DA Series Intelligent Process Indicator Instruction Manual

This manual refers to DA series indicator and must be kept near the equipment for easy reading and consultation. It must be read, understood, and strictly follow in order to avoid and prevent accidents and/or malfunctions.

Dwel will not be liable for any injury to people and/or damage to property deriving from disregard of this manual.

▣ Warning

Don't turn on the power supply until all of the wiring is completed.

Use this instrument within the scope of its specifications. If use out of its scope, malfunction may result.

The operating temperature environment is between 0 (32F) to 50 (122F).

To avoid using this instrument in environment full of dust or caustic gas/strong shock / concussion/ overflow water or explosive oil.

▣ Application

1Universal input:4-20mA/0-10V/0-75mV/0-300 Ω, Pt100,Cu50 thermocouple: K J E S R B T etc.

2 AUX.power: 24V/12V for 2-wire transmitter

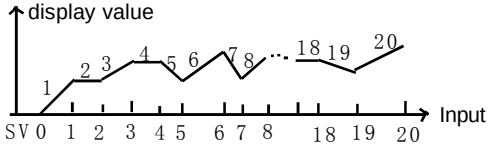
3 transmit output: DC 4-20mA / 0-10V etc.

4 Multi-function alarm output: Relay,SSR,SCR etc.

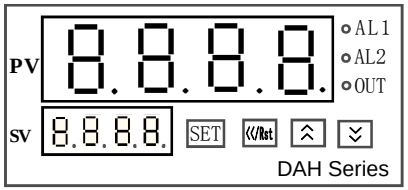
5 RS485 RS232 LAN(RJ45) Modbus-RTU protocol

6 Holding PV value or Peaking value , Customizable

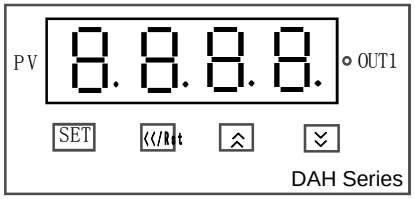
7 Non-linear sensor:provide Max20 segments of polyline FREE setting(Customize, NTC/PTC, non-linear Pressure sensor)



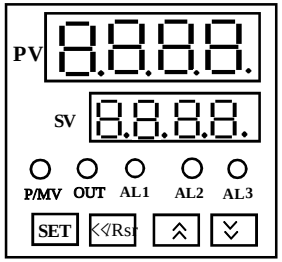
▣ Panel (for reference)



DAH Series



DAH single row display



DAD/DAS Series

① PV window: measurement value

② SV window: Preset parameter value or AL1 Value

③ AL1 AL2 AL3 OUT Alarm lamps,
ON:active OFF:inactive
P/MV: Non-linear input

④ SET Parameter select / Confirm key

<</rst Shift / Clear key

Up key Down key

★Input Signals

Input signal	Range	impedance	Default
mA	.0~10mA.4~20mA 0-5A	≤100Ω	4~20mA
V（AV/	0~1V.0 ~10V. 0 ~500V	≤3MΩ	DC 0~10V
DVmV	0~75mV. ±100mV	≤2MΩ	0~75mV
Rt	0~300Ω 0~10K	≤0.2mA	0 ~300
	Cu50 Cu100 -50 ~150℃		customize
Pt100	-200～650℃	≤0.2mA	Pt100
NTC/PTC	20 Non-linear input		customize
TC	K:0-1200℃ S:0-1700℃ E:0-1300℃ J: 0-1300℃ T: - 150-400℃ R: 0-1800 ℃ B:0-1800 ℃	≤2MΩ	ALL

▣ Ordering Code

Model										Specification
DA	□	-	□	□	□	□	□	□	□	DA Seris
Size	S									DAS:48H*48W*80L
	H									DAH:48H*96W*80L
	D									DAD:96H*96W*80L
Power										Null:90-260V AC/DC
	E									18-30V OR 24VDC
Analog Output										Null:No analog output
		V								0-10V
		C								4-20mA
										Others on request
Alarm output			AL1							Null:No alarm
				R						REALY
				S						SSR/Logic
			AL2		N					Null:No alarm
					R					REALY
					S					SSR/Logic
			AL3							Null:No alarm
						R				REALY
						S				SSR/Logic
communication							2			Null:no
							4			RS232
							5			RS485
auxillary power										LAN RJ45
										Null:none
							A			12V/30mA
							B			24V/30mA
							D			Others on request
Input signal								C		4-20mA
								V		0-10V
								MV		0-75mV

Example:

