Every part matters

EN

1/16 - 1/8 DIN TEMPERATURE CONTROLLER CONCISE PRODUCT MANUAL

CAUTION: Installation should be only performed by technically competent personnel. It is the responsibility of the installing engineer to ensure that the configuration is safe. Local regulations regarding electrical installation & safety must be observed - e.g. US National Electrical Code (NEC) and/or Canadian Electrical Code. Impairment of protection will occur if the product is used in a manner not specified by the manufacturer.

1. INSTALLATION

Installation Guidance

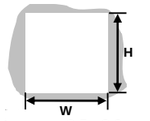
- Standards compliance shall not be impaired when fitted into the final installation.
- Designed to offer a minimum of Basic Insulation only
- Ensure that supplementary insulation suitable for Installation Category II is achieved when fully installed.
- To avoid possible hazards, accessible conductive parts of the final installation should be protectively earthed in accordance with EN61010 for Class 1 Equipment.
- Output wiring should be within a Protectively Earthed cabinet.
- Sensor sheaths should be bonded to protective earth or not be accessible.
- Live parts should not be accessible without the use of a tool.
- When fitted to the final installation, an IEC/CSA APPROVED disconnecting device should be used to disconnect both LINE and NEUTRAL conductors simultaneously.
- Do not to position the equipment so that it is difficult to operate the disconnecting device.

Panel-Mounting

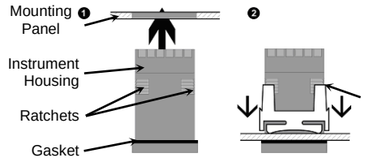
The mounting panel must be rigid, and may be up to 6.0mm (0.25inch) thick. Cut-out sizes are:

1/16: Width = 45mm, Height = 45mm
1/8: Width = 45mm, Height = 92mm

For *n* multiple instruments mounted side-by-side, cut-out width W is 48*n*-4mm.



Tolerance +0.5, -0.0mm



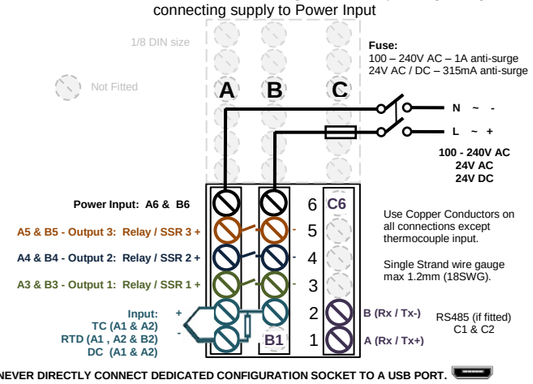
1. Insert instrument into the panel cut-out.
2. Hold front bezel firmly (*without pressing on display area*), and fit mounting clamp.
3. Push clamp forward, using a tool if necessary, until gasket is compressed and instrument is held firmly in position.

CAUTION: For an effective IP65 seal against dust and moisture, ensure gasket is well compressed against the panel, with the 4 tongues located in the same ratchet slot.

Rear Terminal Wiring

This diagram shows all possible option combinations. Check the product configuration before wiring.

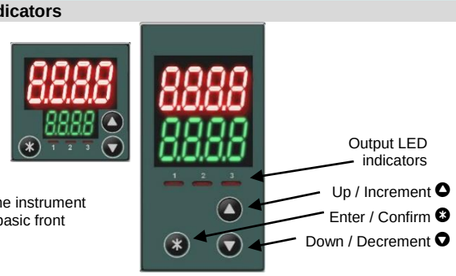
CAUTION: Check information label on housing for correct operating voltage before connecting supply to Power Input



NEVER DIRECTLY CONNECT DEDICATED CONFIGURATION SOCKET TO A USB PORT.

2. FRONT PANEL

Displays & Indicators



All versions of the instrument have the same basic front panel layout.

Keypad & General Navigation

Menu navigation, parameter editing and keypad use are described below. *See the relevant manual sections for further information and exceptions.*

General keypad usage & parameter editing:

Press ▲ or ▼ keys to navigate between parameters
To edit a parameter, press ✱. The Parameter name (*lower display)* flashes when the parameter above can be edited / adjusted.
Press ▲ or ▼ to change the parameter value (*upper display*).
Edited values stop changing at the parameters limits. A further press of ▲ or ▼ past the parameter limit "wraps" the value back to the start (e.g. 0, 1, 2… …98, 99,100 ▲ 0, 1, 2…)
To confirm the change, press ✱ within 60s otherwise the change is rejected.

To navigating to Setup or Advance Configuration from User Mode:

Press and hold down ✱ and press ▲ for setup Mode, or
Press and hold down ✱ and press ▼ for advanced configuration.

Returning to User Mode from other modes:

After 120 seconds without key activity the unit returns automatically to the 1st User mode screen, or
Press and hold down ✱ and press ▲ to move back up one level.

3. FIRST POWER-UP (SETUP MODE)

When first powered up or after a factory reset (default) the instrument enters Setup Mode.

Important Note: The device remains in Setup, or will keep powering up back into Setup Mode, until all parameters have been reviewed and the user exits the Setup Mode.

Setup mode lock code	SLoc	Enter lock code to continue. Default is **10**. 10

Screen Name	Lower Display	Upper Display	Adjustment Range & Description	Default Value
Input Type	tYPE	tC_J	J Thermocouple: -200 – 1200ºC / -328 – 2192ºF; -128.8 – 537.7ºC / -199.9 – 999.9ºF	tC_k
		tC_k	K Thermocouple: -240 – 1373ºC / -400 – 2503ºF; -128.8 – 537.7ºC / -199.9 – 999.9ºF	
		P100	PT100: -199 – 800ºC / -328 – 1472ºF; -128.8 – 537.7ºC / -199.9 – 999.9ºF	
		tC_b	B Thermocouple: 100 – 1824ºC / 211 – 3315ºF	
		tC_C	C Thermocouple: 0 – 2320ºC / 32 – 4208ºF	
		tC_L	L Thermocouple: 0 – 762ºC / 32 – 1403ºF; 0.0 – 537.7ºC / 32.0 – 999.9ºF	
		tC_n	N Thermocouple: 0 – 1399ºC / 32 – 2551ºF	
		tC_r	R Thermocouple: 0 – 1795ºC / 32 – 3198ºF	
		tC_S	S Thermocouple: 0 – 1762ºC / 32 – 3204ºF	
		tC_t	T Thermocouple: -240 – 400ºC / -400 – 752ºF; -128.8 – 400ºC / -199.9 – 752.0ºF	
		0_20	0 – 20mA DC	
		4_20	4 – 20mA DC	
		0_50	0 – 50mV DC	
		10_50	10 – 50mV DC	
		0_5	0 – 5V DC	
		1_5	1 – 5V DC	
		0_10	0 – 10V DC	
		2_10	2 – 10V DC	
Input Units	Unit	C	Temperature displayed as °C.	C
		F	Temperature displayed as °F.	
Process Display Resolution	dEc.P	0000	No decimal places	0000
		000.0	1 decimal place	
		00.00	2 decimal places	*Not available for temperature inputs.*
		0.000	3 decimal places	
Scaled Range Upper Limit	ScUL	Scale Input Lower Limit +100 display units to range maximum. (Only visible in Setup Mode when a dc linear type is selected)		Input max Lin=1000
Scaled Range Lower Limit	ScLL	Range minimum to Scale Input Upper Limit -100 display units. (Only visible in Setup Mode when a dc linear type is selected)		Input min Linear=0
Output 1 Usage	OUt1	HEAt	Heat Power	HEAt
		COOL	Cool Power	
		AL1	Alarm 1	
		AL2	Alarm 2	
		AL12	Alarm 1 or 2	
		LooP	Control loop alarm (2 x Integral time)	
Output 2 Usage	OUt2	As Output 1 Usage		AL1
Output 3 Usage	OUt3	As Output 1 Usage		AL2
Alarm 1 Value	AL_1	Range minimum to range maximum. OFF disables the alarm. Default high alarm		1373
Alarm 2 Value	AL_2	Range minimum to range maximum. OFF disables the alarm. Default low alarm		-240
Setpoint Value	SP	Target setpoint adjustable between setpoint upper and lower limits.		0
Automatic Tuning Start/Stop	tunE	OFF	Use current PID control terms or manually tune.	OFF
		PrE	Start a pre-tune routine.	
		AtSP	Start the tune at setpoint.	

