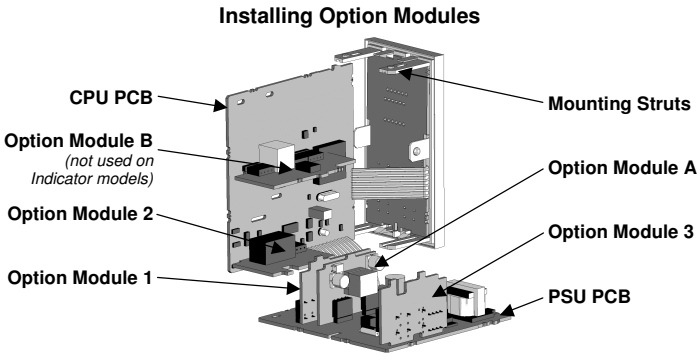


HONEYWELL UDI1700 MICRO-PRO

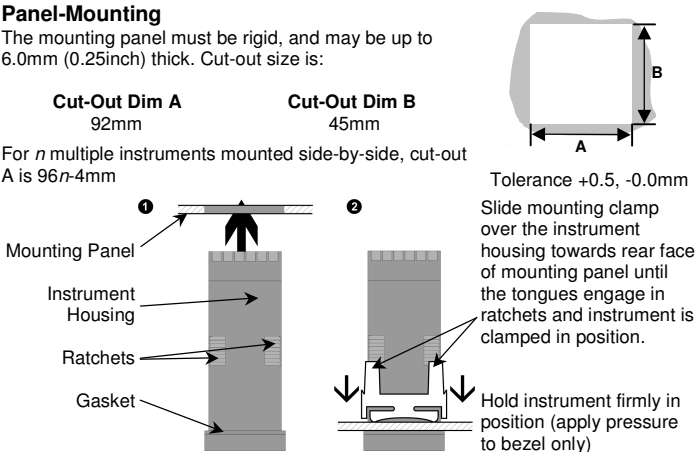
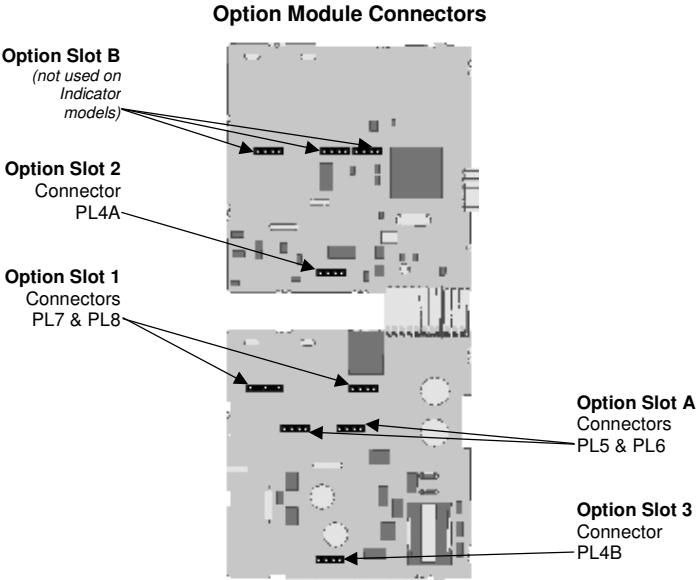
UNIVERSAL DIGITAL INDICATOR PRODUCT MANUAL (51-52-25-138)

CAUTION: Installation should be only performed by technically competent personnel. Local Regulations regarding electrical installation & safety must be observed.

1. INSTALLATION



- To access modules 1 or A, first detach the PSU and CPU boards from the front by lifting first the upper, and then lower mounting struts. Gently separate the boards.
- Plug the required option modules into the correct connectors, as shown below.
 - Locate the module tongues in the corresponding slot on the opposite board.
 - Hold the main boards together while relocating back on the mounting struts.
 - Replace the instrument by aligning the CPU and PSU boards with their guides in the housing, then slowly push the instrument back into position.
- Note:** Option modules are automatically detected at power up.