DAH-CRRC

Size:96*48*80mm,Power: 90-260VAC/DC,

Output:4-20mA+2 relay alarms,Input:4-20mA

DAH-CRR4V

Size:96*48*80mm,Power: 90-260VAC/DC,Output: 4-20mA+2 relay alarms,RS485, Input:0-10V

▣ Specifications

Power supply	90-260V AC or1 8-30V AC/DC (DC24V)
Consumption	≤5VA
Accuracy	0.3%F.S±2digit
Sampling rate	≤8 times/second
Alarm output	contact 250V AC 3A or 30V DC 3A resistive load, SSR/Logic : 24V/12V, MAX20mA
transmit output	0-10V or 4-20mA etc
Auxiliary Power	DC 12V /30mA or 24V/30mA
Communication	RS232, RS485,LAN Modbus RTU protocol

▣ Mounting and Sizes

DAS SIZE: 48W*48H*80Lmm,
Mounting:45W*45Hmm
DAH SIZE: 96W*48H*80Lmm,
Mounting:92W*45Hmm
DAD SIZE: 96W*96H*80Lmm
Mounting: 92W*92Hmm

▣ Parameter Setting

Press SET until display AL1 to enter manu

A, setting Steps:

1 Press SET to select parameter one by one

2 Press <</rst to Shift LED , LED flashing

3 press ⩓ OR ⩔ to modify data

4 press SET to confirm.

5 go to 1 step to select next parameter or press SET to quit.

press ⩓ or ⩔ when the LED flashing

Decimal point will automatic change

B AL1 Alarm value setting directly on the panel
In displaying estate, press <</rst LED flashing, press <</rst to shift LED, Press ⩓ or ⩔ to modify data. press SET to confirm

C Zero point reset (OPTION function):
In the displaying estate, when the low input (As 4-20mA ,input 4mA) keep holding <</rst until PV display zero .

D The instrument will return to the measuring estate without any operation for 25 seconds.

F: formula :PV= Input X%(USP-LSP)+LSP- PVF

Press SET until display AL1 to enter manu
(PV = PROCESS VALUE)

AL1 144.0 — Alarm 1 setting
Range: LSP≤AL1≤USP

SET

AC1 H — Alarm 1 Output H: High Alarm
L: Low Alarm HL:Interval(customize)

SET

HY1 1.000 — Alarm 1 hysteresis .
E.g AC1=L, if PV< AL1, output=ON active
PV>(AL1+ HY1), output =OFF inactive

SET

AL2 10.0 — Alarm 2 setting
Range: LSP≤AL2≤USP

SET

AC2 H — Alarm 2 Output H: High Alarm
L: Low Alarm HL:Interval(customize)

SET

HY2 1.000 — Alarm 2 hysteresis .
E.g AC2=H, if PV > AL2, output=ON active
PV<(AL2 - HY2), output =OFF inactive

SET

AL3 50.0 — Alarm 3 setting
Range: LSP≤AL3≤USP

SET

AC3 H — Alarm 3 Output H: High Alarm
L: Low Alarm HL:Interval(customize)

SET

HY3 1.000 — Alarm 1 hysteresis .
E.g AC3 =L, if PV< AL3, output=ON active
PV>(AL3+ HY3), output =OFF inactive

SET

PVF 0.0 — Offset Value OR Zero signal reset setting
PV=the real value - PVF (PVF)
If Zero signal reset (factory function),
When real |PV|< PVF, then display 0

SET

InP 0-20 — Input type selection
0-20 4-20mA 0-1 :0-10V 0-75 0-75mV 0-50 0-50mV
rt : R t Pt : Pt100 K : K J : J
E : E S : S r : R b : B t : T

SET

LSP 0.0 — Low input display value Setting,range:-1999 ~ 9999.
E.g input 4-20mA display range 0.0-100.0,
Setting LSP=0.0

SET

USP 100.0 — HIgh input display value setting,range:-1999 ~ 9999.
E.g input 4-20mA display range 0.0-100.0,
Setting USP=100.0

SET

dPI 000.0 — PV display decimal point setting:
0:Int 0000, 1:1- Point 000.0,
2: 2- point 00.00 3: 3-point 0.000

SET

goto trL parameter

SET

trL 0.0 — Transmit output Low value setting,
E.g PV display value 0.0-200.0 for Output 4-20mA,
set trL=0.0 (for 4mA Output)

SET

trH 100.0 — Transmit output High value setting,
E.g PV display value 0.0-200.0 for Output 4-20mA,
set trH=200.0 (for 20mA Output)

SET

Unit F — Temperature unit.
(Vaild for Pt100,K J E S T B R)
C : ℃ degree, F : F degree.

