

MINI-STOP

QE3760

CE

Type

PE40MS

Instruction Manual

Part 3

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11. Survey and List of Parameters

11.1 Explanation of Parameter Survey

The parameter survey is designed as an aid for finding parameters quickly. It is a summary of references for the parameter list. Listed behind each reference are all parameters which exert an influence on the function described by the reference.

The parameter survey is divided into five columns:

- | | |
|----------|--|
| Column 1 | shows the references (functions) to which parameters are assigned. |
| Column 2 | shows the abbreviations of the respective functions. |
| Column 3 | shows all parameters (setting numbers) belonging to the respective reference. |
| Column 4 | shows, for each function (reference) which controls inputs or outputs, the applicable indications such as Ex or Ax which can also be found on the connections diagram. |
| Column 5 | shows, for each function (control inputs (Ex) or control outputs (Ax)), the respective plugs with the number of contacts (see connections diagram). |

Example for searching a parameter:

Keyword (function): inverse rotation

The parameter survey shows in column 3 the parameter numbers 618, 623, 801.

Suppose that the inverse rotation function is to be enabled. The parameter list shows this function under parameter number 618.

11.2 Explanation of Parameter List

The parameter list is divided into 5 columns. These comprise, in

- | | |
|-----------|---|
| column 1: | the parameter number, |
| column 2: | is the explanation (meaning) of the parameters and the coding system of row 1 of the keys of the mini operator's panel, used when the parameter concerned can be programmed with the mini operator's panel, |
| column 3: | the programming level (A, B, C) on which the parameter in question can be accessed, |
| column 4: | the range of values within which the parameter in question can be set, |
| column 5: | the value of the parameter in question is set on delivery ex factory. |

Parameters having "either/or" validity (software switches) can merely be set to value I or II. In the case of such parameters, column 4 is empty.

Parameter numbers in acute brackets; e.g. <105>, mean the value (content) set for the parameter in question.

Example:

107 Speed for front backtack when <106> = I

I limited by <105>

II limited by <607>

Explanation:

Parameter 107 is valid only the the value (content) of parameter <106> = I.

If parameter 107 is set to I (<107> = I), then the speed for the front backtack is limited by parameter 105, e.g. <105> = 1500. If parameter 107 is set to II (<107> = II), then the speed for the front backtack is limited by the value of parameter 607, e.g. <607> = 4000.

11.3 Parameter survey PE40MS (7a_q00_8.EN)

Function	Abbrev'n	Parameter	Input Output	Connection Socket/Contacts
Accelerate	DRZAN	722		
Backtack	RIE	107/110/677		
Backtack inversion	RIV	419		
Backtack suppression	RIUNT	419		
Blower	BLA	668	A3 A14	X5:7 X5:17
Brake	DRZAB	723/851		
Chain blowing	KEBLA	321/548		
Chaining-off finger	KEFI	215/216/217		
Chainstitch machine	KES	765		
Control	REG	880/881/884 885/886/887 889/890/891 990		
Delay	VERZ	195/196/197 198/216/217 527/539/594 595/597/623 641/716/717 730/731/765 779		
Direction of rotation	DRR	800		
End backtack	ER	110/731		
Feed reverse	TUM	721		
Front backtack	AR	105/106/107		
Hardware test	HWT	797		
Holder	TUPF	527		
Inverse rotation	RDR	618/623/714 801		
Machine class	MAKL	799		
Needle position	NAPO	700/701/702 703		
Needle position change-over	NPW	616	E2	X5:8
Needle up without trimming	NHOS	616	E2	X5:8

Photocell	LS	111/112/113 199/543/615 640/641		
Presser foot	PF	633/651/719 729/730	E4 A4	X5:5 X5:13
Program	PR	114/206/221 851		
Programming level C	EBC	798		
Repeat backtack	WRIE	731		
Residual brake	STBR	718		
Seam end	NE	114/145/206 321/602		
Soft start	SANL	116/117		
Speed	DRZ	105/106/107 110/117/199 221/605/606 607/608/609 676		
Speed decrease	DRZAB	723/851		
Speed increase	DRZAN	722		
Speed limitation	DB	221		
Stacker	STAP	527/528	A1 A6	X5:1 X5:19
Start	START	113/603/640 641		
Start delay	STVERZ	729		
Starting block	ANLSP	619/665		
Stitch condensation	STVD	105/106/107 110/419/570 572/677	E1 A5	X5:3 X5:11
Stop	STOP	114/206/619 665	E6	X5:6
Thread clamp	FK	594		
Thread monitor	FW	141/620		
Thread tension release	FSL	540/542/636 749/779	A9	X5:15
Thread trimming	SN	580/601/609 619/633/714 717/765	A2	X5:9