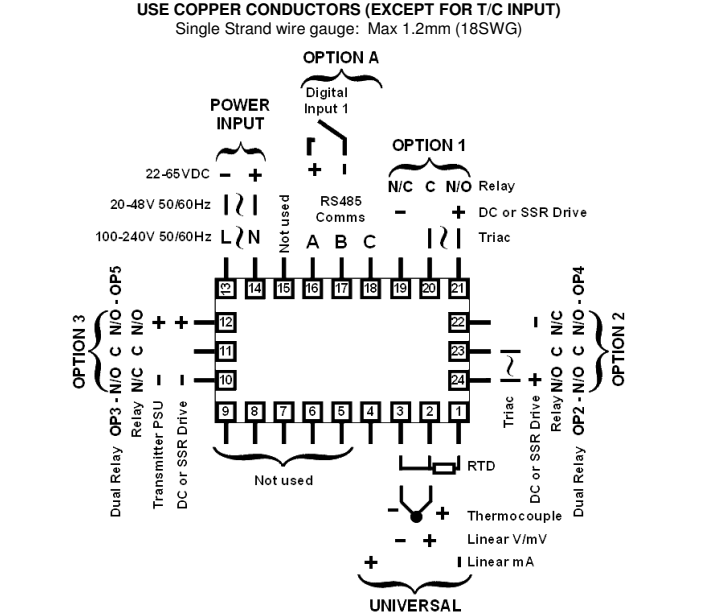


CAUTION: Do not remove the panel gasket; it is a seal against dust and moisture.

Rear Terminal Wiring

CAUTION: Check information label on housing for correct operating voltage before connecting supply to Power Input

Fuse: 100 – 240V ac – 1amp anti-surge
24/48V ac/dc – 315mA anti-surge



This diagram shows all possible option combinations. The actual connection required depends on the options fitted.

Note: At first power-up the message **Go to Conf** is displayed, as described in section 5 of this manual. Access to other menus is denied until configuration mode is completed

2. SELECT MODE

Select mode is used to access the configuration and operation menu functions. It can be accessed at any time by holding down **SETUP** and pressing **▲**. The **SLCt** legend is shown for 1 second, followed by the legend for the current mode. Press **▲** or **▼** to choose the required mode, then press **SETUP** to enter. An unlock code is required to prevent unauthorised entry to Configuration, & Setup modes. Press **▲** or **▼** to enter the unlock code, then press **SETUP** to proceed.

Mode	Legend for 1 sec followed by	Set Value	Description	Default Unlock Codes	Units Display
Operator	OPt		Normal operation	None	
Set Up	SEtP		Tailor settings for application	10	
Configuration	ConF		Configure instrument for use	20	
Product Info	inFo		Instrument information	None	

Note: Automatic return to Operator Mode after 2 minutes without key activity.

3. CONFIGURATION MODE

First select Configuration mode from Select mode (refer to section 2). Press **SETUP** to scroll through the parameters. While this key is pressed, and up to 1 second after, the parameter legend is shown, followed by the current value. Press **▲** or **▼** to set the required value. Press **SETUP** to display **YES?**, press **▲** to accept the change, otherwise parameter will revert to previous value. To exit from Configuration mode, hold down **SETUP** and press **▲**, to return to Select mode.

Note: Parameters displayed depends on how instrument has been configured. Refer to user guide (available from your supplier) for further details. Parameters marked * are repeated in Setup Mode.

