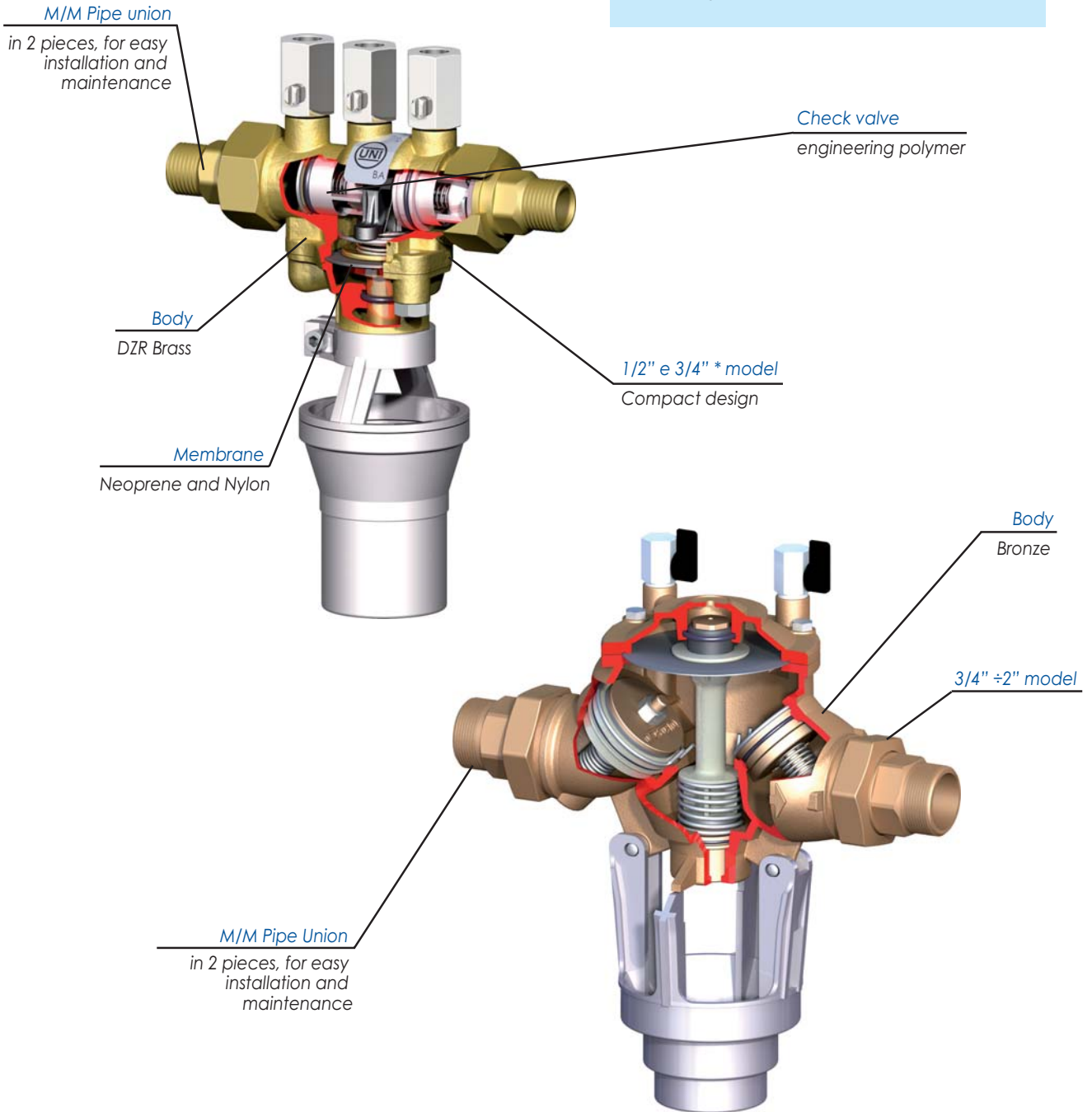


ECO3T

Threaded backflow preventer with controllable reduced pressure zone

- Reduced pressure principle prevents potentially contaminated fluid polluting the Supply system
- Highly reliable, easy to install and to maintain
- Homologated EN 12729