Thread wiper	WI	668/715/716	A3	X5:7
Time needed to switch on	EINZ	321/528/548 714/715/749 889		
Timing output	TA	719/721		
Unlocking of chain	ENTKET	425		
Vacuum	SAUG	594/595/597	A3 A5	X5:7 X5:11

11.4 List of Parameters PE40MS (7a_q00_8.EN)

No.	Function (Meaning)	Level	Range of Values	Standard Value
105	(AR/DRZ/STVD) Speed for front backtack/stitch condensation	B	100-6400	1200
106	(AR/DRZ/STVD) Speed for front backtack/stitch condensation I variable (treadle-controlled) II constant (corresponding to <105>)	B,C		II Kl. 1 - Kl. 2, 3, 4
107	(AR/RIE/DRZ/STVD) Speed for front backtack/stitch condensation when <106> = I I limited by <105> II limited by <607>	B,C		I Kl. 1 - Kl. 2, 3, 4
110	(ER/RIE/DRZ/STVD) Speed for end backtack/stitch condensation	B	100-6400	1200 Kl. 1, 4 - Kl. 2, 3
111	(LS) Photocell compensation stitches 1 (stitches from photocell clear to seam end)	A,B,C	1-255	6 Kl. 1, 2, 4 - Kl. 3
112	(LS) Number of stitches for photocell fade-out on knit fabrics (according to stitch size)	A,B,C	0-255	0
113	(LS/START) Start with photocell I when photocell is dark only II also when photocell is clear	B,C		II
114	(PR/STOP/NE) Stop before seam end after stitch count (last seam section) I yes II no	B,C		II Kl. 1, 2 - Kl. 3, 4
116	(SANL) Soft start stitches	A,B,C	0-255	0
117	(SANL/DRZ) Speed for soft start stitches	B,C	30-640	500
141	(FW) Number of stitches until bobbin thread monitor signal becomes active (signal suppression on bobbin thread monitor)	B,C	0-255	10
145	(NE) Number of stitches for seam end	A,B,C	0-255	3 Kl. 1, 4 - Kl. 2, 3
195	(VERZ) Delay t9	B,C	0-2550	500 Kl. 3 - Kl. 1, 2, 4
196	(VERZ) Delay t10	B,C	0-2550	10 Kl. 3 - Kl. 1, 2, 4
197	(VERZ) Delay t11	B	0-2550	250 Kl. 3 - Kl. 1, 2, 4
198	(VERZ) Delay t12	B,C	0-2550	10 Kl. 3 - Kl. 1, 2, 4
199	(DRZ/LS) Speed for photocell compensation stitches	B,C	300-6400	1200 Kl. 1, 2, 4 - Kl. 3
206	(NE/PR/STOP) Interrupt/discontinue seam sections at speed = constant (<203> = II) I with treadle -2 II with treadle 0	B,C		II Kl. 1 - Kl. 2, 3, 4
215	(KEFI) Number of stitches for chaining-off finger	A,B,C	0-255	5 Kl. 2 - Kl. 1, 3, 4

