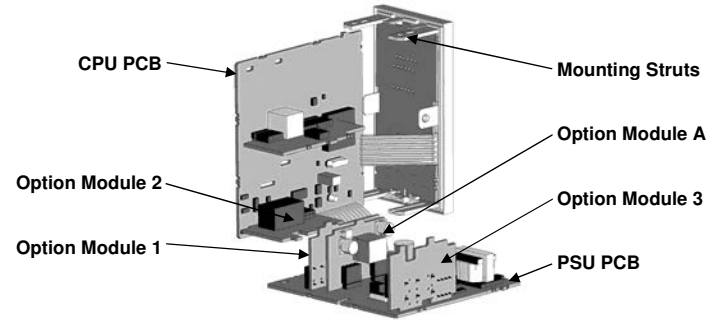


# 1/8 DIN INDICATOR CONCISE PRODUCT MANUAL 59471-5

**CAUTION:** Installation should be only performed by technically competent personnel. Local Regulations regarding electrical installation & safety must be observed. Dynisco will not be held liable for any injury, loss or damage resulting from failure to follow the instructions in this manual.

## 1. INSTALLATION

### Installing Option Modules/Maintenance 1/8 Din Size Instruments

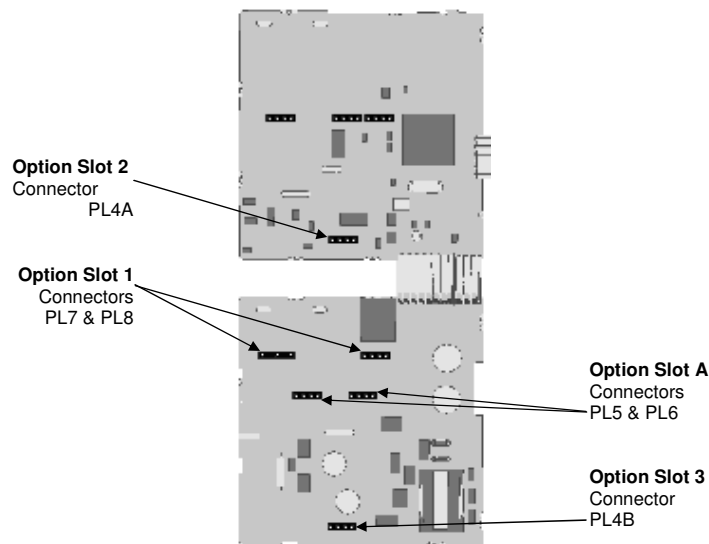


**CAUTION:** All power supply connections to the device must be removed when carrying out any form of maintenance.

- 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 1/8 Din Size Instruments



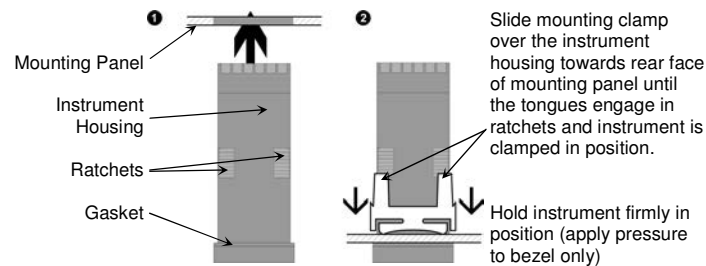
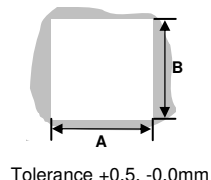
### Panel-Mounting

The mounting panel must be rigid, and may be up to 6.0mm (0.25inch) thick. Cut-out sizes are:

Cut-Out Dim A  
1/8 Din = 92mm

Cut-Out Dim B  
1/8 Din = 45mm

For *n* multiple instruments mounted side-by-side, cut-out A is 96*n*-4mm (1/8 Din)



