

**ARI Condensate pump (mechanical)**

Displacement: 16,5 - 20 litres

**ARI-CONLIFT®  
Condensate pump**

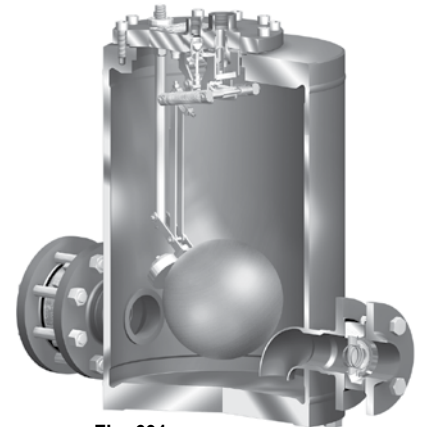
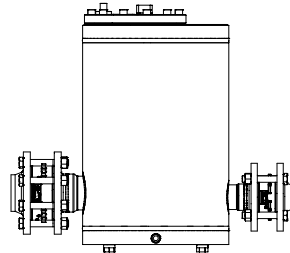
**No electricity required /  
float-operated**

**PN 16 (82.691)**

- Body:  
Jacket P235GH-TC,  
Sockets / flanges P250GH,  
Plates P265GH
- Bonnet: P265GH
- Bolts: A4-70

(Fig. 691....1)

High  
temperature steel



**Fig. 691 -  
ARI-CONLIFT®  
temperature steel / Stainless steel**

**ARI-CONLIFT®  
Condensate pump**

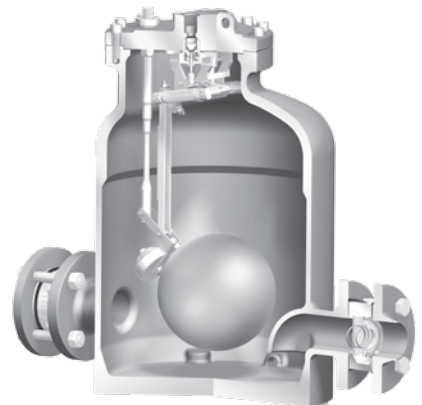
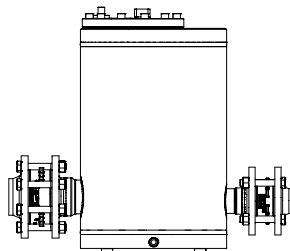
**No electricity required /  
float-operated**

**PN 16 (52.691)**

- Body/Bonnet:  
X6CrNiMoTi 17-12-2 (1.4571)
- Bolts: A4-70

(Fig. 691....1)

Stainless steel



**Fig. 691 -  
ARI-CONLIFT®  
SG iron**

**ARI-CONLIFT®  
Condensate pump**

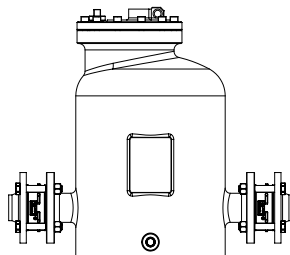
**No electricity required /  
float-operated**

**PN 16 (22.691)**

- Body/Bonnet:  
EN-GJS-400-18-LT (5.3103)
- Bolts: 1.7709

(Fig. 691....1)

SG iron



**Features:**

- Automatic operation, adapts automatically to the condensate level
- Robust, durable design
- All internals made of stainless steel, wearing parts in hardened stainless steel
- High-endurance Inconel X-750 springs
- Body designed with high cycle fatigue strength
- No manual settings required
- Low filling head
- Works without electricity
- No leakage due to moving exterior parts
- Optional:  
L-section stand for mounting on frames, etc.

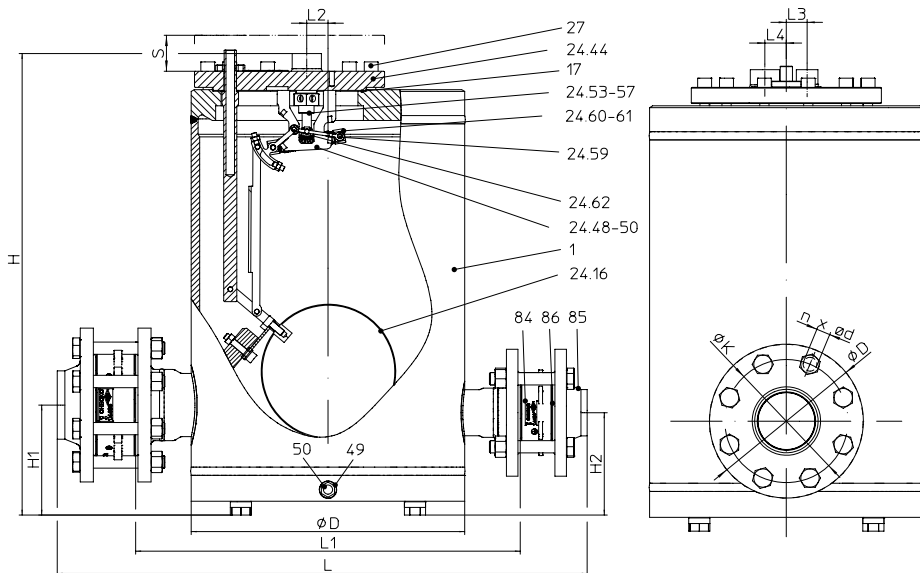
**ARI-CONLIFT® Condensate pump**


Fig. 691....1 mit Flanschen

Option: Standfuß aus L-Profil

Figure	Nominal pressure	Material	Nominal diameter (input / output)	Allowable Back pressure	Operating pressure PS	Operating temperature TS	Allowable differential pressure ΔPMX	for controller
82.691	PN16	Gehäuse: P235GH, P250GH, P265GH Deckel: P265GH	25 / 25 40 / 40 50 / 50 80 / 50	8,0 bar	min. -1,0 barg max. 10,0 barg*	min. -10 °C max. 200 °C	10,0 bar*	R10
52.691	PN16	1.4571	25 / 25 40 / 40 50 / 50 80 / 50	5,0 bar 6,0 bar 6,5 bar	min: -1,0 barg max: 10 barg*	min: -60°C max: 200°C	10,0 bar*	R10
22.691	PN16	EN - JS 1049	50 / 50 80 / 50	8,0 bar	min: -1,0 barg max: 10 barg*	min. -10 °C max. 200 °C	10,0 bar*	R10
22.691	PN16	EN - JS 1049	50 / 50 80 / 50		min: -1,0 barg max: 14,0 barg*	min. -10 °C max. 200 °C	14,0 bar*	R14

\*) The allowable differential pressure refers to the pressure difference between the motive steam and air vent connections. The allowable operating pressure in vacuum systems should be reduced, so that the allowable differential pressure is not exceeded.

