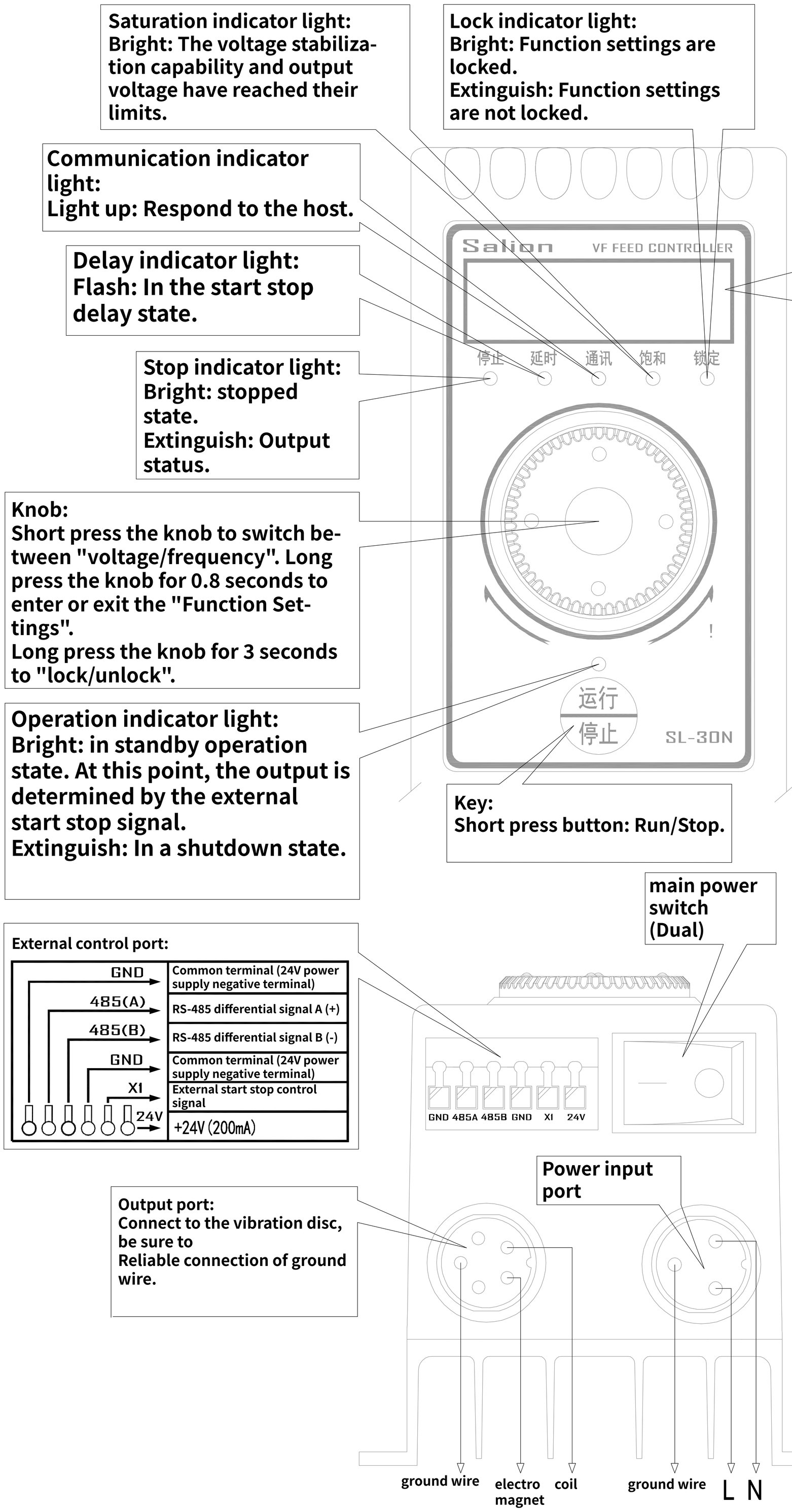
SL-30N panel operation and wiring port instructions:



Parameter setting instructions:

U 125	output voltage
F 130.0	output frequency
40.0~400.0Hz	Continuing Adjust
dn 00	Open delay time
Can set a delay time of 0-25.5 seconds for opening	
dF 00	Delay time
Can set a delay time of 0-25.5 seconds for shutdown	
H9 0.6	Slow start time
Can set a slow start time of 0.1~9.9 seconds	
LC 00	Start stop logic setting
00: The start stop signal is low level, stop	
01: The start stop signal is at a low level, indicating operation	
UL250	Output voltage limit
Can set the upper limit of output voltage	
Id002	Device address
Address range: 001~247 (decimal)	
“---”: Communication function turned off	
br 19.2	Baud rate
4.8, 9.6, 14.4, 19.2, 28.8, 38.4K	
OE 0	Parity check mode
0: Even verification; 1: Odd verification; -: No verification	

Fault prompt explanation:

EC-0H	overheat protection
EC-0L	overload protection
EC-02	earth leakage protection
Short press the knob to release the overheat overload protection	

Precautions for use:

1. Please confirm if the power input is AC 85-265V.
2. The ground wire must be reliably connected.
3. After completing the wiring, turn on the main power switch.
4. Please avoid installing in machine positions with excessive vibration amplitude.

