

Climate
Control

IMI TA

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.

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/Kv)
Differential pressure control
Measuring (q, T, ΔH)
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).
STAV: Shut-off

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, STAV, 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.
STAV: TA, PN 20, DN. Handwheel: Valve type and DN, Marking ring on measuring point.
H-bypass valve: PN, DN. Lever: TA, IMI, opening-closing directions.

Connections:

Intrnal threads according to ISO 228.

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 (n/a STAV): 3 and 2

Total Δp : 1 and 2

Ancillary options

Strainer

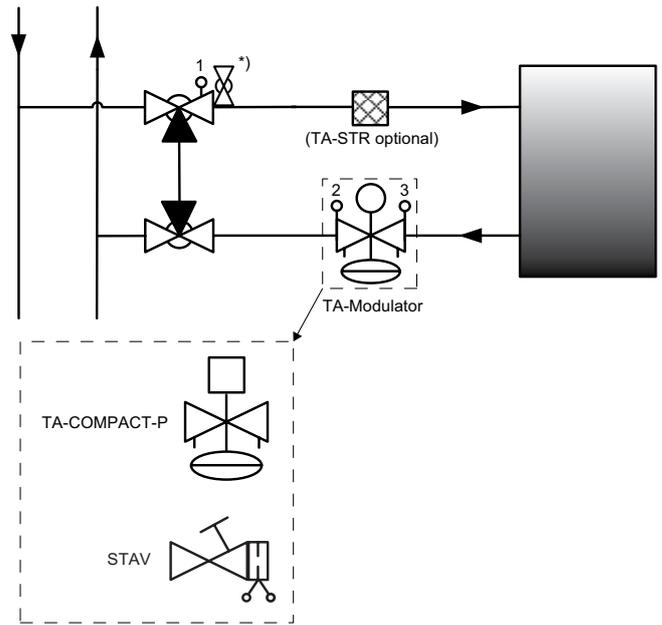
Handles up / Handles down

Available points for testing

All design types: 1, 2 and 3

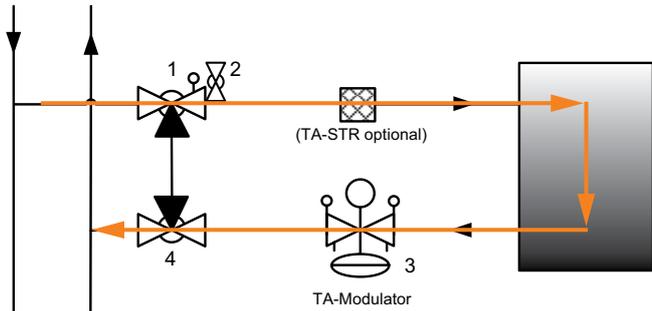
Drain function *

Drain unit with 3/4" hose connection.



