

MINI-STOP

QE3760

CE

Type

DA40MSII

Instruction Manual

Part 3

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Technical updatings reserved!

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, 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 DA40MS 02 (7z_101_9.hex)

Function	Abbrev'n	Parameter	Input Output	Connection Socket/Contacts
Accelerate	DRZAN	722		
Affichage	ANZ	605		
Backtack	RIE	104/105/110 305/523/585		
Backtack inversion	RIV	419	E5	X5:14
Backtack suppression	RIUNT	419		
Blower	BLA	668		
Brake	DRZAB	723/758/851		
Catcher	FANG	707		
Chopper	MESSER	105/110		
Control	REG	758/880/881 884/885/886 887/889/890 891/990		
Decorative backtack	ZRIE	522/523/775		
Defect search	HWT	797		
Delay	VERZ	403/623/642 643/730/731 732/733/739 740/770		
Direction of rotation	DRR	800		
Display	ANZ	605		
Edge trimmer	KS	491/512/513 514		
End backtack	ER	110/149/305 604/731/732 740		
Feed reverse	TUM	643/721/733	E1	X5:5
Flip-Flop	FF	491/510/511 512/513/514 515/516/517 518		
Front backtack	AR	104/105/148 305/739		
Hardware test	HWT	797		

Inverse rotation	RDR	618/623/801		
Machine class	MAKL	799		
Needle position	NAPO	522/700/701 702/703/705 707/710		
Needle position change-over	NPW	446		
Needle up without trimming	NHOS	446/710	E2	X5:6
Number of stitches	STZA	111/112/404 445/450/513 514		
ON period	EINZ	715/889		
Operator panel	BDF	681		
Output „A“	AUSGA	510/515/516		
Output „B“	AUSGB	491/511/512 513/514/517		
Photocell	LS	111/112/113 199/450/451 615		
Presser foot	PF	554/642/719 729/730/770		
Program	PR	114/206/221 304/313/491 510/511/512 513/514/515 516/554/851		
Programming level C	EBC	798		
Puller	PULL	445		
Repeat backtack	WRIE	731/740		
Residual brake	STBR	718		
Seam end	NE	110/114/206		
Seam start	NA	105		
Single stitch	EST	446		
Soft start	SANL	116/117		
Speed	DRZ	105/110/117 199/221/402 403/585/586 605/606/607 608/609/676 901		

Speed decrease	DRZAB	723/758/851		
Speed increase	DRZAN	722		
Speed limitation	DB	221/402/585 586/676		
Start	START	113/454/603		
Start delay	STVERZ	729		
Starting block	ANLSP	452/453/454 665		
Stitch condensation	STVD	105/110/419 739		
Stitchlength	STL	450		
Stop	STOP	114/206/452 453/665	E6	X5:11
Stop time	STOPZ	712/775		
Stroke adjustment	HV	401/402/403 404		
Target stitch	PEIPO	653/789		
Thread puller	FZ	761		
Thread tension release	FSL	707/761		
Thread trimming	SN	601/604/609 705/732/901		
Thread wiper	WI	668/715		
Time needed to switch on	EINZ	715/889		
Timing output	TA	719/721		
Vacuum	SAUG	105/110		