4. USER MODE

Screen Name	Lower Display	Upper Display	Screen Usage and Visibility
"Indicator" enabled	*Warnings / Errors*	*Process Variable*	If Indc parameter is enabled, setpoint is hidden but warnings or errors may still appear.
Basic Setpoint Control 1st Screen (*Automatic Mode*)	*Effective Setpoint*	*Process Variable*	Basic Setpoint Control enabled – automatic control. Press ▲ or ▼ to instantly adjust setpoint. If ramping, the target setpoint is shown while adjusting. OFF replaces the setpoint if control is disabled.
Basic Setpoint Control 1st Screen (*Manual Mode*)	*Manual Power*	*Process Variable*	Basic Setpoint Control enabled - manual control. Press ▲ or ▼ to instantly adjust manual power. The power value is shown as Pxxx.
The following screens are not shown when Basic Setpoint Control enabled (see the display sub-menu d iSP in Advance configuration – Section 6)			
User 1st Screen (*Automatic Mode*)	*Effective Setpoint*	*Process Variable*	Available in automatic control mode. If ramping, the target setpoint is shown while adjusting. OFF replaces setpoint if control is disabled.DLY replaces setpoint if control delayed.
User 1st Screen (*Manual Mode*)	*Manual Power*	*Process Variable*	Available in manual control mode. Manual Power value is shown as Pxxx
Important: To appear in the User Mode the visibility setting for any of the parameters below must be SHUu in the OPtr sub-menu.			
Alarm Status	ALSt	*Active Alarms*	Active only when alarms are active. 1 = Alarm 1 active 2 = Alarm 2 active L = Loop Alarm active. Any combination can be displayed here
Latch Status	LAtch	*Latched Outputs*	Active only when an output is latched on. 1 = Output 1 2 = Output 2 3 = Output 3 Clear by pressing ✱.
Maximum PV	MA	*Value*	Clear by pressing ✱.
Minimum PV	Mn	*Value*	
Control Enable	CntL	OFF	Control output(s) disabled. (except in manual mode)
		On	Control output(s) enabled. PID or On-Off control available.
Manual Control Enable	MCt	OFF	Instrument in automatic control mode (manual control OFF).
		On	Manual control ON. *Power is shown as Pxxx in 1st User screen.*
Time On Remaining	Ot	*Time left for ON timer*	Active only when the ON Timer is decrementing. When time = 0 control is disabled. Screen persists until time = 0.
Delay Time Remaining	dt	*Time left for delay timer*	Active only when the Delay time is decrementing. When this time expires control is enabled.

Warning Messages & Error Codes

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

Screen Name	Lower Display	Upper Display	Screen Meaning and Visibility
Alarm Active	Normal	-AL-	One or more alarms are active (alternates with PV). Optional – see d iSP
Output Latched	Normal	Ltch	One or more output are latched on (alternates with PV), and no alarm is active.
Input Over Range	Normal	-HH-	Process variable input >5% over-range.
Input Under Range	Normal	-LL-	Process variable input >5% under-range
Input Sensor Break	OFF	OPEN	Break detected in process variable input sensor or wiring.
Un-calibrated Input	OFF	Err	Selected input range has not been calibrated.
Manual Power	Pxxx	Normal	Manual power value replaces the setpoint.
Setpoint Ramping	SPr	Normal	Setpoint ramp is active (alternates with setpoint).
Control Disabled	OFF	Normal	Control is disabled, control outputs are off.
Control Delayed	dLY	Normal	Visible if control delayed by Delayed Start Time (dLt ı)
Automatic Tuning	tunE	Normal	Tuning is active (alternates with setpoint).
Automatic Tuning Errors	If the tune fails the display alternates between the tune error code and the setpoint. Remains visible until tune set to off.		
	tEr1	Normal	PV is within 5% of scaled range from setpoint
	tEr2		Setpoint is ramping
	tEr3		Control is ON/OFF
	tEr4		Control is manual
	tEr5		Tune at Setpoint not able to run
	tEr6		Sensor break
	tEr7		Timer running
	tEr8		Control is disabled

5. WARNING SYMBOLS

⚠	***Caution, refer to installation manual when connecting*** **General danger to life or limb**	⧈	***Equipment protected through-out by double insulation***
∿	***Alternating current***	≈	***Both direct and alternating current***

6. SPECIFICATIONS

UNIVERSAL INPUT

Thermocouple Calibration:	±0.25% of full range, ±0.4% of full range below 110°C with 1dp ranges, ±1LSD (±1°C for Thermocouple CJC). BS4937, NBS125 & IEC584.
PT100 Calibration:	±0.25% of full range, ±0.4% of full range above 520°C with 1dp ranges, ±1LSD. BS1904 & DIN43760 *(0.00385Ω/Ω/°C).*
DC Calibration:	±0.2% 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 20mA, 2 to 10V and 1 to 5V ranges only. *Control outputs turn off.*
Isolation:	Isolated from all outputs (except SSR driver) by at least BASIC isolation. Universal input must not be connected to operator accessible circuits if relay outputs are connected to a hazardous voltage source. Supplementary insulation or input grounding would then be required. Isolated from Mains Power Input by basic isolation.

OUTPUTS

RELAYS (OPTIONAL)

Contacts:	SPST Form A relay; current capacity 2A at 250VAC.
Lifetime:	>150,000 operations at rated voltage/current, resistive load.
Isolation:	Basic Isolation from universal input and SSR outputs.

SSR Drivers (OPTIONAL)

Drive Capability:	SSR drive voltage >10V at 20mA
Isolation:	Not isolated from universal input or other SSR driver outputs.

OPERATING CONDITIONS

Usage:	For indoor use only, mounted in suitable enclosure
Ambient Temperature:	0°C to 55°C (Operating), –20°C to 80°C (Storage).
Relative Humidity:	20% to 95% non-condensing.
Altitude:	<2000m
Supply Voltage and Power:	100 to 240VAC ±10%, 50/60Hz, 7.5VA *(for mains powered versions)*, or 24VAC +10/-15% 50/60Hz 7.5VA or 24VDC +10/-15% 5W *(for low voltage versions)*.

ENVIRONMENTAL

Standards:	CE
EMI:	Complies with EN61326-1:2013.
Safety Considerations:	Complies with EN61010-1 Version 2010, Pollution Degree 2 and Installation Class 2.
Front Panel Sealing:	Front to IP65 when correctly mounted, Rear of panel to IP20.

PHYSICAL

Front Bezel Size:	1/16 Din = 48 x 48 mm, 1/8 Din = 48 x 96 mm
Depth Behind Panel:	67mm with sealing gasket fitted.
Weight:	0.20kg maximum

7. ADVANCED CONFIGURATION

The advanced configuration gives access to all of the features of the unit.

Advanced Configuration Mode Navigation

Press ▲ or ▼ to navigate to the required sub-menu, then press ✱ to enter.

Advanced Configuration Main Menu

Advanced Configuration Mode Lock Code	A.Loc	Enter lock code to enter Advanced Configuration. Default code is 20.	20

Screen Name	Lower Display	Upper Display	Sub-Menu Usage and Visibility
User Settings	Adu	USEr	Provides access to Control and Manual Mode enable/disable. Only shown if Basic User mode is select in d iSP (see below).
Input Setup		InPt	Configuration parameters for the process input.
Input Calibration		CAL	Single or two point calibration adjustments for the process input.
Output Setup		OUtP	Configuration parameters for the outputs.
Control Setup		COnt	PID control tuning & configuration parameters. Hidden if no control output set.
Setpoint & Timer Setup		SPt i	Setpoint and timer settings.
Alarm Setup		ALMn	Alarm configuration parameters.
Communications Setup		CoMn	Modbus communications settings. Only shown if RS485 option is fitted
Display Settings		d iSP	Enable Basic Mode and change lock codes.
Operator Setup		OPtr	Control what appears in User Mode screen.
Product Information		InFo	View product serial number and manufacturing information.

User Sub-Menu: USEr

Provides access to Output Control Enable / Disable.

