

CHCMF series meters, counting, speed, linear speed intelligent controller

Thank you very much for your choice, please read this instruction carefully before using this instrument

1. major feature

- The function of meter, counting, batch counting, shift counting, speed and linear speed
- NPN /PNP approach switch, encoder, switch contact and other signal input
- The number of the power failure can be remembered, the output of the three-way measuring relay is available, and the output can be selected. The main control can be selected from 0~20/4~20mA current to send output, RS485 communication can be selected.
- The instrument power supply adopts the universal 85~265VAC switching power supply.

2. Main technical parameters

Working power	85~265VAC (global general) power supply
Feed output	DC24V (for external sensor working power)
Output type	Relays, 4~20mA
Contact capacity	220VAC/5A, life: 10 times
Impulse level	Low level: -30V~0.5V; High level: 4V~30V
trigger mode	High/low level effective (NPN/PNP)
temperature	0~+40°C
measuring frequency	1HZ~3KHZ
APPARENCE size (error:±0.5MM) Appearance: W*H*L Opening: W*D	CHCMF802: 72X72X90mm, Cut out size: 68x68mm CHCMF402: 96X48X90mm, Cut out size: 92x45mm

3. Image of the three products

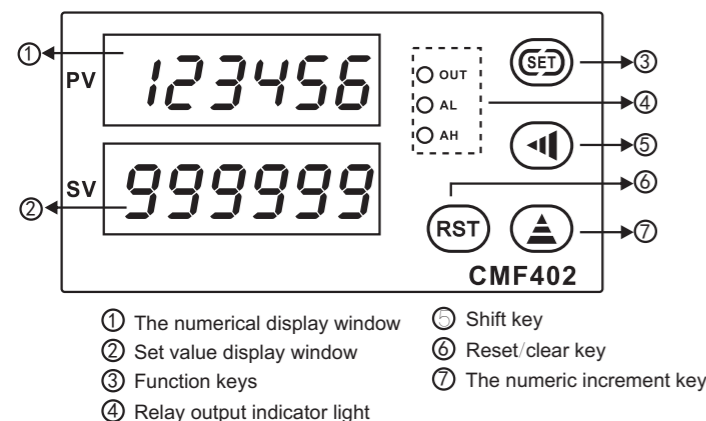


CHCMF802

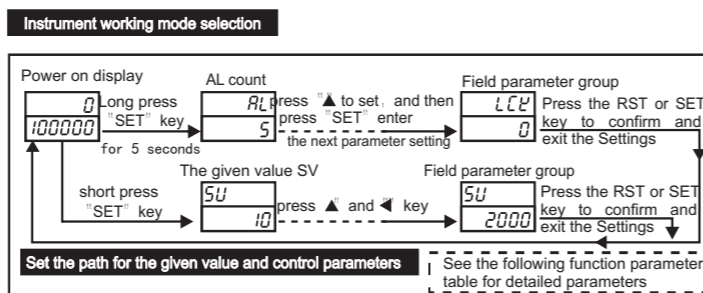
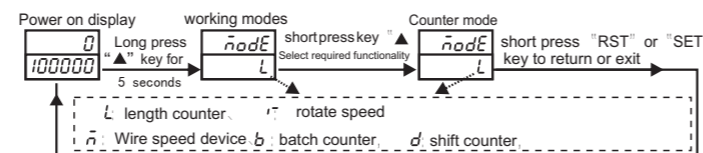


CHCMF402

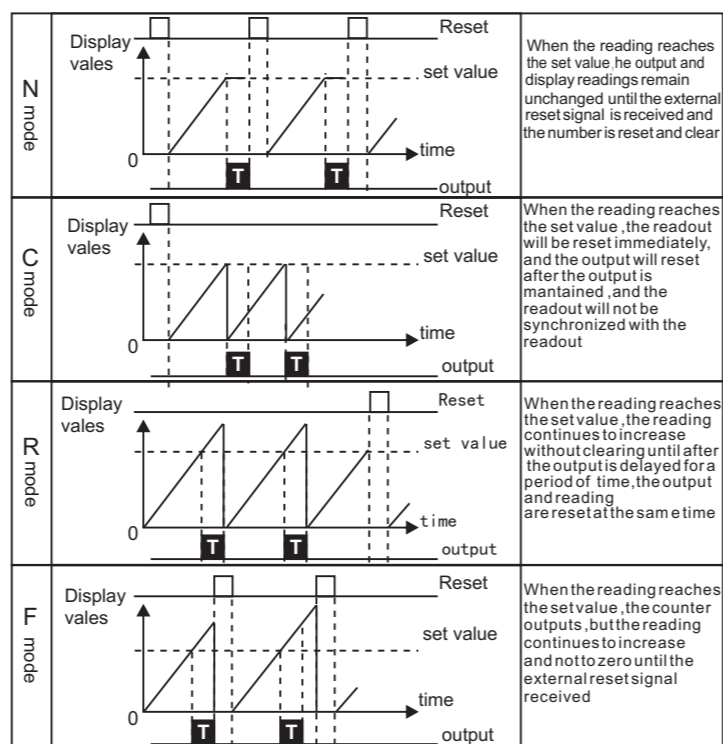
4. Panel description (counter example)



