

Powerful connections to your process

Decanter Connect: A complete automation solution for reliable decanter control

Alfa Laval's Decanter Connect provides precise machine control and monitoring that is based on decades of experience and proven algorithms. With over 6 million combinations, the solution offers many options to match the requirements of any facility.

Decanter Connect is designed specifically as a complete hardware and software solution for those desiring an Allen-Bradley/Rockwell Automation control platform.

The S88 software model provides a systematic software layout for easy troubleshooting and understanding of the PLC code.





- Alfa Laval decanter centrifuges provide exceptional performance when separating solids from 1 or 2 liquid phases in one single continuous process.
- Designed to handle a wide range of particles with diameters from 5 mm to a few microns.
- Highly efficient, low capital cost/capacity ratio, low maintenance costs and low energy consumption.
- Ideal for use in a range of duties including process, food and waste applications.

The modular path to boosting your productivity

| | Description | Electrical classification / installation notes | Typical distance between decanter and HMI/OIT | Typical distance between decanter and MCC/VFD panel | Hardware investment | Installation investment |
|-----------------|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------------|---------------------|-------------------------|
| Configuration A | | | | | | |
| | 2 panels. OIT located near decanter and main control cabinet located in electrical room | HMI/OIT- NEMA 4X MCC - NEMA 12 Traditional installation when there is an environmentally controlled electrical room | 20 feet | 300 feet | \$\$ | \$\$ |
| Configuration B | | | | | | |
| | Single panel with combined main control cabinet and HMI | NEMA 12 Ideal when single panel is preferred to be located near machine and washdown is not required | 20 feet | N/A | \$\$ | \$ |
| Configuration C | | | | | | |
| | Single panel with combined main control cabinet and HMI/OIT in Stainless Steel | NEMA 4X Ideal when single panel is preferred to be located near the machine on production floor and washdown is required | 20 feet | N/A | \$\$\$ | \$ |
| Configuration D | | | | | | |
| | 2 panels + VFDs HMI/OIT, control cabinet, VFDs in customer's Motor Control Center | HMI/OIT - NEMA 4X Control cabinet - NEMA 12 Ideal when there is space available in the motor control center to house the VFDs | 20 feet | 300 feet | \$\$ | \$\$\$ |
| Configuration E | | | | | | |
| | 3 panels HMI/OIT, PLC control cabinet (120/240V) VFD panel | HMI/OIT NEMA 4X Control cabinet - NEMA 12 Ideal when the HMI/OIT is located near decanter, the control panel is in electrical room, and VFDs are in a separate panel to isolate the Higher Voltage | 20 feet | 300 feet | \$\$\$ | \$\$\$ |
| Configuration F | | | | | | |
| | 2 panels HMI/PLC (120/240VAC) VFD Panel | HMI/PLC - NEMA 4X VFD panel - NEMA 12 Ideal when higher voltage components are housed in a separate cabinet | 20 feet | 300 feet | \$\$ | \$\$ |
| Configuration G | | | | | | |
| ŬÜ | Single panel + VFDs HMI/PLC VFDs in customer's Motor Control Center | HMI/PLC - NEMA 4X Ideal when there is space (full height 30" wide bucket) in the motor control center room and HMI/OIT and all other controls are located nearby decanter | 20 feet | 300 feet | \$\$ | \$\$ |

Millions of combinations to meet any need

The panel hardware is nearly all standard components from known and trusted suppliers that are normally stocked at most electrical/automation distributors

| | Standard | Optional |
|---------------------------------|--------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| PLC | Allen-Bradley L310ER CompactLogix | Allen-Bradley L81E ControlLogix |
| НМІ | Allen-Bradley Panelview 7+ Performance 10" | Allen-Bradley Panelview 7+ Performance 15" |
| VFDs (Main and Back Drive) | Allen-Bradley AB PF755 | ABB ACS-880 |
| VFDs (Feed, Additive, Conveyor) | Allen-Bradley PF525 (<= 30HP) | ABB ACS -380 (<15 HP) ACS-880 (15+ HP) |
| Panel configuration | Select from 7 Standard configurations | |
| Wi-Fi connection | AWB2030 | |
| Remote connectivity | eWon 131 Cozy Ethernet | eWon 131 Cosy Wi-Fi or 3G/4G |
| Alfa Laval Global Connectivity | | Condition Alert™ |
| Input power | 380-480 VAC 3 phase, 50/60 Hz | 575/600 or 690 VAC, 50/60 Hz |
| Common DC bus for MD and BD | Included | Included on 575/600 VAC |
| UL | Built in accordance with UL508A | UL 508A label and certificate |
| Torque measurement | VFD (planetary gearbox) | Torque arm (direct drive gearbox) |
| Feed control | Feed permissive signals via control relays | 4-20 mA out for proportional valves or VFD for feed pump and additive/polymer pump, 4-20 mA input for flowmeters |
| Plant SCADA connection | Allen-Bradley (UDT) | ProfiNet, ProfiBus, Delta V, Hardwired |
| Application modules | Base decanter control | Process decanter systems for waste water, brewery, vegetable oil, and protein systems |
| Feed zone design | 2 motor (MD and BD) | 3 motor (MD, BD, and RFZ -rotating feed zone) |
| Solids handling | Control permissives via digital outputs | Diverter/slide gate, conveyor, bi-directional conveyor using VFDs |
| Lubrication of main bearings | Manual | Main bearing auto grease system |



Alfa Laval patented navigation system allows direct access to every HMI screen

More Decanter Connect advantages:

- Precise control of the scroll conveyor
- Advanced vibration monitoring
- Remote control
- 24 VDC interruptible power supply
- Power saving common DC bus
- Patented Alfa Laval screen navigation

Field proven applications

With one million operating hours in the US alone, Decanter Connect efficiently supports a variety of applications including waste water, vegetable oil, ethanol, energy, mining, and oil



Compact skid design reduces installation cost and time for the Vegetable Oil Technology solutions



Remote control within 300" of control panel allows operator flexibility for the Energy Separation Industry



Multiple decanters with Decanter Connect integrated into a plant DCS for the Ethanol Industry

Alfa Laval reserves the right to change specifications without prior notification

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How to contact Alfa Laval Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com