

## ⚙️ Features :

- Universal input
- Advanced - dual micro controller based
- LED display and LCD display
- User programmable
  - Alarm logic
  - Relay grouping
  - Sensor break logic
  - Channel name – 8 Char
  - Alphanumeric LCD display
  - Units display
- Front panel calibration
- 20000 count optically isolated ADC
- Self diagnostics with error code
- Universal power supply or 24V DC PS



### OPTIONAL:

- Slave mode for remote display
- RS232 / RS485 communications for DAS front end applications
- MicroDAS windows software for single or multi scanner applications

## ⚙️ Description :

DV 9800 is the latest series of advanced cost effective temperature and process scanners from Micro Systems & Controls. It incorporates advanced software features and a dual micro controller based design to provide complete user flexibility and can cater to almost all monitoring and data acquisition needs of the user. It can be user programmed to cover different application needs thus reducing time, inventory and spares cost. It accepts direct signals from thermocouples, RTDs and linear voltage and current inputs, either as fixed type or programmable universal input. Each channel is sequentially scanned and active channels are displayed. Also it has the feature of alphanumeric LCD display for user selectable multi-parameter display. Individual channels can be locked for monitoring using the HOLD key. Flexible alarm logic and grouping is provided to energize alarm relay outputs as per the process parameter values and programmed set points. Serial communication options are provided to enable the scanner to be used in DAS front-end applications. Optional windows based MicroDAS software is also available from 8 to 256 channels for monitoring and data logging using multidrop RS485 MODBUS RTU option



### INPUT TABLE :

INPUTS	TYPE & RANGE	RESOLUTION
Thermocouple	8 types: J =0 to 700, K =0 to 1200, R= -50 to 1765, S= 0 to 1766, T= -100 to 400, E= -100 to 1000, B= 250 to 1820, N= -200 to 1300	1 Deg
RTD	PT100 (DIN 43760 / IEC 751) = -200 to 600, PT50 = -200 to 600, Ni100 (0.672 and 0.618) = 0 to 200, Cu53 = 0 to 150, Cu50 = 0 to 250, Cu10 = -100 to 200°C	PT100: 1 & 0.1 Deg Others: 1 Deg
DC Volts	0 to 5V or 1 to 5V Range -1999 to +9999 programmable	1 to 0.001
mA	0 to 20mA or 4 to 20mA Range -1999 to +9999 using 150 ohms conditioning resistance	1 to 0.001

### Specifications:

Inputs	:	Universal input, Refer input Table
No of channels	:	8, 12 or 16 channels
Input Connections	:	Rugged screw terminals suitable for 0.2 to 2.5 mm sq mm cable
Input Impedance	:	> 1 Meg Ohm
Output	:	Up to 16 Relays
Relay Grouping	:	Programmable – Any alarm can be assigned to any relay.
Relay Rating	:	1 C/O, 5 Amps / 230VAC resistive max.
Alarm set points	:	Two individual alarm settings per channel
Display	:	<ul style="list-style-type: none"> <li>• LED Display: 12.7 mm, 7segment Red Led - 2 digits for channel value, 4 digits for process value;</li> <li>Individual Alarm &amp; Trip LEDs for each channel; Prog, Run, Hold, Error and Relay status LEDs</li> <li>• LCD Display: 2 lines X 16 characters backlit LCD for user selectable multi-parameter display</li> </ul>
Alarm LEDs	:	Individual A1 & A2 LEDs per channel, Latching or non Latching
ADC	:	20,000 count optically isolated ADC with dedicated microcontroller
Compensations	:	Automatic - Cold junction for TC, Wire resistance for RTDs
Accuracy	:	+/- 0.1 % FS, +/- 1 count
Resolution	:	Programmable as per Input table.
Noise Rejection	:	Common mode 120 dB or better, Series mode 60dB or better.
Alarm Logic	:	Programmable High, Low, Very High, Very Low Latching & Non Latching
Display Scan	:-	1 to 99 seconds programmable, Auto and Manual with HOLD
Internal Scan Rate	:	10 channels per second
Real Time Clock	:	Optional real time clock calendar for data printout with time stamp.
Communications	:	Optional RS232 or RS485 for printer log and MODBUS RTU
Software	:	Optional Windows MicroDAS data acquisition package for single or multi scanner
Battery Backup	:	Non-volatile EEPROM, Battery not required.
Power Supply	:	Universal 90-260VAC / 110-250VDC, 10VA max or 24V DC +/- 10%, 0.5A max (as per ordering code)
Sensor break / Error	:	Programmable Enable or Disable Alarm with 'open' / 'short' indication.
Protection	:	Password protection for configuration, Watchdog for system monitoring

Environment	:	Temp: -10 to + 60 Deg°C Max. RH: Up to 95% non condensing
Enclosure	:	Robust metallic powder coated enclosure with plastic bezel.
Protection Class	:	IP65 Front panel
Mounting	:	Flush on panel with screw type clamps 2 Nos
Dimensions	:	External: 144(W) X 144 (H) X 250 (D) mm.
Panel Cutout	:	138 X 138 mm.
Gross Weight	:	2.5 Kg max.
Accessories	:	1) Two nos Screw clamps for mounting. 2) 150 Ohms conditioning resistances for 4-20mA input.

### How To Order :

**Basic Model :** DV9800

**Function :** FS

FS                  Standard                                  FM                  Slave Mode

**No. of Inputs :** N8

N8                  8 inputs  
N12                12 inputs  
N16                16 inputs

**Output – 1 (Relay o/p)** 1M4

1M0	No relay output	1M4	4 relay output
1M8	8 relay output	1M12	12 relay output
1M16	16 relay output		

**Output – 2 (Communication) :** 2M4

2M0	No option	2M2	RS232
2M4	RS485	2MP	RS232 + Clock for data log to serial printer

**Power :** PU

PU    Universal SMPS                                  PL    24VDC

Ordering Example:

DV9800 - FS - N8 - 1M4 - 2M4 - PU