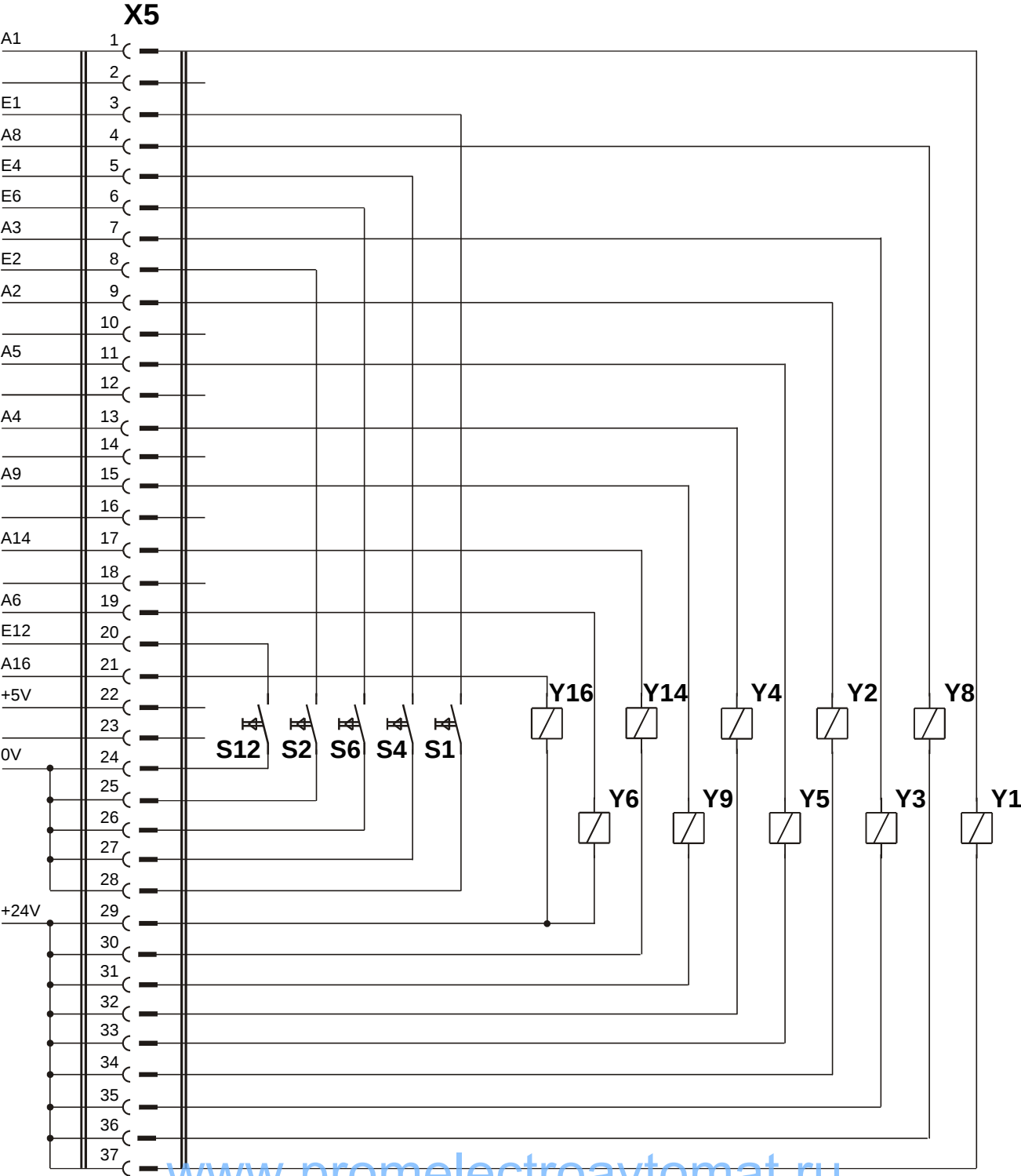
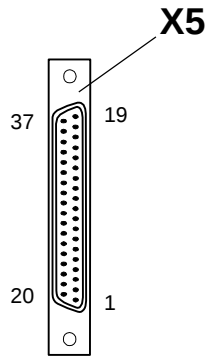
216	(KEFI/VERZ) Delay in start-up time (ms) for chaining-off finger	B,C	0-2550	200	Kl. 2 - Kl. 1, 3, 4
217	(KEFI/VERZ) Speed release (ms) after chaining-off finger off	B	0-2550	100	Kl. 2 - Kl. 1, 3, 4
221	(PR/DB/DRZ) Speed limitation for sewing programs (or sewing program 1)	B,C	300-8000	2000 5000	Kl. 1 Kl. 3, 4 - Kl. 2
321	(EINZ/KEBLA/NE) Duration of chain blowing 2 at seam end	B,C	0-2550	150	Kl. 3 - Kl. 1, 2, 4
419	(RIV/RIUNT/STVD) Function of external key I backtack/stitch condensation inversion II backtack/stitch condensation suppression (flip-flop function)	B,C		I	Kl. 1 - Kl. 2, 3, 4
425	(ENTKET) Unlocking of chain at seam end I yes II no	A,B,C		II	Kl. 1, 2, 4 - Kl. 3
527	(STAP/TUPF/VERZ) Delay (ms) from stacker on to holder/stopper off	A,B,C	0-2550	250	Kl. 3 - Kl. 1, 2, 4
528	(EINZ/STAP) Duration (ms) of stacker function	B,C	0-2550	700	Kl. 3 - Kl. 1, 2, 4
539	(VERZ) Delay (ms)	B,C	0-2550	30	Kl. 3 - Kl. 1, 2, 4
540	(FSL) Number of stitches from start to thread tension release off	A,B,C	0-255	10	Kl. 3 - Kl. 1, 2, 4
542	(FSL) Number of stitches from photocell clear to thread tension release on	A,B,C	0-255	2	Kl. 3 - Kl. 1, 2, 4
543	(LS) Number of stitches from photocell clear to vacuum on	B	0-255	10	Kl. 3 - Kl. 1, 2, 4
548	(EINZ/KEBLA) Duration (ms) of chain blowing at seam end	B,C	0-2550	50	Kl. 3 - Kl. 1, 2, 4
570	(STVD) Number of stitches for stitch condensation at seam start	C	0-99	10	Kl. 1, 3, 4 - Kl. 2
572	(STVD) Number of stitches for stitch condensation at seam end	C	0-99	10	Kl. 1, 3, 4 - Kl. 2
580	(SN) I Upper thread trimmer in position 1 II Upper and lower thread trimmer in position 2	B		II	Kl. 1, 2 - Kl. 3, 4
594	(FK/SAUG/VERZ) Time (T7) from thread clamp off to vacuum off	B,C	0-2550	50	Kl. 3 - Kl. 1, 2, 4
595	(SAUG/VERZ) Time (T8) from vacuum off to vacuum head off	B,C	0-2550	50	Kl. 3 - Kl. 1, 2, 4
597	(SAUG/VERZ) Time (T4) for vacuum off	B,C	0-2550	100	Kl. 3 - Kl. 1, 2, 4
601	(SN) Trimming I yes II no	B,C		I	Kl. 1, 2, 4 - Kl. 3
602	(NE) Seam end at treadle position I slightly heeled (-1) II fully heeled (-2)	B,C		II	Kl. 1, 2 - Kl. 3, 4
603	(START) Start after seam end I after treadle 0 only II immediate start of operation	B		I	