Parameter	Legend for 1 sec followed by	Set Value	Adjustment Range & Description	Default Value	Units Display
Input Range/Type	inPt		See following table for possible codes	1C	r
Code	Input Type & Range	Code	Input Type & Range	Code	Input Type & Range
bC	B: 100 - 1824 °C	LC	L: 0.0 - 537.7 °C	P24F	PIRh20% vs 40%: 32 - 3362 °F
bF	B: 211 - 3315 °F	LF	L: 32.0 - 999.9 °F	PtC	PI100: -199 - 800 °C
CC	C: 0 - 2320 °C	NC	N: 0 - 1399 °C	PtF	PI100: -328 - 1472 °F
CF	C: 32 - 4208 °F	NF	N: 32 - 2551 °F	PtC	PI100: -128.8 - 537.7 °C
JC	J: -200 - 1200 °C	rc	R: 0 - 1759 °C	PtF	PI100: -199.9 - 999.9 °F
JF	J: -328 - 2192 °F	rcF	R: 32 - 3198 °F	0.20	0 - 20 mA DC
Jc	J: -128.8 - 537.7 °C	Sc	S: 0 - 1762 °C	4.20	4 - 20 mA DC
JF	J: -199.9 - 999.9 °F	SF	S: 32 - 3204 °F	0.50	0 - 50 mV DC
Kc	K: -240 - 1373 °C	tc	T: -240 - 400 °C	10.50	10 - 50 mV DC
KF	K: -400 - 2503 °F	tF	T: -400 - 752 °F	0.5	0 - 5 V DC
Kc	K: -128.8 - 537.7 °C	tC	T: -128.8 - 400.0 °C	1.5	1 - 5 V DC
KF	K: -199.9 - 999.9 °F	tF	T: -199.9 - 752.0 °F	0.10	0 - 10 V DC
LC	L: 0 - 762 °C	P24C	PIRh20% vs. 40%: 0 - 1850 °C	2.10	2 - 10 V DC
LF	L: 32 - 1403 °F				

Note: Decimal point shown in table indicates temperature resolution of 0.1°

Parameter	Legend for 1 sec followed by	Set Value	Adjustment Range & Description	Default Value	Units Display
Scale Range Upper Limit	rUL		Scale Range Lower Limit +100 to Range Maximum	Max (Lin = 1000)	u
Scale Range Lower Limit	rLL		Range Minimum to Scale Range Upper Limit - 100	Min (Lin = 0)	L
Decimal point position	dPoS		0=XXXX, 1=XXX.X, (non-temperature ranges only) 2=XX.XX, 3=X.XXX	1	P
Linear Range Engineering Units Display	LmU	nonE	None (Blank), °C or °F for use where linear inputs represent temperature	nonE	C
Multi-Point Scaling	r7PS	EnAb	Enables or disables the input multi-point scaling feature	d.sA	5
Alarm 1Type	ALA1	P.H	Process High Alarm	P.H	1
High Alarm 1*	PhA1		Alarm 1 value, adjustable within scaled range, in display units	Max	1 (Alm1 only = A)
Low Alarm 1*	PLA1			Min	
Alarm 1 Hysteresis*	AHY1		1 LSD to full span in display units on safe side of alarm	1	-
Alarm 2Type	ALA2			nonE	2
High Alarm 2*	PhA2		Options as for alarm 1	Max	
Low Alarm 2*	PLA2			Min	2
Al 2 Hysteresis*	AHY2			1	=
Alarm 3Type	ALA3			nonE	3
High Alarm 3*	PhA3		Options as for alarm 1	Max	
Low Alarm 3*	PLA3			Min	3
Al 3 Hysteresis*	AHY3			1	=
Alarm 4Type	ALA4			nonE	4
High Alarm 4*	PhA4		Options as for alarm 1	Max	
Low Alarm 4*	PLA4			Min	4
Al 4 Hysteresis*	AHY4			1	4
Alarm 5 Type	ALA5			nonE	5
High Alarm 5*	PhA5		Options as for alarm 1	Max	
Low Alarm 5*	PLA5			Min	5
Al 5 Hysteresis*	AHY5			1	5
Output 1 Usage	USE1		A1nd Alarm 1, direct, non-latching A1nr Alarm 1, reverse, non-latching A1Ld Alarm 1, direct, latching A1Lr Alarm 1, reverse, latching A2nd Alarm 2, direct, non-latching A2nr Alarm 2, reverse, non-latching A2Ld Alarm 2, direct, latching A2Lr Alarm 2, reverse, latching A3nd Alarm 3, direct, non-latching A3nr Alarm 3, reverse, non-latching A3Ld Alarm 3, direct, latching A3Lr Alarm 3, reverse, latching A4nd Alarm 4, direct, non-latching A4nr Alarm 4, reverse, non-latching A4Ld Alarm 4, direct, latching A4Lr Alarm 4, reverse, latching A5nd Alarm 5, direct, non-latching A5nr Alarm 5, reverse, non-latching A5Ld Alarm 5, direct, latching A5Lr Alarm 5, reverse, latching 012d Logical Alarm 1 OR 2, direct 012r Logical Alarm 1 OR 2, reverse 013d Logical Alarm 1 OR 3, direct 013r Logical Alarm 1 OR 3, reverse 023d Logical Alarm 2 OR 3, direct 023r Logical Alarm 2 OR 3, reverse AAnyd Any active alarm, direct AAnyr Any active alarm, reverse rEtP Retransmit PV Output dc10 0 to 10VDC (adjustable) transmitter power supply* 0 to 5 V DC output	rEtP for linear outputs, A1nd for others	1
Output 1 PV Retransmit Type	tYP1		0.10 0 to 10 V DC output 2.10 2 to 10 V DC output 0.20 0 to 20 mA DC output 4.20 4 to 20 mA DC output	0.10	1

