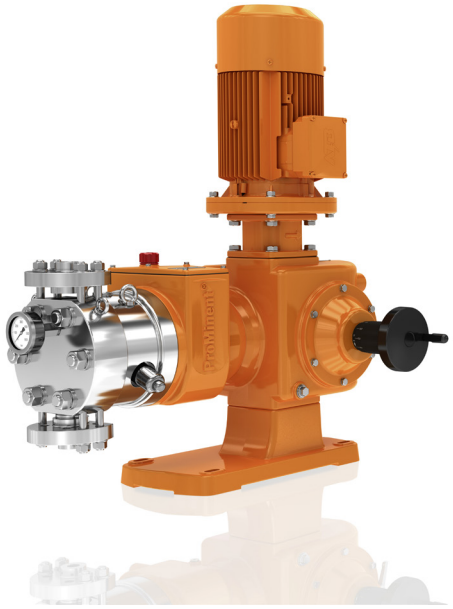
Hydraulic Diaphragm Metering Pump Orlita® Evolution 4

Maximum process reliability and flexibility



Capacity range of single pump: 55 – 7,400 l/h, 400 – 10 bar

The Orlita® Evolution hydraulic diaphragm metering pump range of EF1a, EF2a, EF3a and EF4a form an integrated product range with stroke lengths of 15 to 40 mm. This covers the capacity range of 3 to 7,400 l/h at 400 – 10 bar. A wide range of drive versions is available, including some with ATEX certification for use in Zone 1 or Zone 2 areas at risk from explosion. The Orlita® Evolution product range is designed to comply with API 675.

Your benefits

Maximum process reliability:

- PTFE multi-layer diaphragm with integral diaphragm rupture warning system
- Integral hydraulic relief valve
- The new diaphragm layer control protects against impermissible operating statuses (e.g. no damage in the event of a blockage on the suction or discharge side)
- Continuous bleeding of the oil chamber ensures reliable operation

Excellent flexibility:

- The modular construction with single and multiple pump versions permits a wide range of applications. In multiple pump systems up to 5 metering units can be combined, including units with different pump capacities
- 7 different gear ratios are available; in single pumps the drive arrangement can be either vertical or horizontal
- Customised designs are available on request

Field of application

- Oil and gas industry
- Volume-proportional metering of chemicals/ additives in the treatment of boiler feed water
- Metering of reactants and catalysts in the chemical industry
- Level-dependent metering of auxiliary agents in industrial production engineering, for instance hot wax metering in the production of adhesive strips

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Technical data for EF4a single pump 50 Hz SST

Plunger Ø	Stroke volume	Theoretical pump capacity in l/h at strokes/min (50 Hz)						Max. pressure	Efficiency at	Efficiency at	Standard type of valve
		73 [2]	97 [3]	116 [4]	145 [5]	165 [6]	181 [7]	201 [8]				
mm	ml/stroke	l/h	l/h	l/h	l/h	l/h	l/h	l/h	bar	100% pressure	50% pressure	
22	15.21	67	89	106	132	151	165	183	400	0.71	0.84	DN 16
25	19.63	86	114	137	171	194	213	237	320	0.72	0.85	DN 16
30	28.27	124	165	197	246	280	307	341	222	0.73	0.85	DN 16
34	36.32	159	211	253	316	360	394	438	172	0.80	0.87	DN 16
38	45.36	199	264	316	395	449	493	547	138	0.86	0.90	DN 20
44	60.82	266	354	423	529	602	661	733	103	0.90	0.92	DN 20
50	78.54	344	457	547	683	778	853	947	80	0.93	0.94	DN 32
60	113.10	495	658	787	984	1,120	1,228	1,364	55	0.94	0.95	DN 32
70	153.94	674	896	1,071	1,339	1,524	1,672	1,857	40	0.94	0.95	DN 40
75	176.71	774	1,028	1,230	1,537	1,749	1,919	2,131	35	0.95	0.96	DN 40
86	232.35	1,018	1,352	1,617	2,021	2,300	2,523	2,802	27	0.96	0.97	DN 50
90	254.47	1,115	1,481	1,771	2,214	2,519	2,764	3,069	24	0.96	0.97	DN 50
100	314.16	1,376	1,828	2,187	2,733	3,110	3,412	3,789	20	0.97	0.98	DN 50
110	380.13	1,665	2,212	2,646	3,307	3,763	4,128	4,584	16	0.98	0.98	DN 50
115	415.48	1,820	2,418	2,892	3,615	4,113	4,512	5,011	15	0.98	0.99	DN 65
130	530.93	2,325	3,090	3,695	4,619	5,256	5,766	6,403	12	0.99	0.99	DN 65
140	615.75	2,697	3,584	4,286	5,357	6,096	6,687	7,426	10	0.99	0.99	DN 65

Technical data for EF4a single pump 60 Hz SST

Plunger Ø	Stroke volume	Theoretical pump capacity in l/h at strokes/min (50 Hz)					Max. pressure	Efficiency at	Efficiency at	Standard type of valve
		88 [2]	117 [3]	140 [4]	175 [5]	199 [6]				
mm	ml/stroke	l/h	l/h	l/h	l/h	l/h	bar	100% pressure	50% pressure	
22	15.21	80	107	128	160	182	400	0.71	0.84	DN 16
25	19.63	104	138	165	206	234	320	0.72	0.85	DN 16
30	28.27	149	198	237	297	337	222	0.73	0.85	DN 16
34	36.32	192	255	305	381	434	172	0.80	0.87	DN 16
38	45.36	240	318	381	476	542	138	0.86	0.90	DN 20
44	60.82	321	427	511	639	726	103	0.90	0.92	DN 20
50	78.54	415	551	660	825	938	80	0.93	0.94	DN 32
60	113.10	597	794	950	1,188	1,350	55	0.94	0.95	DN 32
70	153.94	813	1,081	1,293	1,616	1,838	40	0.94	0.95	DN 40
75	176.71	933	1,241	1,484	1,855	2,110	35	0.95	0.96	DN 40
86	232.35	1,227	1,631	1,952	2,440	2,774	27	0.96	0.97	DN 50
90	254.47	1,344	1,786	2,138	2,671	3,038	24	0.96	0.97	DN 50
100	314.16	1,659	2,205	2,639	3,299	3,751	20	0.97	0.98	DN 50
110	380.13	2,007	2,669	3,193	3,991	4,539	16	0.98	0.98	DN 50
115	415.48	2,194	2,917	3,490	4,363	4,961	15	0.98	0.99	DN 65
130	530.93	2,803	3,727	4,460	5,575	6,339	12	0.99	0.99	DN 65
140	615.75	3,251	4,323	5,172	6,465	7,352	10	0.99	0.99	DN 65

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Materials in Contact With the Medium

Dosing head complete

Dosing head	Diaphragm retaining screw	Diaphragm
Stainless steel 1.4404	Stainless steel 1.4462	PTFE multi-layer diaphragm

Plate valve DN 16 - DN 65

	Suction/pressure connector	Valve/head seal	Valve plate	Valve seat	Valve housing
DN 16-DN 65	Stainless steel 1.4404	Stainless steel 1.4571	Stainless steel 1.4462	Stainless steel 1.4404	Stainless steel 1.4404

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