Types of connection		Other types of connection on request (other limits of use may apply).
<ul style="list-style-type: none"> <li>Flanges ....1 _____ acc. to DIN EN 1092-1, On request: drilled acc. to ANSI Class 150</li> <li>Motive medium _____ acc. to EN 10226-1 Rp 1/2"</li> <li>Air vent _____ acc. to EN 10226-1 Rp 1"</li> </ul>		
Features		
<ul style="list-style-type: none"> <li>Automatic operation, adapts automatically to the condensate level</li> <li>Robust, durable design</li> <li>All internals made of stainless steel, wearing parts in hardened stainless steel</li> <li>High-endurance Inconel X-750 springs</li> <li>Body designed with high cycle fatigue strength</li> </ul>		<ul style="list-style-type: none"> <li>No manual settings required</li> <li>Low filling head</li> <li>Works without electricity</li> <li>No leakage due to moving exterior parts</li> </ul>
Fluids pumped		
<ul style="list-style-type: none"> <li>Group 2 fluids with a density of 0.85 to 1.15 kg/dm<sup>3</sup></li> </ul>		
Mounting position		
<ul style="list-style-type: none"> <li>Standard: horizontal</li> </ul>		Required filling head above pump footprint: <ul style="list-style-type: none"> <li>600 mm</li> <li>Optional: 640 mm with L-section stand</li> </ul> Maximum filling head above pump footprint: <ul style="list-style-type: none"> <li>1500 mm</li> </ul>
Options		For options, refer to page 10
<ul style="list-style-type: none"> <li>L-section stand (for mounting on frames, etc.)</li> <li>Electronic stroke counter</li> <li>Insulating jacket</li> </ul>		<ul style="list-style-type: none"> <li>Internal pressure gauge</li> <li>Union with butt weld ends for the motive steam and air vent connections</li> <li>KBall valve for condensate drainage</li> </ul>

Types of connection	Flange connections			
	25 / 25	40 / 40	50 / 50	80 / 50
DN input / DN output	25 / 25	40 / 40	50 / 50	80 / 50
NPS input / NPS output	1" / 1"	1 1/2" / 1 1/2"	2" / 2"	3" / 2"

Volume					
Displacement	(l)	16,5	16,5	20	20

Face-to-face acc. to data sheet or as specified by customer		For standard flange dimensions, refer to page 10				
L	(mm)	604	637	674	689	
L1	(mm)	480	480	500	500	
L2	(mm)	12	12	28	28	
L3	(mm)	27	27	27	27	
L4	(mm)	28	28	28	28	
Optional: L-section stand	L5	(mm)	255	255	276	276
	L6	(mm)	140	140	170	170
	L7	(mm)	160	160	190	190
	L8	(mm)	190	190	220	220
	L9	(mm)	17	17	17	17
	L10	(mm)	20	20	20	20

Dimensions						
H	(mm)	600	600	600	600	
H1	(mm)	118	128	133	143	
H2	(mm)	118	128	133	133	
S	(mm)	300	300	300	300	
D	(mm)	324	324	356	356	
Optional: L-section stand	H	(mm)	642	642	642	642
	H1	(mm)	160	170	175	185
	H2	(mm)	160	170	175	175

Weights						
Fig. 82.691 / 52.691 complete	(kg)	95	101	121	126	
Fig. 82.691 / 52.691 pump only	(kg)	91	93	112	113	
Fig. 22.691 complete	(kg)			98	103	
Fig. 22.691 pump only	(kg)			89	90	
Option: Standfuß L-Profil	Fig. 82.691 / 52.691 complete	(kg)	97	103	123	128
	Fig. 82.691 / 52.691 pump only	(kg)	93	95	114	115
	Figur 22.691 complete	(kg)			100	105
	Figur 22.691 pump only	(kg)			91	92

Design data								
Figure	Temperature (°C)	20	100	150	200	250	300	350
82.691	Pressure (barü)	16,0	14,8	14,0	13,3	12,1	11,0	10,2
52.691		16,0	16,0	15,6	14,9	14,1	13,3	12,8
22.691		16,0	16,0	15,2	14,4	12,8	11,2	8,8

Note: The specified operating parameters must not be exceeded. Failure to comply may result in faults, accidents or premature wear.

Pos.	Ers.	Bezeichnung	Material		
			82.691	52.691	22.691
1		Body (jacket, flanges, plates)	P235GH-TC1, 1.0345; P250GH, 1.0460; P265GH, 1.0425	X6CrNiMoTi 17-12-2, 1.4571	EN-GJS-400-18-LT, 5.3103
17	x	Gasket	Graphite (CrNi laminated)		
24.16		Ball float	X5CrNi18-10, 1.4301		
24.44		Cover	P265GH, 1.0425	X6CrNiMoTi 17-12-2, 1.4571	EN-GJS-400-18-LT, 5.3103
24.48 - 24.50		Switch frame, shift lever	GC22CrNi17, 1.4059		
24.53 - 24.57	x	Seat, stem, stem nut	X20Cr13+QT, 1.4021+QT		
24.60 - 24.61		Spring support, tension spring	X20Cr13+QT, 1.4021+QT, Inconel X-750		
24.59, 24.62		Bolt	X20Cr13+QT, 1.4021+QT		
27		Cheese head screw	A4-70		21CrMoV 5-7, 1.7709
49	x	Sealing ring	A4		
50		Plug screw	5.6	X6CrNiMoTi 17-12-2, 1.4571	21CrMoV 5-7, 1.7709
84	x	Checko - D	GX5CrNiMo 19-11-2, 1.4408		
85		Flange	P250GH, 1.0460	X6CrNiMoTi 17-12-2, 1.4571	P250GH, 1.0460
86	x	Gasket	Graphite (CrNi laminated)		
		L Spare parts			

Additional information / restrictions in technical regulations must be observed!

Please check the stability and suitability of the materials or contact the manufacturer (refer to the product overview and resistance list).

Operating and installation instructions can be downloaded from [www.ari-armaturen.com](http://www.ari-armaturen.com).

### Applications

The ARI-CONLIFT® - BR691 is a float-operated condensate pump operating without electricity.

It is used to pump fluids from a point at a low level or a system with low pressure to a point at a higher level or a system with high pressure.

The condensate pump works according to the positive displacement principle.