Parameter	Legend for 1 sec followed by	Set Value	Adjustment Range & Description	Default Value	Units Display
Retransmit OP 1 Scale maximum	ro1H		Display value between, -1999 & 9999 at which Output 1 will be at maximum	Range max	H
Retransmit OP 1 Scale minimum	ro1L		Display value between, -1999 & 9999 at which Output 1 will be at minimum	Range min	L
TxPSU 1 level	PSU1		Output 1 Power Supply (0 to 10VDC)*	10.0	1
Output 2 Usage	USE2		As for Output 1 Usage	A2nd	2
Output 2 PV Retransmit Type	tYP2		As for Output 1 PV Retransmit Type		2
Retransmit OP2 Scale Maximum	ro2H		As for Retransmit Output 1 Scale Maximum		H
Retransmit OP2 Scale Minimum	ro2L		As for Retransmit Output 1 Scale Minimum		L
TxPSU 2 level	PSU2		Output 2 Power Supply (0 to 10VDC)*	10.0	2
Output 3 Usage	USE3		As for Output 1 Usage	A3nd	3
Output 3 PV Retransmit Type	tYP3		As for Output 1 PV Retransmit Type		3
Retransmit OP3 Scale maximum	ro3H		As for Retransmit Output 1 Scale Maximum		H
Retransmit OP3 Scale minimum	ro3L		As for Retransmit Output 1 Scale Minimum		L
TxPSU 3 level	PSU3		Output 3 Power Supply (0 to 10VDC)*	10.0	3
Output 4 Usage	USE4		Alarm output options as for Output 1 Usage	A4nd	4
Output 5 Usage	USE5			A5nd	5
Display Strategy	d1SP		0, 1, 2, 3, 4 or 6 (refer to section 6)	0	d
Display Colour	CLor		rEd Permanent Red Grn Permanent Green r-r Red to Green on any alarm G-r Green to Red on any alarm	G-r	c
Serial Communication Protocol	Prot		ASC1 ASCII r7bn Modbus with no parity r7bE Modbus with Even Parity r7bo Modbus with Odd Parity	r7bn	P
Comms Bit Rate	bAud		1.2, 2.4, 4.8, 9.6 or 19.2 kbps	4.8	b
Comms Address	Addr		1 to 255 (Modbus), 1 to 99 (ASCII)	1	A
Comms Write	CoEn		r-wJ Read/Write r-J Read only	r-wJ	E
Digital Input Usage	dIG1		rrLY Reset latched relay(s) tArE Initiate Tare (zero display) rPv Reset min/max PV values rE Reset Alarm 1 elapsed time rPvE Reset Alarm 1 elapsed time & min/max PV values	rrLY	1
Config Lock	CLoc		Config Mode lock code, 0 to 9999	20	C



4. SETUP MODE

Note: Configuration must be completed before adjusting Setup parameters. First select Setup mode from Select mode (*refer to section 2*). Press **SETUP** to scroll through the parameters (*while this key is pressed, and for 1 sec after, the parameter legend is shown, then the current value*). Press **▲** or **▼** to change the value. To exit from Setup mode, hold down **SETUP** and press **▲** to return to Select mode.