Screen Name	Lower Display	Upper Display Adjustment Range & Description		Default Value
Alarm Status	ALSt	*Active Alarms*	Visible when alarms are active - L2 1 are active. 1 = Alarm 1 active 2 = Alarm 2 active 3 = Loop Alarm active	*Blank*
Latch Status	LAtH	*Latched Alarms*	Active when an output is latched - 123 are active. 1 = Output 1 2 = Output 2 3 = Output 3	*Blank*
Maximum PV	MnA		Max/Min PV recorded whilst powered up or since last reset. To clear press ⊗ then to select YES. Press ⊗ to accept.	
Minimum PV	Mn in			
Control Enable	CntL	OFF	Control output(s) disabled.	On
		On	Control output(s) enabled. PID or On-Off control available.	
Manual Control Enable	MCt	OFF	Instrument in automatic control mode (manual control OFF).	OFF
		On	Manual control ON. *Power is shown as Pxxx in 1st User screen.*	

Input Sub-Menu: InPt

Screen Name	Lower Display	Upper Display Adjustment Range & Description		Default Value
Input Type	tYPE	*Options available same as in setup mode (section 3)*		tC.k
Input Units	Un it	C	Temperature displayed as °C	C
		F	Temperature displayed as °F	
Process Display Resolution	dEc.P	0000	No decimal places	0000
		000.0	1 decimal place	
		00.00	2 decimal places	
		0.000	3 decimal places	
		Not available for temperature inputs.		
Scaled Range Upper Limit	ScUL	Scale Input Lower Limit +100 display units to range maximum		Input max Lin=1000
Scaled Range Lower Limit	ScLL	Range minimum to Scale Input Upper Limit -100 display units		Input min Linear=0
Input Filter Time	F iLt	**OFF** or **0.5** to **100.0** seconds in **0.5** increments		2.0
Cold Junction Compensation	CJC	On	Enables the internal thermocouple CJC.	On
		OFF	Disables the internal CJC. External compensation must be provided for thermocouples.	

Input Calibration Sub-Menu: CAL

Single or two point calibration adjustments for the process input.
If the error is not constant across the sensor range, measure the error at a low point and high point in the process, and use two point calibration to correct it.

Screen Name	Lower Display	Upper Display Adjustment Range & Description	Default Value
Single Point Offset	OFFS	Shifts the input value up or down by the offset amount across the entire range.	0
Low Calibration Point	L.CAL	The value at which the low point error was measured.	Lower Limit
Low Offset	L.OFF	Enter an equal, but opposite offset value to the observed low point error.	0
High Calibration Point	H.CAL	The value at which the high point error was measured.	Upper Limit
High Offset	H.OFF	Enter an equal, but opposite offset value to the observed high point error.	0

Output Setup Sub-Menu: OUtP

Screen Name	Lower Display	Upper Display Adjustment Range & Description		Default Value
Output 1 Usage	OUt 1	HEAt	Heat Power	HEAt
		COOL	Cool Power	
		AL 1	Alarm 1	
		AL2	Alarm 2	
		AL 12	Alarm 1 or 2	
		LooP	Control loop alarm (2 x Integral time)	
Output 1 Alarm Action	Act 1	d ir	Output changes with the alarm	d ir
		rEu	Output changes in opposition to alarm	
Output 1 Alarm Latching	LAc 1	OFF	Latching off	OFF
		On	Latching on	
LED Indicator 1 Inverting	Ind 1	d ir	LED Indicator changes with the output	d ir
		rEu	LED Indicator changes in opposition to the output	
Output 2 Usage	OUt2	As Output 1 Usage		AL 1
Output 2 Alarm Action	Act2	As Output 1 Alarm Action		d ir
Output 2 Alarm Latching	LAc2	As Output 1 Alarm Latching		OFF
LED Indicator 2 Inverting	Ind2	As LED Indicator 1 Inverting		d ir
Output 3 Usage	OUt3	As Output 1 Usage		AL2
Output 3 Alarm Action	Act3	As Output 1 Alarm Action		d ir
Output 3 Alarm Latching	LAc3	As Output 1 Alarm Latching		OFF
LED Indicator 3 Inverting	Ind3	As LED Indicator 1 Inverting		d ir

Control Sub-Menu: COnt

PID control tuning & configuration parameters. Hidden if no control outputs are set.

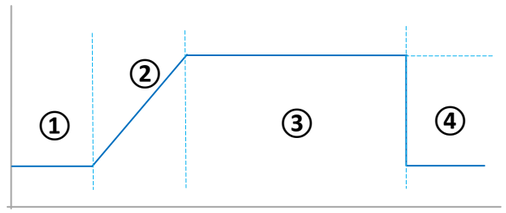
Screen Name	Lower Display	Upper Display Adjustment Range & Description		Default Value
Heat Proportional Band	H_Pb	In display units. 0.0 (**ON.OF**) and range: 0.5 to 999.9 units.		16 1
Cool Proportional Band	C_Pb			16 1
Automatic reset (integral time)	In.t	**1** second to **99** minutes **59** seconds and **OFF**		5.00
Rate (derivative time)	dEr.t	**OFF** 0 seconds to **99** minutes **59** seconds		1. 15
Overlap/ Deadband	O_d	In display units, range -20 to +20% of Heat and Cool Proportional Band		0
ON/OFF differential	d iFF	In display units, centred about the setpoint, range: 0.1% to 10.0% of input span		8
Loop Alarm Time	LAt i	Visible when using On/Off control (i.e. when H_Pb or C_Pb = On.OF) Sets the time to wait before the loop alarm becomes active.		99.59
Manual Reset (Bias)	b iAS	**0** to **100**% *(-100% to 100% if heat/cool control)*		25
Heat Cycle Time	HcYc	**0.1** to **512.0** seconds		32.0
Cool Cycle Time	CcYc			32.0
Heat and Cool output Inhibit	OPLC	Inhibits simultaneous switching of both heat and cool outputs.		OFF
Heat Power Limit	HPL	% power upper limit **0** to **100**%		100
Cool Power Limit	CPL	% power upper limit **0** to **100**%		100
Power Up Action	PUP	LASt	Powers up with control enable in the same state as on power fail.	LASt
		ON	Always powers up with control enabled.	

Screen Name	Lower Display	Upper Display Adjustment Range & Description		Default Value
Automatic Tuning Start/Stop	tunE	OFF	Use current PID control terms or manually tune.	OFF
		Pr E	Start a pre-tune routine.	
		AtSP	Start the tune at setpoint.	

Setpoint & Timer Sub-Menu: SPt i

Setpoint and timer settings. The timer can apply a delay before enabling control; a controlled ramp towards the target setpoint; a limit to the time at target setpoint before disabling control. Timer is not available in basic mode.

Screen Name	Lower Display	Upper Display Adjustment Range & Description		Default Value
Timer Enable	tEnb	EnAb	Enables the delay and on timers, functions at next power-up / control enable.	d iSA
		d iSA	Delay and on timers, are ignored, but setpoint ramping is not disabled.	
Delayed Start Time	d_t i	The time from power-up or a control enable request before control begins, from 00.0 1 to 99.59 or OFF. (Hours.Minutes) Control disabled until time elapsed.		OFF
Ramp Rate	rAtE	The rate (in units / hour) from current PV to setpoint following power-up or control enable. From 0.00 1 to 9999 or OFF Setpoint changes also follow this rate.		OFF
On Time	O_t i	The time the target setpoint will be maintained once reached, from 00.0 1 to 99.59 or OFF. Control remains on indefinitely if set to INF. (Hours.Minutes).		INF
Setpoint Upper Limit	SPuL	The maximum allowed setpoint value, from current setpoint to scaled upper limit.		Upper Limit
Setpoint Lower Limit	SPLL	The minimum allowed setpoint value, from current setpoint to scaled lower limit.		Lower Limit



① At switch on or from control enable the unit will delay enabling control until the start timer (Delayed Start Time) expires.
② The setpoint then ramps from the current PV to the setpoint at the Setpoint Ramp Rate.
③ When a ramp rate is not defined the active setpoint will step directly to the target setpoint. Once the active setpoint reaches the target setpoint, the 'on' timer (On Time) starts.
④ When the on timer expires the control switches off.

If no time is defined for the on timer, control continues indefinitely unless manually disabled.

Alarm Sub-Menu: ALMn

Screen Name	Lower Display	Upper Display Adjustment Range & Description		Default Value
Alarm 1 Type	AL 1t	nonE	None	P_h i
		P_h i	Process High Alarm	
		P_Lo	Process Low Alarm	
		dEv	Deviation Alarm	
		bAnd	Band Alarm	
Alarm 1 Value	AL_ 1	Range minimum to range maximum **OFF** disables the alarm.		1373
Alarm 1 Hysteresis	HYS 1	0 to full span		1
Alarm 2 Type	AL2t	As Alarm 1		P_Lo
Alarm 2 Value	AL_2	Range minimum to range maximum **OFF** disables the alarm.		-240
Alarm 2 Hysteresis	HYS2	0 to full span		1
Alarm Inhibit	inh i	Inhibit these alarms if active at power-up and on change in setpoint.		nonE
		nonE	None	
		1	Alarm 1	
		2	Alarm 2	
		1 2	Alarm 1 and Alarm 2	
Alarm Notification	NotE	Alternating indication -AL- shown when these alarms are active.		1 2
		nonE	None	
		1	Alarm 1	
		2	Alarm 2	
		1 2	Alarm 1 and Alarm 2	

Screen Name	Lower Display	Upper Display Adjustment Range & Description	Default Value
Sensor Break Alarm	SbAc	ON activates both alarms when a sensor break is detected.	OFF

Communications Sub-Menu REMOVED

Display Sub-Menu: d iSP

Enable Basic Setpoint Control & change lock codes. ** Refer to the User Mode section 4.

