

Transfero TI



Pressure maintenance systems with pumps

Pressure maintenance systems up to 40 MW with pumps

*Engineering
GREAT Solutions*

Transero TI

Transero TI is a precision pressure maintenance device up to 40 MW with pumps for heating, solar and chilled water systems. Its use is particularly recommended where high performance, compact design and precision are required.

Key features

- > **BrainCube control**
Self-optimising with memory function.
- > **2 pumps**
2 spill connections each with 2 in series connected spill valves.
Switching is time and load dependent.
- > **PowerCube panel PC1**
Mains isolator with emergency off; 2 motor protection switches; soft start and soft stop automatic for each pump.
- > **Fillsafe water make-up monitoring**
with possibility to control water make-up through a Pleno P.



Technical description – Control unit TecBox

Applications:

Heating, solar and chilled water systems. For systems to EN 12828 and optional >110 °C to EN 12952, EN 12953 with additional pressure limiters Paz PMIN and content indicators Liz IAB, solar systems according to EN 12976, ENV 12977 with on-site excess temperature protection in case of power blackout.

Media:

Non-aggressive and non-toxic system media.
Addition of antifreeze agent up to 50%.

Pressure:

Min. admissible pressure, PSmin: 0 bar
Max. admissible pressure, PS: see Articles

Temperature:

Max. admissible temperature, TS: 90°C
Min. admissible temperature, TSmin: 0°C
Max. admissible ambient temperature, TU: 40°C
Min. admissible ambient temperature, TUmín: 5°C

Accuracy:

Precision pressure maintenance $\pm 0,2$ bar.

Supply voltage:

Main current: 3x 400V / 50Hz (3P + PE)
Control voltage: 230V / 50Hz (P + N + PE)

Enclosure class:

IP 54

Material:

In essence: steel, brass and bronze

Connections:

Water make-up (SNS): Rp3/4
Connection vessel (SG): 80/6 DN/PN

Approvals:

CE-tested according to the requirements of the European Directives PED/DEP 97/23/EC, 2004/108/EC, 2006/95/EC.

Technical description – Expansion vessels

Applications:

Only together with Control unit TecBox.
See Applications under Technical description - Control unit TecBox.
Transfero TGIH: Water level limiter only in combination with Liz IAB content indicator with Transfero TI to EN 12952 and EN 12953.

Media:

Non-aggressive and non-toxic system media.
Addition of antifreeze agent up to 50%.

Pressure:

Min. admissible pressure, PSmin: 0 bar
Max. admissible pressure, PS: 2 bar

Temperature:

Max. admissible temperature, TS: 120 °C
Min. admissible temperature, TSmin: -10 °C
Max. admissible bag temperature, TB: 70 °C
Min. admissible bag temperature, TBmin: 5 °C

Material:

Steel, welded. Color beryllium.

Approvals:

CE design-tested according to PED/DEP 97/23/EC.

Warranty:

5-year warranty for the vessel.
5-year warranty for the airproof butyl bag.

Function, Equipment, Features

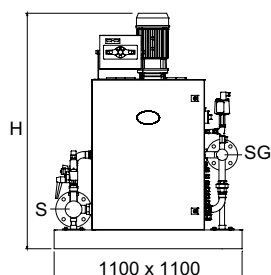
TecBox

- 2 pumps. 2 spill connections each with 2 in series connected spill valves. Switching is time and load dependent.
- Fillsafe water make-up monitoring. With possibility to control water make-up through a Pleno P.
- BrainCube control. Self-optimising with memory function.
- Protected isolating valves for safe isolation.
- PowerCube panel PC1. Mains isolator with emergency off; 2 motor protection switches; soft start and soft stop automatic for each pump.
- High quality, solid, galvanized base.
- Variable installation in front of or next to the primary vessel.
- Inclusive of DSV...DGH safety valves for vessel protection.

Expansion vessels

- Airproof butyl bag according to EN 13831, exchangeable.
- Bag can be vented at the top, condensate drain at the bottom.
- Feet for upright assembly.
- Including flexible hose for the water-side connection and lock shield valve with ball valve for fast draining.
- Two flange openings for internal inspections.

