cooling systems.

Functions:

Control (EQM or Linear)
Balancing
Pre-setting (max flow/Cv)
Differential pressure control
Measuring (q, T, ΔH)
Shut-off/Isolation function for use during system maintenance – see “Leakage rate”
Bypass
Flushing
Strainer

Pressure class:

PN 16 (230 psi)

Temperature:

Max. working temperature: 194°F
Min. working temperature: 32°F

Media:

Water or neutral fluids, water-glycol mixtures (0-57%).

Leakage rate:

Ball valves: Level A (EN 12266-1/12 - P12).
TA-Modulator, TA-COMPACT-P: Leakage flow ≤ 0,01% of max. q_{max} (setting 10) and correct flow direction. (Class IV according to EN 60534-4).

Lift:

TA-COMPACT-P: 0.157 in.
TA-Modulator: 1/2" - 3/4" 0.157 in.,
1" - 1 1/4": 0.256 in.

Characteristics:

TA-Modulator: EQM, best suited for modulating control.
TA-COMPACT-P: Linear, best suited for on/off control.

Material:

TA-Modulator, TA-COMPACT-P, TA-STR:
See separate technical leaflets.

H-bypass valve:

Body: Gunmetal
Closing end nut: Brass CW602N
Stem: Brass CW602N
Stem guiding: PTFE
Stem O-ring: EPDM
Stem nut: Brass CW614N
Ball: Gunmetal
Ball seats: PTFE
Closing cap: Brass CW602N
Closing cap seat: PTFE
Closing cap O-ring: EPDM

Drain: Brass

Sealings: EPDM

Measuring points: AMETAL®

Sealings: EPDM

Marking:

TA-Modulator: TA, IMI, PN 16, DN and flow direction arrow. Grey setting wheel and black identification ring on measuring point: TA-Modulator and DN.
TA-COMPACT-P: TA, IMI, PN 16, DN and flow direction arrow. Grey setting wheel: TA-COMPACT-P and DN.
H-bypass valve: PN, DN. Lever: TA, IMI, opening-closing directions.

Connections:

Internal NPT threads according to ANSI/ASME B1.20.1-1983.

Connection to actuator:

M30x1.5

Actuators:

TA-Slider 160 (for modulating control)
EMO TM (for modulating control)
EMO T (for on/off control)
For more details, see separate technical leaflets.

Function

Diagnostic functions

Terminal unit Δp : 1 and 3

Flow: 3 and 2

ΔH : 3 and 2

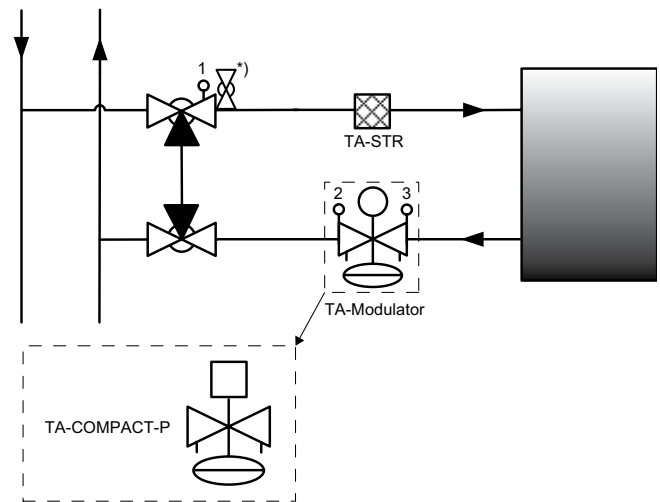
Total Δp : 1 and 2

Available points for testing

All design types: 1, 2 and 3

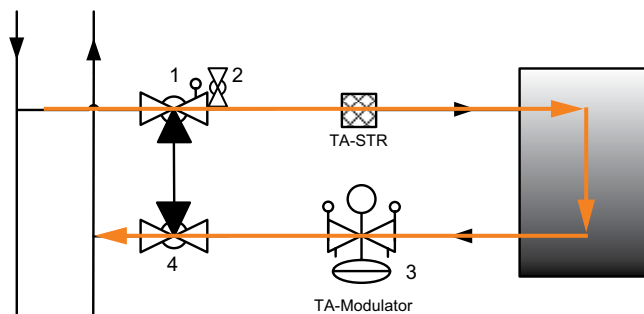
Drain function *)

Drain unit with 3/4" hose connection.



