

Contents

1	Introduction	2
1.1	Intended use	2
1.2	Applied standards	2
1.3	Special conditions	2
1.3.1	General	2
1.3.2	Especially FM US/CANADA	2
1.3.3	Especially IECEx/ATEX	3
1.4	Item number structure	3
1.5	Type plates	4
1.6	Scope of delivery	4
1.7	Product description	4
2	Safety instructions	6
2.1	Important advice	6
2.2	General hazard warnings	7
3	Transport and storage	9
4	Installation and connection	10
4.1	Requirements to installation site	10
4.2	Installation	11
4.3	Special condition moist sample gas	11
4.3.1	Conversion to pump body pointing down	12
4.4	Connecting the gas lines	13
4.4.1	Monitoring the sample gas pump	13
4.5	Electrical connections	14
5	Operation and control	16
5.1	Switching on the sample gas pump	17
5.2	Operating the sample gas pump	17
6	Maintenance	18
6.1	Maintenance plan	19
6.2	Inspecting the bellow	20
6.3	Replacing the inlet and outlet valves	20
6.4	Replacing the O-ring on the bypass valve (optional)	21
6.5	Replacing parts inside the pump housing	21
6.6	Replacing the bellow	22
6.7	Crank gear replacement	22
6.8	Assembly of the sample gas pump	22
6.9	Cleaning the pump console	23
7	Service and repair	24
7.1	Troubleshooting	24
7.2	Spare parts and accessories	25
8	Disposal	26
9	List of chemical resistance	27
10	User book (Please make copies)	28
11	Appendices	29
11.1	Technical data	29
11.2	Temperature classes	29
11.3	Protection marking	29
11.4	Feed curve	29
11.5	Dimensions P1.3 (115 V / 230 V)	30
11.6	Dimensions P1.3 (24 V DC / 12 V DC)	30
11.7	Dimensions P1.3E (all voltages)	31
12	Attached documents	32