Note: Parameters displayed depends on how instrument has been configured.

Parameter	Legend for 1 sec followed by	Set Value	Adjustment Range & Description	Default Value	Units Display
Input Filter Time Constant	F ILT	OFF or 0.5 to 100.0 secs		2.0	t
Process Variable Offset	OFFS	±Span of controller		0.0	o
Raw PV value	S d	Linear input value, un-scaled (mA, mV or VDC)			<i>blank</i>
High Alarm 1	PhA1	Alarm 1 value, adjustable within scaled range, in display units	Max		1 (Alm1 only = R)
Low Alarm 1	PLA1		Min		
Alarm 1 Hysteresis	AHY1	1 LSD to full span in display units on safe side of alarm	1		-
High Alarm 2	PhA2	Options as for alarm 1	Max		2
Low Alarm 2	PLA2		Min		
AI 2 Hysteresis	AHY2		1		=
High Alarm 3	PhA3	Options as for alarm 1	Max		3
Low Alarm 3	PLA3		Min		
AI 3 Hysteresis	AHY3		1		=
High Alarm 4	PhA4	Options as for alarm 1	Max		4
Low Alarm 4	PLA4		Min		
AI 4 Hysteresis	AHY4		1		4
High Alarm 5	PhA5	Options as for alarm 1	Max		5
Low Alarm 5	PLA5		Min		
AI 5 Hysteresis	AHY5		1		5
Scaling Breakpoint 1	ScA1	Multi-point scaling breakpoint 1 value, adjustable from 0 to 100 in % of span	100		1
Display Value 1	d s1	Value to be displayed at multi-point scaling breakpoint 1, in display units	Range Max		
Scaling Breakpoint 2	ScA2	Multi-point scaling breakpoint 2, adjustable up to 100% of span. Must be > ScA1 value			2
Display Value 2	d s2	Value to be displayed at Multi-point scaling breakpoint 2, in display units			
Scaling Breakpoint 3	ScA3	Multi-point scaling breakpoint 3, adjustable up to 100% of span. Must be > ScA2 value			3
Display Value 3	d s3	Value to be displayed at Multi-point scaling breakpoint 3, in display units			
Scaling Breakpoint 4	ScA4	Multi-point scaling breakpoint 4, adjustable up to 100% of span. Must be > ScA3 value			4
Display Value 4	d s4	Value to be displayed at Multi-point scaling breakpoint 4, in display units			
Scaling Breakpoint 5	ScA5	Multi-point scaling breakpoint 5, adjustable up to 100% of span. Must be > ScA4 value			5
Display Value 5	d s5	Value to be displayed at Multi-point scaling breakpoint 5, in display units			
Scaling Breakpoint 6	ScA6	Multi-point scaling breakpoint 6, adjustable up to 100% of span. Must be > ScA5 value			6
Display Value 6	d s6	Value to be displayed at Multi-point scaling breakpoint 6, in display units			
Scaling Breakpoint 7	ScA7	Multi-point scaling breakpoint 7, adjustable up to 100% of span. Must be > ScA6 value			7
Display Value 7	d s7	Value to be displayed at Multi-point scaling breakpoint 7, in display units			
Scaling Breakpoint 8	ScA8	Multi-point scaling breakpoint 8, adjustable up to 100% of span. Must be > ScA7 value			8
Display Value 8	d s8	Value to be displayed at Multi-point scaling breakpoint 8, in display units			
Scaling Breakpoint 9	ScA9	Multi-point scaling breakpoint 9, adjustable up to 100% of span. Must be > ScA8 value			9
Display Value 9	d s9	Value to be displayed at Multi-point scaling breakpoint 9, in display units			
Tare Feature	tArE	EnAb d sA Enables or disables the input auto-zero Tare feature	d sA		r
Setup Lock Code	SLoc	0 to 9999	10		5

Note: Operator mode screens follow, without exiting from Setup mode.