11.4 List of Parameters DA40MS 02 (7A_101_9.EN)

No.	Function (Meaning)	Level	Range Values	of Value	Standard
104	(AR/RIE) Front backtack correction (delayed disabling of feed reverse)	B,C	0 - 15	15	Kl. 1
105	(AR/RIE/DRZ/MESSER/NA/SAUG/STVD)	B,C	100 - 6400	1400	Kl. 1
110	Speed for front backtack / stitch condensation (ER/RIE/DRZ/MESSER/NE/SAUG/STVD)	B,C	100 - 6400	1400	Kl. 1
111	Speed for end backtack / stitch condensation (LS/STZA) Light barrier compensation stitches 1 (stitches from light barrier clear to seam end)	A,B,C	1 - 255	6	Kl. 1
112	(LS/STZA) Number of stitches for light barrier fade-out on knit fabrics (according to stitch size)	A,B,C	0 - 255	0	Kl. 1
113	(LS/START) Start with light barrier I when light barrier is dark only II also when light barrier is clear	B,C		II	Kl. 1
114	(PR/STOP/NE) Stop before seam end after stitch count (last seam section) I yes II no	B,C		II	Kl. 1
116	(SANL) Soft start stitches	A,B,C	0 - 255	2	Kl. 1
117	(SANL/DRZ) Speed for soft start stitches	B,C	30 - 800	800	Kl. 1
148	(AR) Front backtack I double II single	B,C		I	Kl. 1
149	(ER) End backtack I double II single	B,C		I	Kl. 1
199	(DRZ/LS) Speed for light barrier compensation stitches	B,C	300 - 6400	1400	Kl. 1
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
221	(PR/DB/DRZ) Speed limitation for sewing program 1 (or for all sewing programs)	B,C	300 - 6400	3000	Kl. 1
304	(PR) Stitch compensation at feed reverse for a seam section	B,C	0 - 2550	0	Kl. 1
305	(RIE/AR/ER) Front-backtack and end-backtack with interruption at pedal zero position I yes II no	B,C		II	Kl. 1
313	(PR) Programs are backtack programs (darning programs) I yes II no	B,C		II	Kl. 1
401	(HV) Input „stroke adjustment“ I switch operation II push-button operation	B,C		II	Kl. 1
402	(HV/DRZ/DB) Speed at stroke adjustment	B,C	300 - 6400	2000	Kl. 1
403	(HV/DRZ/VERZ) Delay (ms) of the speed variation at end of stroke adjustment	B,C	0 - 2550	150	Kl. 1
404	(HV/STZA) Number of stitches with stroke adjustment	B,C	0 - 255	3	Kl. 1
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