Control unit TecBox



Transfero TI

Connection vessel (SG): DN 80 / PN 6

Connection water make-up (SNS): Rp 3/4

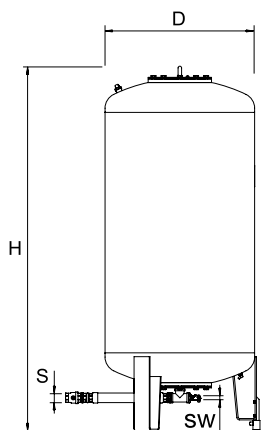
Type*	PS [bar]	H	m [kg]	S [DN/ PN]	PeI [kW]	SPL [dB(A)]	EAN	Article No
TI 90.2 PC1	16	1200	135	50/40	3,0	<70	7640148639767	811 1400
TI 120.2 PC1	16	1200	145	50/40	3,8	<70	7640148639774	811 1405
TI 150.2 PC1	16	1200	170	50/40	5,4	<70	7640148639781	811 1410
TI 190.2 PC1	25	1200	195	50/40	5,4	<70	7640148639798	811 1415
TI 230.2 PC1	25	1300	215	50/40	7,2	<70	7640148639804	811 1420
TI 61.2 PC1	10	1200	135	80/16	3,0	<70	7640148639811	811 1425
TI 91.2 PC1	10	1200	150	80/16	4,2	<70	7640148639828	811 1430
TI 111.2 PC1	16	1200	175	80/16	5,4	<70	7640148639835	811 1435
TI 161.2 PC1	16	1300	190	80/16	7,2	<70	7640153588425	811 1440
TI 191.2 PC1	25	1400	210	80/40	9,4	<70	7640153588432	811 1445
TI 231.2 PC1	25	1600	250	80/40	12,4	<70	7640153588449	811 1450
TI 62.2 PC1	10	1200	185	80/16	5,4	<70	7640153588456	811 1455
TI 102.2 PC1	16	1200	205	80/16	7,2	<70	7640153588463	811 1460
TI 132.2 PC1	16	1200	215	80/16	9,4	<70	7640153588470	811 1465
TI 182.2 PC1	25	1400	280	80/40	12,4	<70	7640153588487	811 1470
TI 212.2 PC1	25	1500	305	80/40	16,8	71	7640153588494	811 1475

*) Constructions \geq TI ..3.2 and special installations upon request.

Accessories for control modules: Communication module.

Additional equipment: Pressure limiter Paz PMIN and content indicator Liz IAB. Master-Slave.

Expansion vessels

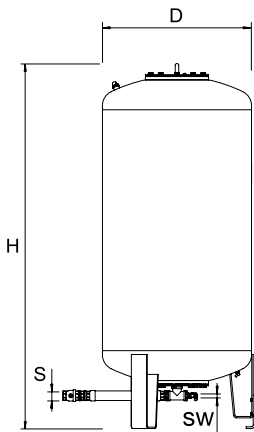


Transfero TGI

Primary vessel. Measuring foot for content measurement.

Type*	VN [l]	D	H**	m [kg]	S	SW	EAN	Article No
2 bar (PS)								
TGI 1000	1000	850	2191	280	G1 1/2	G3/4	7640148631983	713 3100
TGI 1500	1500	1016	2340	360	G1 1/2	G3/4	7640148631990	713 3101
TGI 2000	2000	1016	2839	640	G1 1/2	G3/4	7640148632003	713 3106
TGI 3000	3000	1300	2940	800	G1 1/2	G3/4	7640148632010	713 3103
TGI 4000	4000	1300	3585	910	G1 1/2	G3/4	7640148632027	713 3104
TGI 5000	5000	1300	4230	1010	G1 1/2	G3/4	7640148632034	713 3105

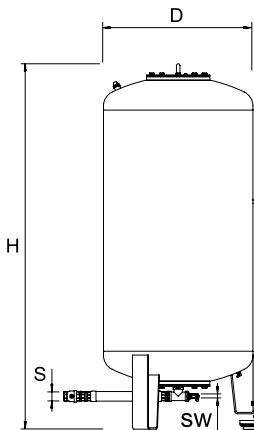
VN = Nominal volume


Transfero TGI...E

Secondary vessel.