Steam, compressed air or inert gas can be used as the motive medium. Pressurised steam and gas spaces, or steam and gas spaces which are under vacuum or subject to changing pressures, can be drained depending on the installation.

### Hinweise

We recommend limiting the operating pressure of the motive medium 2 bar higher than the expected back pressure, to enable the energy contained in the medium to be optimally utilised.

If cold condensates (less than 50°C) are pumped using compressed air, icing may occur in the vented pipe and in the controller. The flow rate could be reduced as a result.

### Sizing

The following information is required in order to determine the minimum size of the condensate pump:

- Flow capacity
- Type of motive medium
- Motive medium pressure
- Filling head
- Total back pressure

The following information is required in order to calculate the total back pressure:

- Height difference between the pump and the manifold to which the condensate is supplied
- Overpressure in the manifold
- Resistance in the feed pipe

The mass flow which is necessary to calculate the **resistance in the feed pipe** can be assumed as follows:

differential pressure motive steam pressure- back pressure bar	massflow in condensate return pipe kg per hour			expected pressure loss in condensate return pipe bar per 100m pipe										
	CONLIFT			CONLIFT DN 25 condensate return pipe		CONLIFT DN 40 condensate return pipe		CONLIFT DN50 and DN80/50 condensate return pipe			2x CONLIFT DN 50 2x CONLIFT DN 80/50 condensate return pipe		3x CONLIFT DN 50 3x CONLIFT DN 80/50 condensate return pipe	
	DN 25	DN 40	DN 50 + 80/50	DN 25	DN 40	DN 40	DN 50	DN 50	DN 65	DN 80	DN 65	DN 80	DN 80	DN 100
0,5	2500	3800	6050	0,79	0,10	0,22	0,07	0,16	0,05	0,02	0,17	0,08	0,17	0,05
1	4600	7000	12500	2,60	0,31	0,71	0,22	0,67	0,18	0,08	0,72	0,32	0,72	0,20
1,5	6900	10500	16270	5,85	0,67	1,57	0,48	1,12	0,31	0,14	1,21	0,55	1,21	0,33
2	8800	13500	18950	9,52	1,12	2,59	0,78	1,52	0,42	0,19	1,65	0,73	1,65	0,45
3	11600	17800	22720	16,54	1,91	4,50	1,34	2,18	0,6	0,27	2,37	1,05	2,37	0,64
4	13600	20800	25390	22,73	2,62	6,14	1,83	2,72	0,75	0,34	2,96	1,31	2,96	0,80
5	15000	23000	27470	27,65	3,19	7,50	2,23	3,18	0,87	0,39	3,46	1,54	3,46	0,94
6	16200	24800	29160	32,25	3,72	8,72	2,60	3,59	0,98	0,44	3,90	1,73	3,90	1,06
7	16900	26000	30600	35,09	4,05	9,56	2,85	3,95	1,08	0,48	4,29	1,91	4,29	1,16
8	17500	26600	31840	37,63	4,35	10,03	2,99	4,28	1,16	0,52	4,65	2,07	4,65	1,26
>9	18000	27000	32930	39,81	4,60	10,34	3,08	4,57	1,24	0,56	4,97	2,21	4,97	1,34

If the resistance in the feed pipe is higher than the desirable level, we recommend selecting a larger nominal diameter or using a shorter pipe.

#### PED 2014/34/EU

Assessment as per PED 2014/34/EU (Group 2 fluids)

EC declaration of conformity / manufacturer's declaration: Refer to the last page of the current Operating Instructions for information on the above-mentioned EU directives.

Please request a copy of the Operating Instructions by phone (+49 52 07) 944-0 or by fax (+49 52 07) 994-297.

**Correction factor: Motive medium**

The capacities indicated in the table below apply when steam is used as the motive medium.

If the motive medium is compressed air or inert gas, the values contained in the "Flow rate" table must be multiplied by the correction factor given in the table below.

Back pressure as a percentage of the motive medium pressure								
Back pressure	20%	30%	40%	50%	60%	70%	80%	90%
Correction factor	1,04	1,07	1,1	1,13	1,17	1,22	1,28	1,35

**Consumption: Motive medium**

steam consumption of CONLIFT											
type of condensate pump	Gegendruck - pb	1,00	1,50	2,00	2,50	3,00	3,50	4,00	5,00	6,50	8,00
		steam consumption - kg per 1000kg of hot1) condensate									
motive steam pressure		air consumption m <sup>3</sup> (standard condition) per 1000kg of condensate									
air pressure											
82(52).691 DN25 controller R10 carbon / stainless steel	pb + 2bar	3,17	3,59	4,00	4,42	4,83	5,24	5,65	6,47	7,67	8,86
	10 bar	4,09	4,42	4,75	5,08	5,41	5,73	6,06	6,71	7,83	8,86
	air pressure pb + 2bar	4,80	5,80	6,80	7,80	8,80	9,80	10,80	12,80	15,80	18,70
82(52).691 DN40 controller R10 carbon / stainless steel	pb + 2bar	3,09	3,50	3,92	4,34	4,75	5,16	5,57	6,55	7,59	8,78
	10 bar	3,84	4,17	4,50	4,83	5,16	5,49	5,82	6,71	7,67	8,78
	air pressure pb + 2bar	4,60	5,60	6,60	7,60	8,60	9,60	10,60	12,60	15,60	18,50
82(52).691 DN50 + DN80/50 controller R10 carbon / stainless steel	pb + 2bar	3,01	3,43	3,85	4,26	4,64	5,05	5,46	6,28	7,45	8,65
	10 bar	3,60	3,93	4,26	4,60	4,93	5,30	5,67	6,36	7,49	8,65
	air pressure pb + 2bar	4,40	5,50	6,50	7,50	8,50	9,50	10,50	12,50	15,60	18,60
22.691 DN50 + DN80/50 controller R10 / R14 cast iron	pb + 2bar	2,74	3,11	3,47	3,83	4,16	4,51	4,87	5,58	6,60	7,64
	10 bar	3,25	3,54	3,83	4,12	4,41	4,73	5,05	5,65	6,63	7,64
	14 bar	3,25	3,58	3,91	4,24	4,56	4,92	5,28	5,93	7,00	8,09
	air pressure pb + 2bar	4,00	4,90	5,80	6,70	7,60	8,50	9,40	11,20	13,90	16,60

1) temperature of condensate 95°C. At lower condensate temperatures, steam consumption slightly increases