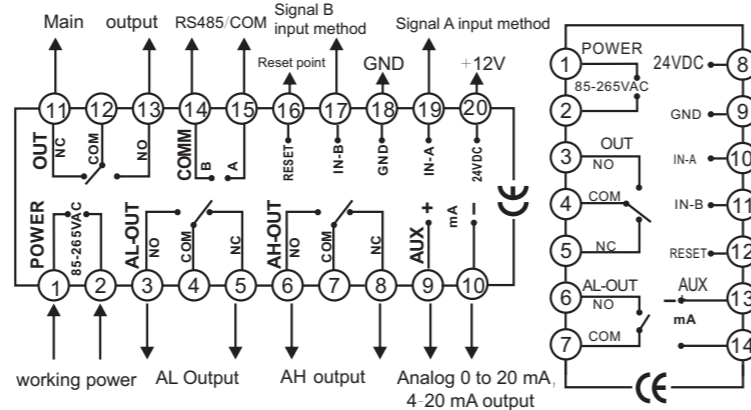
5. meter working mode, preset value and control parameter setting:



6. Counting Output Reset Mode



7. Instrument wiring diagram:



8. Parameter function and setting process of the counting/meter meter:

Prompt	Name of parameter	Set Range	Default	Statement
Length counter CMF=L				
Press the 'SET' button to enter the SV value setting, press 'add' and 'shift key' to change the value, then press the 'SET' key to save and exit.				
SV	Master control set value	0-999999	10	Set the main preset count/meter value of the meter
Press the 'SET' button for about 5 seconds, enter the counter control parameter setting, press the 'add' key to select, and then connect 'RST' or long press 'SET' key about 5 seconds to save and exit.				
AL	First set value (lower limit)	0-999999	5	Set the AL preset count/meter value (see the 'a-md' function description for the action relationship)
AH	Second set value (upper limit)	0-999999	1	Setting the AH preset count/meter value (the measuring number of >AH is output; The measured value <AH value closes the output)
I-Md	A, B input port definition	INA、INB、INC、	INA	INA: the end of A is the positive count input, and the B is the pause function; (frequency/line/speed default for this function) INb: A side is the counting input end, and the b-side is the positive or minus counting control terminal (when the signal input is on the B side, the A side is the subtracting count; When there is no signal input at the end of B, A is positive) INC: encoder signal input (IP=NPN-H or IP=PNP-L)
O-md	Main control relay Type (OUT)	N、F、C、R	C	N: count up to equals the set value, the relay output, count value remains the same, until the reset when the relay is reset manually reset or an external signal, count value to zero to count (master); F: count up to with a value equal to the relay output, count continues to rise, until the manual reset or an external signal reset, reset the relay, count value to zero to start counting; C: when the number of the meter rises to the same as the set value, the output of the relay will be reset to zero, and the output of the relay will be automatically reset after the delay of T. R: when the number of the meter increases to the same as the set value, the output of the relay will continue to rise, and after the time delay T time, the relay will reset automatically, and the count will be reset to zero.
A-md	The first count relay Output mode (N\F mode not open)	500、hold、diff	500	500: after the delay of 500ms, AL relays. Hold: the AL relay is reset when OUT action. DIFF: AL relay is reset with the OUT relay. (the main control relay is output in C/R mode and the above definition is valid.)
T	The output delay (N\F mode is not open)	0.1-99999.9	0.5	When the output mode C or R main control process value = set value relay, output hold time Unit: second
CPLS	input rate	5-30-300-3k-5k	5K	The input terminal allows the maximum input frequency, such as 5k, which can count errors if the input frequency exceeds 5k. Select a reasonable input rate according to the actual count frequency.
SCAL	Circumference \ multiplier	0.00001-999999	1	The circumference represents the circumference of the measured object (with PULS)/an input signal corresponding to the meter count value
PULS	number of pulse	1-999999	1	The number of pulses indicates the number of times the sensor has been detected by the sensor during the week (with the use of SCAL). The length of a pulse signal is equal to that of the SCAL round wheel circumference/pulse number PULS
diP		0.0-0.0000 0.0		The number of decimal digits displayed under the operating interface: 0.0-0.0000-0.000000
IP	Input Logic	PNP-H PNP-L NPN-H NPN-L	NPN-H	Select input logic: PNP-H- PNP rising edge PNP-L- falling edge PNP-NPN-H- falling edge NPN-NPN-L- rise along the NPN
LCK	Lock function	0-999	0	User password: when LCK=199, you can enter the next level menu
When LCK=199, press the 'SET' key under the running interface to enter the locale parameter setting				
TN	Transmitting way	0-20-4-20-0	0	0-20: 0-20mA 4-20: 4-20mA 0: There is no change to send
diH	Upper limit of transmitting	0-999999	100	Maximum value of strain output (20MA)
diL	Lower limit of transmitting	0-999999	0	Minimum value of strain output (4MA)

