

Hydraulic diaphragm metering pump

ORLITA Evolution E1Sa/ E2Sa

Safety processes as standard.



As an extremely robust hydraulic diaphragm metering pump, the ORLITA Evolution E1Sa/E2Sa meets the most exacting safety requirements. It is characterised by its PTFE multi-layer diaphragm with integral diaphragm rupture warning / signalling system and unique diaphragm position control.

Technical Details

- Capacity range of pump with a dosing head: E1Sa/E2Sa 0.9 – 134 l/h, 260 – 30 bar
- Stroke length: 0 - 16 mm
- Rod force: 2,000 N (E1Sa) / 4,500 N (E2Sa)
- Adjustment range of stroke length: 0 - 100 %. Stroke length adjustment: manually by means of manual adjustment wheel and scaled display (optionally with electric power end or control drive). A fixed stroke variant in accordance with API 674 is also available as an alternative
- Metering reproducibility is better than ± 1 % with a 10 - 100% stroke length range under defined conditions and with correct installation
- PTFE multi-layer diaphragm with optical and/or electrical diaphragm rupture warning / signalling system via a contact
- Integrated hydraulic vent and bleed valve
- Materials in contact with fluids: Stainless steel 1.4404, special designs on request
- A wide range of power end versions is available: Three-phase standard motors, also for use with speed control and/or in areas at risk from explosion, different flange designs for the use of customer-specific motors
- Degree of protection: IP 55
- Design in compliance with API 675 / API 674, ATEX among others



Hydraulic diaphragm metering pump

ORLITA Evolution E1Sa/ E2Sa

Safety processes as standard.

