

pH/mV-Controller Type M2120

Illustrations:



Clamp view with pH-connector



Side view



Technical description

The pH/rH(mV)-controller type M2120 has been developed especially for applications which, until now, could not be monitored and controlled automatically due to cost.

The two-point controller is a basically simple device, consisting of an electrometer amplifier and two floating change-over contacts which are electronically adjustable over the entire measuring range. The instrument is used as a simple indicator by connecting electrodes. It has automatic temperature compensation with a Pt-100 platinum sensor and automatic pH-electrode calibration.

The galvanically isolated, programmable signal current output is connected to a remote display, recorder, computer, or any other desirable data sampling device. By using the alarm contacts, the controller activates dosing valves, pumps, alarm devices, etc. The switching relays withstands currents up to 1A.

Power supply:

Universal supply 20 to 253VAC/DC.

Typical applications for the M2120 controller:

- Simple monitoring with alarm annunciation when the preset threshold settings are exceeded.
- Non-critical controlling in water purification and waste water systems.
- Controller for water conditioning plants or swimming pools.
- Routine monitoring for environmental and pollution control etc.

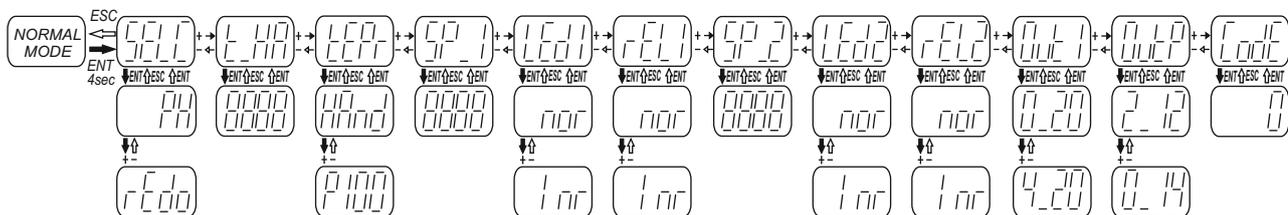
The choice of probe electrodes for the controllers is not critical, but for each application the appropriate electrode must be chosen. Mostec is willing to evaluate and discuss any special requirements or customizing, independent of the amount of items to be purchased. Please contact us for any additional information or custom specific modification of the instruments.

Technical Data:

Measuring range:	0,00 to 14,00pH	-1000 to +1000mV
Resolution:	0,01pH	1mV
Accuracy:	0,01pH	3mV
Long term stability, 1 year @23°C:	0,02pH	6m
VDisplay:	4-digit, LED red, 10mm	
Accuracy:	±0.1% at 23°C ambient temperature	
Reproducibility:	±0.1%	
Long-term stability (3 month):	±0.1%	
Working temperature range:	-5 to +45°C	
Maximum humidity:	95%, non-condensing	
Temperature drift:	Max. 50µV/°C	
Input impedance:	1000GΩ (10 ¹² Ω)	
Input bias current:	Max. 1,5pA	
Temp. button:	Display the actual temperature	
+ / - button:	to increase or decrease values	
pH7 button:	calibrate the probe at isotherm 7pH	
mV/pH button:	calibrate the probe at straight pH values	
Programming functions:	see manual / menu diagram	
Range adjustment:	by computer programmable, see manual	
Zero-/Gain adjustment:	by computer programmable, see manual	
Alarm contacts:	two, adjustable between 0,0 and 100,0%	
Hysteresis:	programmable, factory set: ±5 digit, see manual	
Contacts:	floating change over contacts	
Max. contact load:	1A/230V resistive	
Change alarm contacts:	by button switches or computer programmable, see manual	
Display alarm contacts:	by button switches or computer programmable, see manual	
Mode of the alarm contacts:	with two red LED-Lamps	
Display unit:	with one red LED-Lamp	
Option current output:	0/4...20mA, galvanically isolated	
Max. load:	500Ω	
Output impedance:	>1MΩ typical	
Power supply:	20 to 253VAC or DC	
Power supply load:	4.5 to 7.0W at 230VAC	
CE-conformity:	fulfilled	
pH/mV-jack:	Coaxial bnc connector, 50Ω, IEC 60169-8	
Terminals:	3 x 6-pole plug-in screw terminals	
Terminal description:	1 = supply voltage: AC~/DC(+)	2 = supply voltage: AC~/DC(-)
	3 = supply voltage: PE	4 = signal output PE
	5 = signal output (+)	6 = signal output (-)
	7 = alarm contact 1, c.o. contact	8 = alarm contact 1, n.c. contact
	9 = alarm contact 1, n.o. contact	10 = alarm contact 1, c.o. contact
	11 = alarm contact 2, n.c. contact	12 = alarm contact 2, n.o. contact
	18 = Pt-100 PE	19 = Pt-100 (+)
	20 = Pt-100 (-)	21 = Pt-100 Sense (-)
Mounting:	35mm mounting rail, EN50022-35	
Weight:	200g	
Warranty:	2 years	
Options:	- USB programming unit for MOSTEC devices with cable and software - Other input/output signal - Customer tailored solutions	
How to order:	M2120, 0...14pH = 4...20mA, GW1=2,00pH, GW2=9,50pH, Hysteresis ±15digit	

c.o. = change over
n.o. = normally open
n.c. = normally closed

Menu diagram:



ENT = Enter button
ESC = Escape button
nor = Normal
inr = Inverse
SELC = Measuring-range selector (Redox/pH)
tEPt = Temperature manual/Pt-100
t_HA = manual temperature (0...130°C)
SP_1 = Setpoint #1 (-1000...1000 / 0...14.00)
LEd_1 = Led lamp #1
rEL1 = Relais #1
Out I = signal output 0/4...20mA
Out P = pH-range for signal output (0...14/2...12)
Code = Enter codes

