

FIELD OF APPLICATION

Chainstitch machines of various manufacturers and backlatch machines.

In particular for: BROTHER, JUKI, KANSAI-SPECIAL, PEGASUS, YAMATO

With connections and/or outputs for:

Thread trimmer / thread catcher / pedal -1	(max. 8.0A)	*1)
Thread trimmer / thread tension release / pedal +1	(max. 8.0A)	*1)
Thread wiper / pedal +1 inverted	(max. 3.0A)	*1)
Sewing foot lift (50% operating time)	(max. 6.5A/3A)	
Output "machine running"	(max. 3.0A)	
Output "machine at standstill"	(max. 3.0A)	
Stitch condensing (50% operating time) / position 2	(max. 6.5/3A)	*1)

The total power of the outputs is to be limited to 96VA!

Power supply 24V=, max. 0.5A for further additional devices.

Connection of a light barrier module for sensing the edge of the fabric.

CHARACTERISTICS

The control has a digital touch panel for programming all parameters (functions, times, speeds, etc.). When a Variocontrol V820 control panel is connected, additional functions are possible, e. g. 8 seam patterns with a total of 40 seams (order nos. of the V810/V820 control panels see Special Accessories).

By means of the incorporated actuator, 12 speed stages can be activated. Stage 1 (positioning speed) and stage 12 (maximum speed) can be set. The maximum speed of the set value can be reduced by stages. The basic setting of the maximum speed is not affected. Stages 2...11 (intermediate speeds) adapt automatically to the respective maximum speed.

THE FOLLOWING FUNCTIONS ARE AVAILABLE AND CAN BE ADAPTED TO THE MACHINE:

- **SOFTSTART:** On / off; number of stitches and speed at the start of the seam can be selected (2 stitches / factory setting: 500 RPM).
- **BASIC POSITION:** Needle position at stop in the seam up/down.
- **BRAKING POWER AT MACHINE STANDSTILL:** Braking effect can be set.
- **SEWING FOOT LIFT:** At stop in the seam automatic / by pedal, after thread trimming automatic / by pedal, start delay from lifted sewing foot can be set.
- **START AND END STITCH CONDENSING:** Can be set separately, start stitch condensing ON / end stitch condensing ON / start and end stitch condensing ON / stitch condensing OFF, length of each stitch condensing section and speed selectable.
- **THREAD TRIMMING OPERATION:** Can be set separately, M1 and M2 ON / M3 ON / M1, M2 and M3 ON / OFF.
- **STITCH COUNTING:** On / off.
- **SPEED RANGE:** 70 RPM up to 9900 RPM (depending on machine).
- **SPEED LIMITATION:** Can be varied during machine run and at intermediate stop.
- **SWITCHING:** Chainstitch machines / backlatch machines.

SWITCHING FUNCTIONS WHEN USING A VARIOCONTROL V810/V820:

V810

- Start stitch condensing on / off
- End stitch condensing on / off
- Automatic sewing foot lift at stop in the seam / after thread trimming.
- Basic position of the needle at stop in the seam up / down.
- 2 pushbuttons which can be set with different input functions.

V820

- Start stitch condensing on / off
- End stitch condensing on / off
- Automatic sewing foot lift at stop in the seam / after thread trimming.
- Basic position of the needle at stop in the seam up / down.
- Stitch counting seam forward / backward / off.
- Light barrier function uncovered-covered / covered-uncovered / off.
- Thread trimmer and thread wiper.
- Function key programmable.
- Programming seams TEACH IN; a maximum of 8 patterns with a total of 40 seams is possible, feeding direction can be inverted.
- 2 pushbuttons which can be set with different input functions.

