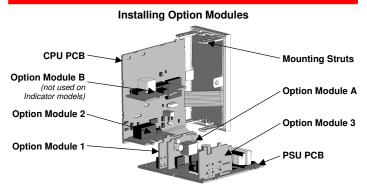
HONEYWELL UDI1700 MICRO-PRO UNIVERSAL DIGITAL INDICATOR PRODUCT MANUAL (51-52-25-138)



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

1. INSTALLATION

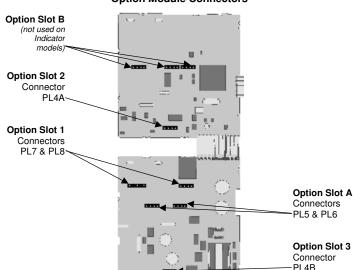


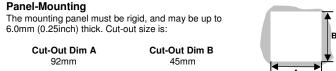
To access modules 1 or A, first detach the PSU and CPU boards from the front by lifting first the upper, and then lower mounting struts. Gently separate the boards.

- 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.

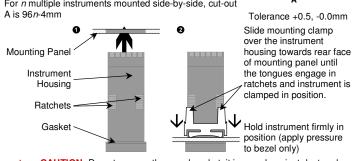
Note: Option modules are automatically detected at power up.

Option Module Connectors





For *n* multiple instruments mounted side-by-side, cut-out



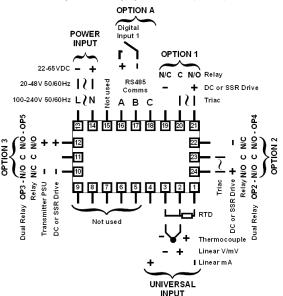
CAUTION: Do not remove the panel gasket; it is a seal against dust and moisture.

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

USE COPPER CONDUCTORS (EXCEPT FOR T/C INPUT) Single Strand wire gauge: Max 1.2mm (18SWG)



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

Note: At first power-up the message Coto 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 serup and pressing A. The SLCE legend is shown for 1 second, followed by the legend for the current mode. Press A or to choose the required mode, then press serue to enter. An unlock code is required to prevent unauthorised entry to Configuration, & Setup modes. Press A or to enter the unlock code, then press serue to proceed

Mode	Legend for 1 sec followed by—	Set Value	Description	Default Unlock Codes	Units Display	
Operator		OPtr	Normal operation	None		
Set Up	SLCE	SELP	Tailor settings for application	10	5	
Configuration	SLLE	Conf	Configure instrument for use	20		
Product Info		:oFo	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 strup 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 to display **YE5?**, press accept the change, otherwise parameter will revert to previous value. To exit from Configuration mode, hold down serup and press A, 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.

Param	eter	Legend for 1 sec followed by	1 sec owed Value Description		Default Value	Units Display		
Input Range	Туре	inPt	See following table for possible codes		JC	٦		
Code	Input Typ Range	oe &	Code	Input Type & Range	Code Input Ty Range			_
ьε	B: 100 - 18	24 ºC	L.E	L: 0.0 - 537.7 °C	חשור	PtRh2	20% vs 40°	%:
ЬF	B: 211 - 33	15 ºF	L.F	L: 32.0 - 999.9 ºF	PZ4F	32 - 3	362 ºF	
ΕΕ	C: 0 - 2320) ºC	NE	N: 0 - 1399 ^o C	PEE	Pt100: -199 - 800 ºC		00 ºC
[F	C: 32 - 4208 ºF		NF	N: 32 - 2551 ºF	PEF	Pt100): -328 - 14	472 ºF
JE	J: -200 - 1	200 ºC	rε	R: 0 - 1759 °C	Pt.E	Pt100): -128.8 -	537.7 ºC
JF	J: -328 - 2	2192 ºF	rF	R: 32 - 3198 ºF	PŁ.F	Pt100): -199.9 -	999.9 ºF
J.E	J: -128.8 -	- 537.7 ºC	SE	S: 0 - 1762 ºC	0-50	0 - 20	mA DC	
J.F	J: -199.9	- 999.9 ºF	5F	S: 32 - 3204 ºF	4_20	4 - 20	mA DC	
PΕ	K: –240 - 1	373 ºC	ĿΣ	T: -240 - 400 ºC	0_50	0 - 50	mV DC	
ΡF	K: –400 - 2	2503 ºF	ĿF	T: –400 - 752 ºF	10.50	10 - 5	00 mV DC	
P.E	K: -128.8 -	- 537.7 ºC	Ł.C	T: -128.8 - 400.0 °C	0.5	0 - 5	V DC	
P,F	K: –199.9 -	999.9 ºF	Ł.F	T: -199.9 - 752.0 °F	1_5	1 - 5	V DC	
LE	L: 0 - 762 º	C	02115	PtRh20% vs. 40%:	0_10	0 - 10	V DC	
LF	L: 32 - 140	3 ºF	FC41 0 4050.00		2 - 10	2 - 10 V DC		
Note: I	Decimal p	oint sho	wn in tal	ble indicates temp	erature	reso	lution of	0.1°