5. MESSAGES & ERROR INDICATIONS

These messages indicate that the instrument may require attention, or there is a problem with the signal input connection. *The message legend is shown for 1 second, followed by its value.*

Caution: Do not continue with the process until the issue is resolved.

Parameter	Legend for 1 sec followed by	Value	Description	Units Display
Instrument parameters are in default conditions	GoTo	Conf	Configuration & Setup is required. This screen is seen at first turn on, or if hardware configuration is changed. Press SETUP to enter Configuration Mode, next press ▲ or ▼ to enter the unlock code, then press SETUP to proceed	C
Input Over Range	Err	[HH]	Input signal is > 5% over-range	E
Input Under Range		[LL]	Input signal is > 5% under-range (>10% under-range for 4 to 20mA, 1 to 5V and 2 to 10V ranges)	
Input Sensor Break		OPEN	Break detected in input signal sensor or wiring	
Option 1 Error		Err1	Option 1 module fault	
Option 2 Error		Err2	Option 2 module fault	
Option 3 Error		Err3	Option 3 module fault	
Option A Error		ErrA	Option A module fault	
Option B Error		Errb	Shown if any module is fitted (option B not used DI1700)	b

Note: [HH], [LL] or OPEN may also be displayed if an incorrect input type is selected.

6. OPERATOR MODE

This mode is entered at power on, or accessed from Select mode (*see section 2*). **Note: All Configuration mode and Setup mode parameters must be set as required before starting normal operations.** Press **SETUP** to scroll through the parameters (*while this key is pressed, and for 1 sec after, the parameter legend is shown, followed by the current value*). **Note: All Operator Mode parameters in Display strategy 6 are read only (see d sP in configuration mode), they can only be adjusted via Setup mode.**

Legend for 1 sec followed by	Value	Display Strategy and When Visible	Description	Units Display
Proc	PV Value*	Always	Process Variable value <i>Read only</i> <i>Latched outputs can be reset</i>	℃, °F or blank
PnA	Max PV Value	Strategies 0, 1, 3, 4, & 6	Maximum displayed value (inc [HH] or OPEN) since PnA last reset. <i>To reset, press ▲ or ▼ for 3 seconds, display = ---- when reset</i>	℃, °F or blank
Pn in	Min PV Value	Strategies 0, 1, 3, 4, & 6	Minimum displayed value (inc [LL] or OPEN) since Pn in last reset. <i>To reset, press ▲ or ▼ for 3 seconds, display = ---- when reset</i>	℃, °F or blank
Et	Elapsed Time	Strategies 0, 4 & 6 if alarm 1 configured. Format mm.ss to 99.59 then mmm.s (10 sec increments) Shows [HH] if >999.9	Accumulated alarm 1 active time since Et last reset. <i>To reset, press ▲ or ▼ for 3 seconds, display = ---- when reset</i>	E
AL1	Alarm 1 Value	Strategies 2, 3, 4 & 6 if alarm 1 configured	Alarm 1 value, <i>adjustable except in Strategy 6</i>	1 (Alm1 only = R)
AL2	Alarm 2 Value	Strategies 2, 3, 4 & 6 if alarm 2 configured	Alarm 2 value, <i>adjustable except in Strategy 6</i>	2
AL3	Alarm 3 Value	Strategies 2, 3, 4 & 6 if alarm 3 configured	Alarm 3 value, <i>adjustable except in Strategy 6</i>	3
AL4	Alarm 4 Value	Strategies 2, 3, 4 & 6 if alarm 4 configured	Alarm 4 value, <i>adjustable except in Strategy 6</i>	4
AL5	Alarm 5 Value	Strategies 2, 3, 4 & 6 if alarm 5 configured	Alarm 5 value, <i>adjustable except in Strategy 6</i>	5
ALSt	Active Alarm Status*	When one or more alarms are active	Alarm 4 active Alarm 2 active Alarm 3 active Alarm 5 active <i>Latched outputs can be reset</i>	1 if alarm 1 active

Alarm Indication

The Active Alarm Status screen indicates any active alarms. In addition, the associated Alarm LED flashes. For latching alarm outputs, the LED flashes when the alarm condition exists, and goes to ON when the condition is no longer present, until the output is reset.