Screen Name	Lower Display	Upper Display Adjustment Range & Description	Default Value
Setup Lock Code	S.Loc	View and adjust lock code to allow entry to the Setup Mode. Adjustable from 1 to 9999 or OFF to allow unrestricted access.	10
Advanced Configuration Lock Code	A.Loc	View and adjust lock code to allow entry to the Advanced Configuration. Adjustable from 1 to 9999 or OFF to allow unrestricted access.	20
Basic Setpoint Control Enable/Disable	bASc	Basic Setpoint Control allows user to only change the setpoint or manual power. **	d iSA
Indicator Enable/Disable	Indc	When enabled hides the lower display. **	d iSA
Reset to Defaults	dFLt	Reset all parameters back to their factory defaults Reset by pressing ⊗ and selecting **yes**	

Operator Sub-Menu: OPtr

Controls what appears in the User Mode when Basic Setpoint Control is disabled.

Screen Name	Lower Display	Upper Display	Sub-Menu Usage and Visibility	
PV Maximum	MnA	HidE SHuJ	Hide or show parameters in User Mode when Basic Setpoint Control is disabled.	HidE
PV Minimum	Mn in			HidE
Alarm Status	ALSt			HidE
Latch Status	LAtH			SHuJ
Control Enabled	CntL			HidE
Manual Control Enabled	MCt			HidE
Time On Remaining	Ont 1			HidE
Delay Time Remaining	dLt 1			HidE

Product Information Sub-Menu: InFo (Read-Only view)

Screen Name	Lower Display	Description
Product Revision	PrL	The hardware/software revision level
Firmware Type	FtyP	The firmware code type
Firmware Issue	155	The firmware version number
Serial Number 1	SEr 1	First four digits of serial number
Serial Number 2	SEr2	Middle four digits of serial number
Serial Number 3	SEr3	Last four digits of serial number
Date of Manufacture	dOMn	Date of manufacture *(mmyy)*

1/16 - 1/8 MAXVU STANDARD CONTROLLER KURZBESCHREIBUNG / PRODUKTHANDBUCH (59573-2)

ACHTUNG: Die Installation ist nur von technisch qualifiziertem Personal auszuführen. Es liegt in der Verantwortung des Installateurs, dafür zu sorgen, dass die Anlage sicher ist. Es sind die örtlichen Bestimmungen zur elektrischen Installation und zur Sicherheit zu beachten. Der Schutz wird beeinträchtigt, wenn das Produkt in einer Weise genutzt wird, die nicht der vom Hersteller vorgesehenen Weise entspricht.

1. INSTALLATION

Installationsanweisungen

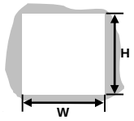
- Die Einhaltung entsprechender Standards und Richtlinien darf durch die endgültige Montage nicht beeinträchtigt werden.
- Das Gerät ist lediglich darauf ausgerichtet, ein Mindestmaß an Basisisolierung zu bieten.
- Stellen Sie sicher, dass zusätzliche Isoliermaßnahmen im Sinne der Installationskategorie II bei vollständiger Installation angewendet werden.
- Zur Vermeidung möglicher Gefahren sollten zugängliche und zugleich leitfähige Teile der endgültigen Installation im Sinne der EN61010 für Gerätschaften der Klasse 1 schützend geerdet werden.
- Die Ausgangsverdrahtung sollte in einem schutzgeerdeten Schrank untergebracht werden.
- Fühlerhülsen sollten mit einem Schutzleiter verbunden oder nicht zugänglich sein.
- Stromführende Teile dürfen nicht ohne Verwendung von Werkzeugen zugänglich sein.
- Bei der endgültigen Installation sollte eine Trennvorrichtung eingeführt werden, um sowohl die AUSSENLEITER als auch NEUTRALLEITER gleichzeitig trennen zu können.
- Stellen Sie das Gerät nicht in einer Weise auf, die es schwierig macht, die Trennvorrichtung ordnungsgemäß zu verwenden.

Plattenmontage

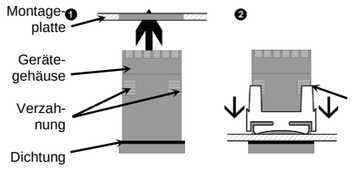
Die Montageplatte muss fest/steif sein und darf eine Dicke bis zu 6,0 mm (0,25 Zoll) aufweisen. Ausschnittsgrößen:

1/16: Breite = 45 mm, Höhe = 45 mm
1/8: Breite = 45 mm, Höhe = 92 mm

Für eine Anzahl *n* an verschiedenen Instrumenten, die nebeneinander angeordnet werden, beträgt die Ausschnittbreite W 48*n*-4mm.



Toleranzbereich +0,5, -0,0 mm



❶ Führen Sie das Instrument in den Schalttafelausschnitt ein.

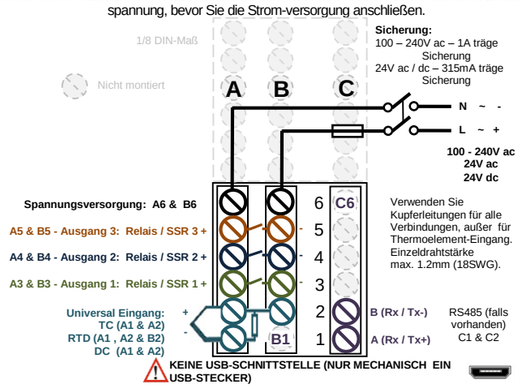
❷ Halten Sie die Frontblende fest (*ohne Druck auf die Displayfläche auszuüben*) und bringen Sie die Befestigungsklemme an. Schieben Sie die Klemme nach vorn (benutzen Sie dabei ein Werkzeug, falls notwendig), bis die Dichtung zusammengedrückt wird und das Instrument fest in der korrekten Stellung ist.

ACHTUNG: Um eine effektive Dichtung nach IP65 und Schutz gegen Staub und Feuchtigkeit zu gewährleisten, sollten Sie sichergehen, dass die Dichtung eng gegen die Platte gedrückt wird und sich die 4 Zapfen im selben Ratschenschlitz befinden.

Elektrische Anschlüsse an der Rückseite

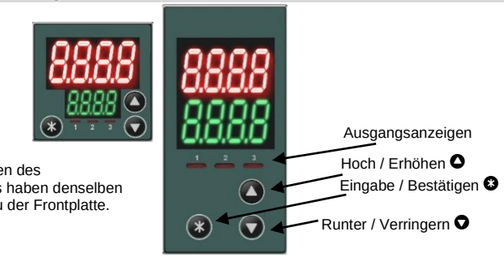
Dieses Diagramm zeigt alle Kombinationsmöglichkeiten hinsichtlich optionaler Ausstattungen. Prüfen Sie die Konfiguration Ihres Produktes vor jedweder Verdrahtung.

ACHTUNG: Prüfen Sie das Hinweisschild auf dem Gehäuse hinsichtlich der korrekten Betriebs-spannung, bevor Sie die Strom-versorgung anschließen.



2. FRONTPLATTE

Displays & Anzeigen



Alle Versionen des Instrumentes haben denselben Grundaufbau der Frontplatte.

Tastenfeld & Allgemeine Menüführung

Die Menüführung, Parameterbearbeitung und Verwendung des Tastenfeldes (Keypad) werden nachfolgend beschrieben. *Siehe auch die entsprechenden Abschnitte im Handbuch für weitere Informationen und relevante Ausnahmen.*

Allgemeine Tastenfeldverwendung & Parameterbearbeitung:

Drücken Sie die ▲ oder ▼ Tasten, um zwischen den Parametern zu wählen
Um einen Parameter zu bearbeiten, drücken Sie ✱. Der Parametername (*untere Anzeige)* blinkt wenn der obige Parameter bearbeitet/eingestellt werden kann.
Drücken Sie ▲ oder ▼ um den Parameterwert zu ändern (*obere Anzeige*).
Bearbeitete Werte lassen sich über die Parametergrenzen nicht weiter verändern. Eine weitere Betätigung der ▲ oder ▼ Tasten über die Parametergrenze hinaus bringt den Wert zurück zum Startwert (beispielsweise 0, 1, 2… …98, 99,100 ▲ 0, 1, 2…).
Um die Änderung zu bestätigen, drücken Sie ✱ innerhalb von 60s, andernfalls wird die Änderung verworfen.