Parameter	Legend for 1 sec followed by	Set Value	Adjustment Range & Description	Default Value	Units Displa
Scale Range Upper Limit	ruL	Sca	ale Range Lower Limit +100 to Range Maximum	Max (Lin = 1000)	U
Scale Range	rLL		Range Minimum to	Min (Lin	L
Lower Limit	, ,,		ale Range Upper Limit -100	= 0)	
Decimal point position	dPo5	2 =XX.X	x, I=xxx.x, (non-temperature xx, I=x.xxx ranges only)	1	Ρ
Linear Range Engineering	LinU	nonE C	None (<i>Blank</i>), °C or °F for use where linear inputs	nonE	C
Units Display		F	represent temperature		F
Multi-Point Scaling	rnP5	EnAb d iSA	Enables or disables the input multi-point scaling feature	a .SA	5
Alarm 1Type	ALA I	P_H i P_Lo nonE	Process High Alarm Process Low Alarm No alarm	P_H .	1
High Alarm 1*	PhA I		value, adjustable within scaled	Max	(Alm
Low Alarm 1*	PLA I		range, in display units	Min	only = l
Alarm 1 Hysteresis*	AHY I	1 LSD	to full span in display units on safe side of alarm	1	-
Alarm 2Type	ALA2			nonE	2
High Alarm 2*	PHAS		Options as for alarm 1	Max	2
Low Alarm 2* Al 2 Hysteresis*	BHAS BFBS			Min	<u>-</u>
Alarm 3Type	ALA3			nonE	3
High Alarm 3*	PhA3		Options as for alarm 1	Max	3
Low Alarm 3*	PLA3		Options as for alarm 1	Min	
Al 3 Hysteresis* Alarm 4Type	AHY3 ALAY			nonE	
High Alarm 4*	PhA4		Ontions on favoral and	Max	l
Low Alarm 4*	PLAY		Options as for alarm 1	Min	4
Al 4 Hysteresis*	AHYY			1	4
Alarm 5 Type High Alarm 5*	ALAS PHAS			nonE Max	5
Low Alarm 5*	PLAS		Options as for alarm 1	Min	5
Al 5 Hysteresis*	AHYS			1	5
Output 1 Usage	USE I	R Ind R Inc R ILL R2nd R2nc R2ld R3nc R3nc R3nc R3nc R3nc R3nc R3nc R3nc	Alarm 1, direct, non-latching Alarm 1, reverse, non-latching Alarm 1, reverse, non-latching Alarm 1, reverse, latching Alarm 2, direct, non-latching Alarm 2, direct, non-latching Alarm 2, direct, latching Alarm 2, direct, latching Alarm 3, direct, latching Alarm 3, direct, non-latching Alarm 3, reverse, non-latching Alarm 3, reverse, latching Alarm 4, direct, latching Alarm 4, reverse, latching Alarm 4, reverse, non-latching Alarm 4, reverse, latching Alarm 5, direct, latching Alarm 5, direct, non-latching Alarm 5, direct, non-latching Alarm 5, direct, non-latching Alarm 5, direct, non-latching Alarm 5, direct, latching Alarm 5, direct, latching Alarm 5, direct, latching Alarm 5, reverse, latching Alarm 5, reverse, latching Alarm 5, reverse, latching Alarm 5, direct, latching Alarm 7, reverse, latching Alarm 1, or 2, direct Logical Alarm 1 OR 3, direct Logical Alarm 1 OR 3, direct Logical Alarm 2 OR 3, direct Logical Alarm 2 OR 3, reverse Any active alarm, direct Any active alarm, reverse Retransmit PV Output 0 to 10VDC (adjustable)	rEtP for linear outputs, R Ind for others	ı
Output 1 PV Retransmit Type	EYP I	0_5 0_10 2_10 0_20 4_20	transmitter power supply* 0 to 5 V DC output 0 to 10 V DC output 2 to 10 V DC output 0 to 20 mA DC output 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	ro IH	at whic	value between, -1999 & 9999 h Output 1 will be at maximum	Range max	Н
Retransmit OP 1 Scale minimum	ro IL		value between, -1999 & 9999 th Output 1 will be at minimum	Range min	L
TxPSU 1 level	PSU I		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	FAb5		s for Output 1 PV Retransmit T		2
Retransmit OP2 Scale Maximum	ro2H	As for	r Retransmit Output 1 Scale Ma	ıximum	н
Retransmit OP2 Scale Minimum	roZL		r Retransmit Output 1 Scale Mi		L
TxPSU 2 level	PSU2	Output	2 Power Supply (0 to 10VDC)*	10.0	5
Output 3 Usage	USE3		As for Output 1 Usage	A3nd	3
Output 3 PV Retransmit Type	FAb3	A	s for Output 1 PV Retransmit T	уре	3
Retransmit OP3 Scale maximum	ro3H	As for	r Retransmit Output 1 Scale Ma	ıximum	Н
Retransmit OP3 Scale minimum	ro3L		r Retransmit Output 1 Scale Mi		L
TxPSU 3 level	PSU3		3 Power Supply (0 to 10VDC)*	10.0	3
Output 4 Usage	USE4	Al	arm output options as for	RYnd	4
Output 5 Usage	USES		Output 1 Usage	ASnd	5
Display Strategy	d iSP		2 , 3 , 4 or 6 (refer to section 6)	0	d
Display Colour	[Lor	rEd 6-r 6-r	Permanent Red Permanent Green Red to Green on any alarm Green to Red on any alarm	G-r	с
Serial Communication Protocol	Prot	ASC I	ASCII Modbus with no parity Modbus with Even Parity Modbus with Odd Parity	<i>L</i> √P∪	ρ
Comms Bit Rate	bRud	1.2,	2.4, 4.8, 9.6 or 19.2 kbps	4.8	Ь
Comms Address	Addr		55 (Modbus), I to 99 (ASCII)	1	A
Comms Write	CoEn	ر_ل 1-10 1-10	Read/Write Read only	רשבים	ε
Digital Input Usage	ሪ ነር ነ	rPuE	Reset latched relay(s) Initiate Tare (zero display) Reset min/max PV values Reset Alarm 1 elapsed time Reset Alarm 1 elapsed time & min/max PV values	rrLY	ø
Config Lock	[Loc	Config	Mode lock code, 0 to 9999	20	Ξ



