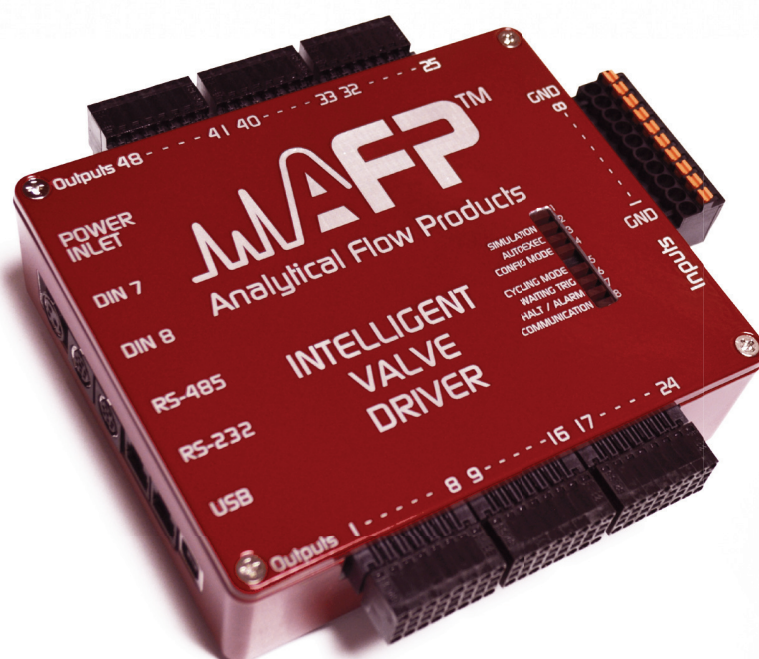


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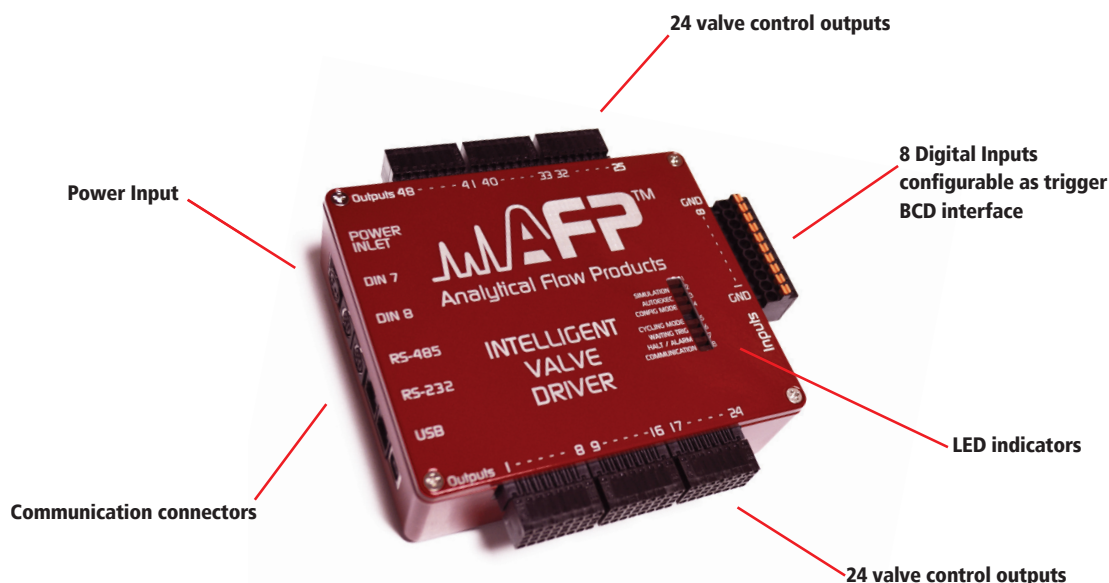
Analytical Flow Products

ELECTRONIC ACCESSORIES AND SOFTWARES



VALVE DRIVER

IVD (INTELLIGENT VALVE DRIVER)



INTRODUCTION

The IVD (intelligent valve driver) is a very powerful system which is much more than a simple valve driver interface. Indeed it comes with fill in the blank type configuration software and some other useful tools. Four communication channels are available (TCP/IP, RS-485, RS-232, and USB) to meet most remote control interface requirements.

In an esthetic enclosure the IVD provides 48 powerful digital outputs and 8 electrically isolated digital inputs. The outputs are suited to control miniature solenoids like in GC applications or directly electric / electronic valves like in HPLC applications. Both inputs and outputs use screwless connectors to ease installation and service.

Time based event table or switching sequence are easy to configure and execute with the IVD. You can use the IVD_CONFIG software to edit, test, simulate step by step and visualize your configuration in real time from any compatible PC. To use the IVD in standalone mode, the IVD_CONFIG software proposes a simple way to create a timed event table and download it to the IVD permanent memory.

AFP is open to all software integrators that would like to use the IVD in their solution. In this purpose technical information and communication protocol are openly available.

FEATURES :

- RS-485 AFP network compatible
- Ethernet port
- Real time clock
- General digital inputs
- Log and configuration memory
- Industrial screwless connectors
- Could be used as a hub to control EDV series valve
- Trought it serial port the IVD could be control by a Labview™ software
- Open serial protocol for third party application software
- USB 2.0 port
- RS-232 port
- Special trig function
- General digital outputs
- Time event sequencer
- Up to 4 IVD can operate in the same system
- Industrial Screwless Connection
- The IVD could be control by other hardware products like PLC, Sampling system or directly by a G.C.