605	(DRZ) Actual speed in display	B,C		II
	I yes			
	II no			
606	(DRZ) Speed: level 1 (min.)	B,C	30-640	200
607	(DRZ) Speed: level 12 (max.)	B,C	100-10000	4000
608	(DRZ) Speed level curve (treadle characteristic)	B,C		I
	I linear			
	II not linear			
609	(SN/DRZ) Trimming speed 1	B	30-300	200
615	(LS) End recognition when photocell goes	B,C		II
	I from light to dark			
	II from dark to light			
616	(NPW/NHOS) Function of external key (input E2)	B,C		II
	I needle position change-over (NPW)			
	II needle up without trimming (NHOS)			
618	(RDR) Inverse rotation after seam end	B		II Kl. 1, 2
	I yes			- Kl. 3, 4
	II no			
619	(SN/ANLSP/STOP) Control of thread trimming (safety switch no run)	B,C		II Kl. 1, 2
	I yes			- Kl. 3, 4
	II no			
620	(FW) Thread monitor function	B,C		II
	I yes			
	II no			
623	(RDR/VERZ) Delay in start-up time (ms) for inverse rotation	B,C	0-2550	10 Kl. 1, 2
				- Kl. 3, 4
633	(SN/PF) Trimming and presser foot	B,C		II Kl. 1, 2
	I with treadle „-2“ only (<602> = II)			- Kl. 3, 4
	II corresponding to <602>			
636	(FSL) Thread tension release	B,C		I Kl. 1, 2
	I yes			- Kl. 3, 4
	II no			
640	(LS/START) Start possible by obscuring the photocell (if existing, note parameter 113!)	B,C		II Kl. 1, 2, 4
	I yes			- Kl. 3
	II no			
641	(LS/START/VERZ) Delay before start (ms) after photocell (at <640> = I)	B,C	0-2550	150 Kl. 1, 2
				200 Kl. 3, 4
651	(PF) Presser foot with automatic descent on machine stop	B,C		I
	I yes			
	II no			
665	(ANLSP/STOP) Run locking/stop	B,C		II
	I contact closed			
	II contact open			
668	(BLA/WI) Thread wiper/thread clearer	B,C		I Kl. 1, 2
	I yes			- Kl. 3, 4
	II no			