Troubleshooting:

No display: Confirm if the power is connected.	
E-0H:	Thermal protection. Install the controller vertically in a ventilated area, and if possible, on a metal machine to facilitate heat dissipation
E-0L:	Overload protection. Check: whether the gap between the electromagnetic coil and the armature is too large, whether the power of the vibration disc matches the controller, and whether the output cable is short circuited
E-02:	Leakage protection. Check if there is any leakage in the electromagnetic coil (this leakage protection is only detected when the controller is powered on and will not be detected during operation).

SL-30N RS-485 communication instructions:

1. Supports MODBUS-RTU protocol.
2. Supports read (0X03), write (0X06), and multi read multi write (0X17) operation commands.
3. Supported baud rates: 4.8K, 9.6K, 14.4K, 19.2K, 28.8K, 38.4Kbps.
4. Support odd parity, even parity, and no parity modes.
5. The device address can be set within the range of 1-247 (decimal).

Register description

register address	parameter	factory default (Decimal)	oper ation	parameter range (Decimal)	description
0x0000	Work status indicator	–	read-only	–	Please refer to the table below for the description of the working status flag register
0x0001	operation control	0	read and write	–	Please refer to the table below for the description of the operation control register
0x0002	output voltage	60	read and write	0~250	Decimal: 0~250, corresponding output voltage: 0~250V
0x0003	output frequency	1300	read and write	400~4000	Decimal: 400~4000, corresponding output frequency: 40.0~400.0Hz
0x0004	Voltage ramp up speed	2	read and write	0~255	0: No gradual change; 255:255mS/V change speed
0x0005	Frequency ramp rate	2	read and write	0~255	0: No gradual change; 255:255mS/0.1Hz change rate
0x0006	Slow start speed	6	read and write	0~99	The larger the value, the slower the slow start speed
0x0007	Open delay time	0	read and write	0~255	0: No delay; 255:25.5 seconds on delay
0x0008	Delay time	0	read and write	0~255	0: No delay; 255:25.5 seconds on delay
0x0009	Start stop logic	0	read and write	0~1	External level signal start stop control: 0: low level stop; 1: Low level operation
0x000A	Output voltage limit	250	read and write	0~250	Decimal: 0~250, corresponding output voltage limit: 0~250V

Description of the working status flag register

bit	Status Name	description
b0	run/stop	0: Stop state; 1: Running status
b1	overheat protection	0: No overheating protection; 1: Overheating protection occurs
b2	Overvoltage protection	0: No overvoltage protection; 1: Overvoltage protection occurs
b3	Undervoltage protection	0: No undervoltage protection; 1: Undervoltage protection occurs
b4	overload protection	0: No overload protection; 1: Overload protection occurs
b5	Output Saturation	0: Normal; 1: The output voltage has reached its limit
b6	Incentive output	0: Normal; 1: The anti power beat frequency capability has reached its limit
b7	External shutdown signal	0: The external shutdown signal is at a low level; 1: The external shutdown signal is at a high level
b8~b15	undefined	(Read operation, uncertain result)

Description of Running Control Register

bit	control name	description
b0	run/stop	0: Stop; 1: Run
b1	Clear protective signs	0: No operation; 1: Clear all protection status flags (read this bit to always be 0)
b2	Lock the operation panel	0: The panel is not locked; 1: The panel is locked
b3	RUN	0: Not mandatory; 1: Forced operation (ignoring start stop signals and start delay time)
b4~b15	undefined	(Read operation, uncertain result)

SL-30NRS-485 (RTU) communication example:

Instruction content	Instruction data (hexadecimal)	Additional notes
Read status flag	02 03 00 00 00 01 84 39	In addition to reading the working status flag, it can also read the signal level of the external start stop port
Read control register	02 03 00 01 00 01 D5 F9	–
run	02 06 00 01 00 01 19 F9	If overload, undervoltage, or overheating protection is set, send operation instructions and respond with data error (03) code
stop	02 06 00 01 00 00 D8 39	–
Clear protection and run	02 06 00 01 00 03 98 38	When overload protection frequently occurs, due to the protection mechanism, the overload protection flag cannot be cleared in a short period of time
Panel locked and stopped	02 06 00 01 00 04 D9 FA	After the panel is locked, all operations on the control panel except for the "Run/Stop" button will be locked
RUN	02 06 00 01 00 09 18 3F	Ignore the shutdown signal and start delay parameters, run immediately
Voltage=60V	02 06 00 02 00 3C 28 28	If the voltage value is greater than the "output voltage limit" limit, the response data is incorrect (03) code
Voltage=90V	02 06 00 02 00 5A A8 02	If the voltage value is greater than the "output voltage limit" limit, the response data is incorrect (03) code
Frequency=60.0Hz	02 06 00 03 02 58 79 63	–
Frequency=110.0Hz	02 06 00 03 04 4C 7A CC	–
Voltage ramp rate=0	02 06 00 04 00 00 C8 38	–
Voltage ramp rate=10	02 06 00 04 00 0A 48 3F	–
Frequency ramp rate=0	02 06 00 05 00 00 99 F8	–
Frequency ramp rate=10	02 06 00 05 00 0A 19 FF	–
Slow start speed=0	02 06 00 06 00 00 69 F8	–
Slow start speed=31	02 06 00 06 00 1F 28 30	–
Open delay=0.0 seconds	02 06 00 07 00 00 38 38	–
Opening delay=1.0 seconds	02 06 00 07 00 0A B8 3F	–
Off delay time=0.0 seconds	02 06 00 08 00 00 08 3B	–
Off delay time=0.5 seconds	02 06 00 08 00 05 C8 38	–
Start stop logic=0	02 06 00 09 00 00 59 FB	–
Start stop logic=1	02 06 00 09 00 01 98 3B	–
Voltage limit=110	02 06 00 0A 00 6E 28 17	If the current output voltage is higher than this output voltage limit value, the current output voltage will automatically change to this limit value
Voltage limit=250	02 06 00 0A 00 FA 29 B8	–
Read and write more	02 17 00 00 00 0B 00 01 00 0A 14 00 01 00 50 05 78 00 00 00 00 00 03 00 00 00 00 00 00 00 FA 38 5E	Read 11 consecutive registers from address 0x0000 and write 10 consecutive registers from address 0x0001. The content is: not forced to run, unlocked operation panel, running, voltage=80V, frequency=140.0Hz, voltage ramp=0; Frequency ramp=0; Slow start=3, on delay=0.0 seconds, off delay=0.0 seconds, start stop logic=0, output voltage limit=250V. The data of the write operation is immediately updated and takes effect, and the data returned by the read operation will also be updated. However, the "run/stop" flag for reading the working status is the state before the command

Precautions for communication use:

1. The parameters of device address, baud rate, and parity check can be set through the operation panel.

2. When the device address is set to "---", the communication function is turned off.

3. The communication timing of this device strictly follows the MOD-BUS (RTU) protocol. When the communication baud rate is less than or equal to 19.2Kbps, the character interval and frame interval time are 1.5T and 3.5T, respectively,
When the baud rate is greater than 19.2Kbps, the character interval and frame interval time are the same as when the baud rate is 19.2Kbps.

4. When overload protection frequently occurs, due to the protection mechanism of the drive module, the overload protection flag cannot be cleared in a short period of time.