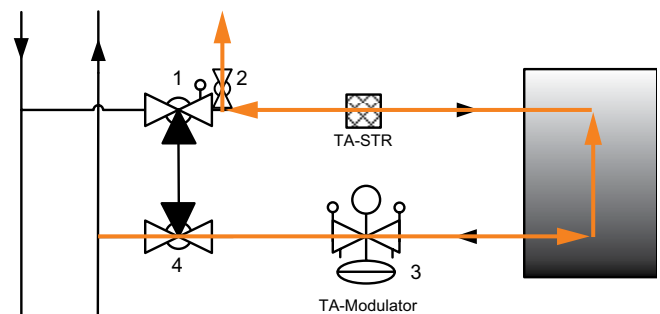
Operating function

Normal operation



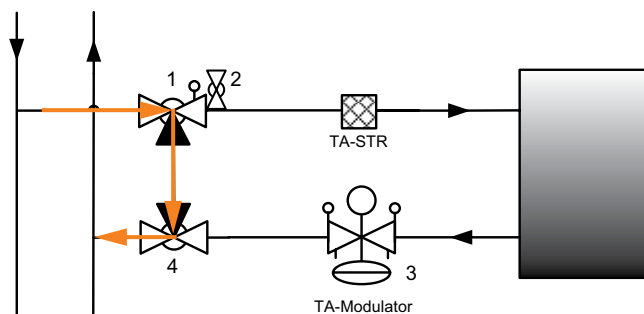
1. Open
2. Closed
3. Open
4. Open

Back flushing



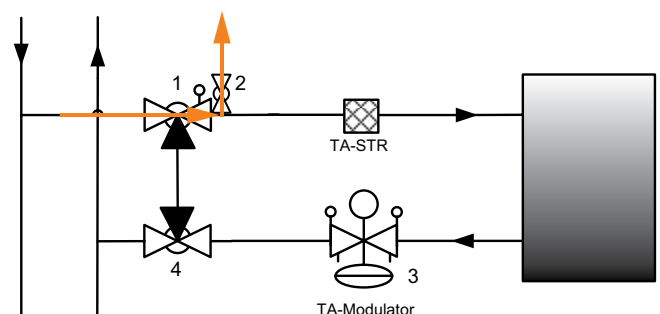
1. Closed
2. Open
3. Open
4. Open

Flushing the distribution system



1. Closed
2. Closed
3. Open
4. Closed

Forward flushing



1. Open
2. Open
3. Closed
4. Open

TA-Modulator/TA-COMPACT-P

See separate technical leaflets.

Sizing (q_{\max} / Cv_{\max} values)

Fully modulating Pressure Independent Balancing & Control Valve (TA-Modulator)

 q_{\max} at different settings

Size	Position									
	1	2	3	4	5	6	7	8	9	10
1/2"	0.41	0.50	0.62	0.75	0.92	1.17	1.43	1.72	1.96	2.11
3/4"	0.88	1.14	1.59	2.03	2.49	2.95	3.39	3.74	4.05	4.29
1"	1.50	1.94	2.64	3.57	4.45	5.28	5.94	6.69	7.22	7.71
1 1/4"	3.17	4.23	5.94	7.71	9.47	11.13	12.54	13.77	14.87	15.8

 q_{\max} = gpm at each setting and fully open valve plug.

Linear Pressure Independent Balancing & Control Valve (TA-COMPACT-P)

 q_{\max} at different settings

Size	Position									
	1	2	3	4	5	6	7	8	9	10
3/8"	0.09	0.17	0.24	0.30	0.35	0.40	0.44	0.47	0.50	0.53
1/2" LF	0.19	0.31	0.43	0.54	0.65	0.75	0.84	0.92	1.00	1.08
1/2"	0.39	0.66	0.88	1.09	1.30	1.50	1.67	1.85	1.98	2.07
3/4"	0.92	1.47	2.02	2.53	2.99	3.43	3.92	4.36	4.75	5.06
1"	1.63	2.68	3.65	4.62	5.59	6.56	7.57	8.23	9.02	9.46
1 1/4"	3.52	5.37	7.13	9.06	10.8	12.3	13.6	14.7	15.6	16.3

LF = Low flow

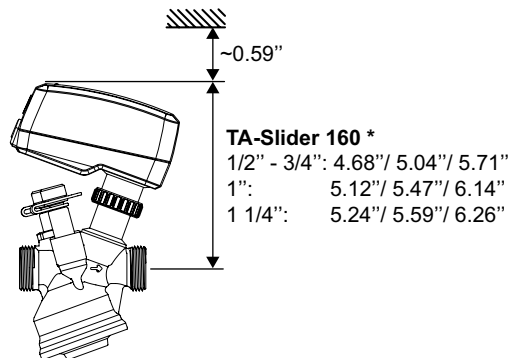
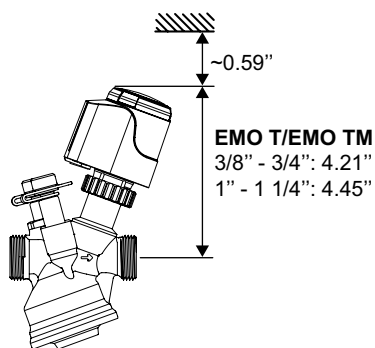
 q_{\max} = gpm at each setting and fully open valve plug.

