

# TA Fast-Fit 4



## **Prefabricated solutions**

For small terminal units

# TA Fast-Fit 4

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.
- > **Quick hydronic balancing**  
The pressure independent solution provides direct setting of the max flow.
- > **Easy installation**  
Each unit comes ready to install and uniquely labelled saving time on site.
- > **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/Kv)  
Differential pressure control  
Measuring (q, T,  $\Delta H$ )  
Shut-off/Isolation function for use during system maintenance – see “Leakage rate”  
Bypass  
Flushing  
Strainer (optional)

### Pressure class:

PN 16

### Temperature:

Max. working temperature: 90°C  
Min. working temperature: -10°C

### 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  $\leq 0,01\%$  of max.  $q_{max}$  (setting 10) and correct flow direction. (Class IV according to EN 60534-4).

### Lift:

TA-COMPACT-P: 4 mm  
TA-Modulator: DN 15-20 4 mm,  
DN 25-32 6,5 mm

### 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 threads according to ISO 228.  
External threads according to ISO 228.  
Internal threads – Separate connections optional.

### 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  $\Delta p$ : 1 and 3

Flow: 3 and 2

$\Delta H$ : 3 and 2

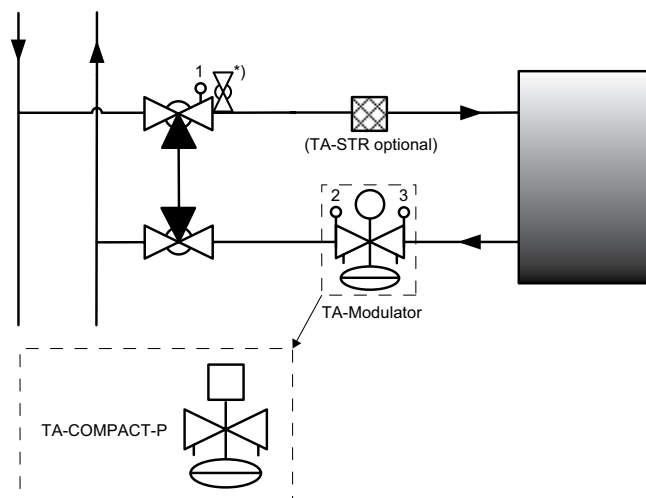
Total  $\Delta p$ : 1 and 2

### Available points for testing

All design types: 1, 2 and 3

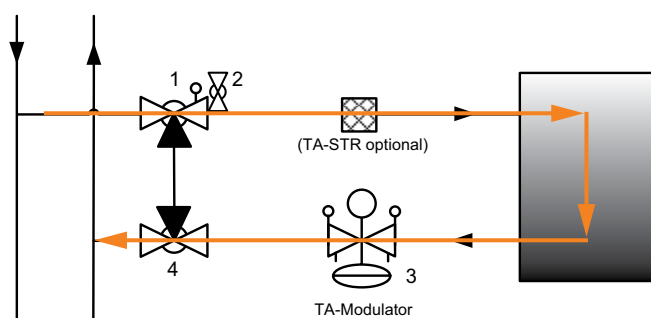
### Drain function \*)

Drain unit with 3/4" hose connection.