Type*	VN [l]	D	H**	m [kg]	S	SW	EAN	Article No
2 bar (PS)								
TGI 1000E	1000	850	2191	280	G1 1/2	G3/4	7640148632041	713 3300
TGI 1500E	1500	1016	2340	360	G1 1/2	G3/4	7640148632058	713 3301
TGI 2000E	2000	1016	2839	640	G1 1/2	G3/4	7640148632065	713 3306
TGI 3000E	3000	1300	2940	800	G1 1/2	G3/4	7640148632072	713 3303
TGI 4000E	4000	1300	3585	910	G1 1/2	G3/4	7640148632089	713 3304
TGI 5000E	5000	1300	4230	1010	G1 1/2	G3/4	7640148632096	713 3305

VN = Nominal volume


Transfero TGI...H

Primary vessel. 1 measuring foot for content measurement, 1 measuring foot for water level limiter.

Type*	VN [l]	D	H**	m [kg]	S	SW	EAN	Article No
2 bar (PS)								
TGI 1000H	1000	850	2191	285	G1 1/2	G3/4	7640148632102	713 3200
TGI 1500H	1500	1016	2340	365	G1 1/2	G3/4	7640148632119	713 3201
TGI 2000H	2000	1016	2839	645	G1 1/2	G3/4	7640148632126	713 3206
TGI 3000H	3000	1300	2940	805	G1 1/2	G3/4	7640148632133	713 3203
TGI 4000H	4000	1300	3585	915	G1 1/2	G3/4	7640148632140	713 3204
TGI 5000H	5000	1300	4230	1015	G1 1/2	G3/4	7640148632157	713 3205

VN = Nominal volume

*) Special vessel upon request.

**) Tolerance 0 /-100.

Additional equipment: Pressure limiter Paz PMIN and content indicator Liz IAB.

Accessories for control modules

Communication module. Factory fitted to Transfero TI.

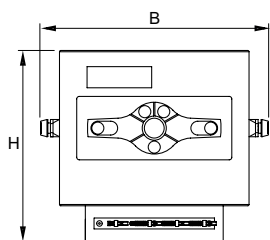
Max. admissible ambient temperature, TU: 40°C

Enclosure class: IP 54

Supply voltage: 230 V/50 Hz

ComCube DCD TI

RS 485 interface for communicating with BrainCube, 6 digital inputs for the use of external volt free signals (NO), 9 volt free digital outputs, freely programmable; all outputs can be inverted. Complete connections of all in and outputs with connectors of the PowerCube panel.

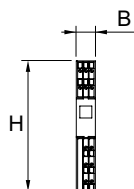


Type	B	H	T	m [kg]	Pel [kW]	EAN	Article No
DCD TI	270	230	180	0,5	0,1	7640148638722	814 1005

T = Depth of the device

ComCube DCA TI

2 separated analogue outputs 4-20 mA for connection to BMS, isolation voltage 2.5 kVAC. Connected via mounting rail in the PowerCube panel.



Type	B	H	T	m [kg]	Pel [kW]	EAN	Article No
DCA TI	17,5	120	146	0,2	0,1	7640148638746	814 1015

T = Depth of the device

Software expansion

Usage options as Master / Slave, parallel, expanded capacity or 100% redundancy.

Remote switching of Master / Slave possible.

Cabeling on site, commissioning by IMI Pneumatex Service.

Master-Slave DMS 2

Parallel operation of 2 Transfero TI.

Including assembly kit with 1 safety valve for protection of the maximum pressure at Transfero TU, TU...E and TG, TG...E expansion vessels.

Type	EAN	Article No
DMS 2 T	7640148638760	814 1021

Master-Slave DMS 3

Parallel operation of 3 Transfero TI.

Including assembly kit with 2 safety valves for protection of the maximum pressure at Transfero TU, TU...E and TG, TG...E expansion vessels.