Erreichen der Menüs „Setup" oder „Erweiterte Konfiguration" von der Bedienebene aus:

Drücken und halten Sie die ✱ Taste und drücken Sie dann ▲, um in das „Setup" – Menü zu gelangen, oder drücken und halten Sie die ✱ Taste und drücken Sie dann ▼, um in das Menü „Erweiterte Konfiguration" zu gelangen.

Rückkehr zur Bedienebene von einem anderen Modus aus:

Nach 120 Sekunden ohne jegliche Tastenbetätigung kehrt das Gerät automatisch zur ersten Bedienebene zurück oder
Drücken und halten Sie die ✱ Taste und drücken Sie dann ▲, um eine Ebene zurückzugehen.

3. WARNING SYMBOLS

⚠	***Caution, refer to installation manual when connecting*** **General danger to life or limb**	▣	***Equipment protected through-out by double insulation***
∿	***Alternating current***	⎓	***Both direct and alternating current***

4. TECHNISCHE DATEN

UNIVERSELLER EINGANG

Thermoelement-kalibrierung:	±0,25 % des Eingangsmessbereichs ±0.4% für Temperaturen unterhalb 110°C mit einer Nachkommastelle,, ±1LSD (±1 °C für Thermoelement CJC). BS4937, NBS125 & IEC584.
PT100 Kalibrierung:	±0,25 % des Eingangsmessbereichs, ±0.4% über 520°C mit einer Nachkommastelle,, ±1 LSD. BS1904 & DIN43760 *(0,00385Ω/Ω/°C).*
DC-Kalibrierung:	±0,2 % des gesamten Bereichs, ±1 LSD
Abtastrate:	4 pro Sekunde
Impedanz:	>5 MΩ Ohmsche Last, außer DC mA (10 Ω) und V (47 kΩ)
Sensorbruch-erkennung:	Thermoelement, RTD, nur 4 bis 20mA, 2 bis 10V und 1 bis 5V Bereiche. *Deaktivierung der Reglerausgänge.*
Isolierung:	Isoliert von allen Ausgängen (außer SSR-Treiber) durch mindestens eine Basisisolierungsmaßnahme. Der Universaleingang darf nicht an einen für den Betreiber zugänglichen Stromkreis angeschlossen sein, wenn die Relaisausgänge mit einer gefährlichen Spannungsquelle verbunden sind. Zusätzliche Isolierung oder Eingangserdung wären in diesem Fall erforderlich. Isoliert vom Netzstromeingang durch eine Basisisolierung.

AUSGÄNGE

RELAIS (OPTIONAL)

Kontakte:	SPST Form A Relais; Kapazität 2A bei 250V AC.
Lebensdauer:	>150.000 Schaltungen bei Nennspannung/Strom, Ohmsche Last.
Isolierung:	Basisisolierung vom Universaleingang und den SSR-Ausgängen.

SSR Treiber (OPTIONAL)

Treiberfähigkeit:	SSR Steuerspannung >10V bei 20mA
Isolierung:	Nicht vom Universaleingang oder anderen SSR-Treiberausgängen getrennt.

BETRIEBSBEDINGUNGEN

Verwendung	Nur zur Anwendung in Innenräumen und bei Montage in geeigneten Gehäusen
Umgebungstemperatur:	0 °C bis 55 °C (Betrieb), –20 °C bis 80 °C (Lagerung)
Relative Luftfeuchtigkeit:	20 % bis 95 %, nicht kondensierend
Höhe über NN	< 2.000 m
Versorgungsspannung und Leistungsaufnahme:	100 bis 240 VAC ±10 %, 50/60 Hz, 7,5VA (*für netzbetriebene Versionen*), oder 24 VAC +10/-15 % 50/60 Hz 7,5 VA oder 24 VDC +10/-15 % 5W (*für Niederspannungsversionen*).

UMWELT

Standards:	CE
EMI:	Entspricht EN61326-1:2013.
Sicherheitserwägungen:	Entspricht EN61010-1 Version 2010, Verunreinigungsgrad 2, Installationskategorie II.
Abdichtung der Frontplatte:	Frontseite nach IP65 bei korrekter Montage, Rückseite der Frontplatte nach IP20.

PHYSISCHE DIMENSIONEN

Größe des Frontrahmens:	1/16 Din = 48 x 48 mm, 1/8 Din = 48 x 96 mm
Tiefe hinter der Frontplatte:	67 mm mit angebrachter Dichtung.
Gewicht:	Maximal 0,20 kg

FOR MORE INFORMATION VISIT THIS SITE

http://www.rs-components.com/index.html

1/16 - 1/8 CONTRÔLEUR MAXVU MANUEL CONCIS DU PRODUIT (59574-3)

ATTENTION : L'installation doit être uniquement effectuée par du personnel compétent sur le plan technique. Il incombe au technicien d'assurer la sécurité de l'installation. Les réglementations locales concernant les installations électriques et la sécurité doivent être respectées (ex. Code national électrique (NEC) américain et/ou Code électrique canadien). La protection sera compromise si le produit est utilisé de façon non conforme aux spécifications du fabricant.

1. INSTALLATION

Guide d'installation

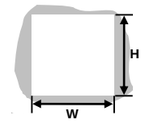
- La conformité aux normes doit être préservée une fois le produit monté dans l'installation finale.
- Conçu pour offrir un minimum d'isolation de base
- S'assurer que l'isolation supplémentaire appropriée pour l'installation Catégorie II est atteinte une fois le produit entièrement installé.
- Pour éviter les risques possibles, les parties conductrices accessibles de l'installation finale doivent être mises à la terre de façon protectrice en conformité avec la norme EN61010 pour l'équipement de classe 1.
- Le câblage de sortie doit être dans une armoire à terre de protection.
- Les gaines de capteur doivent être liées à la terre de protection ou ne pas être accessibles.
- Les pièces sous tension ne doivent pas être accessibles sans l'utilisation d'un outil.
- Lorsqu'il est monté sur l'installation finale, un dispositif de déconnexion IEC / CSA APPROUVÉ doit être utilisé pour déconnecter à la fois la PHASE et le NEUTRE simultanément.
- Ne pas placer l'équipement de sorte qu'il soit difficile de faire fonctionner le dispositif de déconnexion.

Montage sur plaque

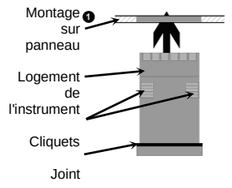
La plaque de montage doit être rigide et peut mesurer jusqu'à 6 mm (0,25 po) d'épaisseur. Les tailles des découpes sont :

1/16 : Largeur = 45mm, Hauteur = 45mm
1/8 : Largeur = 45mm, Hauteur = 92mm

Pour *n* instruments montés côte à côte, la largeur de découpe W est 48*n*-4mm.



Tolérance de +0,5, -0,0 mm



1. Insérez instrument dans la découpe du panneau.

2. Tenez fermement panneau frontal (*sans appuyer sur la zone d'affichage*), et adaptez la bride de fixation.

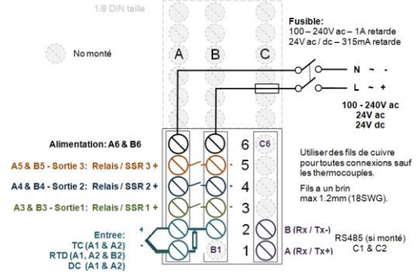
3. Poussez la bride vers l'avant, en utilisant un outil si nécessaire, jusqu'à ce que le joint soit compressé et l'instrument maintenu fermement en position.

ATTENTION : Pour une étanchéité IP65 assurez-vous que le joint soit bien comprimé contre le panneau, avec les quatre languettes situées dans le même intervalle de cliquet.

Câblage borne arrière

Ce diagramme montre toutes les combinaisons possibles d'options. Vérifiez la configuration du produit avant le câblage.