ORLITA Evolution E1Sa

Technical data for Evolution E1Sa single-head pump 50 Hz

| Plunger Ø | Max. pressure | Max. pump capacity in l/h at strokes/min | | | | | | Theor. stroke volume | Suction lift | Connection on suction/ discharge side | Shipping weight |
|--------------|------------------|------------------------------------------|---------------|---------------|---------------|---------------|---------------|----------------------------|-----------------|------------------------------------------------|--------------------|
| | | 93 | 112 | 140 | 159 | 175 | 194 | | | | |
| mm | bar | l/h | l/h | l/h | l/h | l/h | l/h | ml/ stroke | m WC | G-DN | kg |
| 6 | 260 | (0.8) – 0.9 | (0.9) – 1.0 | (1.2) – 1.3 | (1.3) – 1.5 | (1.4) – 1.6 | (1.6) – 1.8 | 0.49 | 3.0 | G 1/4 - DN 3 * | 31 |
| 6 | 240 | (0.9) – 1.0 | (1.0) – 1.1 | (1.3) – 1.4 | (1.5) – 1.6 | (1.6) – 1.8 | (1.8) – 2.0 | 0.49 | 3.0 | G 1/4 - DN 3 * | 31 |
| 6 | 190 | (1.1) – 1.2 | (1.3) – 1.4 | (1.6) – 1.8 | (1.9) – 2.1 | (2.0) – 2.3 | (2.3) – 2.5 | 0.49 | 3.0 | G 1/4 - DN 3 * | 31 |
| 6 | 160 | (1.2) – 1.3 | (1.5) – 1.6 | (1.8) – 2.0 | (2.1) – 2.3 | (2.3) – 2.6 | (2.6) – 2.8 | 0.49 | 3.0 | G 1/4 - DN 3 * | 31 |
| 6 | 120 | (1.4) – 1.5 | (1.7) – 1.9 | (2.1) – 2.3 | (2.4) – 2.7 | (2.6) – 2.9 | (2.9) – 3.3 | 0.49 | 3.0 | G 1/4 - DN 3 * | 31 |
| 8 | 260 | (1.9) – 2.1 | (2.3) – 2.5 | (2.9) – 3.2 | (3.3) – 3.6 | (3.6) – 4.0 | (4.0) – 4.5 | 0.80 | 3.0 | G 1/4 - DN 3 * | 31 |
| 8 | 240 | (2.0) – 2.3 | (2.4) – 2.7 | (3.1) – 3.4 | (3.5) – 3.9 | (3.9) – 4.3 | (4.3) – 4.8 | 0.80 | 3.0 | G 1/4 - DN 3 * | 31 |
| 8 | 190 | (2.4) – 2.6 | (2.8) – 3.2 | (3.6) – 4.0 | (4.1) – 4.5 | (4.5) – 5.0 | (5.0) – 5.5 | 0.80 | 3.0 | G 1/4 - DN 3 * | 31 |
| 8 | 160 | (2.6) – 2.8 | (3.1) – 3.4 | (3.9) – 4.3 | (4.4) – 4.9 | (4.8) – 5.4 | (5.4) – 6.0 | 0.80 | 3.0 | G 1/4 - DN 3 * | 31 |
| 8 | 120 | (2.8) – 3.1 | (3.4) – 3.8 | (4.3) – 4.7 | (4.8) – 5.4 | (5.3) – 5.9 | (5.9) – 6.6 | 0.80 | 3.0 | G 1/4 - DN 3 * | 31 |
| 8 | 90 | (3.0) – 3.4 | (3.6) – 4.0 | (4.6) – 5.1 | (5.2) – 5.8 | (5.7) – 6.3 | (6.3) – 7.1 | 0.80 | 3.0 | G 1/4 - DN 3 * | 31 |
| 10 | 260 | (2.9) – 3.2 | (3.4) – 3.8 | (4.3) – 4.8 | (4.9) – 5.5 | (5.4) – 6.0 | (6.0) – 6.7 | 1.25 | 3.0 | G 1/4 - DN 6 * | 35 |
| 10 | 240 | (3.0) – 3.4 | (3.6) – 4.0 | (4.5) – 5.1 | (5.2) – 5.7 | (5.7) – 6.3 | (6.3) – 7.0 | 1.25 | 3.0 | G 1/4 - DN 6 * | 35 |
| 10 | 190 | (3.4) – 3.8 | (4.1) – 4.5 | (5.1) – 5.7 | (5.8) – 6.5 | (6.4) – 7.1 | (7.1) – 7.9 | 1.25 | 3.0 | G 1/4 - DN 6 * | 35 |
| 10 | 160 | (3.6) – 4.0 | (4.4) – 4.8 | (5.5) – 6.1 | (6.2) – 6.9 | (6.8) – 7.6 | (7.6) – 8.4 | 1.25 | 3.0 | G 1/4 - DN 6 * | 35 |
| 10 | 120 | (3.9) – 4.4 | (4.7) – 5.2 | (5.9) – 6.6 | (6.7) – 7.5 | (7.4) – 8.2 | (8.2) – 9.1 | 1.25 | 3.0 | G 1/4 - DN 6 * | 35 |
| 10 | 90 | (4.2) – 4.6 | (5.0) – 5.6 | (6.2) – 6.9 | (7.1) – 7.9 | (7.8) – 8.7 | (8.7) – 9.7 | 1.25 | 3.0 | G 1/4 - DN 6 * | 35 |
| 13 | 160 | (6.7) – 7.5 | (8.1) – 9.0 | (10.1) – 11.2 | (11.5) – 12.8 | (12.6) – 14.0 | (14.0) – 15.6 | 1.96 | 3.0 | G 1/4 - DN 6 * | 35 |
| 13 | 120 | (7.3) – 8.1 | (8.7) – 9.7 | (10.9) – 12.1 | (12.4) – 13.8 | (13.6) – 15.2 | (15.2) – 16.9 | 1.96 | 3.0 | G 1/4 - DN 6 * | 35 |
| 13 | 90 | (7.7) – 8.5 | (9.2) – 10.2 | (11.5) – 12.8 | (13.1) – 14.5 | (14.4) – 16.0 | (16.0) – 17.8 | 1.96 | 3.0 | G 1/4 - DN 6 * | 35 |
| 15 | 120 | (8.0) – 8.9 | (9.6) – 10.6 | (12.0) – 13.3 | (13.6) – 15.1 | (15.0) – 16.7 | (16.7) – 18.5 | 2.83 | 3.0 | G 1/4 - DN 6 * | 39 |
| 15 | 90 | (9.0) – 10.1 | (10.9) – 12.1 | (13.6) – 15.1 | (15.5) – 17.2 | (17.0) – 18.9 | (18.9) – 21.0 | 2.83 | 3.0 | G 1/4 - DN 6 * | 39 |
| 15 | 64 | (10.0) – 11.1 | (12.0) – 13.3 | (15.0) – 16.7 | (17.0) – 18.9 | (18.8) – 20.8 | (20.8) – 23.2 | 2.83 | 3.0 | G 1/4 - DN 6 * | 39 |
| 17 | 90 | (13.1) – 14.5 | (15.7) – 17.4 | (19.6) – 21.8 | (22.3) – 24.8 | (24.6) – 27.3 | (27.3) – 30.3 | 3.78 | 3.0 | G 1/4 - DN 6 * | 39 |
| 17 | 64 | (14.2) – 15.7 | (17.0) – 18.9 | (21.3) – 23.6 | (24.2) – 26.9 | (26.6) – 29.6 | (29.6) – 32.9 | 3.78 | 3.0 | G 1/4 - DN 6 * | 39 |
| 19 | 64 | (18.6) – 20.7 | (22.3) – 24.8 | (27.9) – 31.1 | (31.8) – 35.3 | (34.9) – 38.8 | (38.8) – 43.2 | 4.64 | 3.0 | G 1/4 - DN 6 * | 39 |
| 19 | 51 | (19.3) – 21.5 | (23.2) – 25.8 | (29.0) – 32.2 | (32.9) – 36.6 | (36.2) – 40.3 | (40.3) – 44.7 | 4.64 | 3.0 | G 1/4 - DN 6 * | 39 |
| 22 | 51 | (24.7) – 27.4 | (29.6) – 32.9 | (37.0) – 41.1 | (42.1) – 46.7 | (46.3) – 51.4 | (51.4) – 57.1 | 6.28 | 3.0 | G 1/4 - DN 10 | 46 |
| 22 | 30 | (27.0) – 30.0 | (32.4) – 36.0 | (40.5) – 45.0 | (46.0) – 51.1 | (50.6) – 56.2 | (56.2) – 62.5 | 6.28 | 3.0 | G 1/4 - DN 10 | 46 |
| 30 | 30 | (53.0) – 58.9 | (63.6) – 70.6 | (79.5) – 88.3 | (90) – 100 | (99) – 110 | (110) – 122 | 11.31 | 3.0 | G 1/4 - DN 10 | 46 |