Type	EAN	Article No
DMS 3 T	7640148638784	814 1026

Master-Slave DMS 4

Parallel operation of 4 Transfero TI.

Including assembly kit with 3 safety valves for protection of the maximum pressure at Transfero TU, TU...E and TG, TG...E expansion vessels.

Type	EAN	Article No
DMS 4 T	7640148638807	814 1031

Additional equipment

Liz/Paz:

Additional equipment for systems >110 °C according to EN 12952, EN 12953.

Max. admissible ambient temperature, TU: 40°C

Supply voltage: 230 V/50 Hz

Paz:

Max. admissible temperature, TS: 70 °C

Min. admissible temperature, TSmin: 0 °C

Min. admissible pressure, PSmin: 0 bar

Enclosure class: IP 54

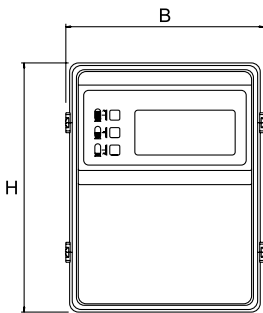
Liz IAB K4

Water level controller. Mounting on the Transfero TGI...H vessel.

With signal lamps and 4 floating contacts to indicate content is minimal or maximal, water make-up start and water make-up stop.

Complete in a casing for mounting on the TGI...H vessel.

TÜV-tested type approval label WBP05-347.



Type	VN [l]	B	H	T	m [kg]	Pel [kW]	EAN	Article No
IAB K4/1000.08	1000	180	260	200	3,5	0,1	7640148638654	824 1850
IAB K4/1500.08	1500	180	260	200	3,5	0,1	7640148638661	824 1851
IAB K4/2000.08	2000	180	260	200	3,5	0,1	7640148638678	824 1852
IAB K4/3000.08	3000	180	260	200	3,5	0,1	7640148638685	824 1853
IAB K4/4000.08	4000	180	260	200	3,5	0,1	7640148638692	824 1854
IAB K4/5000.08	5000	180	260	200	3,5	0,1	7640148638708	824 1855

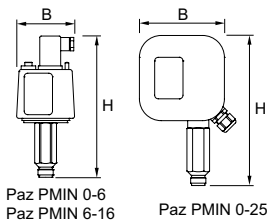
T = Depth of the device

Paz PMIN

Minimum pressure switch. For retrofitting to Transfero TI.

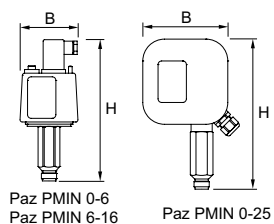
Fitting on site into TecBox and connection to control module.

TÜV-tested in accordance with VdTÜV Druck 100/1 for specialised equipment and according to PED/DEP 97/23/EC.



Type	VN [l]	B	H	T	m [kg]	S	dpu [bar]	EAN	Article No
PMIN 0-6	16	82	180	40	0,5	G1/2	0-6	7640148638821	825 1521
PMIN 6-16	30	82	194	30	0,5	G1/2	6-16	7640148638845	825 1523
PMIN 0-25	30	133	208	61	0,5	G1/2	0-25	7640148638869	825 1525

T = Depth of the device



Paz PMIN TI

Minimum pressure switch. Factory fitted to Transfero TI.

Pre connected to control module.

TÜV-tested in accordance with VdTÜV Druck 100/1 for specialised equipment and according to PED/DEP 97/23/EC.

Type	VN [l]	B	H	T	m [kg]	S	dpu [bar]	EAN	Article No
PMIN 0-6 TI	16	82	180	40	0,5	G1/2	0-6	7640148638814	825 1520
PMIN 6-16 TI	30	82	194	30	0,5	G1/2	6-16	7640148638838	825 1522
PMIN 0-25 TI	30	133	208	61	0,5	G1/2	0-25	7640148638852	825 1524

T = Depth of the device

Additional information:

System design: Datasheet *Planning and calculation*. Calculation: Software HySelect

Abbreviations and terminology: Datasheet *Planning and calculation*.