PUSHBUTTONS AND SWITCHES FOR THE FOLLOWING FUNCTIONS CAN BE CONNECTED:

- **NEEDLE POSITION UP/DOWN**
- **SINGLE STITCH**
- **SEWING FOOT UP WITH PEDAL IN POS. 0 (neutral)**
- **INTERMEDIATE STITCH CONDENSING / MACHINE RUN BLOCKAGE**
- **STITCH CONDENSING SUPPRESSION/RECALL and/or**
- **AUTOMATIC SPEED**

IF THE LIGHT BARRIER MODULE IS NOT CONNECTED, THE LIGHT BARRIER INPUT CAN BE USED FOR THE FOLLOWING TOUCH AND/OR SWITCHING FUNCTIONS:

- **NEEDLE POSITION UP and/or DOWN**
- **NEEDLE POSITION UP**
- **SINGLE STITCH:** Basting stitch
- **FULL STITCH**
- **NEEDLE TO POSITION 2**
- **SEWING FOOT UP WITH PEDAL IN POS. 0 (neutral)**
- **RESET STITCH COUNTER**
- **MACHINE RUN BLOCKAGE:** Positioned stop; break contact [N.C.] / make contact [N.O.] selectable
- **MACHINE RUN BLOCKAGE:** Unpositioned stop; break contact [N.C.] / make contact [N.O.] selectable
- **AUTOMATIC SPEED**
- **LIMITED SPEED WHEN USING THE PEDAL**
- **INTERMEDIATE BACKTACK**
- **BACKTACK SUPPRESSION / RECALL**

*1) When operating backlatch machines, the maximum load of these outputs should be 0.5A!

▪ **UNIT CONSISTING OF:**

- | | |
|---|--|
| <ul style="list-style-type: none"> 1 induction motor with electromagnetic clutch type V....*1) 1 control box type 5H82AV2314 with power pack N30 1 position transmitter type P5-2 | <ul style="list-style-type: none"> 1 set of standard accessories B10 consisting of: 1 belt guard, complete (for pulleys up to 132 mmØ) 1 set of hardware 1 motor mounting foot 1 bracket 1 and 2, short 1 documentation 1 set of accessories Z39 consisting of: 1 pitman rod, complete 1 10-pin plug (MES 100) 1 retention pin with 2 hexagon nuts |
| | <ul style="list-style-type: none"> 1 pulley DIN42692-L (size according to request) *2) |

▪ **SPECIAL ACCESSORIES:**

SPECIAL ACCESSORIES, AGAINST EXTRA CHARGE:	Part No.
Control panel Variocontrol V810 with 9-pole/25-pole adapter	5970153
Control panel Variocontrol V820 with 9-pole/25-pole adapter	5970154
Reflection light barrier module LSM001A	6100028
Belt guard for pulleys up to 180 mm Ø	7960012
Solenoid type EM1...(for e. g. sewing foot lift, backtacking)	available versions see specification "solenoids"
Set of adapter cords for the connection to KANSAI-SPECIAL cl. 9803 A/UTC and D/UTC	1113131
Adapter cord for the connection to KANSAI-SPECIAL cl. 9803 A/UTC and D/UTC for machines without machine run blockage	1113129
Set of adapter cords for the connection to PEGASUS cl. W500/UT, W600/UT/MS, W700/UT with and/or without stitch condensing	1112441
Adapter cord for the connection to PEGASUS CL: &&\$ (sensor)	1107409
Adapter cord for the connection to BROTHER cl. FD3-B257 chainstitch	1112337
Adapter cord for the connection to YAMATO cl. VC 2700	1100394
Adapter cord for the connection to YAMATO cl. VG 2700	1113177
Adapter cord for the connection to YAMATO backlatch machine ABT3	1112789
Adapter cord for the connection to YAMATO backlatch machine ABT13	1113201
Adapter cord for the connection to PEGASUS backlatch machine	1113170
Extension cable for external actuator, approx. 750 mm long, complete with plug and socket connector	1111845
Extension cable for external actuator, approx. 1500 mm long, complete with plug and socket connector	1111787
5-pin plug with locking screw for the connection of another external actuator	0501278
External actuator type EB301 with approx. 250 mm connecting cable and 5-pin plug with locking screw	4170011
External actuator type EB302 (softer spring) with approx. 250 mm connecting cable and 5-pin plug with locking screw	4170012
Foot control type FB301 (one pedal) for standing operation with approx. 1400 mm connecting cable and plug	4170013
Foot control type FB302 (three pedals) for standing operation with approx. 1400 mm connecting cable and plug	4170018
Potential equalization cord 700 mm long, LIY 2.5 mm ² , grey with forked cable brackets on both sides	1100313
Fitting piece for position transmitter	0300019
Extension cable for position transmitter P5-..., approx. 1100 mm long, complete with plug and socket connector	1111584
Extension cable for position transmitter P5-..., approx. 315 mm long, complete with plug and socket connector	1111229
Knee switch type KN3 (pushbutton) with cord of approx. 950 mm length without plug for activating the functions mentioned overleaf	5870013
Sewing light transformer	please indicate line voltage and sewing light voltage (6.3V or 12V)
3-pin plug with locking screw (MAS 3100) B16	0500402
5-pin plug with locking screw (MAS 5100S) B14	0501431
6-pin plug with locking screw (MAS 6100) B17, B32	0500703
7-pin plug with locking screw (MAS 7100S) B18	0502474
10-pin plug (MES 100) B3	0500357

