



SNS TECHNOSYS LLP

Data Acquisition device -DSmart 400

Dsmart 400 series industrial devices are an industrial class high reliability, high stability devices for real time data acquisition. The devices are equipped with industry standard 4-20mA /0-5V analog input channels to use with industry standard external sensors for accurate monitoring of varies field parameters, additionally the device has analog output channels with a range support from 0-5VDC.

It also has digital inputs for monitoring varies external inputs and has potential free relay outputs which can be used to control external machines or instruments.

The devices seamlessly scan the parameters and log the data in .csv file. Using PC based software-DSmartConfig, user can easily configure device as per requirement. The user friendly DSmartConfig software available free of cost on SNS server for download and use.

DSmart 400 series devices are indigenously designed, developed and manufactured by SNS Technosys.



MAIN FEATURES

Features	DSmart 401	DSmart 402
Plug-n-play installation	✓	✓
Monitor temperature, pressure, vibration etc. parameters over 0-5V analog input	✓	×
Monitor temperature, pressure, vibration etc. parameters over 4-20mA analog input	×	✓
5x Analog input channels	✓	✓
2x Analog output channels	✓	✓
4x digital inputs	✓	×
2x potential free relay outputs	✓	✓
Device setting over user friendly free PC based software-DSmartConfig	✓	✓
Mapping of digital inputs and analog thresholds to outputs	✓	✓
Analog sensor threshold setting	✓	✓
Configurable time intervals and schedules	✓	✓
Alert/warning set points	✓	✓
16GB internal SD card	✓	✓
Data file store in .csv format	✓	✓
USB type A port - to download .csv file	✓	✓
RS485 port - for device programming	✓	✓
LED indication for power ON and communication	✓	✓
Panel mount aluminum DIN enclosure	✓	✓

TECHNICAL SPECIFICATIONS

Parameters	Specifications
INPUT POWER SUPPLY	• Input Voltage: 10- 30VDC • Max. power consumption :< 0.5 VA (during data transmission)
INDICATION	• LED Indication. - Power ON- Green - Communication- Red and Blue
INPUTS OUTPUTS	• 4x Digital Inputs: accepts 5VDC/12VDC/24VDC • 2x Digital Outputs -potential free relay - Rating: 2A/24VDC, 1A/230VAC
COMMUNICATION	• USB: type A to download data .csv file using pen drive. • RS485: for unit programming - Baud rate: 9600 - Data format: 8 Data bits, no parity, 1 stop bit
SENSOR INTERFACES	• 0-5V/4-20mA sensor interface- 5 analog input channels
ANALOG OUTPUTS	• 2x channels: range 0-5V
ENVIRONMENTAL SPECIFICATIONS	• Operating temperature: -20 °C to 75 °C • Storage temperature: -20 °C to 85 °C • Humidity: up to 95% RH (Non-condensing)
MECHANICAL SPECIFICATIONS	• DIN standard panel mount (Aluminum enclosure) -Dimensions: 144(W) X 96(H) X 80(D) mm -Weight: 700 grams
STANDARD ACCESSORIES	• Programming cable 1 meter • Pen drive - DSmartConfig software - Instruction Manual

ENCLOSURE MOUNTING SLOT

Slot	Dimension
DIN Standard	96 mm x 144 mm

CONNECTOR SPECIFICATIONS

Power Supply	9 pin D Connector	Pin number
Positive	CON 4	1 and 2
Negative	CON 4	3

Analog Input Channel	9 pin D Connector	Pin number
CH1	CON 3	4
CH2	CON 3	5
CH3	CON 3	3
CH4	CON 3	7
CH5	CON 3	8
Ground	CON 3	6

Note: 1. For 4-20 mA sensor input adhere to the specified colour code for accurate connections.
2. Connect sensor + wire to power supply positive terminal.

Analog Output Channel	9 pin D Connector	Pin number
CH1	CON 3	2
CH2	CON 3	1
Ground	CON 3	6

RS485	9 pin D Connector	Pin number
A	CON 2	7
B	CON 2	8
Ground	CON 3	6

Digital Input	9 pin D Connector	Pin number
Digital Input 1	CON 2	1
Digital Input 2	CON 2	2
Ground	CON 2	5
Digital Input 3	CON 2	3
Digital Input 4	CON 2	4

Note: 1. Follow the correct colour code for each input.

Digital Output	9 pin D Connector	Pin number
Digital Output 1 (NO, COM, NC)	CON 4	4
	CON 4	8
	CON 4	7
Digital Output 2 (NO, COM, NC)	CON 4	6
	CON 4	5
	CON 4	9

Note: 1. Follow the correct colour code for each output.