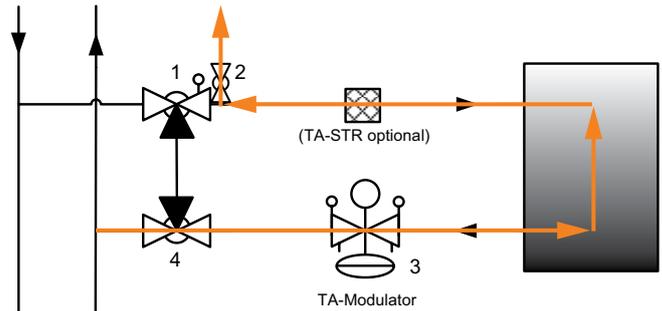
Operating function

Normal operation



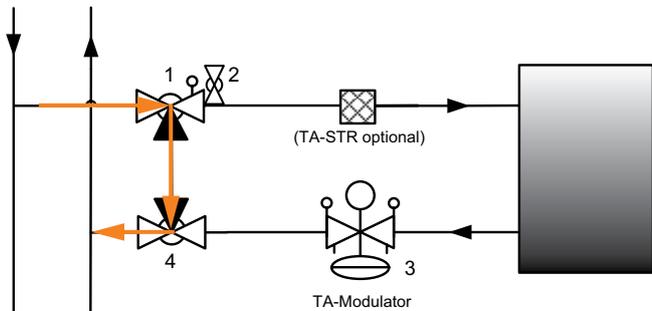
1. Open
2. Closed
3. Open
4. Open

Back flushing



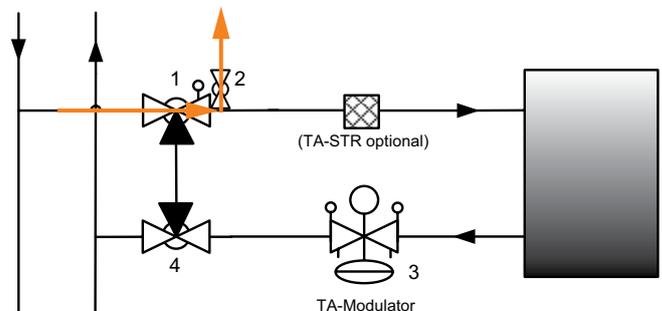
1. Closed
2. Open
3. Open
4. Open

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 10	21,5	39,5	54,0	68,5	80,0	91,0	99,0	107	113	120
DN 15 LF	44,0	71,0	97,0	123	148	170	190	210	227	245
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

LF = Low flow

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

Venturi balancing valve (STAV)

Kv_{\max} at different settings

With strainer

No of turns	Valve size	DN 15 ULF	DN 15 LF	DN 15	DN 20	DN 25
0.5	-	-	0,13	0,51	0,60	
1	0,09	0,09	0,21	0,75	1,01	
1.5	0,13	0,13	0,31	1,16	1,96	
2	0,28	0,22	0,56	1,71	3,00	
2.5	0,46	0,28	0,82	2,24	3,54	
3	0,64	0,30	1,12	2,79	3,80	
3.5	0,77	0,31	1,36	3,08	4,00	
4	0,79	0,32	1,49	3,21	4,15	

Without strainer

No of turns	Valve size	DN 15 ULF	DN 15 LF	DN 15	DN 20	DN 25
0.5	-	-	0,13	0,51	0,60	
1	0,09	0,09	0,21	0,76	1,03	
1.5	0,13	0,13	0,31	1,18	2,07	
2	0,28	0,22	0,57	1,78	3,45	
2.5	0,46	0,28	0,85	2,41	4,35	
3	0,65	0,30	1,18	3,13	4,86	
3.5	0,78	0,32	1,46	3,57	5,28	
4	0,81	0,32	1,62	3,78	5,66	

ULF = Ultra low flow

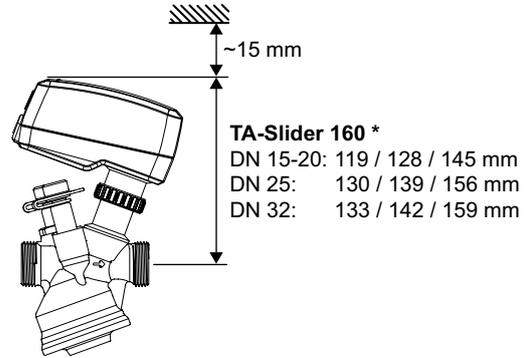
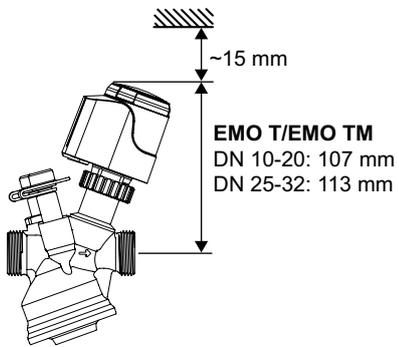
LF = Low flow

Kv_{\max} = m³/h at a pressure drop of 1 bar at each pre-setting and fully open valve plug.

Installation

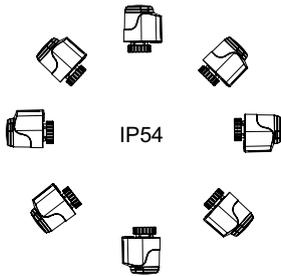
Installation of actuator

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.

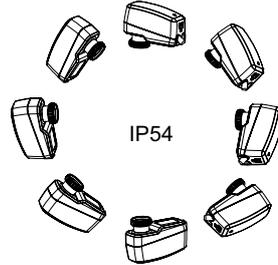


*) Height depending on actuator version.

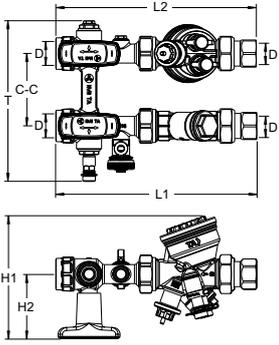
EMO T/EMO TM



TA-Slider 160



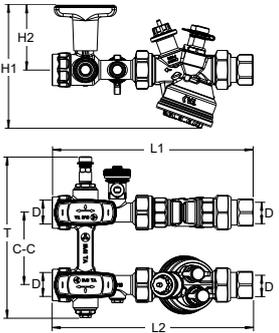
TA Fast-Fit 4 – Fully modulating Pressure Independent Balancing & Control Valve (TA-Modulator)



With strainer – Handles down

Connection system side and load sides (D): Internal threads according to ISO 228.
 Drain with 3/4" hose connection. Self-sealed measuring points.