SETUP MODE

Note: Configuration must be completed before adjusting Setup parameters. First select Setup mode from Select mode (refer to section 2). Press serup 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 A or V to change the value. To exit from Setup mode, hold down serue and press A 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 iLE	О	PFF or 0.5 to 100.0 secs	2.0	Ł
Process Variable Offset	OFFS		±Span of controller	0.0	0
Raw PV value	5 🖟	Linear i	nput value, un-scaled (mA, mV	or VDC)	blank
High Alarm 1	PhA I		value, adjustable within scaled	Max	(Alm1
Low Alarm 1	PLA I		range, in display units	Min	only = A)
Alarm 1 Hysteresis	AHY I	1 LSD 1	to full span in display units on safe side of alarm	1	-
High Alarm 2	PhA2		Sale side of alaitif	Max	
Low Alarm 2	PLA2		Options as for alarm 1	Min	5
Al 2 Hysteresis	AH45			1	=
High Alarm 3	PhA3			Max	
Low Alarm 3	PLR3		Options as for alarm 1	Min	3
Al 3 Hysteresis	RHY3			1	=
High Alarm 4	PhAY			Max	
Low Alarm 4	PLAY		Options as for alarm 1	Min	4
Al 4 Hysteresis	АНУЧ			1	4
High Alarm 5	PHAS			Max	_
Low Alarm 5	PLAS		Options as for alarm 1	Min	5
Al 5 Hysteresis	AHYS			1	5
Scaling		Multi-po	int scaling breakpoint 1 value,	100	
Breakpoint 1	ScR I	adjustat	ole from 0 to 100 in % of span	100	1
Display Value 1	d .5 I	scaling	to be displayed at multi-point breakpoint 1, in display units	Range Max	•
Scaling Breakpoint 2	ScA2	Multi-poi	nt scaling breakpoint 2, adjusta 0% of span. Must be > 5cf I va		
Display Value 2	a ,52	Value	to be displayed at Multi-point s breakpoint 2, in display units	scaling	2
Scaling	6.03	Multi-poi	int scaling breakpoint 3, adjusta	able up to	
Breakpoint 3	ScR3		0% of span. Must be > 5cA2 va		3
Display Value 3	d .53	Value	to be displayed at Multi-point s breakpoint 3, in display units	scaling	3
Scaling	ScA4		nt scaling breakpoint 4, adjusta		
Breakpoint 4	Jeni		0% of span. Must be > 5cA3 va		4
Display Value 4	d .54		to be displayed at Multi-point s breakpoint 4, in display units		
Scaling Breakpoint 5	ScAS		fulti-point scaling breakpoint 5, adjustab 100% of span. Must be > 5cfH valu		į.
·	1 55	Value	to be displayed at Multi-point	scaling	5
Display Value 5	55، ه		breakpoint 5, in display units		
Scaling Breakpoint 6	ScA6		int scaling breakpoint 6, adjusta 0% of span. Must be > 5cR5 va		i i
Display Value 6	56، ه		to be displayed at Multi-point s breakpoint 6, in display units		6
Scaling Breakpoint 7	ScA7		int scaling breakpoint 7, adjusta 0% of span. Must be > 5cA6 va		
Display Value 7	d .57	Value	to be displayed at Multi-point	scaling	7
		Multi poi	breakpoint 7, in display units int scaling breakpoint 8, adjusta	ahla un ta	
Scaling Breakpoint 8	ScRB	10	0% of span. Must be > 5cA7 va	alue	
Display Value 8	58، ه	Value	to be displayed at Multi-point s breakpoint 8, in display units	scaling	8
