The Grundfos SMART Digital XL DDA and DDE digital diaphragm dosing pumps enable accurate dosing of virtually all chemicals up to 52.8 gph and 145 psi while offering great flexibility and user friendliness. The two pump models open up new application possibilities within industry, water utility, agriculture and more.

**Easy selection, few variants, stock reduction**
The SMART Digital XL DDE (Economical) and DDA (Advanced), can easily be integrated into typical dosing applications.

Three sizes (60-10, 120-7, 200-4) cover a dosing range from 0.02 gph to 52.8 gph (0.075 to 200 l/h). With its wide range of power supplies (100-240 V, 50/60 Hz) the SMART Digital XL can be used globally. All international approvals are available.

Degassing chemicals (hypochlorite) and high-viscosity liquids up to 3,000 mPas can be dosed. The dosing head is available in various materials fit for all liquid chemicals.

The mounting plate allows quick installation on any horizontal surface, and the control cube can easily be modified to face left, right, or straight ahead.

**Excellent dosing accuracy**
The dosing accuracy is +/- 1.5 % of the actual setpoint and +/- 0.1% of full scale. This allows precise dosing of chemicals, even with small dosing quantities (ratio 800:1).

SMART Digital XL is able to dose concentrated chemicals, they don’t have to be diluted. Chemicals are saved, transportation costs are reduced, smaller dosing tanks can be used. Moreover, the chemical consumption is reduced by dosing precisely the amount of chemicals required.

Dosing is almost pulsation-free, no additional accessories are needed. Overdosing is prevented and environmental and health protection are improved.

**Integrated flowmeter reduces installation costs**
An external flowmeter is not required. The integrated positive-displacement like flow measurement capability of the (DDA-FCM) measures precisely the dosed volume per stroke, and the integrated controller corrects the dosing flow automatically. Temperature, counterpressure, viscosity or air bubbles have no influence on the dosing accuracy.

**Safe dosing with automatic failure correction**
- Reduced operator time
- Increased system safety
- High process reliability
- Low failure rate

**APPLICATIONS**
- Disinfection
- pH adjustment
- Chemical dosing (anti foamers, cleaners, biocides, bleaches, surface handling agents, etc.)
- Cleaning in place (CIP)
- Coagulation
- Precipitation/flocculation
- Filtration
- Reverse osmosis

Digital dosing since 2000

FLEXIBILITY
SAFETY
RELIABILITY
Technical Data

**Pump type**

<table>
<thead>
<tr>
<th>Operation modes</th>
<th>DDA</th>
<th>DDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manual speed control</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Pulse control in ml/pulse</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Analog control (0)-20 mA</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Batch control (pulse-based)</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Dosing timer, cycle</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Dosing timer, week</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Fieldbus control</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

**Functions**

- Auto-deaeration also during pump standby  
- Flow Control system with selective fault diagnosis
- Pressure monitoring (min/max)
- Flow measurement
- AutoFlowAdapt
- SlowMode (anti-cavitation)
- Double-diaphragm leakage detection (optional)

**Inputs / Outputs**

- Input for external stop
- Input for pulse control
- Input for analog 0/20 mA control
- Input for low-level signal
- Output relay (2 relays)
- Analog output (0)-20 mA
- Input/output for Genibus
- Input/output for Grundfos CIU (Proibus DP or additional alarm relays)

**Performance Range**

<table>
<thead>
<tr>
<th>P [psi] / P [bar]</th>
</tr>
</thead>
<tbody>
<tr>
<td>32/200</td>
</tr>
<tr>
<td>18/120</td>
</tr>
<tr>
<td>10/7</td>
</tr>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q [gph] / Q [l/h]</th>
</tr>
</thead>
<tbody>
<tr>
<td>52.8</td>
</tr>
<tr>
<td>32/120</td>
</tr>
<tr>
<td>16/60</td>
</tr>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

**Input specifications**

- **Dosing head:** PVC, PVDF, and Stainless Steel 1.4401
- **Gaskets:** EPDM, FKM, or PTFE
- **Valve balls:** Ceramics or Stainless Steel 1.4401 (5S heads only)
- **Connection sets (suction / pressure):** Threaded: 3/4" MNPT for PVC and PVDF; 3/4" FNPT for Stainless Steel
- **Max Flow, Q:** 52.8 gph (200 l/h)
- **Max Pressure, P:** 145 psi (10 bar)
- **Turndown ratio:** 800:1
- **Liquid viscosity:** Max 3000 mPas, depending on model and setup
- **Supply voltage:** 100-240 V, 50-60Hz
- **Power consumption:** Max 80 W
- **Weight:** 14.8-33.1 lbs (6.7-15 kg), depending on material
- **Sound pressure level:** 80 dB(A)
- **Enclosure rating:** IP65, NEMA 4X
- **Approvals:** NSF61, CSA-US

**Control Variants**

- FCM: Flow Control Measurement
- AR: Analog Relay
- B: Basic

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