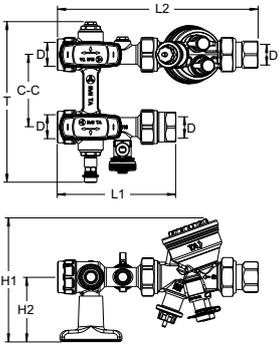
TA-Modulator DN	D	L1	L2	Offset (±2,5 mm)	H1	H2	T	C-C	q _{max} [l/h]	Kg	Article No
15	G1/2	198	198	0	126	72	178	80	480	2,0	9696-32.801
20	G3/4	210	210	0	136	72	178	80	975	2,3	9696-33.801
25	G1	227	227	0	141	78	196	80	1750	3,8	9696-34.801
32	G1 1/4	265	265	0	141	78	196	80	3600	5,2	9696-35.801



With strainer – Handles up

Connection system side and load sides (D): Internal threads according to ISO 228.
 Drain with 3/4" hose connection. Self-sealed measuring points.

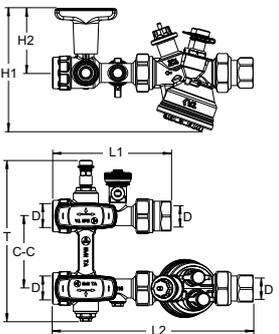
TA-Modulator DN	D	L1	L2	Offset (±2,5 mm)	H1	H2	T	C-C	q _{max} [l/h]	Kg	Article No
15	G1/2	198	198	0	126	72	178	80	480	2,0	9696-32.800
20	G3/4	210	210	0	136	72	178	80	975	2,3	9696-33.800
25	G1	227	227	0	141	78	196	80	1750	3,8	9696-34.800
32	G1 1/4	265	265	0	141	78	196	80	3600	5,2	9696-35.800



Without strainer – Handles down

Connection system side and load sides (D): Internal threads according to ISO 228.
 Drain with 3/4" hose connection. Self-sealed measuring points.

TA-Modulator DN	D	L1	L2	Offset (±2,5 mm)	H1	H2	T	C-C	q _{max} [l/h]	Kg	Article No
15	G1/2	127	198	81	126	72	178	80	480	1,8	9696-32.803
20	G3/4	130	210	90	136	72	178	80	975	2,0	9696-33.803
25	G1	142	227	100	141	78	196	80	1750	3,3	9696-34.803
32	G1 1/4	152	265	125	141	78	196	80	3600	4,3	9696-35.803



Without strainer – Handles up

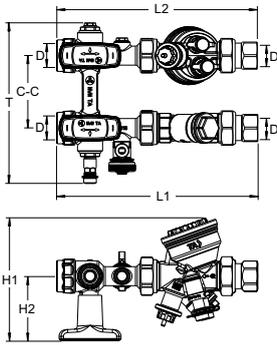
Connection system side and load sides (D): Internal threads according to ISO 228.
 Drain with 3/4" hose connection. Self-sealed measuring points.

TA-Modulator DN	D	L1	L2	Offset (±2,5 mm)	H1	H2	T	C-C	q _{max} [l/h]	Kg	Article No
15	G1/2	127	198	81	126	72	178	80	480	1,8	9696-32.802
20	G3/4	130	210	90	136	72	178	80	975	2,0	9696-33.802
25	G1	142	227	100	141	78	196	80	1750	3,3	9696-34.802
32	G1 1/4	152	265	125	141	78	196	80	3600	4,3	9696-35.802

H1 and H2 without actuator.

T = Depth of the device

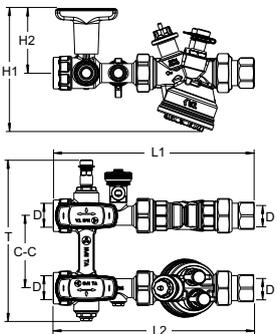
TA Fast-Fit 4 – Linear Pressure Independent Balancing & Control Valve (TA-COMPACT-P)



With strainer – Handles down

Connection system side and load sides (D): Internal threads according to ISO 228.
 Drain with 3/4" hose connection. Self-sealed measuring points.

