

Intellect II Valve Driver

P/N 23425

The Intellect II is a programmable precision fluid directional control instrument with non-volatile user program memory and system input/output (I/O). The Intellect II is designed with the flexibility and versatility to meet a variety of system configurations. It can be used as a stand alone controller, or integrated into system configurations. The module is capable of simple closed loop control of an external quantity or process without the need of an external controller for direction.

The Intellect II can be coupled with a variety of valve selections to meet specific needs. Valve drive communications are compatible with other Kloehn devices.

The Intellect II Valve Driver is available as a single unit or as a stacked pair that are stacked on top of each other. The dual stacked Intellect II has the same form factor as Kloehn's VersaPump 6.



Physical

Height
5.0 (single); 10.0 (stacked)
Width
2.55"
Depth
4.75" (face plate to back plate)
Weight
2.5 lbs (single); 5.0 lbs (stacked)

Environmental

Operating Temperature
32°F to 131°F (0° to 55°C)
Operating Humidity
5 to 95% RH, non-condensing at 131°F (55°C)
Storage Temperature
13°F to 185°F (-25° to 85°C)
RoHS and WEEE compliant

Mechanical

Operation
Any orientation
Mounting Holes
At bottom as well as on the face plate
Stackable
Optional stacking kit available
Multiple Valve Choices
Valve type – 2 way to 12 way
Syringe Size
25ul to 50ml
PC board
Driver/Control board (fully functional motor drivers and control electronics).
Optional RS232 PCB with termination for communication bus
Interface
RS-485 or RS-232 communications
Data terminal or OEM protocol
1200 to 38.4K baud, 8 data bits, 1 stop bit, no parity, half duplex
User I/O: Three inputs, three output
Switched device address

Power

Operation
24V (with a maximum power voltage ripple of 720mv peak-to-peak)
Power Consumption
40 watts, 8.5 watts idle for single valve driver; 80 watts, 17 watts idle for the stacked Intellect.

Ancillary items:

Communication cable RS485, 6" long; pump to pump (2 units)	P/N 17736
Optional RS232 Communication PCB	P/N 50677
Starter Kit (includes all items listed below)	P/N 17730
24VDC Power supply	P/N 50601
Software; operator's manual; and application notes.	P/N 23422
Communications cable (RS232/5' long; Intellect to computer)	P/N 17734
Decal	P/N 24606
Stacking Kit (stacks two Intellect II units – One on top of the other)	P/N 24636

Software support:

KloehnControl (script programming – configuration and debug program)
KSerial (command-line communication utility)
KCom (machine language helper program)
KProbe (communication trouble shooting utility)

For additional information see the Intellect II hardware user's manual, P/N 24633.

Valves:

Configuration	Orifice	Distribution	non-distribution	Port Thread
3-WAY	0.8mm	20463	18355	1/4-28 UNF
3-WAY	0.059	17316	17315	1/4-28 UNF
4-WAY	0.8mm	—	20464	1/4-28 UNF
4-WAY	0.059	17318	17317	1/4-28 UNF
5-WAY	0.059	17748	17745	1/4-28 UNF
6-WAY	0.8mm	24663	20465	1/4-28 UNF
6-WAY	0.059	17320	17319	1/4-28 UNF
8-WAY	0.076	19673	—	1/4-28 UNF
8-WAY	0.8mm	20466	20479	1/4-28 UNF
8-WAY	0.059	17322	17321	1/4-28 UNF
12-WAY	0.040	24493	—	1/4-28 UNF

Valve construction:

Valve wetted surfaces have a PCTFE body insert and PTFE plug.
Port connection is 1/4-28 UNF.

Dimensions in. (mm)