Back pressure p <sub>G</sub>		Motive medium pressure p <sub>T</sub>		CONLIFT 82.691 + 52.691															
				high temperature steel / stainless steel															
				nominal diameter															
				25				40				50				80/50			
(bar)		(bar)		filling head in mm															
				600	800	1000	1200	600	800	1000	1200	600	800	1000	1200	600	800	1000	1200
1,0	1,5	l/h	439	585	724	748	675	900	1114	1151	1228	1637	2026	2093	1831	2441	3021	3120	
	2,0	l/h	633	844	1045	1079	974	1299	1608	1660	1772	2362	2923	3019	2390	3186	3943	4072	
	2,5	l/h	755	1006	1245	1286	1161	1548	1915	1978	2111	2814	3482	3596	2709	3612	4469	4614	
	3,0	l/h	797	1063	1316	1359	1227	1636	2025	2091	2231	2975	3682	3802	2950	3933	4867	5027	
	4,0	l/h	857	1143	1415	1461	1319	1759	2177	2248	2399	3198	3958	4087	3172	4229	5234	5404	
	5,0	l/h	896	1195	1479	1528	1379	1839	2275	2350	2507	3343	4137	4272	3316	4421	5470	5649	
	6,0	l/h	924	1232	1526	1575	1422	1896	2347	2423	2586	3448	4267	4405	3419	4558	5641	5825	
	7,0	l/h	937	1249	1546	1596	1442	1922	2378	2456	2621	3495	4324	4466	3466	4621	5718	5905	
	8,0	l/h	942	1256	1555	1606	1450	1933	2392	2470	2636	3514	4349	4490	3485	4646	5749	5936	
	9,0	l/h	942	1256	1554	1606	1450	1933	2391	2470	2636	3514	4348	4490	3485	4646	5749	5936	
	10,0	l/h	942	1256	1554	1606	1450	1933	2391	2470	2636	3514	4348	4490	3485	4646	5749	5936	
13,0	l/h																		
1,5	2,0	l/h	425	567	640	690	597	796	985	1017	1085	1447	1791	1849	1539	2052	2540	2622	
	2,5	l/h	567	756	933	963	869	1159	1435	1482	1581	2108	2609	2694	2029	2705	3347	3456	
	3,0	l/h	652	869	1076	1111	1003	1337	1655	1709	1823	2431	3009	3107	2226	2968	3673	3793	
	3,5	l/h	753	1004	1242	1282	1158	1544	1911	1973	2105	2807	3474	3588	2567	3423	4236	4375	
	4,0	l/h	792	1056	1306	1349	1218	1624	2009	2075	2214	2952	3653	3773	2700	3600	4455	4601	
	5,0	l/h	854	1138	1407	1453	1313	1750	2165	2235	2386	3181	3936	4063	2909	3879	4800	4955	
	6,0	l/h	887	1182	1462	1510	1364	1818	2249	2323	2479	3305	4089	4223	3023	4030	4987	5150	
	7,0	l/h	908	1210	1498	1546	1396	1861	2304	2379	2538	3384	4189	4325	3095	4127	5108	5274	
	8,0	l/h	922	1229	1520	1570	1418	1890	2339	2415	2578	3437	4253	4391	3143	4191	5186	5355	
	9,0	l/h	926	1234	1528	1579	1424	1899	2351	2429	2589	3452	4274	4417	3158	4210	5212	5387	
	10,0	l/h	929	1239	1535	1589	1430	1906	2362	2444	2599	3465	4294	4444	3170	4226	5237	5419	
13,0	l/h																		
2,0	2,5	l/h	422	563	621	685	581	775	880	923	952	1269	1571	1622	1318	1757	2174	2245	
	3,0	l/h	557	742	869	903	810	1080	1337	1380	1447	1929	2387	2465	1723	2297	2842	2935	
	3,5	l/h	654	872	1078	1113	1006	1341	1659	1713	1796	2394	2963	3059	2138	2850	3527	3642	
	4,0	l/h	696	928	1148	1186	1070	1427	1766	1824	1912	2549	3154	3258	2276	3034	3755	3878	
	5,0	l/h	764	1018	1260	1301	1175	1566	1938	2001	2097	2796	3460	3573	2497	3329	4119	4254	
	6,0	l/h	812	1082	1339	1383	1249	1665	2060	2127	2231	2974	3679	3799	2655	3540	4380	4523	
	7,0	l/h	842	1123	1389	1434	1295	1727	2137	2206	2313	3084	3816	3940	2753	3671	4543	4691	
	8,0	l/h	865	1153	1427	1474	1331	1774	2196	2267	2376	3168	3921	4049	2829	3772	4668	4820	
	9,0	l/h	884	1178	1457	1505	1359	1812	2242	2315	2426	3235	4003	4134	2888	3851	4766	4922	
	10,0	l/h	893	1191	1477	1526	1375	1833	2272	2347	2455	3273	4058	4191	2922	3896	4831	4989	
	13,0	l/h																	
2,5	3,0	l/h	419	558	615	680	536	714	859	887	820	1093	1432	1479	1148	1531	1895	1957	
	3,5	l/h	553	737	855	898	764	1018	1316	1359	1272	1696	2194	2265	1532	2043	2643	2729	
	4,0	l/h	615	820	1063	1099	947	1262	1636	1690	1577	2103	2727	2817	1901	2534	3286	3394	
	4,5	l/h	682	909	1152	1190	1025	1367	1773	1831	1709	2278	2955	3052	2058	2744	3560	3677	
	5,0	l/h	708	944	1218	1258	1084	1445	1874	1936	1807	2409	3124	3226	2177	2903	3764	3887	
	6,0	l/h	763	1017	1318	1361	1173	1564	2028	2094	1955	2606	3380	3490	2355	3140	4072	4205	
	7,0	l/h	795	1060	1375	1420	1223	1631	2116	2185	2039	2719	3526	3641	2457	3276	4248	4387	
	8,0	l/h	827	1103	1431	1477	1273	1697	2201	2273	2121	2828	3669	3788	2555	3407	4420	4564	
	9,0	l/h	846	1128	1464	1512	1302	1736	2252	2326	2170	2893	3753	3876	2615	3486	4522	4670	
	10,0	l/h	854	1138	1475	1523	1313	1750	2269	2343	2187	2916	3781	3905	2635	3513	4556	4705	
	13,0	l/h																	

**Assumptions:**

- Fluid pumped: Hot steam condensate (95°C).
- Inlet pipe: ARI CHECKO-D disc check valves and ARI strainer (standard screen).

The actual values may deviate from those given above if other operating conditions apply or other valves are used.  
Intermediate values may be interpolated.