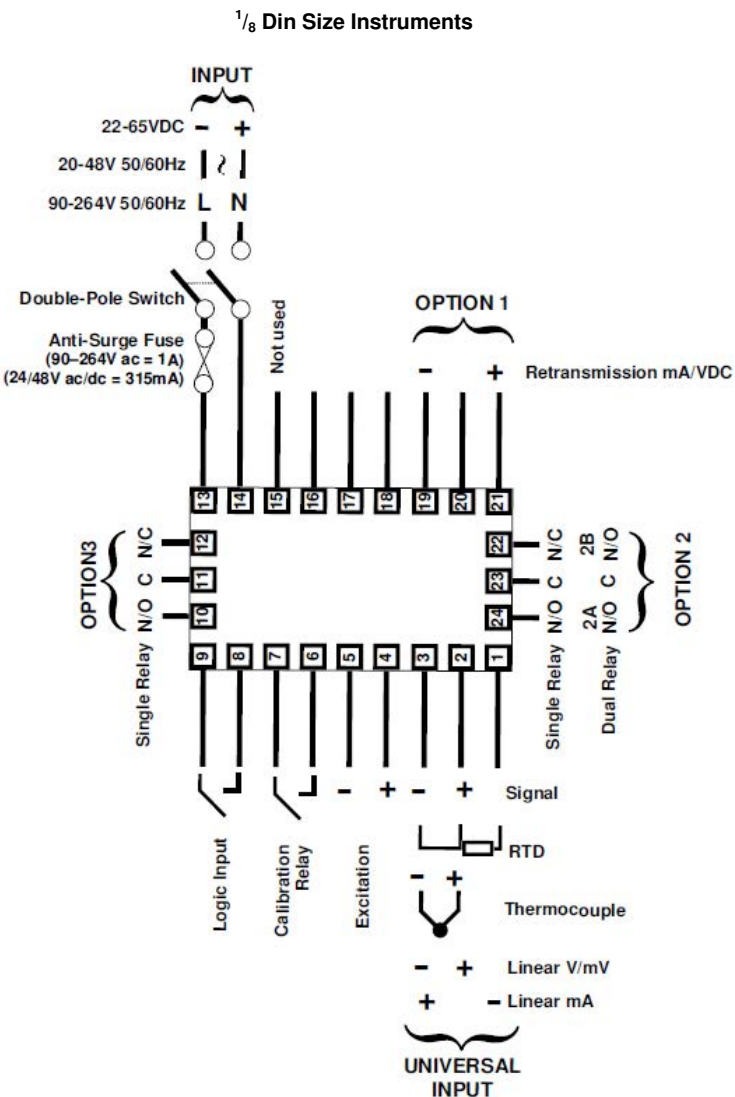
**CAUTION:** Do not remove the panel gasket; it is a seal against dust and moisture.

### Rear Terminal Wiring

All connections to the device must be made through a spade format or similar connection, with connection to the spade terminal touching both the insulation and conductor material. (Use a standard crimping tool)

All connections must be Mechanically secured so as to prevent any wiring becoming loose and coming in contact with other wires or the instrument casing

The above applies to any and all connection to hazardous mains supply either direct or indirect (Through a switch (Relay))  
USE COPPER CONDUCTORS (EXCEPT FOR T/C INPUT)  
Use Screened Cable on Retransmission Option 1  
Single Strand wire gauge: Max 1.2mm (18SWG)



This diagram shows all possible option combinations. The actual connections required depend on the model and options fitted.

**CAUTION:** Check information label on housing for correct operating voltage before connecting supply to Power Input  
Fuse: 90 - 264V ac - 1amp anti-surge  
24/48V ac/dc - 315mA anti-surge

**Electrical shock can result in death or serious injury. Avoid contact with the leads and terminals. High voltages that may be present on leads can cause electrical shock**

**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 **GO** and pressing **SLCT**. The **SLCT** legend is shown for 1 second, followed by the legend for the current mode. Press **UP** or **DN** to choose the required mode, then press **GO** to enter. An unlock code is required to prevent unauthorised entry to Configuration, & Setup modes. Press **UP** or **DN** to enter the unlock code, then press **GO** to proceed.