* Double ball valve with female thread

Valve type: Double ball valve up to DN 6, single ball valve as of DN 10

Hydraulic diaphragm metering pump

ORLITA Evolution E1Sa/ E2Sa

Safety processes as standard.

Technical data for Evolution E1Sa single-head pump 60 Hz

| Plunger Ø | Max. pressure | Max. pump capacity in l/h at strokes/min | | | | | Theor. stroke volume | Suction lift | Connection on suction/ discharge side | Shipping weight |
|--------------|------------------|------------------------------------------|---------------|----------------|-----------------|-----------------|----------------------------|--------------|------------------------------------------------|--------------------|
| | | 113 | 136 | 170 | 193 | 213 | | | | |
| mm | bar | l/h | l/h | l/h | l/h | l/h | ml/stroke | m WC | G-DN | kg |
| 6 | 260 | (0.9) – 1.0 | (1.1) – 1.3 | (1.4) – 1.6 | (1.6) – 1.8 | (1.8) – 2.0 | 0.49 | 3.0 | G 1/4 - DN 3 * | 31 |
| 6 | 240 | (1.1) – 1.2 | (1.3) – 1.4 | (1.6) – 1.7 | (1.8) – 2.0 | (2.0) – 2.2 | 0.49 | 3.0 | G 1/4 - DN 3 * | 31 |
| 6 | 190 | (1.3) – 1.5 | (1.6) – 1.8 | (2.0) – 2.2 | (2.3) – 2.5 | (2.5) – 2.8 | 0.49 | 3.0 | G 1/4 - DN 3 * | 31 |
| 6 | 160 | (1.5) – 1.6 | (1.8) – 2.0 | (2.2) – 2.5 | (2.5) – 2.8 | (2.8) – 3.1 | 0.49 | 3.0 | G 1/4 - DN 3 * | 31 |
| 6 | 120 | (1.7) – 1.9 | (2.0) – 2.3 | (2.6) – 2.9 | (2.9) – 3.3 | (3.2) – 3.6 | 0.49 | 3.0 | G 1/4 - DN 3 * | 31 |
| 8 | 260 | (2.3) – 2.6 | (2.8) – 3.1 | (3.5) – 3.9 | (4.0) – 4.4 | (4.4) – 4.9 | 0.80 | 3.0 | G 1/4 - DN 3 * | 31 |
| 8 | 240 | (2.5) – 2.8 | (3.0) – 3.3 | (3.7) – 4.2 | (4.3) – 4.7 | (4.7) – 5.2 | 0.80 | 3.0 | G 1/4 - DN 3 * | 31 |
| 8 | 190 | (2.9) – 3.2 | (3.5) – 3.9 | (4.3) – 4.8 | (4.9) – 5.5 | (5.4) – 6.0 | 0.80 | 3.0 | G 1/4 - DN 3 * | 31 |
| 8 | 160 | (3.1) – 3.5 | (3.8) – 4.2 | (4.7) – 5.2 | (5.3) – 5.9 | (5.9) – 6.5 | 0.80 | 3.0 | G 1/4 - DN 3 * | 31 |
| 8 | 120 | (3.4) – 3.8 | (4.1) – 4.6 | (5.2) – 5.8 | (5.9) – 6.6 | (6.5) – 7.2 | 0.80 | 3.0 | G 1/4 - DN 3 * | 31 |
| 8 | 90 | (3.7) – 4.1 | (4.4) – 4.9 | (5.5) – 6.2 | (6.3) – 7.0 | (6.9) – 7.7 | 0.80 | 3.0 | G 1/4 - DN 3 * | 31 |
| 10 | 260 | (3.5) – 3.9 | (4.2) – 4.7 | (5.2) – 5.8 | (6.0) – 6.6 | (6.6) – 7.3 | 1.25 | 3.0 | G 1/4 - DN 6 * | 35 |
| 10 | 240 | (3.7) – 4.1 | (4.4) – 4.9 | (5.5) – 6.1 | (6.3) – 7.0 | (6.9) – 7.7 | 1.25 | 3.0 | G 1/4 - DN 6 * | 35 |
| 10 | 190 | (4.1) – 4.6 | (5.0) – 5.5 | (6.2) – 6.9 | (7.1) – 7.9 | (7.8) – 8.7 | 1.25 | 3.0 | G 1/4 - DN 6 * | 35 |
| 10 | 160 | (4.4) – 4.9 | (5.3) – 5.9 | (6.6) – 7.4 | (7.5) – 8.4 | (8.3) – 9.2 | 1.25 | 3.0 | G 1/4 - DN 6 * | 35 |
| 10 | 120 | (4.8) – 5.3 | (5.7) – 6.4 | (7.2) – 8.0 | (8.2) – 9.1 | (9.0) – 10.0 | 1.25 | 3.0 | G 1/4 - DN 6 * | 35 |