Back pressure p <sub>G</sub>		Motive medium pressure p <sub>T</sub>		CONLIFT 82.691 + 52.691 high temperature steel / stainless steel															
				nominal diameter															
				25				40				50				80/50			
				filling head in mm															
(bar)	(bar)		600	800	1000	1200	600	800	1000	1200	600	800	1000	1200	600	800	1000	1200	
3,0	3,5	l/h	416	554	611	675	508	677	821	848	719	958	1324	1368	1018	1357	1680	1735	
	4,0	l/h	535	713	864	892	702	936	1252	1293	1132	1509	2019	2085	1380	1840	2462	2543	
	4,5	l/h	610	813	1051	1085	881	1174	1523	1572	1421	1894	2456	2536	1733	2310	2995	3093	
	5,0	l/h	659	878	1134	1172	951	1268	1644	1698	1534	2045	2652	2739	1871	2494	3234	3340	
	6,0	l/h	722	963	1249	1290	1046	1395	1810	1869	1688	2250	2919	3015	2058	2744	3560	3677	
	7,0	l/h	767	1023	1326	1370	1112	1482	1922	1985	1793	2391	3100	3201	2187	2916	3781	3904	
	8,0	l/h	795	1060	1374	1419	1152	1536	1992	2057	1858	2477	3213	3317	2266	3021	3918	4045	
	9,0	l/h	812	1083	1404	1450	1177	1569	2035	2102	1898	2531	3282	3391	2315	3087	4003	4135	
	10,0	l/h	819	1092	1414	1461	1187	1582	2049	2117	1913	2551	3305	3414	2333	3111	4031	4164	
		13,0	l/h																
3,5	4,0	l/h	413	550	606	670	487	649	798	824	665	887	1227	1267	932	1243	1539	1589	
	4,5	l/h	535	713	835	869	669	892	1193	1232	1030	1373	1836	1896	1241	1654	2212	2284	
	5,0	l/h	591	788	1009	1042	834	1112	1441	1488	1283	1710	2217	2289	1545	2060	2671	2758	
	5,5	l/h	640	853	1093	1128	903	1204	1561	1612	1389	1852	2401	2480	1673	2231	2893	2988	
	6,0	l/h	662	883	1145	1182	946	1261	1635	1688	1455	1940	2515	2597	1753	2337	3030	3129	
	7,0	l/h	706	941	1219	1259	1008	1344	1742	1799	1550	2067	2680	2768	1868	2490	3229	3335	
	8,0	l/h	735	980	1271	1313	1050	1400	1816	1875	1616	2154	2794	2884	1946	2595	3366	3475	
	9,0	l/h	752	1002	1299	1333	1073	1431	1856	1904	1651	2201	2855	2929	1989	2652	3440	3529	
	10,0	l/h	752	1002	1299	1341	1073	1431	1856	1916	1651	2201	2855	2948	1989	2652	3440	3552	
		13,0	l/h																
4,0	4,5	l/h	406	541	597	660	436	581	781	807	632	843	1165	1204	865	1153	1426	1473	
	5,0	l/h	518	690	801	841	642	856	1144	1181	958	1277	1707	1763	1127	1502	2008	2074	
	5,5	l/h	587	783	963	994	796	1061	1376	1420	1187	1583	2053	2119	1397	1862	2415	2493	
	6,0	l/h	628	837	1056	1091	841	1121	1509	1558	1255	1673	2252	2326	1476	1968	2649	2736	
	7,0	l/h	674	899	1126	1163	896	1195	1609	1662	1338	1784	2402	2480	1574	2099	2826	2918	
	8,0	l/h	696	928	1169	1208	935	1246	1670	1725	1388	1851	2493	2574	1634	2178	2933	3028	
	9,0	l/h	708	944	1198	1237	983	1310	1711	1767	1422	1896	2553	2637	1673	2231	3003	3102	
	10,0	l/h	716	954	1198	1237	998	1330	1711	1767	1422	1896	2553	2637	1673	2231	3003	3102	
		13,0	l/h																
	5,0	5,5	l/h	393	524	578	638	414	552	642	663	528	704	917	947	653	871	1079	1114
6,0		l/h	506	675	745	824	585	780	908	937	755	1006	1297	1339	887	1183	1526	1575	
6,5		l/h	565	753	845	918	685	913	1070	1106	852	1136	1529	1582	1003	1337	1799	1859	
7,0		l/h	605	807	905	983	760	1013	1145	1206	920	1227	1636	1726	1083	1444	1925	1987	
8,0		l/h	647	863	951	1051	830	1106	1225	1316	947	1262	1682	1774	1114	1485	1979	2043	
9,0		l/h	662	883	973	1075	873	1164	1289	1386	947	1262	1682	1774	1114	1485	1979	2043	
10,0		l/h	671	894	984	1088	891	1188	1317	1415	947	1262	1682	1774	1114	1485	1979	2043	
		13,0	l/h																
6,5	7,0	l/h	377	503	555	613	389	519	582	619	466	621	808	835	584	778	962	994	
	7,5	l/h	493	657	724	800	535	713	825	852	667	889	1173	1322	785	1046	1348	1393	
	8,0	l/h	547	729	804	888	610	813	961	993	744	992	1335	1466	875	1167	1571	1622	
	8,5	l/h	605	807	889	983	687	916	1015	1090	791	1055	1404	1559	931	1241	1652	1706	
	9,0	l/h	620	827	912	1008	720	960	1063	1142	791	1054	1404	1559	930	1240	1652	1706	
	10,0	l/h	620	827	912	1008	720	960	1063	1142	791	1054	1404	1559	930	1240	1652	1706	
	11,0	l/h																	
	13,0	l/h																	
8,0	8,5	l/h	374	449	550	578	384	512	576	609	448	597	778	803	568	757	937	967	
	9,0	l/h	440	588	709	721	463	617	742	767	584	778	1003	1055	686	915	1180	1219	
	9,5	l/h	488	642	787	809	507	676	807	834	623	830	1120	1262	716	954	1284	1326	
	10,0	l/h	519	673	799	820	541	721	831	858	641	855	1154	1301	744	992	1321	1365	
	11,0	l/h																	
	13,0	l/h																	

**Assumptions:**

- Fluid pumped: Hot steam condensate (95°C).
- Inlet pipe: ARI CHECKO-D disc check valves and ARI strainer (standard screen).

The actual values may deviate from those given above if other operating conditions apply or other valves are used.  
Intermediate values may be interpolated.