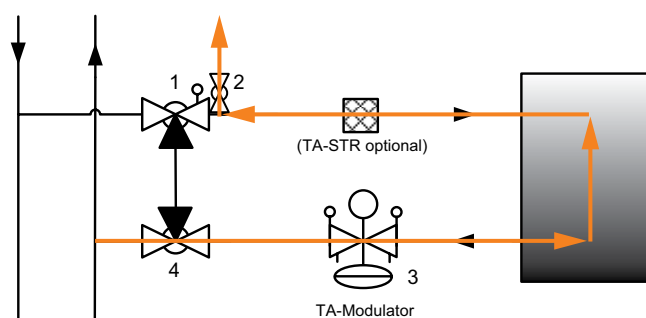
## Operating function

### Normal operation



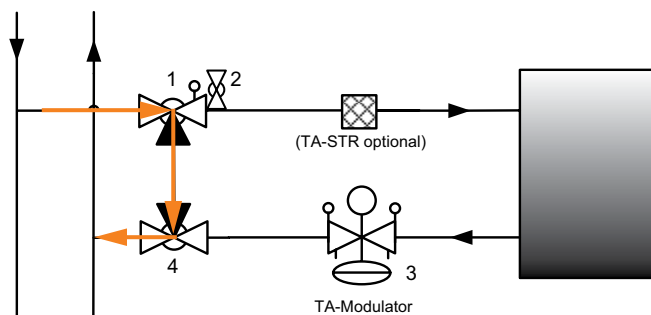
1. Open
2. Closed
3. Open
4. Open

### Back flushing



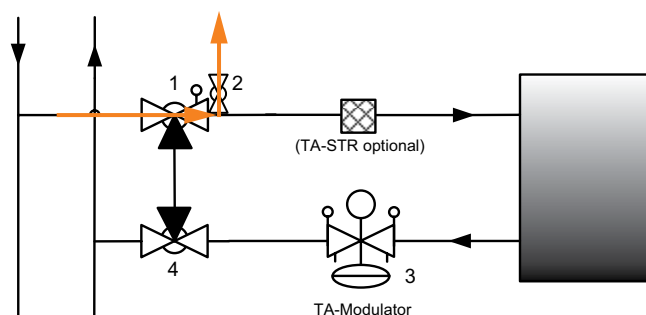
1. Closed
2. Open
3. Open
4. Open

### 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 ( $q_{\max}$ / $Kv_{\max}$ values)

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

$q_{\max}$  at different settings

Valve size	Position									
	1	2	3	4	5	6	7	8	9	10
DN 15	92	114	140	170	210	265	325	390	445	480
DN 20	200	260	360	460	565	670	770	850	920	975
DN 25	340	440	600	810	1010	1200	1350	1520	1640	1750
DN 32	720	960	1350	1750	2150	2530	2850	3130	3380	3600

$q_{\max}$  = l/h at each setting and fully open valve plug.

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

$q_{\max}$  at different settings

Valve size	Position									
	1	2	3	4	5	6	7	8	9	10
DN 15	88,0	150	200	248	295	340	380	420	450	470
DN 20	210	335	460	575	680	780	890	990	1080	1150
DN 25	370	610	830	1050	1270	1490	1720	1870	2050	2150
DN 32	800	1220	1620	2060	2450	2790	3080	3350	3550	3700

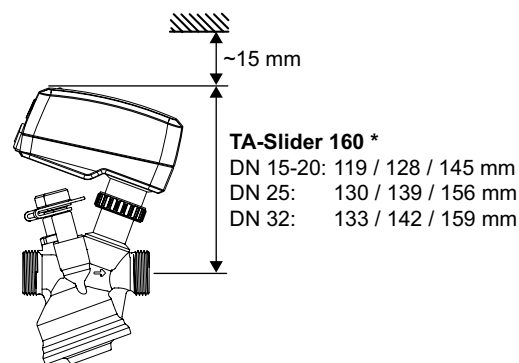
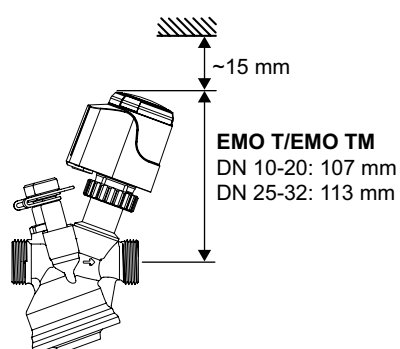
$q_{\max}$  = l/h at each setting and fully open valve plug.

## Installation

### Installation of actuator

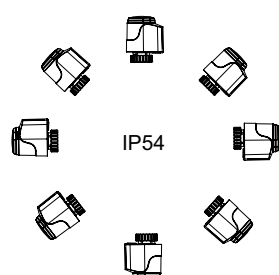
**Note:** Free space is required above the actuator for easy mounting/dismounting.

Add 30 mm to the measures if the spindle extension is used, see Accessories.

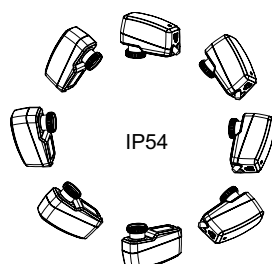


\*) Height depending on actuator version.