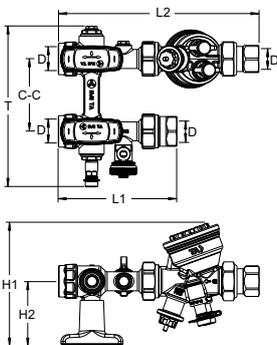
TA-COMPACT-P DN	D	L1	L2	Offset (±2,5 mm)	H1	H2	T	C-C	q _{max} [l/h]	Kg	Article No
10	G1/2	198	206	8	126	72	178	80	120	2,0	9696-30.811
15 LF	G1/2	198	198	0	126	72	178	80	245	2,1	9696-31.811
15	G1/2	198	198	0	126	72	178	80	470	2,1	9696-32.811
20	G3/4	210	210	0	136	72	178	80	1150	2,3	9696-33.811
25	G1	227	227	0	141	78	196	80	2150	3,8	9696-34.811
32	G1 1/4	265	260	5	141	78	196	80	3700	5,2	9696-35.811



With strainer – Handles up

Connection system side and load sides (D): Internal threads according to ISO 228.
 Drain with 3/4" hose connection. Self-sealed measuring points.

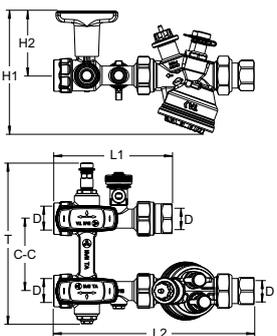
TA-COMPACT-P DN	D	L1	L2	Offset (±2,5 mm)	H1	H2	T	C-C	q _{max} [l/h]	Kg	Article No
10	G1/2	198	206	8	126	72	178	80	120	2,0	9696-30.810
15 LF	G1/2	198	198	0	126	72	178	80	245	2,1	9696-31.810
15	G1/2	198	198	0	126	72	178	80	470	2,1	9696-32.810
20	G3/4	210	210	0	136	72	178	80	1150	2,3	9696-33.810
25	G1	227	227	0	141	78	196	80	2150	3,8	9696-34.810
32	G1 1/4	265	260	5	141	78	196	80	3700	5,2	9696-35.810



Without strainer – Handles down

Connection system side and load sides (D): Internal threads according to ISO 228.
 Drain with 3/4" hose connection. Self-sealed measuring points.

TA-COMPACT-P DN	D	L1	L2	Offset (±2,5 mm)	H1	H2	T	C-C	q _{max} [l/h]	Kg	Article No
10	G1/2	127	206	89	126	72	178	80	120	1,8	9696-30.813
15 LF	G1/2	127	198	81	126	72	178	80	245	1,9	9696-31.813
15	G1/2	127	198	81	126	72	178	80	470	1,9	9696-32.813
20	G3/4	130	210	90	136	72	178	80	1150	2,0	9696-33.813
25	G1	142	227	100	141	78	196	80	2150	3,3	9696-34.813
32	G1 1/4	152	260	120	141	78	196	80	3700	4,3	9696-35.813



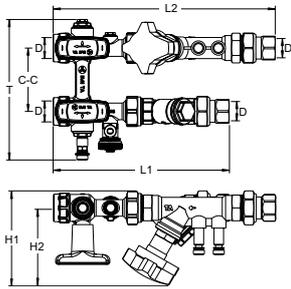
Without strainer – Handles up

Connection system side and load sides (D): Internal threads according to ISO 228.
 Drain with 3/4" hose connection. Self-sealed measuring points.

TA-COMPACT-P DN	D	L1	L2	Offset (±2,5 mm)	H1	H2	T	C-C	q _{max} [l/h]	Kg	Article No
10	G1/2	127	206	89	126	72	178	80	120	1,8	9696-30.812
15 LF	G1/2	127	198	81	126	72	178	80	245	1,9	9696-31.812
15	G1/2	127	198	81	126	72	178	80	470	1,9	9696-32.812
20	G3/4	130	210	90	136	72	178	80	1150	2,0	9696-33.812
25	G1	142	227	100	141	78	196	80	2150	3,3	9696-34.812
32	G1 1/4	152	260	120	141	78	196	80	3700	4,3	9696-35.812

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

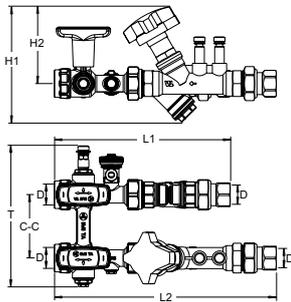
TA Fast-Fit 4 – Venturi balancing valve (STAV)



With strainer – Handles down

Connection system side and load sides (D): Internal threads according to ISO 228.
 Drain with 3/4" hose connection. Self-sealed measuring points.