676	(DRZ) Speed adjustment via potentiometer possible I yes II no	B,C		I
677	(RIE/STVD) Stitches for backtack/stitch condensation while sewing without operator panel I as per position of rotary switch in the control system II as per previous setting with operator panel	B,C		I Kl. 1 - Kl. 2, 3, 4
700	(NAPO) Needle position 0 (reference position of the needle) (01101000)	B,C	0-127	0 *
701	(NAPO) Angular adjustment I with handwheel (teach-in) II by keys (+/-)	B,C		I
702	(NAPO) Needle position 1 (needle down) (01000000)	B,C	0-127	40
703	(NAPO) Needle position 2 (thread take-up lever up) (11000000)	B,C	0-127	108
714	(EINZ/SN/RDR) Duration (ms) for chainstitch trimming or inverse rotation	B,C	0-2550	100 Kl. 1, 2 - Kl. 3, 4
715	(EINZ/WI) Duration (ms) of thread wiper	B,C	0-2550	60 Kl. 1 50 Kl. 2 - Kl. 3, 4
716	(VERZ/WI) Delay in start-up time (ms) for thread wiper	B,C	0-2550	30 Kl. 1, 2 - Kl. 3, 4
717	(SN/VERZ) Delay in start-up time (ms) for trimming method when the machine is not activated by the treadle	B,C	0-2550	100 Kl. 1, 2 - Kl. 3, 4
718	(STBR) Timing of residual brake (0 = brake off)	B,C	0-100	0
719	(PF/TA) Timing output A4 (0 = 100% switching on)	B,C	0-100	40
721	(TUM/TA) Timing output A5 (0 = 100% switching on)	B,C	0-100	40
722	(DRZAN) Acceleration ramp 1 gradual 50 steep	B,C	1-50	40
723	(DRZAB) Brake ramp 1 gradual 50 steep	B,C	1-50	31
729	(STVERZ/PF) Start delay after lowering presser foot	B,C	0-2550	120
730	(PF/VERZ) Lift delay for presser foot after seam end	B,C	0-2550	50
731	(ER/WRIE/VERZ) Delay before stitch counting for end backtack (ERV)	B,C	0-2550	50 Kl. 1 - Kl. 2, 3, 4
749	(EINZ/FSL) Duration (ms) of thread tension release	B,C	0-2550	70 Kl. 1, 2 - Kl. 3, 4
765	(SN/KES/VERZ) Delay in start-up time (ms) for chainstitch trimming	B,C	0-2550	30 Kl. 1, 2 - Kl. 3, 4
779	(FSL/VERZ) Delay (ms) until thread tension release on	B,C	0-2550	200 Kl. 1, 2 - Kl. 3, 4