Counter:

- By default, PV digital tube display value, and SV digital tube display set value. Press the "shift" button briefly to switch another picture, the PV digital tube display value, the SV digital tube accumulator value. Two counts show that the screen can be switched at will.
- According to "RST", the accumulative value can be cleared by "RST" in the display of accumulative counting.
- Counting ratio: the number of input signals of SCAL *. For example, if the input 1 signal requires the number of meter, the SCAL=3 will be set, otherwise, the input of 10 signals will require the meter to be one, and then SCAL=0.1

9. Frequency/speed/line parameters function and setting process description:

Tachometer CMF = r Wire speed table CMF = M				
prompt	Name	Range	Default	Statement
Press the 'SET' button to enter the SV value setting, press 'add' and 'shift key' to change the value, then press the 'SET' key to save and exit.				
SV	Master control set value	0-999999	10	Set the main control target value of the instrument
Press the 'SET' button for about 5 seconds, enter the counter control parameter setting, press the 'add' key to select, and then connect 'RST' or long press 'SET' key about 5 seconds to save and exit.				
bd	Control return value	0-99	2	The measured value rises to the output of the relay when the set value is equal to the set value, and the relay is reset when the measured value is reduced to the set value minus the value of the return difference. For example, the set value is 100, the return value is 10, the measurement value is increased to 100 and the output of the relay is reduced to 90 when the relay is reset.
Udr	Display refresh time	0-99	1	Displays the update time for the measured values. If the UDR is set to 1, the display value is updated every second.
CPLS	The input rate	5-30-300-3k-5k	5K	The input terminal allows the maximum input frequency, such as 5k, and the measurement error may occur if the input frequency exceeds 5k. Select a reasonable input rate according to the actual measurement rate.
SCAL	Period	0.0000-1.999999	1	The circumference represents the circumference of the measured object (used with PULS only).
PULS	number of pulse	1-999999	1	Detection object generated by running a week signal number (such as the code under test installation has three induction point on the rotation, so it will produce one revolution of the three pulse signal (only effective for tachometer, wire speed table).
dIP	0-0.0000	0-0.0000	0.0	The number of decimal digits displayed under the operating interface; 0-0.0000-0.000000.
IP	Input Logic	PNP-H PNP-L NPN-H NPN-L	NPN-H	Select input logic: PNP-H - PNP rising edge PNP-L - falling edge PNP NPN-H - falling edge NPN NPN-L - rise along the NPN.
LCK	Lock function	0-999	0	User password; when LCK=199, you can enter the next level menu.
When LCK=199, press the 'SET' key under the running interface to enter the locale parameter setting.				
TN	Transmitting way	0-20-4-20-0	0	0-20; 0-20ma 4-20; 4-20ma 0. There is no change to send.
diH	Upper limit of transmitting	0-999999	100	The maximum value of the output of the strain is as the maximum current 20MA, then the process value = this parameter set value is changed to send the output current to 20MA.
diL	Lower limit of transmitting	0-999999	0	The minimum value of the output of the strain is as the minimum current 4MA, and the process value is 4MA when the parameter is set.

● Speed formula: $n = 60f/p = 60 \text{ seconds} * \text{frequency/pulse number} = \text{RPM} = \text{RPM}$. Line speed formula: $\text{circumference} * \text{speed} = \text{meters/min}$.

10. Batch counter parameter function and setting process description:

Batch counter CMF=b				
prompt	Name	Range	Default	Statement
Press the 'SET' button to enter the SV value setting, press 'add' and 'shift key' to change the value, then press the 'SET' key to save and exit.				
bSV	Batch set value	0-999999	10	Define the batch value of the meter (only valid for the batch meter).
TSV	Set values in batches	0-999999	10	The secondary value of the meter (only valid for the batch meter).
Press the 'SET' button to enter the SV value setting, press 'add' and 'shift key' to change the value, then press the 'SET' key to save and exit.				
O-md	Relay output mode (bSV、TSV)	C、R	C	C: when the number of the meter rises to the same as the set value, the output of the relay will be reset to zero, and the output of the relay will be automatically reset after the delay of T. r: when the number of the meter increases to the same as the set value, the output of the relay will continue to rise, and after the time delay T time, the relay will reset automatically, and the count will be reset to zero.
T2	output delay (AL-OUT)	0.1-99999.9	0.5	The output of the relay in the al-out (in batch) is kept in time for the delay reset time. Unit: Second
T	output delay (OUT)	0.1-99999.9	0.5	The output of the relay in the out (in batch) is kept in time for the delay reset time. Unit: Second
Cpls	input rare	5-30-300-3k-5k	5K	The input terminal allows the maximum input frequency, such as 5k, which can count the measurement errors if the input frequency exceeds 5k. Select a reasonable input rate according to the actual count frequency.