*Resetting Latched Alarm Outputs

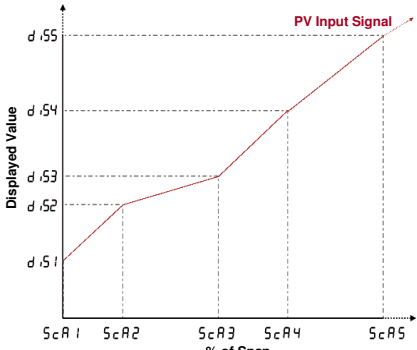
Any latched outputs can be reset whilst the Process variable or Alarm Status screens are displayed, by pressing the **▲** or **▼** key, via the Digital Input (if fitted) or with a communications command via the RS485 module (if fitted). **Note: Outputs will only reset if their alarm condition is no longer present.** **Caution: A reset will affect ALL latched outputs.**

Indicator Units Display and LED's

In Operator Mode, a Units display shows **℃** or **°F** when temperature values are shown. This display is also used in other modes as a confirmation of the parameter type currently shown in the main display. The SET **LED** indicator is off in Operator Mode, Flashing in Configuration Mode and ON in Set-up mode. MIN **▲** and MAX **▲** LED's light when these stored values are shown.

Multi-Point Scaling

When enabled (**PnPS = EnAb**), up to 9 breakpoints can be set to compensate for non-linear input signals. For each breakpoint, the input scale value (**ScAn**) is entered in % of input span, followed by the value to be shown (**d sN**) in display units. Each breakpoint's input scale value must be higher than the previous value, but the display values can be higher or lower. Any scale value set to 100% becomes the last in the series.



Tare Feature

When Tare is enabled (**tArE = EnAb**), it can be used to set the displayed value to zero automatically, by making the PV Offset parameter equal, but opposite to, the current process variable value. Tare can be initiated via the Digital Input (if fitted), with a communications command via the RS485 module (if fitted) or by using the following key press sequence:

Press **SETUP** until the process variable is displayed. Hold down **▲** and **▼** together for three seconds until the display shows **YES?** Release both keys and press **▲** within 3 seconds to confirm the request. The display should read **0** briefly, then begin responding to input signal changes.

Note: Tare request is aborted if this sequence is not followed exactly.

7. PRODUCT INFORMATION MODE

First select Product information mode from Select mode (*refer to section 2*). Press **SETUP** to view each parameter (*while this key is pressed, and for 1 sec after, the parameter legend is shown, followed by its value*). Hold down **SETUP** and press **▲** to return to Select mode. **Note: These parameters are all read only.**

Parameter	Legend for 1 sec followed by	Value	Description	Units Display
Input type	In 1	Un 1	Universal input	t
Option 1 module type fitted	OPn1	nonE	No option fitted	1
		rLY	Relay output	
		SSr	SSR drive output	
		Tr 1	Triac output	
		L in	Linear DC voltage / current output	
Option 2 module type fitted	OPn2	nonE	No option fitted	2
		rLY	Relay output	
		d rLY	Dual Relay (outputs 2 & 4)	
		SSr	SSR drive output	
		Tr 1	Triac output	
Option 3 module type fitted	OPn3	L in	Linear DC voltage / current output	3
		nonE	No option fitted	
		rLY	Relay output	
		d rLY	Dual Relay (outputs 3 & 5)	
		SSr	SSR drive output	
Auxiliary Option A module type fitted	OPnA	L in	Linear DC voltage / current output	A
		dc24	24V DC Transmitter power supply	
		nonE	No option fitted	
		r485	RS485 communications	
Firmware type	FLW	d sU	Digital Input	F
Firmware issue	ISS		Value displayed is firmware type number	n
Product Rev Level	PrL		Value displayed is firmware issue number	r
Manufactured Date	dDPn		Value displayed is Product Revision Level	d
Serial number 1	Sn1		Month & year of manufacture. Format mm/yy	A
Serial number 2	Sn2		First four digits of serial number	b
Serial number 3	Sn3		Middle four digits of serial number	c
			Last four digits of serial number	

8. SERIAL COMMUNICATIONS

Refer to the full user guide (available from your supplier) for details.

