



DST01

| Features |

- Signal isolation: Power supply; Analog input
- 3 groups of analog output
- 1 set RS-485 output
- Multiple input signals
- LED display working status
- Easy button operation
- DIN rail installation, high safety & stability

| Introduction |

DST01 The signal conditioner incorporates two bright and easy to read LCD displays which indicate process value(PV) and user selected parameter.

Powered by a DC 12 ... 38 V or AC 95 ... 250 V supply. It is fully programmable for linear voltage, linear current, Pt100 and thermocouple types such as J, K, T, E, B, R, S, N, L, U, P, C, and D input. Its fast sampling rate allows the signal conditioner to retransmit the signal faster, the maximum of 3 retransmission with one input.



Applications:

Chemical industry / Energy / Oil & gas /
Marine / Water circulation system / Factory
automation / Metal & steel / Cement / Pulp &
paper / Pharmaceuticals / Food & beverage



| Specification |

Item		Function & Parameter
Power	Power supply	AC 95 ... 250 V, DC 12 ... 38 V
	Power consumption	10 VA, 5 W maximum
Signal input	Type	Thermocouple(J, K, T, E, B, R, S, N, L, U, P, C, D), RTD(Pt100(DIN), Pt100(JIS)), current(mA), voltage(V)
	Sampling rate	5 Times / Second(200 msec)
	Temperature effect	1.5 $\mu\text{V} / ^\circ\text{C}$ for all inputs except mA input, 3.0 $\mu\text{V} / ^\circ\text{C}$ for mA
	Sensor lead resistance effect	Thermocouple:0.2 $\mu\text{V} / \Omega$; 3-wire RTD:2.6 $^\circ\text{C} / \Omega$ of difference of resistance of two leads 2-wire RTD:2.6 $^\circ\text{C} / \Omega$ of sum of resistance of two leads
	Burn-out current	200 nA
	Common mode rejection ratio(CMRR)	120 dB
	Normal mode rejection ratio(NMRR)	55 dB
	Sensor break detection	Sensor open for thermocouple, RTD and mV inputs, sensor short for RTD input, below 1 mA for 4 ... 20 mA input, below DC 0.25 V for DC 1 ... 5 V input, not available for other inputs
	Sensor break response time	within 4 seconds for thermocouple, RTD and mV inputs, 0.1 second for 4 ... 20 mA and DC 1 ... 5 V inputs
	Analog retransmission output 1 output 2 output 3	Number of outputs
Output signal		4 ... 20 mA, DC 0 ... 10 V
Accuracy		$\pm 0.05\%$ of span $\pm 0.0025\%$ / $^\circ\text{C}$
Load resistance		0 ... 500 Ω for current output, 10 K Ω minimum for voltage output
Output regulation		0.01% for full load change
Output setting		Time 0.1 second(Stable to 99.9%)
Isolation breakdown		AC 1000 V minimum
Integral linearity error		$\pm 0.005\%$ of span
Temperature effect		$\pm 0.0025\%$ of span / $^\circ\text{C}$
Data communication		Interface
	Protocol	Modbus RTU(Slave mode)
	Address	1 ... 247
	Baud rate	2.8 ... 115.2 KBPS
	Parity bit	None, even or odd
	Stop bit	1 or 2 bits
	data length	7 or 8 bits
	Communication buffer	160 bytes
User interface	Key / Display	Keypad:4 keys 4 Digit LCD display;No of display 2 Upper:0.58" (15 mm);Lower:0.3" (7.8 mm)
Digital filter	Function	First order
Environmental and physical specifications	Time constant	0, 0.2, 0.5, 1, 2, 5, 10, 20, 30, 60 seconds, programmable
	Temperature	Operating: -10 ... 50 $^\circ\text{C}$; Storage: -40 ... 60 $^\circ\text{C}$
	Humidity	0 ... 90%RH(Non-condensing)
	Altitude	2000 meters maximum
	Pollution	Degree II
	Insulation resistance	20 M Ω minimum(at DC 500 V)
	Dielectric strength	AC 2000 V, 50 / 60 Hz for 1 minute
	Vibration resistance	10 ... 55 Hz, 10 m/s ² for 2 hours
Approval standards	Shock resistance	200 m/s ² (20g)
	Dimensions / Weight	W22.5xH96xD83 mm / 160g
	IP rating	IP65 for panel(in process), IP20 for terminals and housing (Indoor)
	EMC	EN61326

| Ordering Guide |

DST01	Output 1	Output 2	Output 3	Power	Option
	A	N	N	1	D
	A:4 ... 20 mA	A:4 ... 20 mA	A:4 ... 20 mA	1:AC 95 ... 250 V, 48 ... 62 Hz	D:RS-485
	B:0 ... 10 V	B:0 ... 10 V	B:0 ... 10 V	2:DC 12 ... 38 V	N:None
	N:None	N:None	N:None		