WMT18085 Temperature Switch (Temperature Controller)

WMT18085 Temperature Switch (Temperature Controller) is an intelligent digital display temperature measurement and control product integrating temperature measurement, display, output and control. The product features a full electronic structure, and the output signal is amplified by a high-precision and low-temperature drift amplifier which is converted into digital signals that can be processed by the microprocessor. This product is widely used in pneumatic, hydro power, tap water, petroleum, chemical, mechanical, hydraulic and other industries.

WMT18085 Temperature Switch (Temperature Controller) measure temperature by RTD or thermocouple, and the signal is processed by a post-processing circuit and converted into a standard industrial electrical signal for output and display. The all-metal housing design with a highlighted LED digital display, enables the series to be used in a variety of industrial applications. Double key and menu design make the product more convenient to use, and various connection methods can fully meet various specific installation needs. The 330°rotating display head ensures the best viewing angle under different installation modes.

Technical parameters

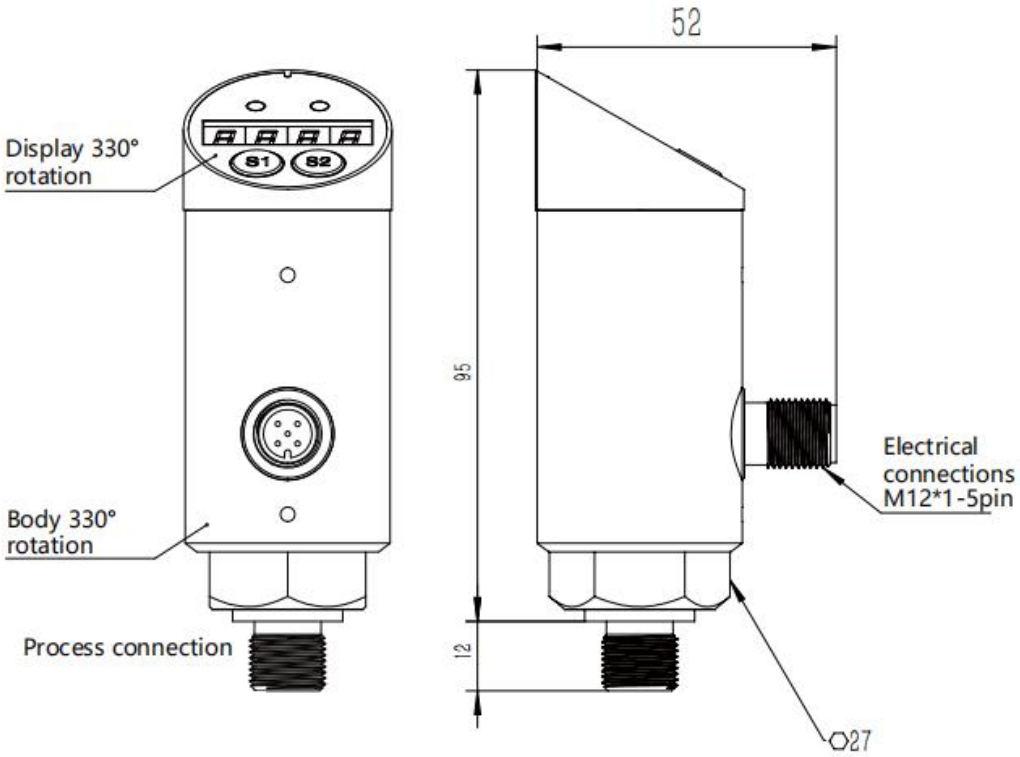
Power supply voltage: 12...30 VDC
Switch output: PNP/NPN, NO/NC optional
S1, S2 output current: <500mA
Response time: <10ms
Accuracy: ≤±0.5%FS
Output type: 4-20ma, 0-5V/0-10V, 0-20mA
Display: red 4-bit 8mm high brightness LED
Display range: -1999... 9999
Stability: ≤±0.3%FS/year
Ambient temperature:-20...80℃
Storage temperature:-30...80℃
Materials: stainless steel
Protection level: IP66
Wire connector: M12x1

Ordering Codes (Model Selection)