| 10 | 90 | (5.1) – 5.6 | (6.1) – 6.7 | (7.6) – 8.4 | (8.6) – 9.6 | (9.5) – 10.6 | 1.25 | 3.0 | G 1/4 - DN 6 * | 35 |
| 13 | 160 | (8.2) – 9.2 | (9.8) – 10.9 | (12.3) – 13.6 | (13.9) – 15.5 | (15.3) – 17.1 | 1.96 | 3.0 | G 1/4 - DN 6 * | 35 |
| 13 | 120 | (8.8) – 9.8 | (10.6) – 11.8 | (13.2) – 14.7 | (15.1) – 16.7 | (16.6) – 18.4 | 1.96 | 3.0 | G 1/4 - DN 6 * | 35 |
| 13 | 90 | (9.3) – 10.3 | (11.2) – 12.4 | (14.0) – 15.5 | (15.9) – 17.7 | (17.5) – 19.4 | 1.96 | 3.0 | G 1/4 - DN 6 * | 35 |
| 15 | 120 | (9.7) – 10.8 | (11.6) – 12.9 | (14.6) – 16.2 | (16.6) – 18.4 | (18.2) – 20.2 | 2.83 | 3.0 | G 1/4 - DN 6 * | 39 |
| 15 | 90 | (11.0) – 12.2 | (13.2) – 14.7 | (16.5) – 18.4 | (18.8) – 20.9 | (20.7) – 23.0 | 2.83 | 3.0 | G 1/4 - DN 6 * | 39 |
| 15 | 64 | (12.1) – 13.5 | (14.6) – 16.2 | (18.2) – 20.3 | (20.7) – 23.0 | (22.8) – 25.3 | 2.83 | 3.0 | G 1/4 - DN 6 * | 39 |
| 17 | 90 | (15.9) – 17.7 | (19.1) – 21.2 | (23.9) – 26.5 | (27.1) – 30.1 | (29.8) – 33.1 | 3.78 | 3.0 | G 1/4 - DN 6 * | 39 |
| 17 | 64 | (17.2) – 19.1 | (20.7) – 23.0 | (25.8) – 28.7 | (29.4) – 32.6 | (32.3) – 35.9 | 3.78 | 3.0 | G 1/4 - DN 6 * | 39 |
| 19 | 64 | (22.6) – 25.1 | (27.1) – 30.2 | (33.9) – 37.7 | (38.6) – 42.9 | (42.4) – 47.2 | 4.64 | 3.0 | G 1/4 - DN 6 * | 39 |
| 19 | 51 | (23.3) – 25.8 | (27.9) – 31.0 | (34.9) – 38.8 | (39.7) – 44.1 | (43.6) – 48.5 | 4.64 | 3.0 | G 1/4 - DN 6 * | 39 |
| 22 | 51 | (29.9) – 33.3 | (35.9) – 39.9 | (44.9) – 49.9 | (51.1) – 56.8 | (56.2) – 62.4 | 6.28 | 3.0 | G 1/4 - DN 10 | 46 |
| 22 | 30 | (32.7) – 36.4 | (39.3) – 43.7 | (49.1) – 54.6 | (55.9) – 62.1 | (61.4) – 68.3 | 6.28 | 3.0 | G 1/4 - DN 10 | 46 |
| 30 | 30 | (64.3) – 71.5 | (77.2) – 85.8 | (96.5) – 107.2 | (109.7) – 121.9 | (120.6) – 134.1 | 11.31 | 3.0 | G 1/4 - DN 10 | 46 |

* Double ball valve with female thread

Valve type: Double ball valve up to DN 6, single ball valve as of DN 10

Wetted materials for Evolution E1Sa

| Identity code of material | Dosing head | Diaphragm/diaphragm mounting screw | Connection on suction/ discharge side | Seals | Valve seats | Valve balls up to DN 10 |
|---------------------------|------------------------|------------------------------------|---------------------------------------|------------------------|------------------------|----------------------------------------|
| S2 | Stainless steel 1.4404 | PTFE / stainless steel 1.4462 | Stainless steel 1.4404 | stainless steel 1.4404 | Stainless steel 1.4404 | Al ₂ O ₃ ceramic |
| S3 | Stainless steel 1.4404 | PTFE / stainless steel 1.4462 | Stainless steel 1.4404 | stainless steel 1.4404 | Stainless steel 1.4404 | Al ₂ O ₃ ceramic |

Important note:

Abridged presentation of our complete product range. Other types on request

Hydraulic diaphragm metering pump

ORLITA Evolution E1Sa/ E2Sa

Safety processes as standard.