Backflow preventer



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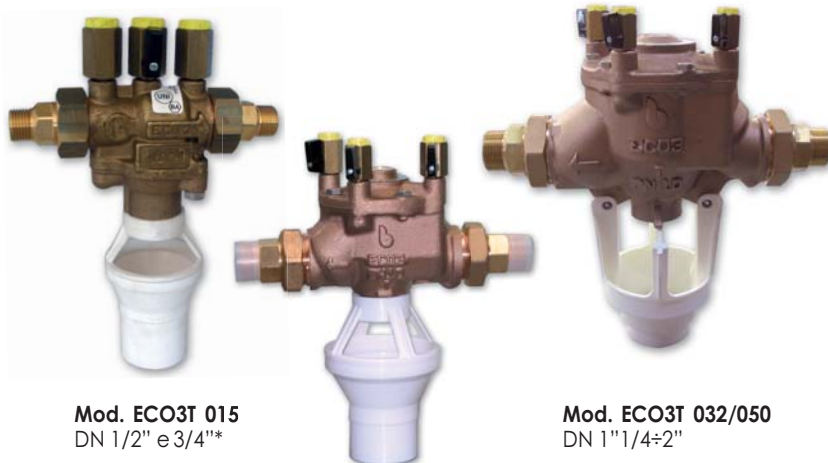
Threaded backflow preventer with controllable reduced pressure zone

Nominal pressure: PN 10

characteristics

Dimensions:
Connections: threaded UNI ISO228/1
Operating range
Max temperature: 65°C

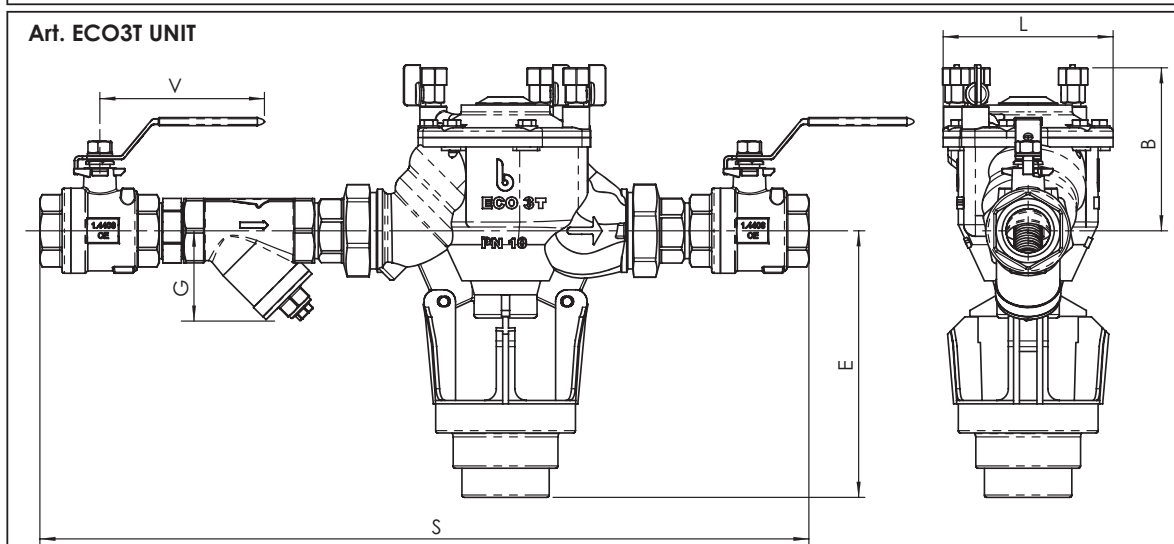
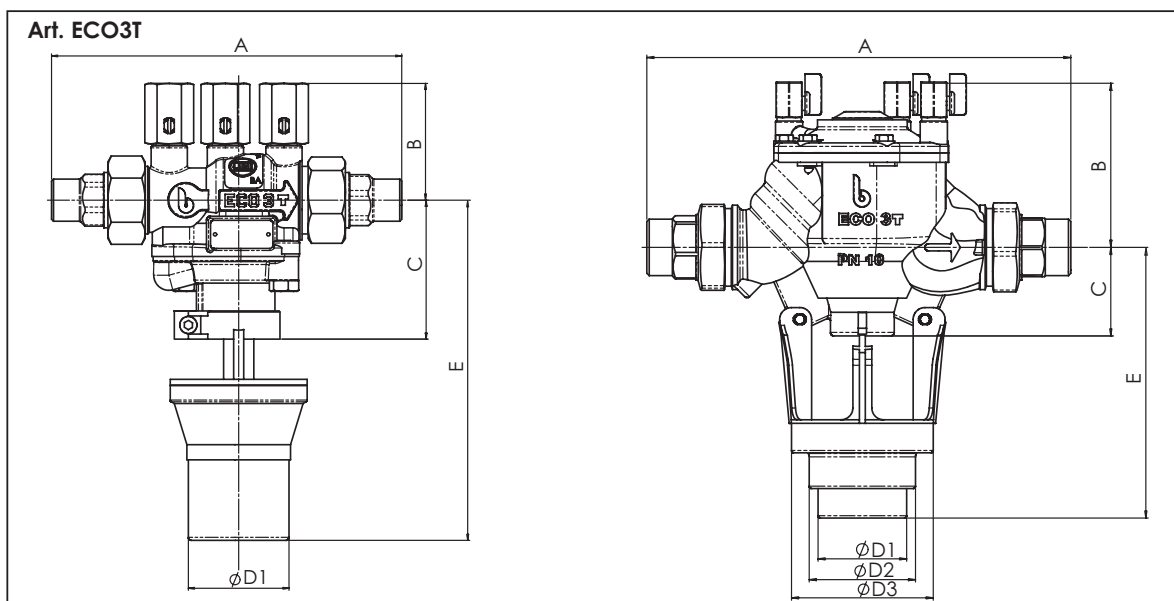
technical data