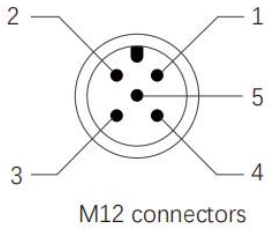
WMT18085	Temperature Switch (Controller)	
-	Temperature range	e.g. 0-100℃ etc.
-	Signal output	S2: 2 switches outputs

		A3: Switch + 0...20mA/4..20mA) V5: Switch + 0...5V/1...5V V10: Switch + 0...10/1...10V
-	Switch type	P: PNP output N: NPN output
-	Wet Part Material	-S4: 304 Stainless Steel -S6: 316 Stainless Steel
-A	Installment type	1: fixed thread 2: slide adjustable thread 3: rotatable adjustable thread 4: flange 5: clamp 6: none thread or flange 0: customer specified
	Thermo well	None: without TW: with thermo well
-	Size of installment	e.g. for A1, -1/2BSP or -M20*1.5 etc.; for A3, -2” or 3” etc.
-	(Diameter of Probe)	E.g. -6 (6mm), or -1/4”. etc.
-	(Length of Probe)	E.g. -200 (200mm), or -8”. etc.

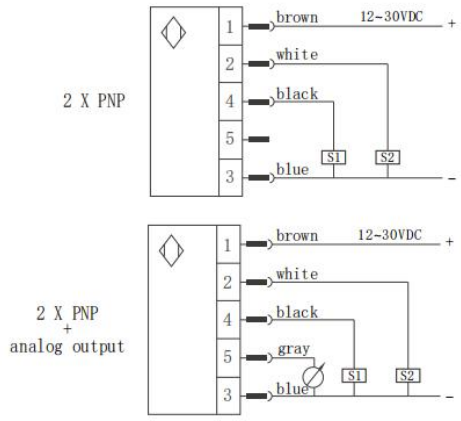
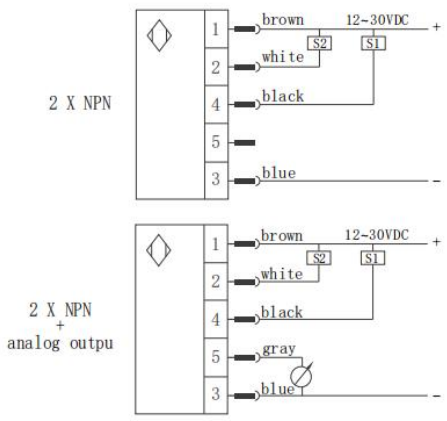
Dimensions



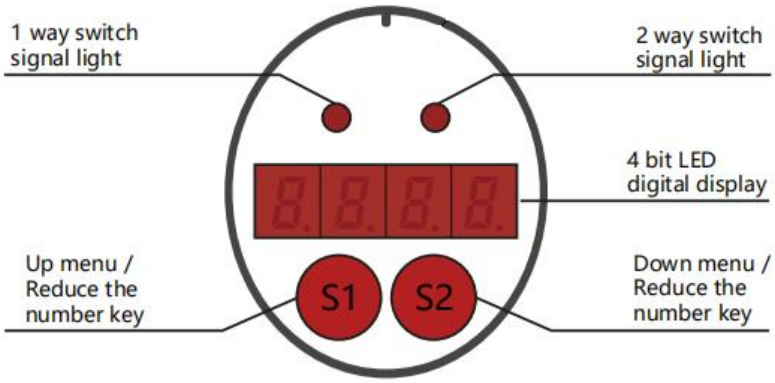
Wiring



signal	stitching	cable
VDD	1	brown
GND	3	blue
Switch output S1	4	black
Switch output S2	2	white
Analog output (voltage or current)	5	gray

PNP	NPN
	

Controlling Points Preset Step:



Press S1: turn to back menu / add the number

Press S2: turn to next menu / reduce the number

S1 + S2 (press S1 and S2 simultaneously): enter / exit menu

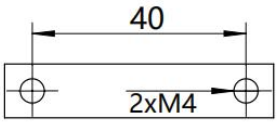
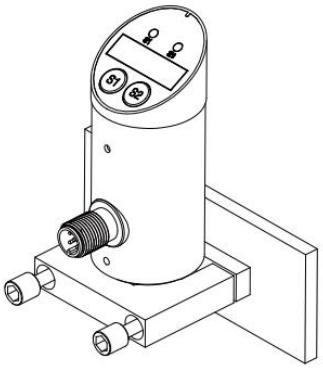
Press S2 for 5 seconds to reset zero

Menu and setting operation process: Press S1 + S2 to enter the LOCK password, change the password through S1 (password 0001 for setting the switch points and password 0066 for advanced menu) , press S1 + S2 to enter the menu, and press S1 + S2 to exit the setting. After the parameters are set, press S1 + S2 to save and exit when the menu is at END channel.