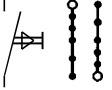
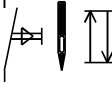
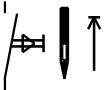
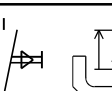
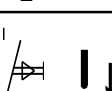
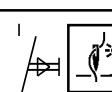
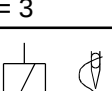
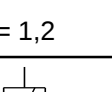
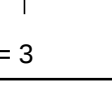
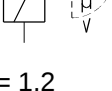
790	(SONST) Program selection for machine classes by operators box	B,C		II
797	(HWT) Hardware test I yes II no	B,C		II
798	(EBC) Programming level C I yes II no	B,C		II
799	(MAKL) Machine class which has been selected	B,C	1-4	1 Kl. 1 2 Kl. 2 3 Kl. 3 4 Kl. 4
800	(DRR) Direction of motor rotation viewed from belt pulley I left-hand rotation II right-hand rotation	B,C		II *
801	(RDR) Reverse rotation angle after seam end	B,C	5-106	16 Kl. 1, 2 - Kl. 3, 4
851	(PR/DRZAB) Brake ramp for stitch-count seams I steep II gradual	C		I
880	(REG) Starting current max. [A]	C	1-10	5
881	(REG) adaption of positioning characteristics of motor to machine to avoid vibration	B,C	1-12	5
884	(REG) Proportional amplification of the speed control (in general)	B,C	4-255	15
885	(REG) Integral amplification of the speed control	C	0-100	35
886	(REG) Proportional amplification of the order controllers	C	1-255	25
887	(REG) Differential amplification of the order controllers	C	1-255	25
889	(EINZ/REG) Time required for order controlling (0 = always)	C	0-1000	250
890	(REG) Proportional amplification of the superior order controllers for the residual brake	C	1-255	25
891	(REG) Proportional amplification of the lower speed controllers for the residual brake	C	1-255	20
990	(REG) Distance to position at switch over from speed control to position control	C	1-255	32

12. Electrical Connections Diagram PE40MS

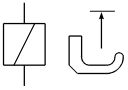
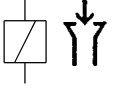
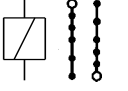
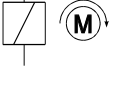
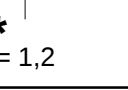
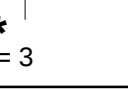


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Bedeutung der Magnete bzw. Magnetventile, Taster / Meaning of magnets and/or solenoids and keys
 Signification des aimants resp. solenoides et touches / Significação dos imãs e/ou as solenoidas e teclas
 Significato dei magneti, delle valvole magnetiche e dei tasti / Significación de los imanes y/o los solenoides
 y pulsadores / Betekenis van de magneten resp. magneetkleppen, toetsen

S1 	Stichverdichtung / stitch condensation / rétrécissement des points / condensação dos pontos / addensamento punti / condensación de puntadas / steekverdichting
S2  <616> = I	Nadelpositionswechsel / needle position change-over / changement de position d'aiguille / troca de posição da agulha / cambio di posizione dell'ago / cambio de posición de aguja / naaldpositie-verwisseling
S2  <616> = II	Nadel hoch ohne Schneiden / needle up without thread trimming / aiguille en haut sans coupe / agulha para cima sem corte de linhas / ago su senza taglio / aguja arriba sin corte / naald omhoog zonder snijden
S4  <799> = 1	Presserfuß / presser foot / pied presseur / calcador / alzapiedino / prensatelas / drukvoet
S4  <799> = 2	Kettelfinger / chaining-off finger / crochet de remmaillage / dedo remalhador / levetta di rimettaggio / dedo de remaller / klemvinger
S6 	STOP
S12 	Fadenwächter / thread monitor / garde-fil / guarda da linha / controllafilo / guardahilos / draadcontrole
Y1 I max 8 A ★  <799> = 3	Stapler Übergabe 1 / stacker handing-over 1 / empileur / empilhadeira / impilatore / apiladora / hefapparaat
Y2 I max 8 A ★  <799> = 1,2	Fadenschneiden / thread trimmer / coupe-fil / corte de linhas / rasafilo / cortahilos / draadsnijder
Y2 I max 8 A ★  <799> = 3	Kette schneiden / chain cutter / chopper / guilhotina / taglio / guillotina / afhakker
Y3 I max 8 A ★  <799> = 1,2	Fadenwischer / thread wiper / écarteur de fil / retira-linhas / scartafilo / retirahilos / draadwisser
Y3 I max 8 A ★  <799> = 3	Saugen 1 / vacuum 1 / aspiration 1 / aspirar 1 / aspirazione 1 / aspiración 1 / zuigen 1