Scaling	c 00-	Multi-poi	nt scaling breakpoint 9, adjusta	able up to	
Breakpoint 9	ScA9	10	0% of span. Must be > 5cA8 va	alue	9
Display Value 9	99، ه		to be displayed at Multi-point s breakpoint 9, in display units		9
Tare Feature	LA rE	EnAb d iSA	Enables or disables the input auto-zero Tare feature	d ,SA	٦
Setup Lock Code	SLoc	-5-13/1	O to 9999	10	5
	modo co	roone fo	llow without exiting from Se	tun mode	

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	Coto	Conf	Configuration & Setup is required. This screen is seen at first turn on, or if hardware configuration is changed. Press sup to enter Configuration Mode, next press or to enter the unlock code, then press to proceed	С
Input Over Range		CHH)	Input signal is > 5% over-range	
Input Under Range		CLLJ	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	Err	Err I	Option 1 module fault	1
Option 2 Error		Err2	Option 2 module fault	2
Option 3 Error		Err3	Option 3 module fault	3
Option A Error		ErrA	Option A module fault	A
Option B Error		Errb	Shown if any module is fitted (option B not used DI1700)	

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

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 serup 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 5P 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 Read only Latched outputs can be reset	°C, °F or blank
rnA	Max PV Value	Strategies 0 , 1 , 3 , 4 , & 6	Maximum displayed value (inc CHH) or OPEN) since PAR last reset. To reset, press ♠ or ✔ for 3 seconds, display = when reset	°C, °F or blank
טו מין	Min PV Value	Strategies 0 , 1 , 3 , 4 , & 6	Minimum displayed value (inc CLLJ or OPEN) since (77 in last reset. To reset, press or for 3 seconds, display = when reset	°C, °F or blank
Et ,	Elapsed Time	Strategies D , 4 & 5 if alarm 1 configured. Format <i>mm.ss</i> to 99.59 then <i>mmm.s</i> (10 sec increments) Shows CHHJ if >999.9	Accumulated alarm 1 active time since Et • last reset. To reset, press • or • for 3 seconds, display = when reset	Ε
AL I	Alarm 1 Value	Strategies 2, 3, 4 & 6 if alarm 1 configured	Alarm 1 value, adjustable except in Strategy 6	(Alm1 only = A)
AL2	Alarm 2 Value	Strategies 2 , 3 , 4 & 5 if alarm 2 configured	Alarm 2 value, adjustable except in Strategy 6	2
AL3	Alarm 3 Value	Strategies 2 , 3 , 4 & 6 if alarm 3 configured	Alarm 3 value, adjustable except in Strategy 6	3
AL4	Alarm 4 Value	Strategies 2 , 3 , 4 & 6 if alarm 4 configured	Alarm 4 value, adjustable except in Strategy 6	4
ALS	Alarm 5 Value	Strategies 2 , 3 , 4 & 5 if alarm 5 configured	Alarm 5 value, adjustable except in Strategy 6	5
ALSE	Active Alarm Status*	When one or more alarms are active	Alarm 4 active 5432 — Alarm 2 active Alarm 3 active Alarm 5 active Latched outputs can be reset	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 A 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