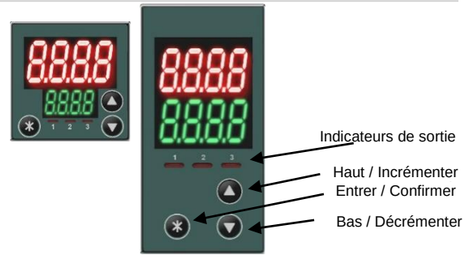
ATTENTION : Consultez l'étiquette informative du boîtier pour connaître la tension de fonctionne-ment correcte avant d'effectuer le branchement sur l'alimentation secteur



2. PANNEAU AVANT

Le panneau avant de toutes les versions de l'instrument présente la même disposition.

Indicateurs et afficheurs



Interface et Navigation générale

La navigation dans le menu, l'édition des paramètres et l'utilisation du clavier sont décrites ci-dessous. *Voir les sections du manuel spécifiques pour plus d'informations et pour connaître les exceptions.*

Utilisation générale du clavier et édition des paramètres :

Appuyez sur les touches ▲ ou ▼ pour naviguer entre les differents paramètres
Pour modifier un paramètre, appuyez sur ✱. Le nom de paramètre (*affichage inférieur)* clignote lorsque le paramètre situé au-dessus peut être modifié ou réglé.
Appuyez sur ▲ ou ▼ pour changer la valeur du paramètre (*affichage supérieur*).
Les valeurs éditées cessent de changer une fois les limites de paramètres atteintes
Une nouvelle pression de ▲ ou ▼ au-delà de la limite des paramètres ramène à la valeur du début
(e.g. 0, 1, 2… …98, 99,100 ▲ 0, 1, 2…)
Pour confirmer la modification, appuyez sur ✱ dans les 60 secondes sans quoi la modification sera rejetée.

Pour accéder à la configuration basic ou à la configuration avancée depuis le mode utilisateur :

Appuyez sur ✱, maintenez la touche enfoncée, puis appuyez sur ▲ pour le mode Configuration basic, ou
Appuyez sur ✱, maintenez la touche enfoncée, puis appuyez sur ▼ pour le mode Configuration avancée

Pour revenir au mode utilisateur depuis les autres modes :

Après 120 secondes sans activité l'appareil revient automatiquement au 1er écran du mode utilisateur, ou
Appuyez sur ✱, maintenez la touche enfoncée, puis appuyez sur ▲ pour remonter d'un niveau.

3. WARNING SYMBOLS

⚠	***Caution, refer to installation manual when connecting*** **General danger to life or limb**	▣	***Equipment protected through-out by double insulation***
∿	***Alternating current***	⎓	***Both direct and alternating current***

4. SPÉCIFICATIONS

ENTRÉE UNIVERSELLE

Étalonnage du thermocouple :	±0,25% de l'échelle entière, ±0,4% de l'échelle entière en dessous de 110°C, ±1LSD (±1°C pour Thermocouple CJC). BS4937, NBS125 & IEC584.
Étalonnage PT100	±0,25% de l'échelle entière, ±0,4% de l'échelle entière au-dessus de 520°C avec résolution 0.1, ±1LSD. BS1904 & DIN43760 *(0,00385Ω/Ω/°C).*
Étalonnage DC	±0,2% de la plage complète, ±1 LSD.
Taux d'échantillonnage :	4 par seconde.
Impédance :	> 10 MΩ résistifs, sauf CC mA (5Ω) et V (47kΩ).
Détection de la rupture du capteur :	Thermocouple, RTD, de 4 à 20mA, de 2 à 10V et de 1 à 5V plages seulement. *Coupure des sorties de commande.*
Isolation :	Isolé de toutes les sorties (sauf pilote SSR) par au moins une isolation basique. L'entrée universelle ne doit pas être connectée aux circuits accessibles à l'opérateur si les sorties relais sont connectées à une source de tension dangereuse. Une isolation supplémentaire ou une mise à la terre sont alors nécessaires. Isolé de l'alimentation principale par isolation de base.

SORTIES

RELAIS (EN OPTION)

Contacts :	SPST relais Form A ; capacité de courant 2A à 250VCA.
Durée de vie :	>150 000 opérations tension / courant nominal, charge résistive.
Isolation :	Isolation de base de l'entrée universelle et des sorties SSR.

Pilotes SSR (EN OPTION)

Capacité d'entraînement :	Tension d'entraînement SSR >10V à 20mA
Isolation :	Non isolé de l'entrée universelle ou des autres sorties pilote SSR.

CONDITIONS DE FONCTIONNEMENT

Usage	Pour une utilisation en intérieur seulement, monté dans une enceinte appropriée
Température ambiante :	De 0°C à 55°C (service), de –20°C à 80°C (conservation).
Humidité relative :	De 20 % à 95% sans condensation.
Altitude	<2000m
Tension et puissance d'alimentation :	100 à 240Vac ±10%, 50/60Hz, 7,5VA (*pour les versions alimentées par secteur*), ou 24Vac +10/-15% 50/60Hz 7,5VA ou 24Vdc +10/-15% 5W (*pour les versions basse tension*).

ENVIRONNEMENT

Normes :	CE
EMI :	Conforme à la norme EN61326-1:2013.
Considérations de sécurité :	Conforme aux normes EN61010-1 Version 2010, Degré de pollution 2, catégorie d'installation II.
Étanchéité du panneau avant :	Avant IP65 lorsqu'il est correctement installé, arrière du panneau à IP20.

PHYSIQUE

Taille du panneau avant :	1/16 Din = 48 x 48 mm, 1/8 Din = 48 x 96 mm
Profondeur derrière le panneau :	67mm avec joint d'étanchéité monté.
Poids :	0,20kg maximum

FOR MORE INFORMATION VISIT THIS SITE

http://www.rs-components.com/index.html

1/16 - 1/8 STANDARD CONTROLLER MAXVU MANUALE BREVE DEL PRODOTTO (59575-2)

ATTENZIONE: l'installazione deve essere eseguita solo da personale tecnico qualificato. È responsabilità del tecnico che effettua l'installazione garantirne la sicurezza. Attenersi alle normative locali relative a sicurezza e impianti elettrici, come ad esempio US National Electrical Code (NEC) e/o Canadian Electrical Code. L'utilizzo del prodotto in modi non specificati dal produttore ne compromette il livello di protezione.

1. INSTALLAZIONE

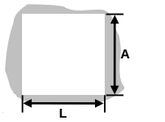
Guida all'installazione

- La conformità agli standard deve essere rispettata nel corso dell'installazione finale.
- Il prodotto è progettato per garantire esclusivamente l'isolamento di base.
- Verificare che l'installazione raggiunga l'isolamento supplementare idoneo alla categoria di installazione II.
- Per evitare possibili scariche elettriche, mettere a terra a scopo protettivo la parti conduttive accessibili dell'installazione finale, nel rispetto dell'EN61010 per le apparecchiature di classe 1.
- Alloggiare il cablaggio in un armadio con messa a terra protettiva.
- Collegare le guaine dei sensori a terra o renderle non accessibili .
- I componenti sottoposti a tensione devono essere accessibili solo mediante strumenti.
- Nell'installazione definitiva utilizzare un dispositivo CONFORME A IEC/CSA per la disconnessione simultanea di NEUTRO e FASE.
- Posizionare l'apparecchiatura in modo da non ostacolare l'utilizzo del dispositivo di disconnessione.

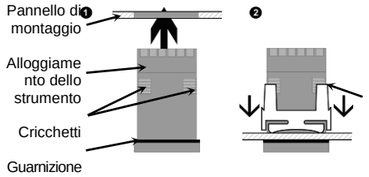
Pannello di montaggio

Il pannello di montaggio deve essere rigido con uno spessore di 6,0 mm . Dimensioni del riquadro:
1/16: Larghezza = 45 mm, altezza = 45 mm
1/8: Larghezza = 45 mm, altezza = 92 mm

Per *"n"* diversi strumenti montati in modo affiancato, la larghezza totale L" è 48n-4 mm.



Tolleranza +0,5, -0,0 mm



❶ Inserire lo strumento nel riquadro del pannello.

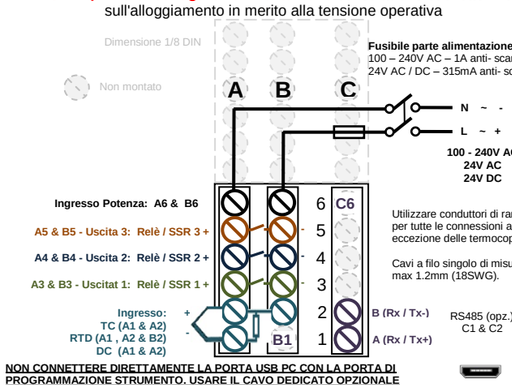
❷ Tenere fermo il frontalino anteriore (*senza esercitare pressione nell'area del display*) e inserire la staffa di montaggio. Spingerla in avanti (utilizzando un attrezzo se necessario) fino alla compressione della guarnizione e all'inserimento stabile dello strumento.