*1) Available motors see next page

*2) The following sizes are available: B58-L, B63-L, B67-L, B71-L, B75-L, B80-L, B85-L, B90-L, B95-L, B100-L, B106-L, B112-L, B118-L, B125-L, B132-L, B140-L

Note: Select the pulley such that the maximum speed of the machine corresponds to the speed indicated on the motor nameplate!



FRANKL & KIRCHNER GMBH & CO KG
SCHEFFELSTRASSE 73 · D-68723 SCHWETZINGEN
TEL.: (06202)2020 · TELEFAX: (06202)202115
email: info@efka.net
http://www.efka.net



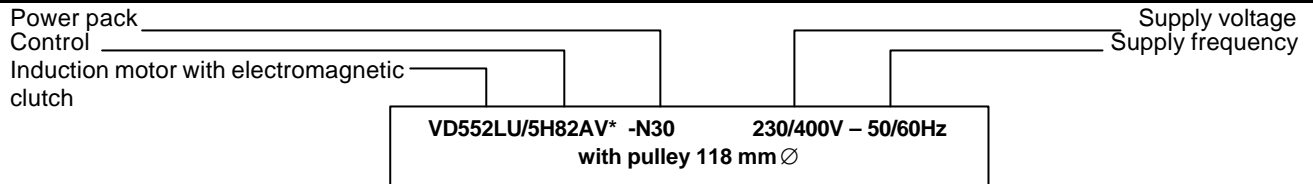
OF AMERICA, INC.
3715 NORTHCREST ROAD · SUITE 10
ATLANTA · GEORGIA 30340
PHONE: (770)457-7006 · TELEFAX: (770)458-3899
email: efkaus@aol.com



ELECTRONIC MOTORS SINGAPORE PTE. LTD.
67, AYER RAJAH CRESCENT 05-03
SINGAPORE 139950
PHONE: 7772459 · TELEFAX: 7771048
email: efkaems@cyberway.com.sg

▪ AVAILABLE MOTORS

Example For Ordering VARIOSTOP Positioning Drives (Series 82)