Installation

Installation of actuator

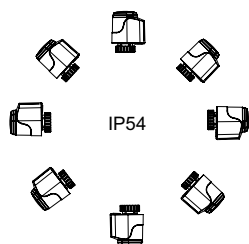
Note: Free space is required above the actuator for easy mounting/dismounting.

Add 0.12 in. to the measures if the spindle extension is used, see Accessories.

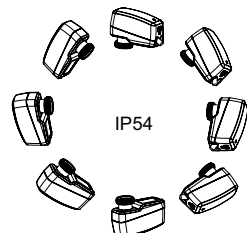


*) Height depending on actuator version.

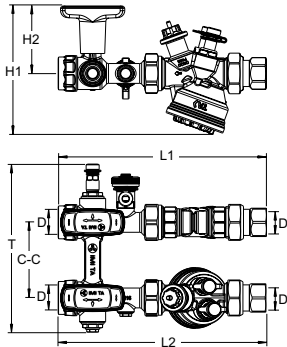
EMO T/EMO TM



TA-Slider



TA Fast-Fit – Fully modulating Pressure Independent Balancing & Control Valve (TA-Modulator)



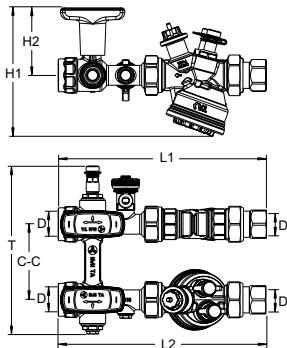
With strainer – Handles up

Connection system side and load sides (D): Internal NPT threads according to ANSI/ASME B1.20.1-1983. Drain with 3/4" hose connection. Self-sealed measuring points.

TA-Modulator Size	D	L1 [in]	L2 [in]	Offset (±0.10 in.)	H1 [in]	H2 [in]	T [in]	C-C [in]	q _{max} [gpm]	lb.	Article No
1/2"	1/2 NPT	7.93	7.93	0	4.96	2.83	7.01	3.15	2.11	4.41	9696-32.805
3/4"	3/4 NPT	8.27	8.27	0	5.35	2.83	7.01	3.15	4.29	5.07	9696-33.805
1"	1 NPT	9.06	9.06	0	5.55	3.07	7.72	3.15	7.71	8.38	9696-34.805
1 1/4"	1 1/4 NPT	10.4	10.4	0	5.55	3.07	7.72	3.15	15.8	11.5	9696-35.805

H1 and H2 without actuator.
T = Depth of the device

TA Fast-Fit – Linear Pressure Independent Balancing & Control Valve (TA-COMPACT-P)



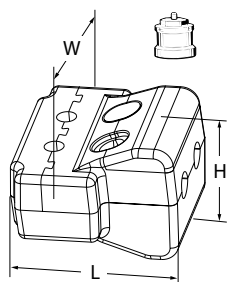
With strainer – Handles up

Connection system side and load sides (D): Internal NPT threads according to ANSI/ASME B1.20.1-1983. Drain with 3/4" hose connection. Self-sealed measuring points.

TA-COMPACT-P Size	D	L1 [in]	L2 [in]	Offset (±0.10 in.)	H1 [in]	H2 [in]	T [in]	C-C [in]	q _{max} [gpm]	lb.	Article No
3/8"	1/2 NPT	7.93	8.25	0.03	4.96	2.83	7.01	3.15	0.53	4.41	9696-30.815
1/2" LF	1/2 NPT	7.93	7.93	0	4.96	2.83	7.01	3.15	1.08	4.63	9696-31.815
1/2"	1/2 NPT	7.93	7.93	0	4.96	2.83	7.01	3.15	2.07	4.63	9696-32.815
3/4"	3/4 NPT	8.27	8.27	0	5.35	2.83	7.01	3.15	5.06	5.07	9696-33.815
1"	1 NPT	9.06	9.06	0	5.55	3.07	7.72	3.15	9.46	8.38	9696-34.815
1 1/4"	1 1/4 NPT	10.4	10.2	0.02	5.55	3.07	7.72	3.15	16.3	11.5	9696-35.815

H1 and H2 without actuator.
LF = Low flow
T = Depth of the device

Accessories



Insulation kit

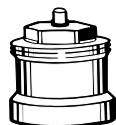
For heating/comfort cooling.

Material: EPP.

Fire class: E (EN 13501-1), B2 (DIN 4102).

1.18 in. spindle extension included.

Valve size	L	H	W	Article No
3/8", 1/2", 3/4"	9.21	6.85	10.2	339010-50502
1"	9.21	6.85	10.2	339010-50602



Spindle extension

Fitted together with the insulation to minimize the risk of condensation at the valve-actuator interface.
M30x1,5.

L [in]	Article No
Plastic, black	
1.18	2002-30.700



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