Motor data for EVOLUTION E1Sa single-head pump

| Identity code specification | | Power supply | | | Remarks |
|-----------------------------|---------------------------------------|----------------------------|----------------|---------|----------------------------------------------------------|
| S | 3-phase, IP 55 | 230 V/400 V | 50 Hz | 0.37 kW | With PTC, speed control range 1:5 |
| T | 3-phase, IP 55 | 230 V/400 V 265 V/460 V | 50 Hz 60 Hz | 0.37 kW | |
| L | 3-phase, IP 55, II 2G Ex de IIC T4 Gb | 230 V/400 V | 50 Hz | 0.37 kW | With PTC, speed control range 1:5 |
| V | 3-phase, IP 55 | 230 V | 50 Hz | 0.75 kW | Variable speed motor with integrated frequency converter |

ORLITA Evolution E2Sa

Technical data for Evolution E2Sa single-head pump 50 Hz

| Plunger Ø | Max. pressure | Max. pump capacity in l/h at strokes/min | | | | | Theor. stroke volume | Suction lift | Connection on suction/discharge side | Shipping weight |
|-----------|---------------|------------------------------------------|---------------|---------------|----------------|-----------------|----------------------|--------------|--------------------------------------|-----------------|
| | | 112 | 140 | 159 | 175 | 194 | | | | |
| mm | bar | l/h | l/h | l/h | l/h | l/h | ml/stroke | m WC | G-DN | kg |
| 10 | 260 | (3.4) – 3.8 | (4.3) – 4.8 | (4.9) – 5.5 | (5.4) – 6.0 | (6.0) – 6.7 | 1.25 | 3.0 | G 1/4 – DN 6 * | 42 |
| 10 | 240 | (3.6) – 4.0 | (4.5) – 5.1 | (5.2) – 5.7 | (5.7) – 6.3 | (6.3) – 7.0 | 1.25 | 3.0 | G 1/4 – DN 6 * | 42 |
| 10 | 190 | (4.1) – 4.5 | (5.1) – 5.7 | (5.8) – 6.5 | (6.5) – 7.1 | (7.1) – 7.9 | 1.25 | 3.0 | G 1/4 – DN 6 * | 42 |
| 10 | 160 | (4.4) – 4.8 | (5.5) – 6.1 | (6.2) – 6.9 | (6.8) – 7.6 | (7.6) – 8.4 | 1.25 | 3.0 | G 1/4 – DN 6 * | 42 |
| 10 | 120 | (4.7) – 5.2 | (5.9) – 6.6 | (6.7) – 7.5 | (7.4) – 8.2 | (8.2) – 9.1 | 1.25 | 3.0 | G 1/4 – DN 6 * | 42 |
| 10 | 90 | (5.0) – 5.6 | (6.2) – 6.9 | (7.1) – 7.9 | (7.8) – 8.7 | (8.7) – 9.7 | 1.25 | 3.0 | G 1/4 – DN 6 * | 42 |
| 13 | 260 | (7.7) – 8.5 | (9.6) – 10.7 | (10.9) – 12.1 | (12.0) – 13.3 | (13.3) – 14.8 | 1.96 | 3.0 | G 1/4 – DN 6 * | 42 |
| 13 | 240 | (7.9) – 8.8 | (9.9) – 11.2 | (11.2) – 12.5 | (12.4) – 13.7 | (13.7) – 15.3 | 1.96 | 3.0 | G 1/4 – DN 6 * | 42 |
| 13 | 190 | (8.5) – 9.4 | (10.6) – 11.8 | (12.0) – 13.4 | (13.3) – 14.7 | (14.7) – 16.4 | 1.96 | 3.0 | G 1/4 – DN 6 * | 42 |
| 13 | 160 | (8.8) – 9.8 | (11.0) – 12.3 | (12.5) – 13.9 | (13.8) – 15.3 | (15.3) – 17.0 | 1.96 | 3.0 | G 1/4 – DN 6 * | 42 |
| 13 | 120 | (9.3) – 10.3 | (11.6) – 12.9 | (13.2) – 14.7 | (14.5) – 16.1 | (16.1) – 17.9 | 1.96 | 3.0 | G 1/4 – DN 6 * | 42 |