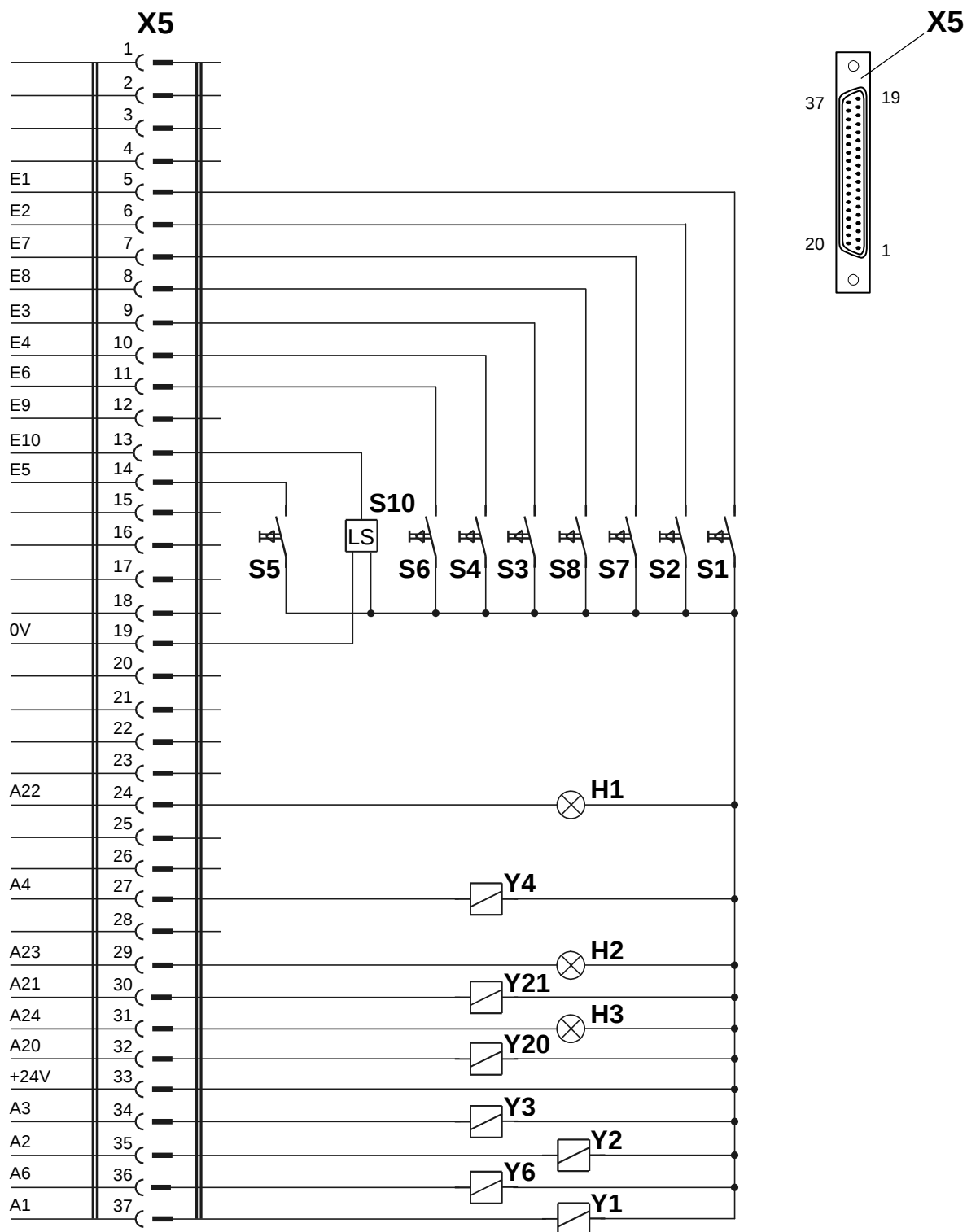
445	(PULL/STZA) Stitches for puller delay	B,C	0 - 255	10	Kl. 1
446	(NHOS/NPW/EST) Input E2 is 1 = needle up without trimming 2 = needle position change-over 3 = single stitch 4 = single stitch with reduced length	B,C	0 - 4	1	Kl. 1
450	(LS/STL/STZA) Light barrier compensation stitches at reduced stitchlength	A,B,C	1 - 255	6	Kl. 1
451	(LS) Light barrier connection I directed to the control system II via the external operator panel	B		I	Kl. 1
452	(ANLSP/STOP) Input „run locking“ I yes II no (without function)	B,C		II	Kl. 1
453	(ANLSP/STOP) Action of the „run lock“ input I drive system not functional II seam end can be performed	B,C		I	Kl. 1
454	(ANLSP/START) Start after „run lock“ signal cancellation I after treadle 0 only II immediate (by any treadle position >+1)	B,C		I	Kl. 1
491	(FF/PR/AUSGB/KS) Switch-off of output „A“ after thread trim I yes II no	B,C		II	Kl. 1
510	(FF/PR//AUSGA) function module for output „A“ Condition: <501> /= <511> 0 no function 1 stitch length changeover 2 overwidth control with speed limit 3 overwidth control without speed limit 4 single stitch with shortened stitch length 5 raise / lower carrier roller 6 raise / lower fabric stop 7 second thread tension 8 selvage cutter manual 9 selvage cutter automatic 10 „Triflex“ function 11 presser foot stroke adjustment	B,C	0 - 11	0	Kl. 1
511	(FF/PR/AUSGB) function module for output „B“ Condition: <511> /= <510> 0 no function 1 stitch length changeover 2 overwidth control with speed limit 3 overwidth control without speed limit 4 single stitch with shortened stitch length 5 raise / lower carrier roller 6 raise / lower fabric stop 7 second thread tension 8 selvage cutter manual 9 selvage cutter automatic 10 „Triflex“ function 11 presser foot stroke adjustment	B,C	0 - 11	0	Kl. 1
512	(FF/PR/AUSGB/KS) Switch-off of output „B“ (edge trimmer) after thread trim I yes II no	B,C		II	Kl. 1
513	(FF/PR/AUSGB/KS/STZA) stitches before beginning of seam to edge trimmer on	B,C	0 - 255	0	Kl. 1
514	(FF/PR/AUSGB/KS/STZA) Stitches from edge trimmer on till edge trimmer off	B,C	0 - 255	0	Kl. 1