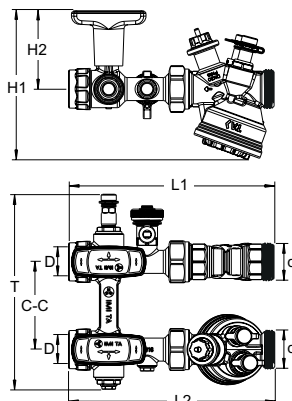
### EMO T/EMO TM



### TA-Slider



## TA Fast-Fit 4 – Fully modulating Pressure Independent Balancing & Control Valve (TA-Modulator)



### With strainer – Handles up

System side (D): Internal threads according to ISO 228.

Load side (d): External threads according to ISO 228. Internal threads – Separate connections optional.

Drain with 3/4" hose connection. Self-sealed measuring points.

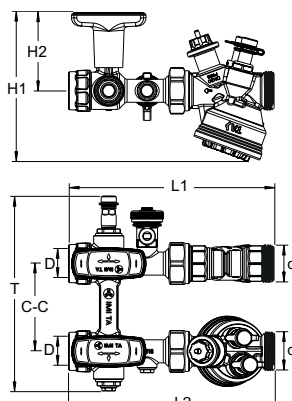
DN	D	d	L1	L2	Offset (±2,5 mm)	H1	H2	T	C-C	q <sub>max</sub> [l/h]	Kg	EAN	Article No
15	G1/2	G3/4	176	176	0	126	72	178	80	480	1,9	5902276821981	9696-32.832
20	G3/4	G1	187	187	0	136	72	178	80	975	2,1	5902276821998	9696-33.832
25	G1	G1 1/4	203	203	0	141	78	196	80	1750	3,4	5902276822001	9696-34.832
32	G1 1/4	G1 1/2	233	233	0	141	78	196	80	3600	4,6	5902276822018	9696-35.832

H1 and H2 without actuator.

T = Depth of the device

DN = Valve size TA-Modulator.

## TA Fast-Fit 4 – Linear Pressure Independent Balancing & Control Valve (TA-COMPACT-P)



### With strainer – Handles up

System side (D): Internal threads according to ISO 228.

Load side (d): External threads according to ISO 228. Internal threads – Separate connections optional.

Drain with 3/4" hose connection. Self-sealed measuring points.

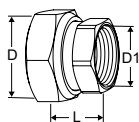
DN	D	d	L1	L2	Offset (±2,5 mm)	H1	H2	T	C-C	q <sub>max</sub> [l/h]	Kg	EAN	Article No
15	G1/2	G3/4	176	176	0	126	72	178	80	470	1,9	5902276822025	9696-32.833
20	G3/4	G1	187	187	0	136	72	178	80	1150	2,1	5902276822032	9696-33.833
25	G1	G1 1/4	203	203	0	141	78	196	80	2150	3,4	5902276822049	9696-34.833
32	G1 1/4	G1 1/2	233	228	5	141	78	196	80	3700	4,6	5902276822056	9696-35.833

H1 and H2 without actuator.

T = Depth of the device

DN = Valve size TA-COMPACT-P.

## Connections



### With internal thread

Threads according to ISO 228. Thread length according to ISO 7-1.

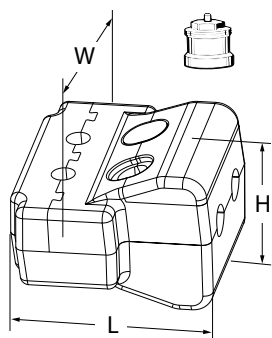
Swivelling nut.

Brass/AMETAL®

Valve DN	D	D1	L*	EAN	Article No
15	G3/4	G1/2	21	7318794016903	52 163-015
20	G1	G3/4	23	7318794017009	52 163-020
25	G1 1/4	G1	23	7318794017108	52 163-025
32	G1 1/2	G1 1/4	31	7318794017207	52 163-032

\*) Fitting length (from the gasket surface to the end of the connection).

## Accessories



### Insulation kit

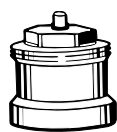
For heating/comfort cooling.

Material: EPP.

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

30 mm spindle extension included.

For DN	L	H	W	EAN	Article No
15, 20	234	174	260	5902276819735	339010-50502
25	234	174	260	5902276819742	339010-50602



### Spindle extension

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

Type	L	EAN	Article No
Plastic, black	30	4024052165018	2002-30.700