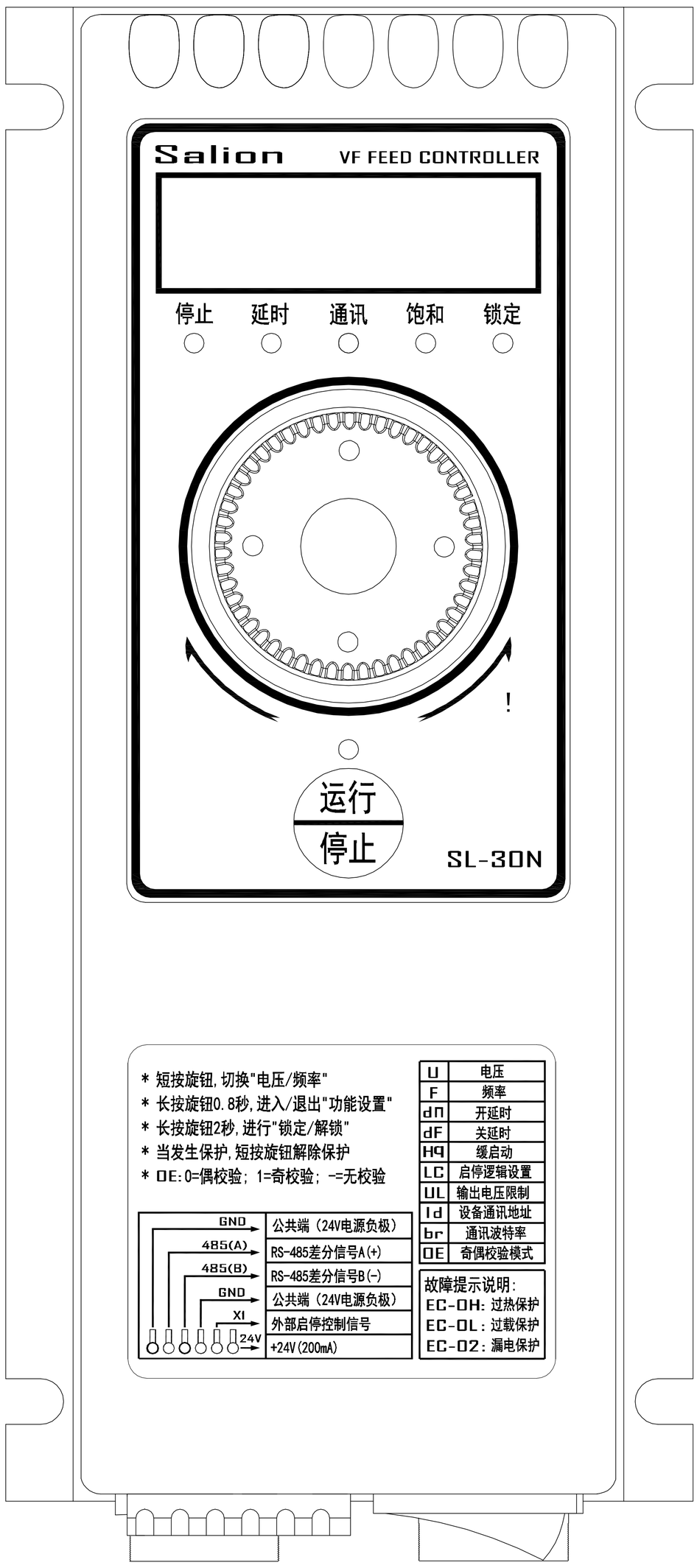
5. In the multi read multi write instruction, there is a command to read the working state while changing the running state. Due to the limitation of the control mechanism, the "operating state flag" in the "working state flag" responded to is "running"
The 'row/stop' flag cannot be changed immediately.

6. All parameters are automatically saved upon power failure and automatically restored upon power on. However, the "run/stop" status after power on depends on whether the communication function is turned on/off: when the communication function is turned on (the device address is not "---"), it is always in a stopped state upon power on;

7. When the communication function is turned off (device address is "---"), it returns to the operating state before power failure after power on. To ensure communication reliability, it is strongly recommended to use a three wire (with a common end) connection for communication cables. When the communication cable is long, use shielded twisted pair cables.

SL-30N Digital Variable Frequency Vibration Feeding Controller(RS-485 Communication)

Functional features:



1. Built in RS-485 (RTU protocol) remote communication port, all states and parameters can be remotely interactively controlled.

2. Supports communication baud rates ranging from 4.8K to 38.4K, and supports parity and no parity modes.

3. Set parameters for the gradual change speed of voltage and frequency, so that the transition can be smooth when the voltage and frequency parameters change.

4. It has a set of external start stop control ports, which can be controlled by external NPN type universal sensors or PLC for level signal start stop control. In addition, this external start stop signal can be ignored and forced to operate through communication control instructions.

5. It has a 24V (200mA) DC power output port, which can provide power to external universal sensors.

6. High power factor, significantly reducing electricity costs.

7. Intelligent slow start and slow stop ensure smooth feeding at the moment of start and stop.

8. Adopting high-performance power devices, lower heat loss, optimized heat dissipation design, lower temperature rise, and more stable and reliable operation.

9. High precision voltage stabilization, which can maintain stable output voltage and effectively suppress beat frequency effects caused by power frequency fluctuations in the power grid voltage.

10. High integration, optimized external dimensions, light weight, and space occupation Small and easy to install.

11. Fully enclosed casing, suitable for harsh working environments.

12. Equipped with overvoltage, undervoltage, overheating, overload, output short circuit, and electromagnetic coil leakage protection.

Specification parameters:

Input voltage: AC 85~265V50/60Hz
Output voltage: 0~250V, 40.0~400.0Hz sine wave
Output current: 1.5A (low power) 3.0A (medium power) 4.5A (high power)
Static power consumption:<3W (85~265VAC)
Overheating protection temperature: 58 degrees Celsius
Operating environment temperature: -20~40 degrees Celsius
Applicable vibration disc type: electromagnetic type
Product size: Medium and small power: 150 (length) * 69 (width) * 70 (height) High power: 150 (length) * 69 (width) * 90 (height)
Installation hole spacing: 130mm (L), 62mm (W)
After sales service: three-year warranty