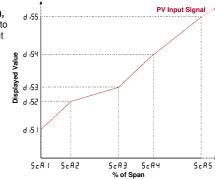
In Operator Mode, a Units display shows ${\bf \hat{c}}$ or ${\bf \hat{f}}$ when temperature values are shown. This display is also used in other modes as a confirmation of the parameter type currently shown in the main display. The SET LED indicator is off in Operator Mode, Flashing in Configuration Mode and ON in Set-up mode. MIN and MAX LED's light when these stored values are shown.

Multi-Point Scaling

When enabled (P7P5 = EnAb), up to 9 breakpoints can be set to compensate for non-linear input

For each breakpoint, the input scale value (**ScA**n) is entered in % of input span, followed by the value to be shown (**d** •**5***n*) 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 (**EARE** = **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 serup until the process variable is displayed.

Hold down ▲ and ▼ together for three seconds until the display shows **YE5**? Release both keys and press A within 3 seconds to confirm the request. The display should read $\bf{0}$ 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 serue 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 A 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_ I	Uni	Universal input	Ł	
		nonE	No option fitted		
0		LLY	Relay output		
Option 1 module type fitted	OPn I	55-	SSR drive output	- 1	
typo iittou		Er i	Triac output		
		Lin	Linear DC voltage / current output		
		nonE	No option fitted		
		rLY	Relay output		
Option 2 module	0Pn2	drLY	Dual Relay (outputs 2 & 4)	2	
type fitted	Urnc	55-	SSR drive output	2	
		Er i	Triac output		
		Lin	Linear DC voltage / current output		
	0Pn3	nonE	No option fitted		
		rLY	Relay output	3	
Option 3 module		drLY	Dual Relay (outputs 3 & 5)		
type fitted		55-	SSR drive output		
		Lin	Linear DC voltage / current output		
		dc24	24V DC Transmitter power supply		
Auxiliary Option A		nonE	No option fitted		
module type fitted	OPnA	r485	RS485 communications	A	
		d .G .	Digital Input		
Firmware type	FUJ		splayed is firmware type number	F	
Firmware issue	155		splayed is firmware issue number	n	
Product Rev Level	PrL	Value di	splayed is Product Revision Level	٦	
Manufactured Date	4000		year of manufacture. Format <i>mmyy</i>	d	
Serial number 1	Sn I	First fou	R		
Serial number 2	502	Middle f	Ь		
Serial number 3	5n3	Last fou	ast 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 $\pm 0.1\%$ of full range, ± 1 LSD (± 1 °C for Thermocouple CJC).

Calibration: BS4937, NBS125 & IEC584 PT100 Calibration:

±0.1% of full range, ±1LSD. BS1904 & DIN43760 (0.00385Ω/Ω/°C).

 $\pm 0.1\%$ of full range, ± 1 LSD. DC Calibration:

Sampling Rate: 4 per second.

>10M Ω resistive, except DC mA (5 Ω) and V (47k Ω). Impedance:

Thermocouple, RTD, 4 to 20 mA, 2 to 10V and 1 to 5V ranges Sensor Break Detection: 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

Reset or Tare occurs on high (2 to 24VDC) to low <0.8VDC, or Voltage Input:

Volt-free Contacts: Open to Closed transition

Isolation: Reinforced safety isolation from inputs and other outputs.

OUTPUTS

Relay

Contact Type & Single pole double throw (SPDT), latching or non-latching Rating: 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 & Single pole single throw (SPST), latching or non-latching action (selectable); 2A resistive at 120/240VAC. Rating:

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 5000 min

Not isolated from universal input or other SSR driver outputs. Isolation:

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

 $\pm 0.25\%$ (mA @ 250 Ω , V @ 2k Ω). Degrades linearly to $\pm 0.5\%$ Accuracy:

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 PSI

Power Rating: 24V TxPSU Module: Unregulated 20 to 28V DC into 9100 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 0°C to 55°C (Operating), -20°C to 80°C (Storage).

Temperature

Relative Humidity: 20% to 95% non-condensing.

Supply Voltage and 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).

Complies with EN61010-1 & UL3121. Safety 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.