SFt 002 — Input singal Filtering setting,
Range:000-020. default SFt=001
the greater the value,the more stable,
but the reaction time is slow

SET

bAd 9.6 — Baud Rate
9.6K Bit/S OR 19.2K Bit/S
default :9.6K Bit/S

SET

Add 001 — Communication ID device address ,
Range:000-255,default add=001

SET

LcY 000 — setting lock password.
LcY (LCK) ≠ 010 read and modify.
LcY (LCK)=010 read only.

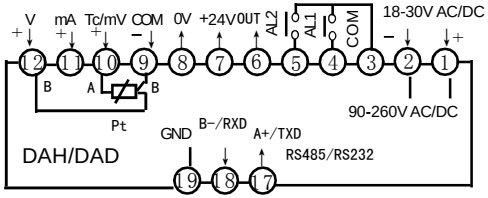
SET

Return to AL1 OR press SET until to quit

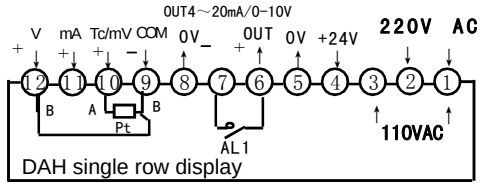
★ The value showed are the factory setting.
If you want to modify input type, the relative parameter LSP, USP,TRL, TRH should be modified too.

Terminal Configurations

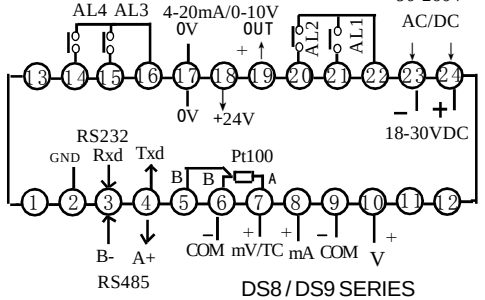
★ If any changed, please refer the label show on the Panel.



DAH/DAD

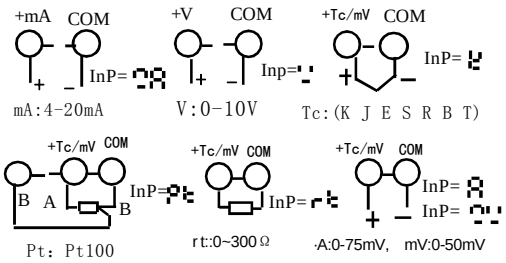


DAH single row display

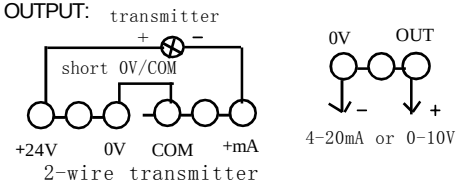


DS8 / DS9 SERIES

INPUTS:

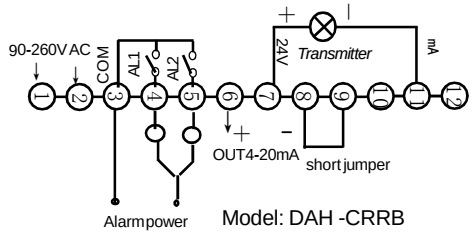


OUTPUT:



Application example

Used with 2-wire transmitter.
+24V power isolated from intput 4-20mA.
E.g 4-20mA(0-1MPa),PV display 0.000-1.000MPa
AL1 AM1 HY1 AL2 AM2 HY2 according to needs
PVF=0.005, INP=mA.
LSP=0.000 LOW value for 4mA
USP=1.000 High value for 20mA .
dp=0.000 ,trL=LSP=0.000,trH=USP=1.000



Model: DAH -CRRB

Troubleshooting

① displayerror:
Check all the connection and wiring if it is correct.
A. PV display 0, Check PVF,default PVF=0.00;
B. Large display error : check INP type and terminal connect,For Pt100 input, please use 3-wires low impedance cable.
C. display 'UUUU',Checking: INP \USP and TC OPEN connect, if PV >USP ,it will display 'UUUU'
② Alarm active error , checking Alarm setting(E.g AL1 AM1 HY1) ;transmit output,PLS check trL trH

Factory Products Contains

★ 1 Copy of user manual
★ 1 Inspection certificate
★ 2 installing brackets.

We are responsible for the overal repairment for the failure of manufactorying quality within 12 months since the date of purchase.

Modbus protocol or other information
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