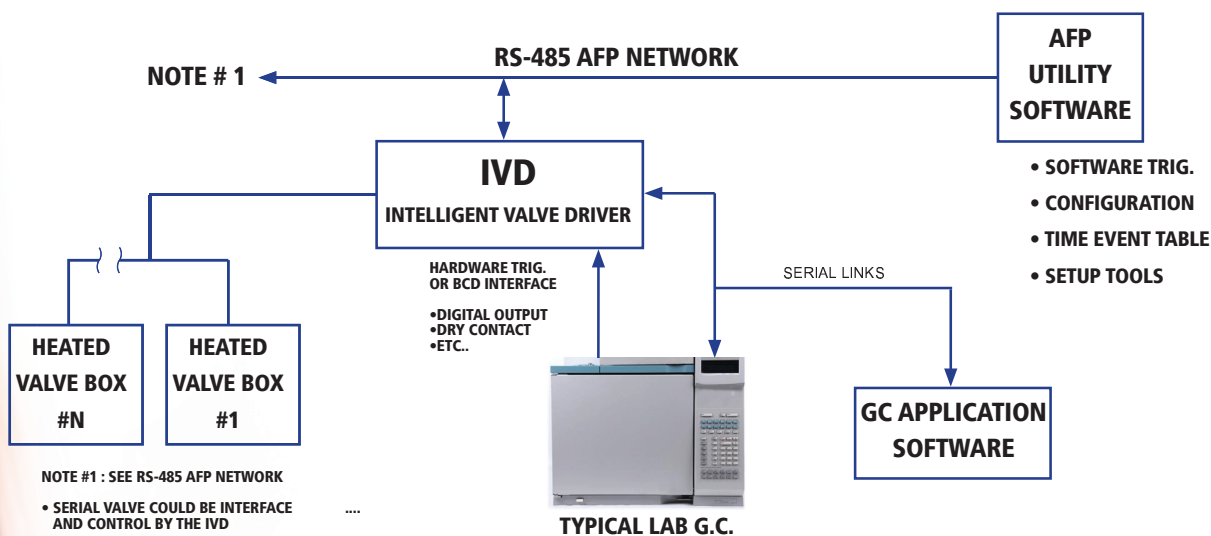
GENERAL SPECIFICATIONS

SPECIFICATION	DESCRIPTION
8 BITS MICRO CONTROLLER	Flash program with boot loader
REAL TIME CLOCK	YY/MM/DD - HH:MM:SS
DATA LOGGING AND CONFIGURATION MEMORY	Flash Memory in file format
TIME EVENT TABLE	Flash Memory in text file format
POWER INLET INTERNAL CONNECTOR	2 Wires connector to PCB
MASTER RELAY INDICATOR	1 LED for relay status
LED MODULE	1 X 8 LED indicator
USB INDICATOR	2 LED for Tx and Rx
SPEED LED	LED on RJ-45 connector
LINK LED	LED on RJ-45 connector
STATUS LED	Processor hart beat led
LCD DISPLAY	4 lines of 40 characters
25 KEYS KEYBOARD	5 X 5 Matrix Decoder
ANALOG INPUT	2 Digital to analog 10 bits
ANALOG OUTPUT	One 0 to 5 volts 8 bits analog output
AFP NETWORK ADRESS SELECTOR	Jumper to select 41,42,43,44
OPERATING TEMPERATURE	Fahrenheit (°F): 32° F To 158° F Celsius (°C): 0° C To 70° C

ELECTRICAL SPECIFICATIONS

SPECIFICATION	REFERENCE	
SUPPLY VOLTAGE INPUT RANGE (TRANSIENT AND REVERSE POLARITY PROTECTED)	MIN	8 Volts DC
	MAX	24 Volts DC
STANDBY CURRENT (NO OUTPUT ACTIVATED)	12 Volts DC	200 mA
	24 Volts DC	100 mA
MAXIMUM LOAD CURRENT PER DIGITAL INPUT (DIGITAL OUTPUT HAVE FLY BACK PROTECTION DIODE FOR INDUCTIVE LOAD.)	MAX 50 VOLTS DC	MAX 350 mA
DIGITAL INPUT VOLTAGE RANGE ACTIVE FROM 5 VOLTS DC TO 24 VOLTS DC ALL INPUT ARE ELECTRICALLY ISOLATED	MIN	12 Volts DC
	MAX	24 Volts DC

IVD : PNEUMATIC CONTROLLER APPLICATION



RS-485 AFP NETWORK

Directly from a PC (Ethernet / USB / RS-232) or from any other controller (RS-232 / RS-485) all our AFP products answer to simple TEXT commands.

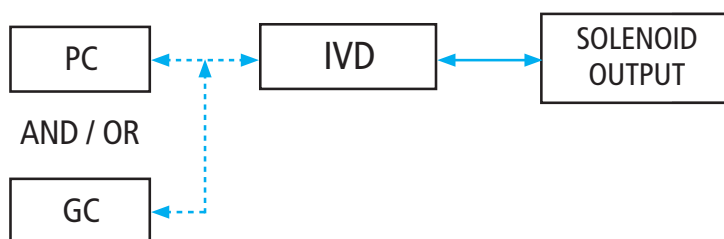
EX 1 : HARDWARE CONTROLLER AS A SIMPLE COMMAND INTERPRETER

Online control by the PC, it's very useful for configuration and hardware setup. Sequence can be edited and executed directly from our control software.



EX 2 : HARDWARE CONTROLLER AS A SIMPLE EVENT SEQUENCE

Once the controller has been configured and programmed, it can be triggered (start order) to execute a timed sequence.



EX 3 : FULL RS-485 AFP NETWORK

In order to use the full AFP Network potential, all our electronic products (Diaphragm Valve, Rotary Valve, controller) should respect a simple "AFP COMMAND" set. Doing that the user will have full control over our products and have the tools to cope with any custom needs.