Mode	Legend for 1 sec followed by	Set Value	Description	Default Unlock Codes	Units Display
Operator	OPtr		Normal operation	None	
Set Up	SEtP		Tailor settings for application	10	
Configuration	SLCT	CONF	Configure instrument for use	20	5
Product Info	INFo		Instrument information	None	
Calibration	UCAL		Calibrate Strain Gauge input	10	

**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 **GO** 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 **UP** or **DN** to set the required value. Press **GO** to display YESP, press **UP** to accept the change, otherwise parameter will revert to previous value. To exit from Configuration mode, hold down **GO** and press **SLCT**, 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
Mode Default	df .n	d .sR	EnAb	d .sR	
Input Range/Type	inPt		See following table for possible codes	St_G	r
<b>Code</b>	<b>Input Type &amp; Range</b>	<b>Code</b>	<b>Input Type &amp; Range</b>	<b>Code</b>	<b>Input Type &amp; Range</b>
bC	B: 100 - 1824 °C	LF	L: 32.0 - 999.9 °F	PtF	Pt100: -328 - 1472 °F
bF	B: 211 - 3315 °F	nC	N: 0 - 1399 °C	PtC	Pt100: -128.8 - 537.7 °C
cC	C: 0 - 2320 °C	nF	N: 32 - 2551 °F	PtF	Pt100: -199.9 - 999.9 °F
cF	C: 32 - 4208 °F	rC	R: 0 - 1759 °C	0.20	0 - 20 mA DC
jC	J: -200 - 1200 °C	rF	R: 32 - 3198 °F	4.20	4 - 20 mA DC
jF	J: -328 - 2192 °F	5C	S: 0 - 1762 °C	0.50	0 - 50 mV DC
J.C	J: -128.8 - 537.7 °C	5F	S: 32 - 3204 °F	10.50	10 - 50 mV DC
J.F	J: -199.9 - 999.9 °F	tC	T: -240 - 400 °C	0.5	0 - 5 V DC
K.C	K: -240 - 1373 °C	tF	T: -400 - 752 °F	1.5	1 - 5 V DC
K.F	K: -400 - 2503 °F	tC	T: -128.8 - 400.0 °C	0.10	0 - 10 V DC
P.C	K: -128.8 - 537.7 °C	tF	T: -199.9 - 752.0 °F	2.10	2 - 10 V DC
P.F	K: -199.9 - 999.9 °F	P24C	PIRh20% vs. 40%: 0 - 1850 °C	St_G	-10mV-50mV
L.C	L: 0 - 762 °C	P24F	PIRh20% vs. 40%: 32 - 3362 °F		
L.F	L: 32 - 1403 °F	PtC	Pt100: -199 - 800 °C		
L.C	L: 0 - 537.7 °C	PtF	Pt100: -199 - 800 °C		

**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, 2=XX.XX, 3=X.XXX	(non-temperature ranges only)	0	P
Linear Range Engineering Units Display	L inU	nonE	None (Blank), °C or °F	nonE	C
Multi-Point Scaling	nPPS	EnAb	EnAb	d .sR	S
Alarm 1Type	ALR 1	P_H	Process High Alarm	P_H	I
		P_Lo	Process Low Alarm		
		nonE	No alarm		
High Alarm 1*	PhR 1		Alarm 1 value, adjustable within scaled range, in display units	Max	I (Alm1)
Low Alarm 1*	PLR 1			Min	only = A
Alarm 1	AHY 1		1 LSD to full span in display units on	I	

Hysteresis*		safe side of alarm		
Alarm 2Type	ALR2	Options as for alarm 1	nonE	2
High Alarm 2*	PhR2		Max	2