515	(FF/PR/AUSGA) outputs „A“ and „LED A“ after thread trimmer I as after „mains on“ II unchanged	B,C	I	Kl. 1
516	(FF/PR/AUSGA) output „A“ after „mains on“ when <510> = 1 / 6 / 7 I on II off	B,C	II	Kl. 1
517	(FF/AUSGB) output „B“ after „mains on“ when <511> = 3 I on II off	B,C	II	Kl. 1
518	(FF) Flip-flop 8 after reset I high II low	B,C	I	Kl. 1
522	(NAPO/ZRIE) Needle position when stop occurs during decorative backtack (stitch in stitch) I position 2 (up) II position 1 (down)	B,C	II	Kl. 1
523	(RIE/ZRIE) Backtack I decorative backtack (stitch in stitch) II standard backtack	A,B,C	II	Kl. 1
554	(PF/PR) Presser foot position after seam section stitch count and treadle position > +1 I up II down	B,C	I	Kl. 1
585	(DRZ/DB/RIE) Speed limitation	B,C	100 - 6400	2000 Kl. 1
586	(DRZ/DB) Speed limitation	B,C	100 - 6400	3000 Kl. 1
601	(SN) Trimming I yes II no	B,C	I	Kl. 1
603	(START) Start after seam end I after treadle 0 only II immediate start of operation	B,C	I	Kl. 1
604	(SN/ER) Trimming after single end backtack I forward II backward	B,C	I	Kl. 1
605	(DRZ/ANZ) Actual speed in display I yes II no	B,C	II	Kl. 1
606	(DRZ) Speed: level 1 (min.)	B,C	60 - 640	180 Kl. 1
607	(DRZ) Speed: level 12 (max.) (00001001)	B,C	100 - 5500	4800 Kl. 1
608	(DRZ) Speed level curve (treadle characteristic) I linear II not linear	B,C	II	Kl. 1
609	(SN/DRZ) Trimming speed 1	B,C	60 - 300	180 Kl. 1
615	(LS) End recognition when photocell goes I from light to dark II from dark to light	B,C	II	Kl. 1
618	(RDR) Inverse rotation after seam end I yes II no	B,C	II	Kl. 1
623	(RDR/VERZ) Delay in start-up time (ms) for inverse rotation	B,C	0 - 2550	0 Kl. 1
642	(PF/VERZ) presser foot time from switch-on to voltage reduction (cycling)	C	10 - 200	200 Kl. 1
643	(TUM/VERZ) feed reverse time from switch-on to voltage reduction (cycling)	C	10 - 200	200 Kl. 1

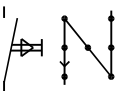
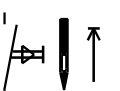
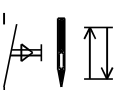
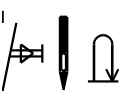
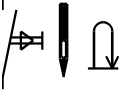
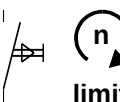
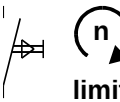
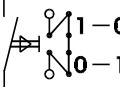
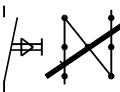
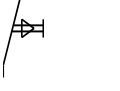
653	(PEIPO) Target stitch before sewing I yes II no	B,C		II	Kl. 1
665	(ANLSP/STOP) Run locking/stop I contact closed II contact open	B,C		I	Kl. 1
668	(BLA/WI) Thread wiper/thread clearer I yes II no	A,B,C		I	Kl. 1
676	(DRZ/DB) Speed adjustment via potentiometer possible I yes II no	B,C		II	Kl. 1
681	(BDF) Operator panel push-button locked I yes II no	B,C		II	Kl. 1
700	(NAPO) Needle position 0 (reference position of the needle)	B,C	0 - 127	0	Kl. 1
701	(NAPO) Angular adjustment I with handwheel (teach-in) II by keys (+/-)	B,C		I	Kl. 1
702	(NAPO) Needle position 1 (needle down)	B,C	0 - 127	0	Kl. 1
703	(NAPO) Needle position 2 (thread take-up lever up) (00000011)	B,C	0 - 127	95	Kl. 1
705	(NAPO/SN) Needle position 5 (end of trimming signal 1) (00000101)	B,C	0 - 127	95	Kl. 1
707	(NAPO/FSL/FANG) Needle position 9 (thread tension release or thread catcher start) (00000111)	B,C	0 - 127	0	Kl. 1
710	(NAPO/NHOS) Needle position 3 (needle up)	B,C	0 - 127	75	Kl. 1
712	(STOPZ) Time for stop in needle position 1	B,C	0 - 2550	0	Kl. 1
715	(EINZ/WI) Duration (ms) of thread wiper	B,C	0 - 2550	100	Kl. 1
718	(STBR) Timing of residual brake (0 = brake off)	B,C	0 - 100	6	Kl. 1
719	(PF/TA) Timing output A4 (0 = 100% switching on)	B,C	0 - 100	40	Kl. 1
721	(TUM/TA) Timing output A5 (0 = 100% switching on)	B,C	0 - 100	40	Kl. 1
722	(DRZAN) Acceleration ramp 1 gradual 50 steep	B,C	1 - 50	50	Kl. 1
723	(DRZAB) Brake ramp 1 gradual 50 steep	B,C	4 - 50	25	Kl. 1
729	(STVERZ/PF) Start delay after lowering presser foot	B,C	0 - 2550	80	Kl. 1
730	(PF/VERZ) Lift delay for presser foot after seam end	B,C	0 - 2550	50	Kl. 1
731	(ER/WRIE/VERZ) Delay before stitch counting for end backtack (ERV)	B,C	0 - 2550	60	Kl. 1
732	(SN/ER/VERZ) Delay (ms) for trimming after single end backtack	B,C	0 - 2550	30	Kl. 1
733	(TUM/VERZ) time lag between feeder change enable and motor start	B,C	0 - 200	30	Kl. 1
739	(AR/STVD/VERZ) Delay (ms) for speed after front backtack / stitch condensation	B,C	0 - 2550	120	Kl. 1
740	(ER/WRIE/VERZ) Delay before stitch counting for end backtack backward	B,C	0 - 2550	0	Kl. 1
758	(REG/DRZAB) Deceleration ramp I braking as per <723> II braking with maximal moment	C		II	Kl. 1