Mod. ECO3T 015
DN 1/2" e 3/4"*

Mod. ECO3T 032/050
DN 1"1/4÷2"

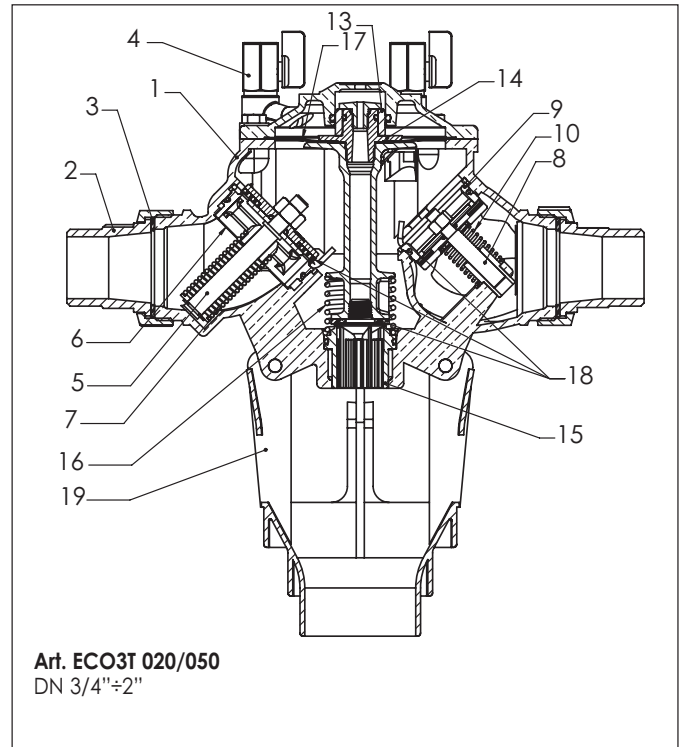
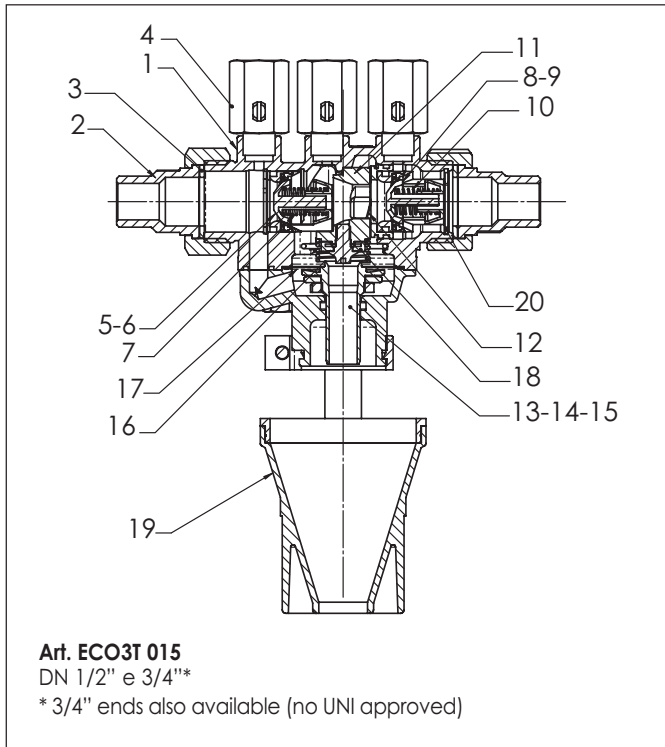
Mod. ECO3T 020/025
DN 3/4"÷1"