Parameter	Legend for 1 sec followed by	Set Value	Adjustment Range & Description	Default Value	Units Display
Low Alarm 2*	PLR2		Options as for alarm 1	Min	
Al 2 Hysteresis*	AHY2			I	
Output 1 Usage	USE 1	A Ind	Alarm 1, direct, non-latching	rEtP for linear outputs, A Ind for others	I
		A Inr	Alarm 1, reverse, non-latching		
		A ILd	Alarm 1, direct, latching		
		A ILr	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		
		0 12d	Logical Alarm 1 OR 2, direct		
		0 12r	Logical Alarm 1 OR 2, reverse		
Output 1 PV Retransmit Type	tYP 1	AnYd	Any active alarm, direct	0.10	I
		AnYr	Any active alarm, reverse		
		rEtP	Retransmit PV Output		
		dc 10	0 to 10VDC (adjustable) transmitter power supply*		
Retransmit OP 1 Scale maximum	ro 1H	0.5	0 to 5 V DC output	Range max	H
		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		
Retransmit OP 1 Scale minimum	ro 1L		Display value between, -1999 & 9999 at which Output 1 will be at minimum	Range min	L
TxPSU 1 level	PSU 1		Output 1 Power Supply (0 to 10VDC)*	10.0	I
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	ro 2H		As for Retransmit Output 1 Scale Maximum		H
Retransmit OP2 Scale minimum	ro 2L		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	A2nd	3
Output 3 PV Retransmit Type	tYP3		As for Output 1 PV Retransmit Type		3
Retransmit OP3 Scale maximum	ro 3H		As for Retransmit Output 1 Scale Maximum		H
Retransmit OP3 Scale minimum	ro 3L		As for Retransmit Output 1 Scale Minimum		L
TxPSU 3 level	PSU3		Output 3 Power Supply (0 to 10VDC)*	10.0	3
Display Strategy	d .sP	0, 1, 2, 3, 4 or 6	(refer to section 6)	0	d
Logic Input Usage	d .G	rrLY	Reset latched relay(s)	rrLY	I
		tAR-E	Initiate Tare (zero display)		
		rE	Reset min/max PV values		
		rPuE	Reset Alarm 1 elapsed time & min/max PV values		
Logic Input State	d .Gd	CLS	Normally Closed	CLS	I
		OPN	Normally Open		
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 **GO** 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 **UP** or **DN** to change the value. To exit from Setup mode, hold down **GO** and press **SLCT** 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
Mode Default	df .n		EnAb	d .sR	
Input Filter Time Constant	F .tL		OFF or 0.5 to 100.0 secs	0.5	t
Alarm Filter time Constant	ALFL		OFF or 0.5 to 100.0 secs	0.0	t
Input fail Mode	InPF		When input fails PV should go Low or High scale reading	H .Gh	
Process Variable Offset	OFFS		±Span of controller	0.0	o
Raw PV value	S .G		Linear input value, un-scaled (mA, mV or VDC)	blank	blank
High Alarm 1	PhR 1		Alarm 1 value, adjustable within scaled	Max	I (Alm1)

Low Alarm 1	PLA1	range, in display units	Min	only = A)
Alarm 1 Hysteresis	AHY1	1 LSD to full span in display units on safe side of alarm	1	-
<b>Parameter</b>	<b>Legend for 1 sec followed by</b>	<b>Set Value</b>	<b>Adjustment Range &amp; Description</b>	<b>Default Value</b>
High Alarm 2	PhA2		Options as for alarm 1	Max
Low Alarm 2	PLA2			Min
AI 2 Hysteresis	AHY2			1
Scaling Breakpoint 1	ScA1	Multi-point scaling breakpoint 1 value, adjustable from 0 to 100 in % of span	100	1
Display Value 1	d.51	Value to be displayed at multi-point scaling breakpoint 1, in display units	Range Max	2
Scaling Breakpoint 2	ScA2	Multi-point scaling breakpoint 2, adjustable up to 100% of span. Must be >ScA1 value		2
Display Value 2	d.52	Value to be displayed at Multi-point scaling breakpoint 2, in display units		3
Scaling Breakpoint 3	ScA3	Multi-point scaling breakpoint 3, adjustable up to 100% of span. Must be >ScA2 value		3
Display Value 3	d.53	Value to be displayed at Multi-point scaling breakpoint 3, in display units		4
Scaling Breakpoint 4	ScA4	Multi-point scaling breakpoint 4, adjustable up to 100% of span. Must be >ScA3 value		4
Display Value 4	d.54	Value to be displayed at Multi-point scaling breakpoint 4, in display units		5
Scaling Breakpoint 5	ScA5	Multi-point scaling breakpoint 5, adjustable up to 100% of span. Must be >ScA4 value		5
Display Value 5	d.55	Value to be displayed at Multi-point scaling breakpoint 5, in display units		6
Scaling Breakpoint 6	ScA6	Multi-point scaling breakpoint 6, adjustable up to 100% of span. Must be >ScA5 value		6
Display Value 6	d.56	Value to be displayed at Multi-point scaling breakpoint 6, in display units		7
Scaling Breakpoint 7	ScA7	Multi-point scaling breakpoint 7, adjustable up to 100% of span. Must be >ScA6 value		7
Display Value 7	d.57	Value to be displayed at Multi-point scaling breakpoint 7, in display units		8
Scaling Breakpoint 8	ScA8	Multi-point scaling breakpoint 8, adjustable up to 100% of span. Must be >ScA7 value		8
Display Value 8	d.58	Value to be displayed at Multi-point scaling breakpoint 8, in display units		9
Scaling Breakpoint 9	ScA9	Multi-point scaling breakpoint 9, adjustable up to 100% of span. Must be >ScA8 value		9
Display Value 9	d.59	Value to be displayed at Multi-point scaling breakpoint 9, in display units		r
Tare Feature	tAr-E	EnAb d.5A	Enables or disables the input auto-zero Tare feature	d.5A
Setup Lock Code	sLoc	0 to 9999		10