761	(FSL/FZ) Prolongation Thread tension release / Thread puller	B,C	0 - 2550	50	Kl. 1
770	(PF/VERZ) Lifting delay of presser foot at threadle- position „-1“	B,C	0 - 250	60	Kl. 1
775	(ZRIE/STOPZ) Stop time (ms) with stitch in stitch backtack (decorative backtack)	B,C	0 - 2550	100	Kl. 1
789	(PEIPO) Needle position 10 (target stitch)	B,C	0 - 127	91	Kl. 1
797	(HWT) Hardware test I yes II no	B,C		II	Kl. 1
798	(EBC) Programming level C I yes II no	B,C		II	Kl. 1
799	(MAKL) Machine class which has been selected	C	1 - 1	1	Kl. 1
800	(DRR) Direction of motor rotation viewed from belt pulley I left-hand rotation II right-hand rotation (00000001)	C		II	Kl. 1
801	(RDR) Reverse rotation angle after seam end	B,C	5 - 106	26	Kl. 1
851	(PR/DRZAB) Brake ramp for stitch-count seams I steep II gradual	C		I	Kl. 1
880	(REG) Starting current max. [A]	C	1 - 10	5	Kl. 1
881	(REG) adaption of positioning characteristics of motor to machine to avoid vibration	C	0 - 12	5	Kl. 1
884	(REG) Proportional amplification of the speed control (in general)	C	1 - 255	23	Kl. 1
885	(REG) Integral amplification of the speed control	C	0 - 255	35	Kl. 1
886	(REG) Proportional amplification of the order controllers	C	1 - 255	64	Kl. 1
887	(REG) Differential amplification of the order controllers	C	1 - 255	64	Kl. 1
889	(EINZ/REG) Time required for order controlling (0 = always)	C	0 - 2550	150	Kl. 1
890	(REG) Proportional amplification of the superior order controllers for the residual brake	C	1 - 255	25	Kl. 1
891	(REG) Proportional amplification of the lower speed controllers for the residual brake	C	1 - 255	20	Kl. 1
901	(DRZ/SN) Trimming release speed	C	30 - 500	350	Kl. 1
990	(REG) Removal of setpoint position upon change-over from speed control to position control	C	1 - 127	16	Kl. 1

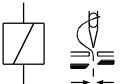
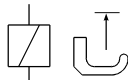
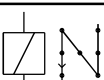
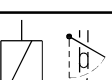
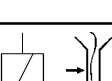
12. Electrical Connections Diagram X5 DA40MS