| 13 | 90 | (9.9) – 10.7 | (12.0) – 13.4 | (13.7) – 15.2 | (15.0) – 16.7 | (16.7) – 18.6 | 1.96 | 3.0 | G 1/4 – DN 6 * | 42 |
| 15 | 260 | (9.9) – 11.0 | (12.4) – 13.7 | (14.0) – 15.6 | (15.5) – 17.2 | (17.2) – 19.1 | 2.83 | 3.0 | G 1/4 – DN 6 * | 46 |
| 15 | 240 | (10.2) – 11.4 | (12.8) – 14.2 | (14.6) – 16.2 | (16.0) – 17.8 | (17.8) – 19.8 | 2.83 | 3.0 | G 1/4 – DN 6 * | 46 |
| 15 | 190 | (11.2) – 12.4 | (14.0) – 15.5 | (15.9) – 17.7 | (17.5) – 19.4 | (19.4) – 21.6 | 2.83 | 3.0 | G 1/4 – DN 6 * | 46 |
| 15 | 160 | (11.7) – 13.0 | (14.7) – 16.3 | (16.7) – 18.5 | (18.4) – 20.4 | (20.4) – 22.7 | 2.83 | 3.0 | G 1/4 – DN 6 * | 46 |
| 15 | 120 | (12.5) – 13.9 | (15.6) – 17.3 | (17.7) – 19.7 | (19.5) – 21.7 | (21.7) – 24.1 | 2.83 | 3.0 | G 1/4 – DN 6 * | 46 |
| 15 | 90 | (13.0) – 14.5 | (16.3) – 18.1 | (18.5) – 20.6 | (20.4) – 22.7 | (22.7) – 25.2 | 2.83 | 3.0 | G 1/4 – DN 6 * | 46 |
| 17 | 190 | (16.0) – 17.7 | (20.2) – 22.2 | (22.7) – 25.2 | (25.0) – 27.8 | (27.8) – 30.8 | 3.78 | 3.0 | G 1/4 – DN 6 * | 46 |
| 17 | 160 | (16.6) – 18.5 | (20.8) – 23.1 | (23.6) – 26.3 | (26.0) – 28.9 | (28.9) – 32.1 | 3.78 | 3.0 | G 1/4 – DN 6 * | 46 |
| 17 | 120 | (17.5) – 19.5 | (21.9) – 24.3 | (24.9) – 27.6 | (27.4) – 30.4 | (30.4) – 33.8 | 3.78 | 3.0 | G 1/4 – DN 6 * | 46 |
| 17 | 90 | (18.2) – 20.2 | (22.7) – 25.2 | (25.8) – 28.7 | (28.4) – 31.6 | (31.6) – 35.1 | 3.78 | 3.0 | G 1/4 – DN 6 * | 46 |
| 19 | 160 | (22.4) – 24.9 | (28.0) – 31.1 | (31.8) – 35.4 | (35.0) – 38.9 | (38.9) – 43.2 | 4.64 | 3.0 | G 1/4 – DN 6 * | 46 |
| 19 | 120 | (23.1) – 25.7 | (28.9) – 32.1 | (32.8) – 36.5 | (36.1) – 40.1 | (40.1) – 44.6 | 4.64 | 3.0 | G 1/4 – DN 6 * | 46 |
| 19 | 90 | (23.6) – 26.3 | (29.6) – 32.8 | (33.6) – 37.3 | (37.0) – 41.1 | (41.1) – 45.6 | 4.64 | 3.0 | G 1/4 – DN 6 * | 46 |
| 22 | 120 | (30.7) – 34.2 | (38.4) – 42.7 | (43.7) – 48.5 | (48.0) – 53.4 | (53.4) – 59.3 | 6.28 | 3.0 | G 1/4 – DN 10 | 52 |
| 22 | 90 | (32.1) – 35.7 | (40.1) – 44.6 | (45.6) – 50.7 | (50.2) – 55.7 | (55.7) – 61.9 | 6.28 | 3.0 | G 1/4 – DN 10 | 52 |
| 22 | 64 | (33.3) – 37.0 | (41.6) – 46.2 | (47.3) – 52.5 | (52.0) – 57.8 | (57.8) – 64.2 | 6.28 | 3.0 | G 1/4 – DN 10 | 52 |
| 30 | 64 | (60.1) – 66.8 | (75.2) – 83.6 | (85.5) – 95.0 | (94.0) – 104.5 | (104.5) – 116.1 | 11.31 | 3.0 | G 1/4 – DN 10 | 52 |
| 30 | 51 | (61.4) – 68.3 | (76.8) – 85.3 | (87.3) – 97.0 | (96.0) – 106.7 | (106.7) – 118.6 | 11.31 | 3.0 | G 1/4 – DN 10 | 52 |

* Double ball valve with female thread

Hydraulic diaphragm metering pump

ORLITA Evolution E1Sa/ E2Sa

Safety processes as standard.