9. SPECIFICATIONS

UNIVERSAL INPUT

Thermocouple: ±0.1% of full range, ±1LSD (±1 °C for Thermocouple CJC). Calibration: BS4937, NBS125 & IEC584.
PT100 Calibration: ±0.1% of full range, ±1LSD. BS1904 & DIN43760 (0.00385Ω/Ω/°C).
DC Calibration: ±0.1% of full range, ±1LSD.
Sampling Rate: 4 per second.
Impedance: >10MΩ resistive, except DC mA (5Ω) and V (47kΩ).
Sensor Break Detection: Thermocouple, RTD, 4 to 20 mA, 2 to 10V and 1 to 5V ranges only. *High alarms activate for thermocouple/RTD sensor break, low alarms activate for mA/V DC sensor break.*
Isolation: Isolated from all outputs (except SSR driver). Universal input must not be connected to operator accessible circuits if single relay outputs are connected to a hazardous voltage source. Supplementary insulation or input grounding would then be required.

DIGITAL INPUT

Voltage Input: Reset or Tare occurs on high (2 to 24VDC) to low <0.8VDC, or
Volt-free Contacts: Open to Closed transition.
Isolation: Reinforced safety isolation from inputs and other outputs.

OUTPUTS

Relay
Contact Type & Rating: Single pole double throw (SPDT), latching or non-latching action (selectable); 2A resistive at 120/240VAC.
Lifetime: >500,000 operations at rated voltage/current.
Isolation: Basic Isolation from universal input and SSR outputs.
Dual Relay
Contact Type & Rating: Single pole single throw (SPST), latching or non-latching action (selectable); 2A resistive at 120/240VAC.
Lifetime: >200,000 operations at rated voltage/current.
Isolation: Reinforced safety isolation from inputs and other outputs.

SSR Driver

Drive Capability: SSR drive voltage >10V into 500Ω min.
Isolation: Not isolated from universal input or other SSR driver outputs.
Triac
Operating Voltage: 20 to 280Vrms (47 to 63Hz).
Current Rating: 0.01 to 1A (full cycle rms on-state @ 25 °C); derates linearly above 40 °C to 0.5A @ 80 °C.
Isolation: Reinforced safety isolation from inputs and other outputs.

Linear DC
Accuracy: ±0.25% (mA @ 250Ω, V @ 2kΩ). Degrades linearly to ±0.5% for increasing burden (to specification limits).
Resolution: 8 bits in 250mS (10 bits in 1s typical, >10 bits in >1s typical).
Isolation: Reinforced safety isolation from inputs and other outputs.
Transmitter PSU
Power Rating: 24V TxPSU Module; Unregulated 20 to 28V DC into 910Ω min Linear output Module; Regulated 0.0 to 10.0V into 500Ω min.
Isolation: Reinforced safety isolation from inputs and other outputs.

SERIAL COMMUNICATIONS

Physical: RS485, at 1200, 2400, 4800, 9600 or 19200 bps.
Protocols: Selectable between Modbus and ASCII.
Isolation: Reinforced safety isolation from all inputs and outputs.

OPERATING CONDITIONS (FOR INDOOR USE)

Ambient Temperature: 0 °C to 55 °C (Operating), -20 °C to 80 °C (Storage).
Relative Humidity: 20% to 95% non-condensing.
Supply Voltage and Power: 100 to 240VAC ±10%, 50/60Hz, 7.5VA (for mains powered versions), or 20 to 48VAC 50/60Hz 7.5VA or 22 to 65VDC 5W (for low voltage versions).

ENVIRONMENTAL

Standards: CE, UL & ULC
EMI: Complies with EN61326 (Susceptibility & Emissions).
Safety: Complies with EN61010-1 & UL3121.
Considerations: Pollution Degree 2, Installation Category II.
Front Panel Sealing: To IP66 (IP20 behind the panel).

PHYSICAL

Front Bezel Size: 96 x 48mm (1/8 Din)
Depth Behind Panel: 100mm.
Weight: 0.21kg maximum.