Bedeutung der Magnete bzw. Magnetventile, Taster / Meaning of magnets and/or solenoids and keys
 Signification des aimants resp. solenoides et touches / Significação dos ímãs e/ou as solenoides 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 	Transportumstellung / feed reverse / renversement de marche / mudança do transporte / commutazione trasporto / inversión de transporte / transportomschakeling
S2  <446> = 1	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
S2  <446> = 2	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  <446> = 3	Einzelstich / single stitch / point unique / ponto individual / punto singolo / puntada individual / enkele steek
S2  <446> = 4	Einzelstich verkürzt / single stitch reduced length / point unique longueur réduite / ponto individual encurtado / punto singolo accorciato / puntada individual reducida / enkele steek verkort
S3  <585>	Drehzahlbegrenzung 2 / speed limitation 2 / limitation de vitesse 2 / limitação das rotações 2 / limitazione velocità 2 / limitación de velocidad 2 / beperking van het toerental 2
S4  <586>	Drehzahlbegrenzung 3 / speed limitation 3 / limitation de vitesse 3 / limitação das rotações 3 / limitazione velocità 3 / limitación de velocidad 3 / beperking van het toerental 3
S5  <419> = I	Nachfolgende Riegelfunktion invertieren / invert subsequent backtack function / inverser la prochaine fonction de bridage / inverter o próximo remate / invertire la funzione d'affr. successiva / invertir la próxima función de remate / inverteren op elkaar volgende hechtfunctie
S5  <419> = II	Riegelunterdrückung / backtack suppression / suppression de bridage / supressão do remate / soppressione dell'afrancatura / supresion del remate / onderdrukking van het strookje
S6 	STOP
S7 	Flip-Flop 2: Eingang „B“ / Input „B“ / entrée „B“ / entrada „B“ / entrata „B“ / entrada „B“ / ingang „B“
S8 	Flip-Flop 1: Eingang „A“ / Input „A“ / entrée „A“ / entrada „A“ / entrata „A“ / entrada „A“ / ingang „A“
S10 	Lichtschranke / light barrier / barrière lumineuse / barreira luminosa / cellula fotoelettica / fotocélula / foto-elektrische beveiliging

Bedeutung der Magnete bzw. Magnetventile, Taster / Meaning of magnets and/or solenoids and keys
 Signification des aimants resp. solenoides et touches / Significação dos ímãs 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

Y1 I max 8 A *		Fadenschneider / thread trimmer / coupe-fil / corte de linhas / rasafilo / cortahilos / draadsnijder
Y2 I max 8 A *		Presserfuß heben / lifting presser foot / relevage du pied presseur / levantar do calcador / sollevamento del alzapiedino / elevación de prensatelas / drukvoet optillen
Y3 I max 8 A *		Transportumsteller / feed reverse / renversement de marche / mudança do transporte / commutazione trasporto / inversión de transporte / transportomschakeling
Y4 I max 8 A *		Fadenwischer / thread wiper / écarteur de fil / retira-linhas / scartafilo / retirahilos / draadwisser
Y6 I max 8 A *		Fadenspannungslösen / thread tension release / détendeur de fil / soltar tensão da linha / sbloccaggio tendifilo / detensión del hilo / verbreken van de draadspanning
Y20 I max 8 A *		Flip-Flop 2: Ausgang „B“ / output „B“ / sortie „B“ / saida „B“ / salida „B“ / uscita „B“ / uitgang „B“
Y21 I max 8 A *		Flip-Flop 1: Ausgang „A“ / output „A“ / sortie „A“ / saida „A“ / salida „A“ / uscita „A“ / uitgang „A“
H1 (A22) I max 20 mA		Anzeige S5 / display S5 / affichage S5 / indicação S5 / visualizzazione S5 / indicador S5 / indicatie S5
H2 (A23) I max 20 mA		Anzeige S8 / display S8 / affichage S8 / indicação S8 / visualizzazione S8 / indicador S8 / indicatie S8
H3 (A24) I max 20mA		Anzeige S7/ display S7/ affichage S7/ indicação S7/ visualizzazione S7/ indicador S7/ indicatie S7

- * 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 actuadores ligados ao mesmo tempo (ímãs, 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 belastingstroom van alle tegelijkertijd ingeschakelde bedieningsschakels (magneten, magneetventielen) mag in totaal niet meer dan 4 A bedragen (zie hiervoor hoofdstuk 2. Technische gegevens).

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