Scal	ratio	0.00001-999999	1	The corresponding value for a count signal to display is the number of input signals of SCAL *. For example, if the input 1 signal requires the number of meter, the SCAL=3 will be set, whereas, if the input of 10 signals requires the meter to be 1, then SCAL=0.1.
dIP	0-0.0000	0-0.0000	0	The number of decimal digits displayed under the operating interface; 0-0.0000-0.000000.
IP	Input Logic	PNP-H PNP-L NPN-H NPN-L	NPN-H	Select input logic: PNP-H - PNP rising edge PNP-L - falling edge PNP NPN-H - falling edge NPN NPN-L - rise along the NPN.
RST	Manual reset option	0-2	0	0: default external reset mode. 1: key or external reset to zero butch/butch.

- By default (parameter RST=0), the panel RST key has zero batch value. Terminal reset switch 'RST' zero batch value. (parameter RST=1), when the panel RST key and the terminal reset switch 'RST' are accepted, the batch and batch are zero simultaneously.
- The input signal of the batch meter is: A terminal is the positive counting input terminal, and B is the pause function.

11. Function of shift counter parameters and setting process description:

The shift counter CMF=d				
prompt	Name	Range	Default	Statement
Press the 'SET' button to enter the SV value setting, press 'add' and 'shift key' to change the value, then press the 'SET' key to save and exit.				
SVA	A channel set value	0-999999	10	Set gauge A channel preset value.
SVb	B channel set value	0-999999	10	Set gauge B channel preset value.
Press the 'SET' button to enter the SV value setting, press 'add' and 'shift key' to change the value, then press the 'SET' key to save and exit.				
I-Md	A, B input port definition	INE、INF	INE	INE: A is positive and B is minus count. INF: A is positive and B is positive.
O-md	Relay output mode (OUT/AL-OUT)	N、F、C、R	C	N: count up to equals the set value, the relay output, count value remains the same, until the reset when the relay is reset manually reset or an external signal, count value to zero to count (master); F: count up to with a value equal to the relay output, count continues to rise, until the manual reset or an external signal reset, reset the relay, count value to zero to start counting; C: when the number of the meter rises to the same as the set value, the output of the relay will be reset to zero, and the output of the relay will be automatically reset after the delay of T. R: when the number of the meter increases to the same as the set value, the output of the relay will continue to rise, and after the time delay T time, the relay will reset automatically, and the count will be reset to zero.
T2	Output Delay (B Channel)	0.1-99999.9	0.5	Al-out (B channel) relay output retention time (B channel output delay reset time) -- -c/R mode to open this parameter. Unit: Second
T	Output Delay (A Channel)	0.1-99999.9	0.5	Out (A channel) relay output retention time (A channel output delay reset time) -- -c/R mode to open this parameter. Unit: Second
Cpls	input rate (A、B Channels)	5-30-300	300	The input terminal allows the maximum input frequency, such as 5k, which can count errors if the input frequency exceeds 5k. Select a reasonable input rate according to the actual count frequency.
Scal	ratio (A、B Channels)	0.00001-999999	1	The corresponding value to display for a count signal. Number of input signals of SCAL *. For example, if you enter 1 signal to require meter 3, then SCAL=3.
Puls	number of pulse	1-999999	1	This parameter is fixed to 1, unset.
dIP	0-0.0000 (A、B Channels)	0-0.0000	0	The number of decimal digits displayed under the operating interface; 0-0.0000-0.000000.
IP	Input Logic	PNP-H PNP-L NPN-H NPN-L	NPN-H	Select input logic: PNP-H - PNP rising edge PNP-L - falling edge PNP NPN-H - falling edge NPN NPN-L - rise along the NPN.
RST	Manual reset option	0-2	0	0: default external reset mode. 1: key or external reset clear A/B number.

- By default (parameter RST=0), the panel RST key zero A channel meter value. The terminal reset switch 'RST' is zero B channel number. (parameter RST=1), when the panel RST key and the terminal reset switch 'RST', A and B channel counts are zero at the same time.
- By default, the PV digital tube displays A channel number, and the SV digital tube displays the b-channel number. Short press the 'shift' button to switch another image, the PV digital tube displays the SUM character, and the SV digital tube displays the SUM of the values of A+B channel. Two counts show that the screen can be switched at will.