Art. ECO3T Dimension (mm)						
DN	1/2"	3/4"	1"	1"1/4	1"1/2	2"
A	174	258	258	357	357	429
B	58	107	107	140	140	159
C	69	55	55	75	75	88
D 1/2/3	50	63		75/90/120		
E	169	186	186	230	230	243
Weight Kg	1,45	4	4	9	9	13

Art. ECO3T UNIT Dimension (mm)						
DN	1/2"	3/4"	1"	1"1/4	1"1/2	2"
S	355	468	502	642	673	810
B	58	107	107	140	140	159
E	169	186	186	230	230	243
G	51	60	72	77	87	103
L	68	106	106	146	146	181
V	103	123	123	153	153	185
Weight Kg	2,35	5,2	5,9	11,8	12,8	19,8

construction details



Construction details				
N°	Components	Q.ty	Materials	
			ECO3T 015	ECO3T 020/050
1	Body	1	DLR brass	G-CuSn5Zn5Pb5
2	Connection	2	DLR brass	
3	Gaskets	2	Asbestos free	
4	1/4" F valve	3	DLR brass	
5	Upstream valve	1	POM (Polyoxymethylene)	DLR brass
6	Upstream valve seat	1	POM (Polyoxymethylene)	Noryl (PPO)
7	Upstream valve spring	1	AISI 302	
8	Downstream valve	1	POM (Polyoxymethylene)	DLR brass
9	Downstream valve seat	1	POM (Polyoxymethylene)	G-CuSn5Zn5Pb5
10	Downstream valve spring	1	AISI 302	
11	Manifold	1	Noryl (PPO)	-
12	Elastic strip	1	AISI 302	
13	Compensator	1	DLR brass	PTFE
14	Relief valve	1	DLR brass	Noryl (PPO)
15	Relief valve seat	1	DLR brass	
16	Relief valve spring	1	AISI 302	
17	Membrane	1	Neoprene+Nylon	
18	Valve gasket	1	Silicone rubber	
19	Conveyor	1	Polypropylene	
20	UNI 743725 ring	2	Stainless steel	-
21	O-Ring	-	NBR	
22	Bolts and screws	-	AISI 304	

ECO3T

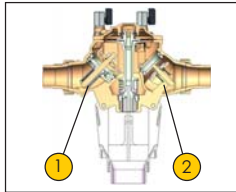
Threaded backflow preventer with controllable reduced pressure zone

Data and specifications are only available as information. Brandoni S.p.A. reserves the right to modify one more valve specifications without warning.

Nominal pressure: PN 10

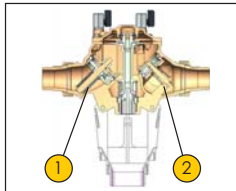
Serie ECO3T/07-2009/GB

working principle



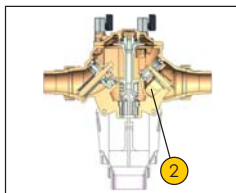
1) normal operation: regular flow

In normal condition the relief valve is closed and water flows through the 2 check valves (1 and 2). Due to the head loss of valve 1, the pressure in the intermediate section is at least 140 millibars lower than the upstream pressure. Such difference acts upon the membrane and closes the relief valve.



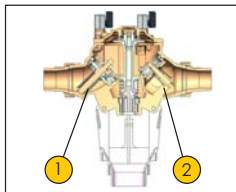
2) No flow: normal pressure

The check valves (1 and 2) are closed and the relief valve remains closed.



3) Back pressure: upstream overpressure sovrappressure

The downstream check valve (2) closes, preventing potentially contaminated water from flowing into the supply pipe. If the downstream check valve is not perfectly watertight, the polluted water can seep into the central chamber. As the pressure in the central chamber increases, the relief valve opens and the polluted fluid discharges.



4) Back-siphonage: upstream depression

If the upstream pressure accidentally decreases, the check valves (1 and 2) automatically close; so the pressure difference between the upstream section and the central section is reduced; the spring opens the relief valve and the central chamber empties.

installation

A correct installation of the backflow preventer requires an upstream ball valve and strainer and a resilient downstream ball valve. Adequate clearance is required for testing and maintenance.

N°	Denomination
1	Ball valve
2	Strainer
3	Backflow preventer
4	Ball valve