ATTENZIONE: per una tenuta ottimale della guarnizione IP65 contro polvere e umidità verificare che la guarnizione sia fissata in modo uniforme sul pannello, con le 4 linguette nella stessa scanalatura della staffa

Cablaggio

Lo schema illustra tutte le combinazioni di opzioni possibili. Verificare la configurazione del prodotto prima di effettuare il cablaggio.

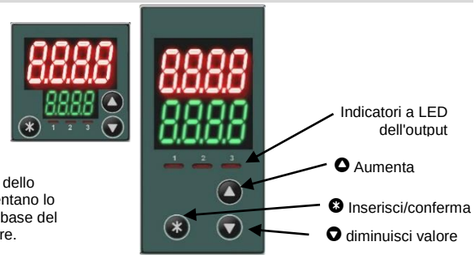
ATTENZIONE: prima di collegare l'alimentazione consultare le etichette informative sull'alloggiamento in merito alla tensione operativa



NON CONNETTERE DIRETTAMENTE LA PORTA USB PC CON LA PORTA DI PROGRAMMAZIONE STRUMENTO. USARE IL CAVO DEDICATO OPZIONALE

2. PANNELLO ANTERIORE

Display e indicatori



Tutte le versioni dello strumento presentano lo stesso layout di base del pannello anteriore.

Tastiera e navigazione generale

Di seguito viene descritto l'utilizzo dei menu di navigazione, tasti e modifica dei parametri.
Consultare le sezioni del manuale pertinenti per ulteriori informazioni ed eccezioni.

Utilizzo generale dei tasti e modifica dei parametri:
Premere i tasti ▲ o ▼ per scorrere tra i vari parametri
Per modificare un parametro, premere ✱. Quando il nome del parametro (*display inferiore)* lampeggia il parametro superiore può essere modificato.
Premere ▲ o ▼ per modificare il valore (*display superiore*).
Non è possibile modificare oltre i limiti dei parametri. Un'ulteriore pressione di ▲ o ▼ una volta raggiunto il limite del parametro ne comporta la reimpostazione al valore iniziale (es., 0, 1, 2... ...98, 99,100 ▲ 0, 1, 2...)
Per confermare le modifiche, premere ✱ entro 60 secondi. In caso contrario, le modifiche non verranno salvate.

Accedere alle modalità Configurazione e Configurazione avanzata:
Tenere premuto ✱ e premere ▲ per accedere alla modalità Configurazione o
Tenere premuto ✱ e premere ▼ per la configurazione avanzata.

Tornare alla modalità OPERATORE da altre modalità:
Trascorsi 120 secondi di inattività, l'unità torna in automatico alla della modalità operatore)
In alternativa tenere premuto ✱ e premere ▲ per tornare indietro di un livello.

3. WARNING SYMBOLS

⚠	***Caution, refer to installation manual when connecting*** **General danger to life or limb**	▣	***Equipment protected through-out by double insulation***
~	***Alternating current***	≂	***Both direct and alternating current***

4. SPECIFICHE TECNICHE

INPUT UNIVERSALE

Calibrazione della termocoppia:	±0,25% del fondo scala, ±0,4% del fondo scala al di sotto di 110°C con risoluzione di una cifra decimale, ±1LSD (±1°C per la termocoppia CJC). BS4937, NBS125 e IEC584.
Calibrazione PT100:	±0.25% del fondo scala, ±0.4% del fondo scala al di sopra di 520°C con risoluzione di una cifra decimale, ±1LSD. BS1904 & DIN43760 (0.00385Ω/Ω/°C).
Calibrazione CA:	±0,2% dell'intervallo completo, ±1 LSD.
Frequenza di campionamento:	4 al secondo.
Impedenza:	Superiore a 10 MΩ resistiva, eccetto DC mA (5 Ω) e V (47 kΩ).
Rilevamento interruzione del sensore:	Termocoppia, RTD, solo intervalli da 4 a 20 mA, da 2 a 10 V e da 1 a 5 V. *Gli output del controllo vengono disattivati.*
Isolamento:	Isolato da tutti gli output (eccetto uscita SSR) con almeno l'isolamento DI BASE. Non collegare l'input universale a circuiti accessibili dall'operatore se gli output del relè sono connessi a fonti di alimentazione pericolose. In questo caso potrebbe essere necessario un ulteriore isolamento o la messa a terra dell'input. Isolato dall'input dell'alimentazione principale con isolamento di base.

OUTPUT

RELÈ (OPZIONALE)

Contatti:	Relè SPST di formato A, capacità corrente 2 A a 250 V CA.
Durata:	Oltre 150.000 operazioni a corrente/tensione nominale, carico resistivo.
Isolamento:	Isolamento di base da input universale e output SSR.

Azionatori SSR (OPZIONALE)

Capacità di azionamento:	Tensione di azionamento SSR superiore a 10 V a 20 mA
Isolamento:	Non isolato dall'input universale o da altri output SSR.

CONDIZIONI OPERATIVE

Utilizzo	Solo per utilizzo in ambienti interni, montato in un involucro idoneo
Temperatura ambiente:	Da 0 C a 55 C (operativa), da -20 C a 80 C (Immagazzinato).
Umidità relativa:	Da 20% a 95% senza condensa.
Altitudine	Inferiore a 2000 m
Tensione e alimentazione:	da 100 a 240 V CA ±10%, 50/60 Hz, 7,5 VA (*per versioni con alimentazione tramite rete elettrica*) o 24 V CA +10/-15% 50/60 Hz 7,5 VA o 24 V CC +10/-15% 5 W (*per versioni a bassa tensione*).

Standard

AMBIENTALI:	CE
EMI:	Conforme con EN61326-1:2013.
Considerazioni in materia di sicurezza:	Conforme con EN61010-1 Version 2010, Grado di inquinamento 2 e categoria di installazione II.
Guarnizione del pannello anteriore:	Se montata correttamente parte anteriore IP65. Parte posteriore del pannello di IP20.

ELEMENTI FISICI

Dimensioni del frontalino:	1/16 Din = 48 x 48 mm, 1/8 Din = 48 x 96 mm
Profondità dietro il pannello:	67 mm con guarnizione di tenuta installata.
Peso:	0,20 kg massimo

CONTROLADOR ESTÁNDAR MAXVU 1/16 Y 1/8 DIN MANUAL RESUMIDO DEL PRODUCTO (59576-3)

PRECAUCIÓN: La instalación solo deberá realizarla personal técnico cualificado, y será responsabilidad del ingeniero de instalación garantizar que la configuración es segura. Deberá acatarse la normativa local en cuanto a seguridad e instalación eléctrica (p. ej., el código eléctrico estadounidense [NEC, por sus siglas en inglés] o el canadiense).
Si el producto se utiliza de una manera distinta a la que ha especificado el fabricante, se producirá un deterioro del nivel de protección.

1. INSTALACIÓN

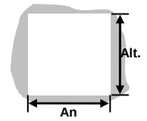
Guía de instalación

- No debe incumplirse ningún estándar cuando se realice el montaje del instrumento en la instalación definitiva.
- El instrumento se ha diseñado para brindar exclusivamente un nivel mínimo de aislamiento básico.
- Los responsables de la instalación deben asegurarse de proporcionar el aislamiento suplementario adecuado para la instalación de categoría II una vez completada la instalación.
- Con el fin de evitar posibles riesgos, las piezas conductivas accesibles de la instalación definitiva deben tener una conexión a tierra de protección conforme a la normativa EN61010 para dispositivos de clase 1.
- Los cables de salida deben estar dentro de un armario conectado a tierra de protección.
- Los revestimientos del sensor deben estar conectados a tierra de protección o no estar accesibles para los operarios.
- No se debe poder acceder a las piezas activas sin utilizar una herramienta.
- Cuando se monte el instrumento en la instalación definitiva, debe utilizarse un dispositivo de desconexión HOMOLOGADO según la Comisión Electrónica Internacional (CEI) o la asociación de estándares canadiense (CSA) para desconectar los conductores de LÍNEA y NEUTRO simultáneamente.
- No se debe colocar el equipo de forma que dificulte el funcionamiento del dispositivo de desconexión.