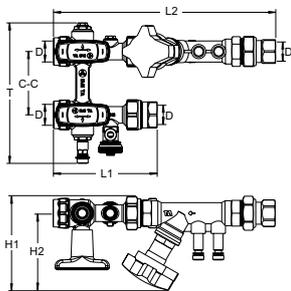
STAV DN	D	L1	L2	Offset (±2,5 mm)	H1	H2	T	C-C	Kv _{max} [m ³ /h]	Kg	Article No
15 ULF	G1/2	198	256	58	118	99	178	80	0,79	2,2	9696-30.821
15 LF	G1/2	198	256	58	118	99	178	80	0,32	2,2	9696-31.821
15	G1/2	198	256	58	118	99	178	80	1,49	2,2	9696-32.821
20	G3/4	210	268	58	118	99	178	80	3,21	2,5	9696-33.821
25	G1	227	293	66	132	104	196	80	4,15	4,1	9696-34.821



With strainer – Handles up

Connection system side and load sides (D): Internal threads according to ISO 228.
 Drain with 3/4" hose connection. Self-sealed measuring points.

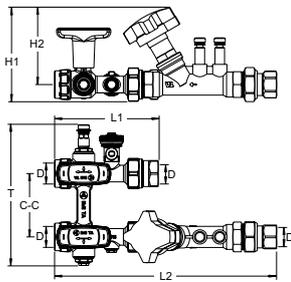
STAV DN	D	L1	L2	Offset (±2,5 mm)	H1	H2	T	C-C	Kv _{max} [m ³ /h]	Kg	Article No
15 ULF	G1/2	198	256	58	118	99	178	80	0,79	2,2	9696-30.820
15 LF	G1/2	198	256	58	118	99	178	80	0,32	2,2	9696-31.820
15	G1/2	198	256	58	118	99	178	80	1,49	2,2	9696-32.820
20	G3/4	210	268	58	118	99	178	80	3,21	2,5	9696-33.820
25	G1	227	293	66	132	104	196	80	4,15	4,1	9696-34.820



Without strainer – Handles down

Connection system side and load sides (D): Internal threads according to ISO 228.
 Drain with 3/4" hose connection. Self-sealed measuring points.

STAV DN	D	L1	L2	Offset (±2,5 mm)	H1	H2	T	C-C	Kv _{max} [m ³ /h]	Kg	Article No
15 ULF	G1/2	127	256	139	118	99	178	80	0,81	1,9	9696-30.823
15 LF	G1/2	127	256	139	118	99	178	80	0,32	1,9	9696-31.823
15	G1/2	127	256	139	118	99	178	80	1,62	1,9	9696-32.823
20	G3/4	130	268	148	118	99	178	80	3,78	2,1	9696-33.823
25	G1	142	293	166	132	104	196	80	5,66	3,6	9696-34.823



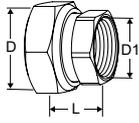
Without strainer – Handles up

Connection system side and load sides (D): Internal threads according to ISO 228.
 Drain with 3/4" hose connection. Self-sealed measuring points.

STAV DN	D	L1	L2	Offset (±2,5 mm)	H1	H2	T	C-C	Kv _{max} [m ³ /h]	Kg	Article No
15 ULF	G1/2	127	256	139	118	99	178	80	0,81	1,9	9696-30.822
15 LF	G1/2	127	256	139	118	99	178	80	0,32	1,9	9696-31.822
15	G1/2	127	256	139	118	99	178	80	1,62	1,9	9696-32.822
20	G3/4	130	268	148	118	99	178	80	3,78	2,1	9696-33.822
25	G1	142	293	166	132	104	196	80	5,66	3,6	9696-34.822

ULF = Ultra low flow
 LF = Low flow
 T = Depth of the device

Connections



With internal thread

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

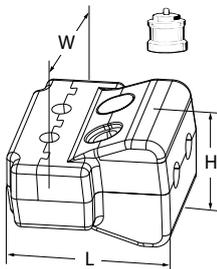
Swivelling nut.

Brass/AMETAL®

Valve DN	D	D1	L*	EAN	Article No
10	G1/2	G3/8	21	7318794016804	52 163-010
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.

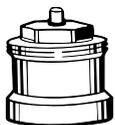
For TA-COMPACT-/TA-Modulator versions only.

Valve DN	L	H	W	Article No
10, 15, 20	234	174	260	339010-50502
25	234	174	260	339010-50602

Spindle extension

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

M30x1,5.



L	Article No
Plastic, black	
30	2002-30.700



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