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

### 5. CALIBRATION MODE

Note: Configuration must be completed before adjusting Calibration parameters. First select Calibration mode from Select mode (refer to section 2). Press  $\Delta$  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  $\Delta$  or  $\nabla$  to change the value. To exit from Calibration mode, hold down  $\Delta$  and press  $\Delta$  to return to Select mode.

Note: Calibration mode will only be displayed if input type is set to St.G

Parameter	Legend for 1 sec followed by	Set Value	Adjustment Range & Description	Default Value
Mode Default	dF.07	d.5A EnAb	Enables or Disables Defaulting of Values within Mode	d.5A
Shunt Resistor	Shnt	d.5A EnAb	Enables or Disables use of shunt resistor	EnAb
Calibration Resistor Value	rCAL	40% to 100% (appears only when Shnt is EnAb)		80
Start Low Calibration	C.Lo	Press $\Delta$ and $\nabla$ to start calibration		0.0
Start High Calibration	C.Hi	Press $\Delta$ and $\nabla$ to start calibration making sure to apply the high range signal if Shnt is set d.5A (Can only be accessed once a successful low calibration has been completed)		1000
Calibration Lock Code	rLoc	0 to 9999		10

Error messages meanings at the top of next column

When the calibration procedure begins ---- appears on the screen. Once Calibration is complete donE appears on screen. If there are any Faults with the calibration an error message will appear either Er-r or Er.L. Er.L means the low calibration will fail if the offset is less than -10mV or greater than +10mV. This signifies potential faulty sensors or the high calibration will fail if the count value is less than +20mV or greater than +50mV. This signifies potential faulty sensors. Er-r means the high calibration will fail if the mV value is within 10mV of the low calibration value. This is a potential RCAL failure.

### 6. 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 $\Delta$ to enter Configuration Mode, next press $\Delta$ or $\nabla$ to enter the unlock code, then press $\Delta$ to proceed	C
Input Over Range		CHH	Input signal is > 5% over-range	
Input Under Range		CLL	Input signal is > 5% under-range (> 10% under-range for 4 to 20mA, 1 to 5V and 2 to 10V ranges)	E
Input Sensor Break	Err	OPEN	Break detected in input signal sensor or wiring	
Option 1 Error		Err1	Option 1 module fault	1
Option 2 Error		Err2	Option 2 module fault	2
Option 3 Error		Err3	Option 3 module fault	3
Calibration	Er-r		Shunt Resistor is Faulty	
Calibration	Er.L		High and Low calibration points are too close to each other for a valid reading	

Note: CHH, CLL or OPEN may also be displayed if an incorrect input type is selected.

### 7. 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  $\Delta$  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
07A	Max PV Value	Strategies 0, 1, 3, 4, & 6	Maximum displayed value (inc CHH or OPEN) since 07A last reset. To reset, press $\nabla$ or $\Delta$ for 3 seconds, display = ---- when reset	C, F or blank
07B	Min PV Value	Strategies 0, 1, 3, 4, & 6	Minimum displayed value (inc CLL or OPEN) since 07B last reset. To reset, press $\nabla$ or $\Delta$ for 3 seconds, display = ---- when reset	C, 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 CHH if >999.9	Accumulated alarm 1 active time since Et last reset. To reset, press $\nabla$ or $\Delta$ for 3 seconds, display = ---- when reset	E
AL1	Alarm 1 Value	Strategies 2, 3, 4 & 6 if alarm 1 configured	Alarm 1 value, adjustable except in Strategy 6	1 (Alm1 only = A)
AL2	Alarm 2 Value	Strategies 2, 3, 4 & 6 if alarm 2 configured	Alarm 2 value, adjustable except in Strategy 6	2
ALSt	Active Alarm Status*	When one or more alarms are active	2 Alarm 2 active	1 if alarm 1 active

Latched outputs can be reset

### 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 alarm condition is no longer present if the output has not yet been reset.