Back pressure pG	Motive medium pressure pT	CONLIFT 22.691 DN80/50 (SG iron)										CONLIFT 22.691 DN50/50 (SG iron)							
		controller										controller							
		R10					R14					R10				R14			
		filling head in mm										filling head in mm							
(bar)	(bar)		600	800	1000	1200	600	800	1000	1200	600	800	1000	1200	600	800	1000	1200	
1,0	1,5	l/h	1831	2441	3021	3120	1680	2240	2772	2863	1228	1637	2026	2093	1127	1502	1859	1921	
	2,0	l/h	2641	3521	4358	4500	2515	3353	4151	4286	1958	2610	3231	3336	1865	2486	3077	3177	
	2,5	l/h	3146	4195	5191	5360	2873	3830	4740	4894	2452	3268	4045	4177	2239	2984	3693	3814	
	3,0	l/h	3326	4435	5488	5667	3095	4126	5106	5273	2515	3355	4152	4286	2340	3122	3863	3988	
	4,0	l/h	3576	4768	5900	6093	3327	4436	5490	5669	2705	3606	4462	4608	2517	3355	4152	4288	
	5,0	l/h	3738	4984	6168	6369	3478	4638	5739	5926	2826	3769	4665	4816	2630	3507	4341	4481	
	6,0	l/h	3855	5139	6360	6568	3587	4781	5917	6111	2916	3888	4811	4967	2713	3617	4476	4621	
	7,0	l/h	3907	5210	6447	6657	3635	4848	5999	6194	2954	3940	4875	5035	2749	3666	4536	4685	
	8,0	l/h	3928	5238	6482	6693	3655	4874	6031	6228	2971	3962	4903	5063	2764	3686	4562	4711	
	9,0	l/h	3929	5238	6481	6693	3656	4874	6030	6227	2972	3962	4902	5063	2765	3686	4561	4711	
	10,0	l/h	3929	5238	6481	6693	3656	4874	6030	6227	2972	3962	4902	5063	2765	3686	4561	4711	
13,0	l/h					3656	4874	6030	6227					2765	3686	4561	4711		
1,5	2,0	l/h	1539	2052	2539	2622	1412	1883	2330	2406	1085	1447	1790	1849	996	1328	1643	1697	
	2,5	l/h	2242	2990	3700	3820	2135	2847	3523	3638	1747	2330	2884	2978	1664	2219	2746	2836	
	3,0	l/h	2586	3448	4267	4406	2361	3148	3896	4023	2118	2824	3496	3609	1934	2578	3192	3295	
	3,5	l/h	2985	3980	4926	5087	2736	3649	4516	4663	2448	3264	4040	4172	2244	2992	3704	3825	
	4,0	l/h	3140	4186	5180	5350	2878	3837	4748	4904	2575	3433	4247	4387	2360	3147	3893	4021	
	5,0	l/h	3382	4510	5581	5762	3100	4134	5116	5282	2774	3698	4576	4725	2543	3390	4195	4332	
	6,0	l/h	3515	4686	5799	5988	3222	4296	5316	5489	2882	3843	4755	4910	2642	3523	4359	4501	
	7,0	l/h	3599	4799	5939	6132	3299	4399	5444	5621	2951	3935	4870	5029	2705	3607	4464	4610	
	8,0	l/h	3654	4873	6030	6227	3350	4467	5528	5708	2997	3996	4945	5106	2747	3663	4533	4681	
	9,0	l/h	3671	4895	6060	6264	3365	4487	5555	5742	3010	4014	4969	5136	2759	3679	4555	4708	
	10,0	l/h	3686	4914	6090	6301	3379	4504	5582	5776	3022	4029	4993	5167	2770	3693	4577	4736	
13,0	l/h					3379	4504	5582	5776					2770	3693	4577	4736		
2,0	2,5	l/h	1318	1757	2174	2245	1209	1612	1995	2060	952	1269	1571	1622	873	1164	1441	1488	
	3,0	l/h	2003	2671	3305	3413	1949	2599	3216	3321	1682	2243	2776	2866	1637	2183	2701	2789	
	3,5	l/h	2485	3314	4101	4235	2246	2996	3707	3829	2087	2784	3445	3557	1887	2517	3114	3216	
	4,0	l/h	2646	3528	4366	4509	2498	3331	4122	4257	2223	2964	3667	3788	2099	2798	3462	3576	
	5,0	l/h	2903	3871	4790	4946	2740	3654	4521	4669	2438	3251	4024	4154	2301	3069	3798	3921	
	6,0	l/h	3087	4116	5093	5259	2914	3885	4808	4964	2594	3458	4278	4417	2449	3264	4038	4169	
	7,0	l/h	3202	4269	5282	5455	3023	4030	4986	5150	2690	3586	4437	4582	2539	3385	4189	4325	
	8,0	l/h	3290	4386	5428	5605	3106	4140	5124	5291	2763	3684	4559	4708	2608	3478	4304	4444	
	9,0	l/h	3359	4478	5542	5723	3171	4227	5231	5402	2822	3762	4655	4807	2664	3551	4394	4538	
	10,0	l/h	3398	4530	5618	5801	3207	4276	5303	5476	2855	3806	4719	4873	2695	3593	4454	4600	
	13,0	l/h					3207	4276	5303	5476					2695	3593	4454	4600	
2,5	3,0	l/h	1148	1531	2006	2072	995	1327	1739	1796	820	1093	1516	1566	711	947	1314	1357	
	3,5	l/h	1782	2376	3073	3173	1659	2212	2861	2954	1480	1972	2551	2634	1378	1836	2375	2452	
	4,0	l/h	2210	2946	3821	3946	1906	2541	3296	3404	1833	2445	3171	3275	1581	2109	2735	2825	
	4,5	l/h	2394	3191	4139	4275	2156	2874	3728	3850	1988	2649	3436	3548	1790	2386	3095	3195	
	5,0	l/h	2531	3375	4377	4520	2280	3040	3943	4071	2101	2801	3633	3751	1892	2523	3272	3379	
	6,0	l/h	2738	3651	4735	4889	2466	3289	4265	4404	2273	3030	3930	4058	2047	2729	3540	3655	
	7,0	l/h	2857	3809	4940	5101	2574	3431	4450	4595	2371	3161	4100	4234	2136	2847	3693	3814	
	8,0	l/h	2972	3962	5139	5307	2677	3569	4629	4780	2467	3289	4266	4405	2222	2962	3843	3968	
	9,0	l/h	3041	4054	5258	5430	2739	3652	4736	4891	2524	3364	4364	4507	2273	3030	3931	4060	
	10,0	l/h	3064	4085	5298	5471	2760	3679	4772	4928	2543	3391	4397	4541	2291	3054	3961	4090	
13,0	l/h					2760	3679	4772	4928					2291	3054	3961	4090		

**Assumptions:**

- Fluid pumped: Hot steam condensate (95°C).
- Inlet pipe: ARI CHECKO-D disc check valves and ARI strainer (standard screen).