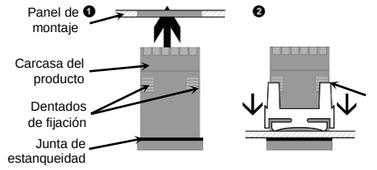
Panel de montaje

El panel de montaje debe ser rígido y puede tener un grosor de hasta 6 mm (0,25"). Los tamaños del corte son los siguientes:
1/16: 45 mm de anchura y 45 mm de altura
1/8: 45 mm de anchura y 92 mm de altura

Para *n* unidades montadas de forma contigua entre sí, la anchura (Anch.) del corte es de 48*n*-4 mm.



Tolerancia: +0,5-0,0 mm



❶ Inserte la unidad en el corte del panel.

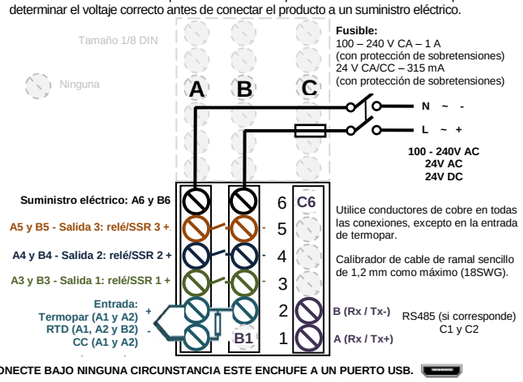
❷ Sostenga con firmeza la tapa frontal (*sin hacer presión sobre la zona de la pantalla*) y coloque la abrazadera de montaje.

Empuje la abrazadera hacia adelante (si lo necesita, utilice una herramienta para tal fin) hasta que la junta de estanqueidad quede comprimida y el instrumento se mantenga en una posición firme.

PRECAUCIÓN: Para conseguir un sellado IP65 eficaz contra el polvo y la humedad, asegúrese de que la junta de estanqueidad quede bien comprimida contra el panel con las 4 lengüetas colocadas en la misma ranura del dentado de fijación.

Cableado del terminal trasero

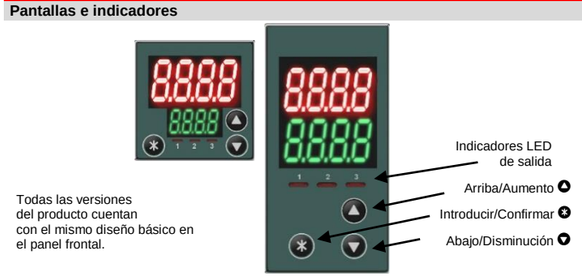
En el siguiente diagrama se muestran todas las combinaciones de opciones posibles. Consulte la configuración del producto antes de realizar el conexionado de cables.
PRECAUCIÓN: Consulte la etiqueta de información que se encuentra en la carcasa para determinar el voltaje correcto antes de conectar el producto a un suministro eléctrico.



NO CONECTE BAJO NINGUNA CIRCUNSTANCIA ESTE ENCHUFE A UN PUERTO USB.

2. PANEL FRONTAL

Pantallas e indicadores



Todas las versiones del producto cuentan con el mismo diseño básico en el panel frontal.

Teclado y navegación general

A continuación, se explica cómo desplazarse por los menús, editar parámetros y utilizar el teclado.
Consulte las secciones correspondientes del manual para obtener más información y ver las excepciones.

Información general sobre cómo utilizar el teclado y editar parámetros:
Pulse las teclas ▲ o ▼ para desplazarse entre los parámetros.
Para editar un parámetro, pulse ✱. El nombre del parámetro (*pantalla inferior*) parpadea como señal de que ya se puede editar o ajustar.
Pulse ▲ o ▼ para cambiar el valor del parámetro (*pantalla superior*).
Los valores editados no podrán cambiarse más allá de los límites del parámetro. Si se vuelva a pulsar ▲ o ▼ una vez superado el límite del parámetro, el valor se restablecerá (por ejemplo, 0, 1, 2… …98, 99, 100 ▲ 0, 1, 2…).
Para confirmar el cambio, pulse ✱ en un máximo de 60 segundos; de lo contrario, no se aplicará dicho cambio.

Para desplazarse a Setup (Configuración) o Advanced Configuration (Configuración avanzada) desde User Mode (Modo de usuario), siga estos pasos:
Mantenga pulsado ✱ y pulse ▲ para acceder a Setup Mode (Modo de configuración).
Mantenga pulsado ✱ y pulse ▼ para acceder a Advanced Configuration (Configuración avanzada).

Para volver a User Mode (Modo de usuario) desde otros modos, siga estos pasos:
Si transcurren 120 segundos de inactividad, la unidad cambiará automáticamente a la primera pantalla de User Mode (Modo de usuario).

También puede mantener pulsado ✱ y pulsar ▲ para retroceder un nivel.

3. WARNING SYMBOLS

⚠	***Caution, refer to installation manual when connecting*** **General danger to life or limb**	▣	***Equipment protected through-out by double insulation***
~	***Alternating current***	≂	***Both direct and alternating current***

4. ESPECIFICACIONES

ENTRADA UNIVERSAL

Calibración de termopares:	±0,25% del rango completo, ±0,4% del rango completo por debajo de 110°C con resolución de una cifra decimal , ±1LSD (±1°C para el termopar CJC). BS4937, NBS125 y IEC584.
Calibración de PT100:	±0,25% del rango completo, ±0,4% del rango completo por encima de 520°C con resolución de una cifra decimal, ±1LSD. BS1904 y DIN43760 *(0,00385Ω/Ω/C).*
Calibración de CC:	±0,2 % del rango completo y ±1 LSD.
Velocidad de muestreo:	4 por segundo.
Impedancia:	>10 MΩ (resistiva), excepto mA CC (5 Ω) y V (47 kΩ).
Detección de fallo en el sensor:	Termopar, RTD, y solo en rangos de entre 4 y 20 mA, entre 2 y 10 V y entre 1 y 5 V. *Las salidas de control se desactivan.*
Aislamiento:	Unidad aislada de todas las salidas (excepto el conductor de SSR [relé de estado sólido]) mediante, como mínimo, un nivel de aislamiento BÁSICO. La entrada universal no debe estar conectada a los circuitos accesibles para los operarios si las salidas de relé se conectan a una fuente de tensión peligrosa (se requeriría realizar una conexión a tierra de la entrada o un aislamiento suplementario). La unidad se aísla de la entrada de suministro eléctrico mediante aislamiento básico.

SALIDAS

RELÉS (OPCIONAL)

Contactos:	Relé SPST (forma A); capacidad actual de 2 A a 250 VAC.
Duración:	>150 000 operaciones con una corriente o tensión nominal y carga resistiva.
Aislamiento:	Aislamiento básico de las salidas de SSR y la entrada universal.

CONDUCTORES DE SSR (OPCIONAL)

Capacidad de conducción:	Voltaje del conductor de SSR >10 V a 20 mA.
Aislamiento:	Unidad no aislada de la entrada universal u otras salidas de conductores de SSR.

CONDICIONES DE FUNCIONAMIENTO

Uso	Uso exclusivo en interiores. La unidad debe montarse en un recinto adecuado.
Temperatura ambiente:	De 0 C a 55 C (funcionamiento) y de –20 C a 80 C (almacenamiento).
Humedad relativa:	Del 20 % al 95 % sin condensado.
Altitud	<2000 m
Alimentación y tensión de suministro:	De 100 a 240 VAC ±10 %, 50/60 Hz, 7,5 VA (*para versiones electrónicas*), o bien 24 VAC +10/-15 %, 50/60 Hz, 7,5 VA o 24 VDC +10/-15 % 5 W (*para versiones que funcionan con poco voltaje*).

MEDIOAMBIENTE

Estándares:	CE
EMI:	Conformidad con EN61326-1:2013.
Consideraciones de seguridad:	Conformidad con EN61010-1 Version 2010, Grado de Polución 2 y Instalación de Categoría II.
Sellado del panel frontal:	La parte frontal tiene un sellado IP65 (al montarse correctamente); la trasera, un sellado IP20.

CARACTERÍSTICAS FÍSICAS

Tamaño de la tapa frontal:	1/16 DIN = 48 x 48 mm 1/8 DIN = 48 x 96 mm
Profundidad de la parte trasera del panel:	67 mm con una junta de estanqueidad instalada.
Peso:	0,20 kg como máximo.

FOR MORE INFORMATION VISIT THIS SITE
http://www.rs-components.com/index.html