Bedeutung der Magnete bzw. Magnetventile, Taster / Meaning of magnets and/or solenoids and keys
 Signification des aimants resp. solenoides et touches / Significação dos imãs e/ou as solenoidas e teclas
 Significato dei magneti, delle valvole magnetiche e dei tasti / Significación de los imanes y/o los solenoides
 y pulsadores / Betekenis van de magneten resp. magneetkleppen, toetsen

Y4 I max 8 A * <799> = 1,3		Presserfuß heben / lifting presser foot / relevage du pied presseur / levantar do calçador / sollevamento del alzapiedino / elevación de prensatelas / drukvoet optillen
Y4 I max 8 A * <799> = 2		Kettelfinger / chaining-off finger / crochet de remmailage / dedo remalhador / levetta di rimettaggio / dedo de remaller / klemvinger
Y5 I max 8 A * <799> = 1		Kette saugen / chain vacuum / aspiration de chaînette / aspirar de cadeia / aspirazione catenella / aspiración cadeneta / zuigen van een ketting
Y5 I max 8 A * <799> = 1,2		Stichverdichtung / stitch condensation / rétrécissement des points / condensação dos pontos / addensamento punti / condensación de puntadas / steekverdichting
Y5 I max 8 A * <799> = 3		Saugen 2 / vacuum 2 / aspiration 2 / aspirar 2 / aspirazione 2 / aspiración 2 / zuigen 2
Y6 I max 8 A * <799> = 3		Stapler Übergabe 2 /
Y8 I max 8 A * <799> = 1,2		Motor läuft / motor runs / moteur en marche / motor em movimento / motore in moto / motor en marcha / loop van de machine
Y8 I max 8 A * <799> = 3		Stapler / stacker / empileur / empilhadeira / impilatore / apiladora / hefapparaat
Y9 I max 8 A *		Fadenspannungslösen / thread tension release / détenteur de fil / soltar tensão da linha / sbloccaggio tendifilo / detensión del hilo / verbreken van de draadspanning
Y14 I max 8 A * <799> = 1,2		Nadel oben / needle up / aiguille en haut / agulha em cima / ago su / aguja arriba / naald omhoog
Y14 I max 8 A * <799> = 3		Blasen / blower / souffleur / soprador / soffiatore / sopladora / blazen

Bedeutung der Magnete bzw. Magnetventile, Taster / Meaning of magnets and/or solenoids and keys
 Signification des aimants resp. solenoides et touches / Significação dos imãs e/ou as solenoidas e teclas
 Significato dei magneti, delle valvole magnetiche e dei tasti / Significación de los imanes y/o los solenoides
 y pulsadores / Betekenis van de magneten resp. magneetkleppen, toetsen

Y16 I max 100 mA   1I/U	Zählsignal / count signal / signal de comptage / sinal de contagem / segnale conteggio / señal del contador / telsignaal
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- * Die Summe der Lastströme aller gleichzeitig eingeschalteten Stellglieder (Magnete, Magnetventile) darf den Wert von 4A nicht überschreiten (siehe hierzu Kapitel 2. Technische Daten).
- * The total of load currents of all servos activated simultaneously (solenoids, solenoid valves) is not allowed to exceed 4 amps (see also section 2. Technical Specifications).
- * Le total des courants de charge de tous les vérins (aimants, électro-vannes) activés simultanément ne doit pas dépasser 4 A (voir aussi le chapitre 2. "caractéristiques techniques").
- * A soma das correntes sob carga de todos os atuadores ligados ao mesmo tempo (ímans, solenóides) não pode ultrapassar o valor de 4A (ver também capítulo 2. Dados Técnicos).
- * La somma delle correnti di carico di tutti gli attuatori inseriti contemporaneamente (magnet, elettrovalvole) non deve essere superiore a 4 A (vedere il capitolo 2. Dati Tecnici).
- * La suma de las corrientes bajo carga de todos los elementos de todos los componentes de regulación conectados simultáneamente (imanes, válvula magnética) no podrá sobrepasar el valor de 4A (véase también el capítulo 2. de datos técnicos).
- * De belastingsstroom van alle tegelijkertijd ingeschakelde bedieningsschakels (magneten, magneetventielen) mag in totaal niet meer dan 4 A bedragen (zie hiervoor hoofdstuk 2. Technische gegevens).