Technical data for Evolution E2Sa single-head pump 60 Hz

| Plunger Ø | Max. pressure | Max. pump capacity in l/h at strokes/min | | | | | Theor. stroke volume | Suction lift | Connection on suction/ discharge side | Shipping weight |
|--------------|------------------|------------------------------------------|---------------|----------------|-----------------|-----------------|----------------------------|--------------|------------------------------------------------|--------------------|
| | | 113 | 136 | 170 | 193 | 213 | | | | |
| mm | bar | l/h | l/h | l/h | l/h | l/h | ml/stroke | m WC | G-DN | kg |
| 10 | 260 | (3.5) – 3.9 | (4.2) – 4.7 | (5.2) – 5.8 | (6.0) – 6.6 | (6.6) – 7.3 | 1.25 | 3.0 | G 1/4 – DN 6 * | 42 |
| 10 | 240 | (3.7) – 4.1 | (4.4) – 4.9 | (5.5) – 6.1 | (6.3) – 7.0 | (6.9) – 7.7 | 1.25 | 3.0 | G 1/4 – DN 6 * | 42 |
| 10 | 190 | (4.1) – 4.6 | (5.0) – 5.5 | (6.2) – 6.9 | (7.1) – 7.9 | (7.8) – 8.7 | 1.25 | 3.0 | G 1/4 – DN 6 * | 42 |
| 10 | 160 | (4.4) – 4.9 | (5.3) – 5.9 | (6.6) – 7.4 | (7.5) – 8.4 | (8.3) – 9.2 | 1.25 | 3.0 | G 1/4 – DN 6 * | 42 |
| 10 | 120 | (4.8) – 5.3 | (5.7) – 6.4 | (7.2) – 8.0 | (8.2) – 9.1 | (9.0) – 10.0 | 1.25 | 3.0 | G 1/4 – DN 6 * | 42 |
| 10 | 90 | (5.1) – 5.6 | (6.1) – 6.7 | (7.6) – 8.4 | (8.6) – 9.6 | (9.5) – 10.6 | 1.25 | 3.0 | G 1/4 – DN 6 * | 42 |
| 13 | 260 | (7.8) – 8.6 | (9.3) – 10.4 | (11.7) – 13.0 | (13.2) – 14.7 | (14.6) – 16.2 | 1.96 | 3.0 | G 1/4 – DN 6 * | 42 |
| 13 | 240 | (8.0) – 8.9 | (9.6) – 10.7 | (12.0) – 13.3 | (13.6) – 15.2 | (15.0) – 16.7 | 1.96 | 3.0 | G 1/4 – DN 6 * | 42 |
| 13 | 190 | (8.6) – 9.5 | (10.3) – 11.4 | (12.9) – 14.3 | (14.6) – 16.3 | (16.1) – 17.9 | 1.96 | 3.0 | G 1/4 – DN 6 * | 42 |
| 13 | 160 | (8.9) – 9.9 | (10.7) – 11.9 | (13.4) – 14.9 | (15.2) – 16.9 | (16.8) – 18.6 | 1.96 | 3.0 | G 1/4 – DN 6 * | 42 |
| 13 | 120 | (9.4) – 10.4 | (11.3) – 12.5 | (14.4) – 15.7 | (16.0) – 17.8 | (17.6) – 19.6 | 1.96 | 3.0 | G 1/4 – DN 6 * | 42 |
| 13 | 90 | (9.7) – 10.8 | (11.7) – 13.0 | (14.6) – 16.2 | (16.6) – 18.5 | (18.3) – 20.3 | 1.96 | 3.0 | G 1/4 – DN 6 * | 42 |
| 15 | 260 | (10.0) – 11.1 | (12.0) – 13.3 | (15.0) – 16.7 | (17.1) – 19.0 | (18.8) – 20.9 | 2.83 | 3.0 | G 1/4 – DN 6 * | 46 |
| 15 | 240 | (10.4) – 11.5 | (12.4) – 13.8 | (15.6) – 17.3 | (17.7) – 19.7 | (19.5) – 21.6 | 2.83 | 3.0 | G 1/4 – DN 6 * | 46 |
| 15 | 190 | (11.3) – 12.6 | (13.6) – 15.1 | (17.0) – 18.9 | (19.3) – 21.5 | (21.2) – 23.6 | 2.83 | 3.0 | G 1/4 – DN 6 * | 46 |
| 15 | 160 | (11.9) – 13.2 | (14.3) – 15.8 | (17.8) – 19.8 | (20.3) – 22.5 | (22.3) – 24.8 | 2.83 | 3.0 | G 1/4 – DN 6 * | 46 |
| 15 | 120 | (12.6) – 14.0 | (15.2) – 16.8 | (19.0) – 21.1 | (21.5) – 23.9 | (23.7) – 26.3 | 2.83 | 3.0 | G 1/4 – DN 6 * | 46 |
| 15 | 90 | (13.2) – 14.7 | (15.8) – 17.6 | (19.8) – 22.0 | (22.5) – 25.0 | (24.8) – 27.5 | 2.83 | 3.0 | G 1/4 – DN 6 * | 46 |
| 17 | 190 | (16.2) – 18.0 | (19.4) – 21.6 | (24.3) – 27.0 | (27.6) – 30.6 | (30.3) – 33.7 | 3.78 | 3.0 | G 1/4 – DN 6 * | 46 |
| 17 | 160 | (16.8) – 18.7 | (20.4) – 22.4 | (25.3) – 28.1 | (28.7) – 31.9 | (31.6) – 35.1 | 3.78 | 3.0 | G 1/4 – DN 6 * | 46 |
| 17 | 120 | (17.7) – 19.7 | (21.3) – 23.6 | (26.6) – 29.5 | (30.2) – 33.6 | (33.2) – 36.9 | 3.78 | 3.0 | G 1/4 – DN 6 * | 46 |
| 17 | 90 | (18.4) – 20.4 | (22.1) – 24.5 | (27.6) – 30.7 | (31.4) – 34.8 | (34.5) – 38.3 | 3.78 | 3.0 | G 1/4 – DN 6 * | 46 |
| 19 | 160 | (22.7) – 25.2 | (27.2) – 30.2 | (34.0) – 37.8 | (38.7) – 43.0 | (42.5) – 47.3 | 4.64 | 3.0 | G 1/4 – DN 6 * | 46 |
| 19 | 120 | (23.4) – 26.0 | (28.1) – 31.2 | (35.1) – 39.0 | (39.9) – 44.3 | (43.9) – 48.7 | 4.64 | 3.0 | G 1/4 – DN 6 * | 46 |
| 19 | 90 | (23.9) – 26.6 | (28.7) – 31.9 | (35.9) – 39.9 | (40.8) – 45.3 | (44.9) – 49.9 | 4.64 | 3.0 | G 1/4 – DN 6 * | 46 |
| 22 | 120 | (31.1) – 34.6 | (37.3) – 41.5 | (46.7) – 51.9 | (53.0) – 58.9 | (58.4) – 64.8 | 6.28 | 3.0 | G 1/4 – DN 10 | 52 |
| 22 | 90 | (32.5) – 36.1 | (39.0) – 43.3 | (48.7) – 54.1 | (55.4) – 61.5 | (60.9) – 67.7 | 6.28 | 3.0 | G 1/4 – DN 10 | 52 |
| 22 | 64 | (33.7) – 37.4 | (40.4) – 44.9 | (50.5) – 56.1 | (57.4) – 63.8 | (63.1) – 70.2 | 6.28 | 3.0 | G 1/4 – DN 10 | 52 |
| 30 | 64 | (60.9) – 67.6 | (73.0) – 81.2 | (91.3) – 101.5 | (103.8) – 115.3 | (114.2) – 126.9 | 11.31 | 3.0 | G 1/4 – DN 10 | 52 |
| 30 | 51 | (62.2) – 69.1 | (74.6) – 82.9 | (93.3) – 103.6 | (106.0) – 117.8 | (116.6) – 129.6 | 11.31 | 3.0 | G 1/4 – DN 10 | 52 |