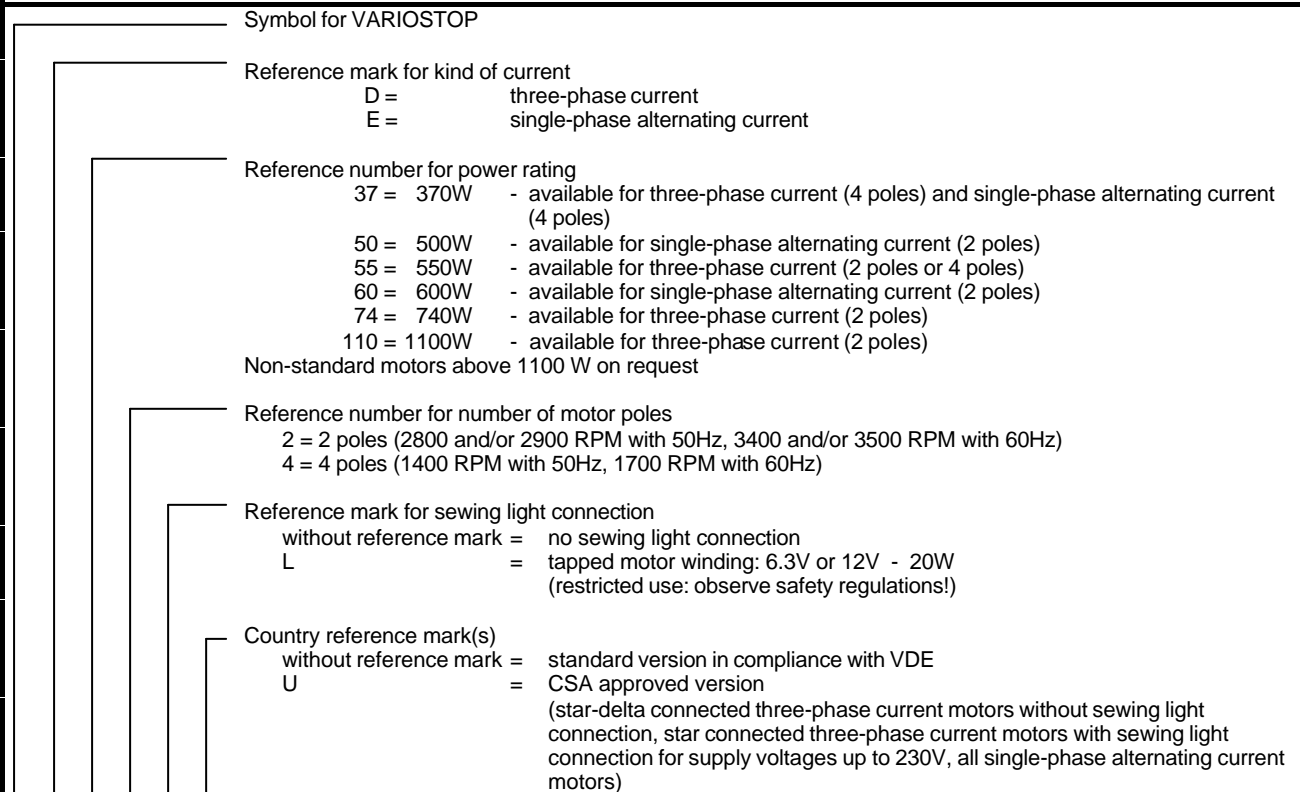
* Besides the type designation, the control nameplate indicates the respective state of development (e. g. 5H82AV....Y1) and the program number (e. g. 5H82AV2314..). The state of development is only required in the case of technical inquiries or repairs.

Induction Motors With Electromagnetic Clutch

Type	Power rating (W)	Speed (RPM)	Frequency (Hz)	Type	Power rating (W)	Speed (RPM)	Frequency (Hz)	Type	Power rating (W)	Speed (RPM)	Frequency (Hz)
VD374 VD374U VD374LU	370	1400/ 1700	50/60	VD742 VD742U VD742* VD742U* VD742LU*	740	2800/ 3400	50/60	VE374 VE374LU	370	1400/ 1700	50/60
VD552 VD550LU VD552*	550	2800/ 3400	50/60	VD1102* VD1102U*	1100	2800/ 3400	50/60	VE502 VE502LU	500	2900/ 3500	50/60
VD554* VD554U* VD554LU*	550	1400/ 1700	50/60					VE602 VE602LU	600	2900/ 3500	50/60

* in series with reinforced clutch

Type Code For Induction Motors With Electromagnetic Clutch



V D 55 2 L U