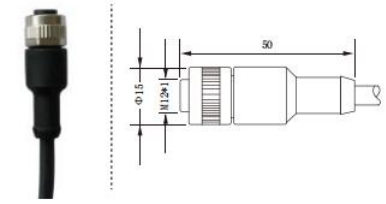
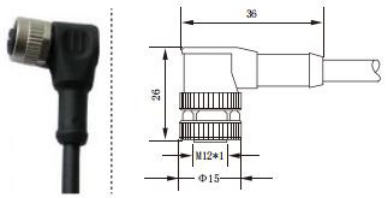
Password 0001 menu:	
AL1H	Switch 1 connected (when temperature reaches this point)
AL1F	Switch 1 opened (when temperature returns to this point)
AL1D	Switch 1 action delay (resolution of 0.1 seconds)
OUT1	Switch 1 NO / NC select
AL2H	Switch 2 connected (when temperature reaches this point)
AL2F	Switch 2 opened (when temperature returns to this point)
AL2D	Switch 2 action delay (resolution of 0.1 seconds)
OUT2	Switch 2 NO / NC select
END	Complete and confirm, exit

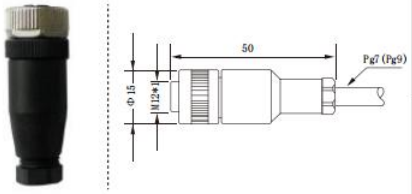
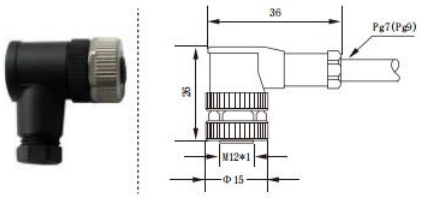
Password 0066 menu:	
DSAL	The default value is 0 which means this function closed. 1 represents over-range indicate, if over-range 120% then display flashing.
BS-L	The value corresponding to 4mA output, default is minimum range value
BS-H	The value corresponding to 20mA output, default is minimum range value
OFST	Display value compensation, default is 0. If increase and decrease the value, the actual display value corresponds to increase or decrease the corresponding value.
FILT	The filter coefficient is adjustable in 0-4. Default is 1. In interference situation, the larger the filter value, the more stable, and the display rate is relatively lower.
SPDL	Display value reaction accelerated / decrease rate
A-04	4mA output calibration
A-20	20mA output calibration
AL1P	Switch 1 output lag / window mode switch
AL1C	Switch 1 hysteresis (value difference) setting
AL2P	Switch 1 output lag / window mode switch
AL2C	Switch 1 hysteresis (value difference) setting
BACK	Restore the factory settings
END	Complete and confirm, exit

Optional accessories

installation accessories	hole size (mm)	Installation effect drawing
		

Optional accessories - electrical accessories

name	Outline drawing/dimension drawing (mm)	material	model
M12*1-5Pin (2m cable)		PUR	ZL05-PU02G
M12*1-5Pin (5m cable)			ZL05-PU05G
M12*1-5Pin (10m cable)			ZL05-PU010G
M12*1-5Pin (2m cable)		PVC	ZL05-PC02G
M12*1-5Pin (5m cable)			ZL05-PC05G
M12*1-5Pin (10m cable)			ZL05-PC010G
M12*1-5Pin (2m cable)		PUR	ZL05-PU02W
M12*1-5Pin (5m cable)			ZL05-PU05W
M12*1-5Pin (10m cable)			ZL05-PU010W
		PVC	ZL05-PC02W
			ZL05-PC05W
			ZL05-PC010W

M12* 1-4pin /5Pin self-connector/size drawing (mm)	model
	GL04 (4Pin joint)
	GL05 (5Pin joint)
	WL04 (4Pin joint)
	WL05 (5Pin joint)