The actual values may deviate from those given above if other operating conditions apply or other valves are used.  
Intermediate values may be interpolated.



Gegendruck p <sub>G</sub>	Treibmediendruck p <sub>T</sub>	CONLIFT 22.691 DN80/50 (SG iron)								CONLIFT 22.691 DN50/50 (SG iron)									
		controller				controller				controller				controller					
		R10		R14		R10		R14		R10		R14		R10		R14			
		filling head in mm								filling head in mm									
(bar)	(bar)	600	800	1000	1200	600	800	1000	1200	600	800	1000	1200	600	800	1000	1200		
3,0	3,5	l/h	1018	1358	1878	1939	889	1186	1640	1694	719	959	1480	1529	628	838	1293	1336	
	4,0	l/h	1605	2140	2863	2957	1511	2015	2696	2784	1317	1755	2348	2424	1240	1652	2211	2282	
	4,5	l/h	2014	2686	3483	3597	1922	2563	3324	3433	1651	2202	2856	2949	1576	2102	2726	2814	
	5,0	l/h	2175	2900	3761	3884	2075	2767	3589	3706	1783	2378	3084	3185	1701	2269	2943	3039	
	6,0	l/h	2394	3191	4139	4275	2284	3045	3949	4079	1964	2617	3394	3505	1874	2497	3238	3344	
	7,0	l/h	2543	3391	4397	4540	2427	3236	4196	4333	2085	2780	3605	3722	1990	2653	3440	3552	
	8,0	l/h	2635	3513	4556	4704	2514	3352	4347	4489	2161	2880	3736	3857	2062	2748	3565	3680	
	9,0	l/h	2692	3590	4655	4808	2569	3426	4442	4588	2207	2943	3817	3943	2106	2808	3642	3763	
	10,0	l/h	2713	3618	4687	4842	2589	3452	4473	4620	2225	2967	3843	3970	2123	2831	3667	3788	
		13,0	l/h					2589	3452	4473	4620					2123	2831	3667	3788
3,5	4,0	l/h	932	1243	1719	1776	814	1086	1502	1551	665	887	1371	1416	581	775	1198	1237	
	4,5	l/h	1442	1923	2572	2656	1358	1811	2422	2501	1197	1596	2135	2205	1127	1503	2010	2076	
	5,0	l/h	1796	2395	3106	3207	1713	2285	2963	3060	1491	1988	2578	2662	1423	1897	2460	2540	
	5,5	l/h	1945	2594	3364	3474	1856	2475	3210	3315	1615	2153	2792	2883	1541	2054	2664	2751	
	6,0	l/h	2037	2717	3523	3638	1944	2593	3362	3471	1691	2255	2924	3019	1614	2152	2790	2881	
	7,0	l/h	2171	2895	3755	3878	2071	2762	3583	3700	1801	2403	3117	3219	1718	2293	2974	3071	
	8,0	l/h	2263	3018	3914	4041	2159	2880	3734	3856	1879	2505	3249	3354	1793	2390	3100	3200	
	9,0	l/h	2313	3084	4000	4103	2207	2943	3817	3915	1920	2560	3320	3405	1832	2443	3168	3249	
	10,0	l/h	2313	3084	4000	4130	2207	2943	3817	3941	1920	2560	3320	3428	1832	2443	3168	3271	
		13,0	l/h					2207	2943	3817	3941					1832	2443	3168	3271
4,0	4,5	l/h	865	1153	1594	1646	756	1007	1393	1438	632	843	1302	1345	552	737	1138	1175	
	5,0	l/h	1309	1746	2335	2412	1233	1644	2199	2271	1113	1484	1985	2050	1048	1397	1869	1930	
	5,5	l/h	1624	2165	2808	2899	1549	2066	2679	2766	1380	1841	2387	2464	1317	1756	2277	2351	
	6,0	l/h	1716	2288	3080	3181	1577	2103	2831	2924	1459	1945	2618	2704	1341	1788	2406	2485	
	7,0	l/h	1831	2441	3286	3393	1683	2244	3020	3119	1556	2075	2793	2884	1430	1907	2567	2651	
	8,0	l/h	1900	2533	3410	3521	1746	2328	3134	3236	1614	2153	2898	2993	1483	1979	2663	2751	
	9,0	l/h	1945	2594	3492	3607	1788	2384	3210	3315	1653	2204	2969	3066	1519	2026	2729	2818	
	10,0	l/h	1945	2594	3492	3607	1788	2384	3210	3315	1653	2204	2969	3066	1519	2026	2729	2818	
		13,0	l/h					1788	2384	3210	3315					1519	2026	2729	2818
	5,0	5,5	l/h	731	974	1269	1310	607	808	1053	1087	591	787	1078	1114	490	653	895	924
6,0		l/h	1044	1392	1795	1853	944	1258	1622	1675	889	1184	1526	1575	803	1070	1379	1423	
6,5		l/h	1180	1573	2117	2187	1085	1446	1946	2010	1002	1337	1799	1861	921	1229	1654	1711	
7,0		l/h	1275	1699	2265	2338	1138	1517	2022	2088	1083	1444	1925	2031	967	1289	1719	1813	
8,0		l/h	1310	1747	2328	2404	1170	1560	2079	2146	1114	1485	1979	2087	995	1326	1767	1863	
9,0		l/h	1310	1747	2328	2404	1170	1560	2079	2146	1114	1485	1979	2087	995	1326	1767	1863	
10,0		l/h	1310	1747	2328	2404	1170	1560	2079	2146	1114	1485	1979	2087	995	1326	1767	1863	
		13,0	l/h					1170	1560	2079	2146					995	1326	1767	1863
6,5	7,0	l/h	652	869	1132	1169	541	721	940	970	520	694	951	982	432	576	789	815	
	7,5	l/h	934	1245	1605	1658	844	1125	1451	1498	794	1058	1397	1573	718	956	1263	1422	
	8,0	l/h	1042	1389	1870	1931	958	1277	1719	1775	886	1181	1589	1745	814	1086	1461	1604	
	8,5	l/h	1108	1477	1967	2031	989	1319	1756	1814	941	1256	1672	1856	840	1122	1493	1657	
	9,0	l/h	1107	1476	1967	2031	989	1318	1757	1814	942	1255	1672	1856	841	1121	1493	1658	
	10,0	l/h	1107	1476	1967	2031	989	1318	1757	1814	942	1255	1672	1856	841	1121	1493	1658	
	11,0	l/h					989	1318	1757	1814					841	1121	1493	1658	
		13,0	l/h					989	1318	1757	1814				841	1121	1493	1658	
8,0	8,5	l/h	635	846	1102	1138	527	702	915	945	501	667	915	945	416	554	760	785	
	9,0	l/h	827	1103	1422	1469	747	997	1285	1328	704	938	1209	1271	636	848	1093	1149	
	9,5	l/h	862	1149	1547	1598	792	1056	1422	1469	750	1000	1349	1521	689	919	1240	1398	
	10,0	l/h	896	1195	1592	1645	800	1067	1422	1469	772	1030	1391	1568	689	920	1242	1400	
	11,0	l/h					800	1067	1422	1469					689	920	1242	1400	
		13,0	l/h					800	1067	1422	1469				689	920	1242	1400	