### \*Resetting Latched Alarm Outputs

Any latched outputs can be reset whilst the Process variable or Alarm Status screens are displayed, by pressing the  $\nabla$  or  $\Delta$  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.

### Additional 1/8 Din Indicator Units Display and LED's

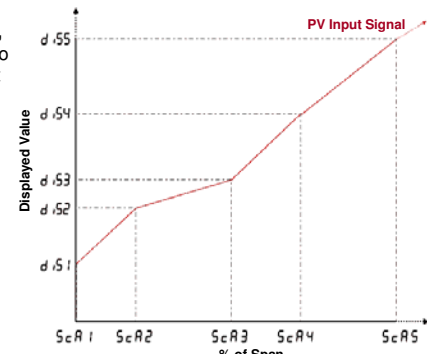
In Operator Mode, a Units display shows C or F when temperature values are shown. This display is also used in other modes as a confirmation of the parameter type currently shown in the main display. The SET LED indicator is off in Operator Mode, Flashing in Configuration Mode and ON in Set-up mode.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

### Multi-Point Scaling

When enabled (07PS = 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.5n) 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 (tAr-E = 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  $\Delta$  until the process variable is displayed.

Hold down  $\Delta$  and  $\Delta$  together for three seconds until the display shows YES? Release both keys and press  $\Delta$  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.

### 8. PRODUCT INFORMATION MODE

First select Product information mode from Select mode (refer to section 2). Press  $\Delta$  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  $\Delta$  and press  $\Delta$  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 rLY L.in	No option fitted Relay output Linear DC voltage / current output	1
Option 2 module type fitted	OPn2	nonE rLY d.rLY L.in	No option fitted Relay output Dual Relay (outputs 2 & 4) Linear DC voltage / current output	2
Option 3 module type fitted	OPn3	nonE rLY	No option fitted Relay output	3
Auxiliary Option A module type fitted	OPnA	nonE	No option fitted	A
Firmware type	FLW		Value displayed is firmware type number	F
Firmware issue	ISS		Value displayed is firmware issue number	n
Product Rev Level	PrL		Value displayed is Product Revision Level	r
Manufactured Date	d077		Month & year of manufacture. Format mmyy	d
Serial number 1	Sn1		First four digits of serial number	A
Serial number 2	Sn2		Middle four digits of serial number	b
Serial number 3	Sn3		Last four digits of serial number	c

## 9. SPECIFICATIONS

### UNIVERSAL INPUT

Strain Gauge: 350Ω, by means of 4 or 6 wire (6 to use internal Shunt resistor) Bridge excitation: 10VDC ± 7% Bridge Sensitivity: 2-4mV/V Shunt Value: From 40% to 100% Input signal Span: -25% to 125% (Approx -10mV to +50mV)

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. (250ms)

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

Sensor Break Detection: Strain Gauge: Depending on User setting InPF can cause input to fail high scale or low scale reading. Reading will fail on either, Sig+ or Sig- loss, or incorrect excitation output <0.8mA and >33mA supply.

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.

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.

### LOGIC INPUT

Voltage Input: Reset or Tare occurs on high (3 to 5VDC) to low <0.8VDC, or Open to Closed transition.

Isolation: No 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.

#### 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.

### 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

EMI: Complies with EN61326 (Susceptibility & Emissions).

Safety Considerations: Complies with EN61010-1 Pollution Degree 2, Installation Category II.

Front Panel Sealing: To IP66 (IP20 behind the panel).

### PHYSICAL

Front Bezel Size: 1/8 Din = 96 x 48mm

Depth Behind Panel: 1/8 Din = 100mm.

Weight: 0.21kg maximum.

### Manufacturing site

Address: The Hyde Business Park Brighton BN2 4JU United Kingdom

### Symbol Explanation



Caution general danger to life or limb