* Double ball valve with female thread

Wetted materials for Evolution E2Sa

| Identity code of material | Dosing head | Diaphragm/diaphragm mounting screw | Connection on suction/discharge side | Seals | Valve seats | Valve balls up to DN 10 |
|---------------------------|------------------------|------------------------------------|--------------------------------------|------------------------|------------------------|----------------------------------------|
| S2 | Stainless steel 1.4404 | PTFE / stainless steel 1.4462 | Stainless steel 1.4404 | stainless steel 1.4404 | Stainless steel 1.4404 | Al ₂ O ₃ ceramic |

Hydraulic diaphragm metering pump

ORLITA Evolution E1Sa/ E2Sa

Safety processes as standard.

Motor data for EVOLUTION E2Sa single-head pump

| Identity code specification | | Power supply | | | Remarks |
|-----------------------------|---------------------------------------|----------------------------|----------------|---------|----------------------------------------------------------|
| S | 3-phase, IP 55 | 230 V/400 V | 50 Hz | 0.75 kW | With PTC, speed control range 1:5 |
| T | 3-phase, IP 55 | 230 V/400 V 265 V/460 V | 50 Hz 60 Hz | 0.75 kW | |
| L | 3-phase, IP 55, II 2G Ex de IIC T4 Gb | 230 V/400 V | 50 Hz | 0.75 kW | With PTC, speed control range 1:5 |
| Q | 3-phase, IP 55, II 2G Ex de IIC T4 | 265 V/460 V | 60 Hz | 0.75 kW | With PTC, speed control range 1:5 |
| V | 3-phase, IP 55 | 230 V | 50 Hz | 0.75 kW | Variable speed motor with integrated frequency converter |