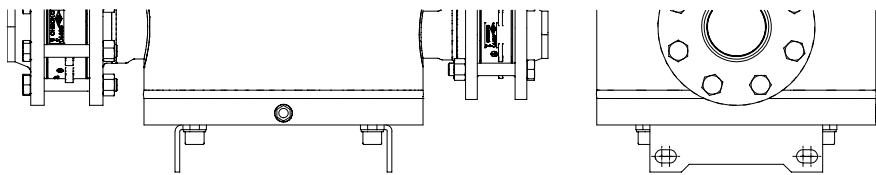
**Assumptions:**

- Fluid pumped: Hot steam condensate (95°C).
- Inlet pipe: ARI CHECKO-D disc check valves and ARI strainer (standard screen).

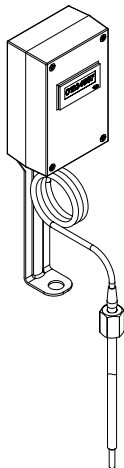
The actual values may deviate from those given above if other operating conditions apply or other valves are used.  
Intermediate values may be interpolated.

Standard flange dimensions to DIN EN 1092-1						
DN	(mm)	25	40	50	80	
NPS	(inch)	1"	1 1/2"	2"	3"	
PN16	ØD	(mm)	115	150	165	200
	ØK	(mm)	85	110	125	160
	n x Ød	(mm)	4 x 14	4 x 18	4 x 18	8 x 18

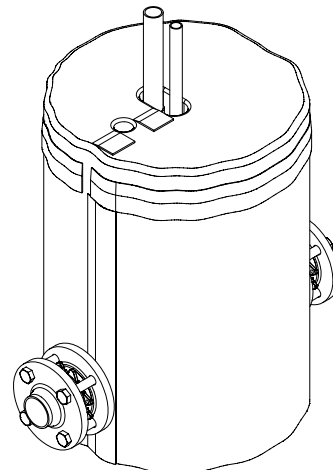
**Options**



L-section stand (for mounting on frames, etc.)



Electronic stroke counter



Insulating jacket

## Stroke counter

### Description

The electronic stroke counter shows the number of strokes made by the ARI-CONLIFT condensate pump. It can thus be used to determine maintenance intervals and calculate the amount of condensate removed. It is supplied with power by a built-in 3 V lithium battery. No external power supply is required. The stroke counter can be attached to all control units of the condensate pump shipped as of 02/2016.

The pump strokes are indicated on an easy-to-read, 7-segment LC display with 8 digits. A (lockable) reset button is provided on the front.

Materials	
Part	Material
Body	Plastic (ABS)
Holder	Stainless steel (1.4301)
Cable guide	Stainless steel (1.4301)
Cable	Silicone sheathed, red
Sensor	Reed contact (max. 140V, 1A, 10W)
Magnet (component of the CONLIFT)	AlNiCo500

Limits of use	
Storage temperature	-25°C to 65°C
Operating temperature	-10°C to 55°C
Fluid temperature	Max. 180°C, short time 200°C
Relative humidity	25% bis 85% non-condensing
Battery life	approx. 7 years
Protection	IP65

### Fluid temperature

The sensor which is used and its cable are rated for a maximum temperature of 180°C in continuous operation. If the CONLIFT is to be operated with motive steam at temperatures between 180°C and 200°C, the following equation can be used to determine the maximum temperature at the sensor:

$$T_s = 1/3 \times (2 \times T_D + T_K)$$

$T_s$  - Temperature at the sensor

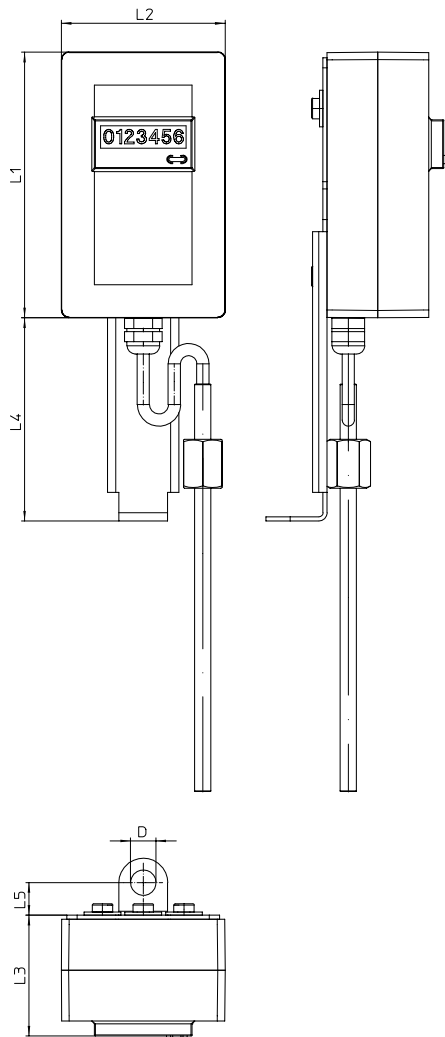
$T_D$  - Temperature of the motive steam

$T_K$  - Temperature of the condensate

### Special version

A special version with a display and an external counter output can be supplied to the customer on request. Unlike the standard version, it requires an external 6 to 30 V DC power supply for the counter signal. The output signal corresponds to the supply voltage, i.e. 6 to 30 V DC.

Additional data for special version	
Power supply cable	PVC black, max. 80°C
Power supply	6...30V DC
Brown wire	Supply voltage
Black wire	Counter signal
Blue wire	Ground
Length of power supply cable	approx. 5m
Input resistance of external counter unit	> 4,7 kΩ



Dimensions	
L1	130 mm
L2	80 mm
L3	59 mm
L4	100 mm
L5	16 mm
D	12,5 mm