

MINI-STOP

QE3760

CE

Type

P40MS-02

Instruction Manual

Part 3

QUICK-ROTAN Elektromotoren GmbH
Königstraße 154
67655 Kaiserslautern
Tel: 0631 / 200 38 80
Fax: 0631 / 200 38 62
E-Mail: tech.suppl@Quick-Rotan.com

www.promelectroavtomat.ru
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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 P40MS-02 (7a_040_n.EN)

Function	Abbrev'n	Parameter	Input Output	Connection Socket/Contacts
Accelerate	DRZAN	722		
Backtack	RIE	104/107/110 523/584/677		
Backtack inversion	RIV	419/617		
Backtack suppression	RIUNT	419		
Blower	BLA	668		
Brake	DRZAB	723/758/851		
Control	REG	758/880/881 884/885/886 887/889/890 891/990		
Decorative backtack	ZRIE	522/523/530 775		
Delay	VERZ	623/642/643 730/731/732 739/740/791		
Direction of rotation	DRR	800		
End backtack	ER	110/149/604 731/732/740		
Feed reverse	TUM	643/721	E1 A5	X5:3 X5:11
Front backtack	AR	104/105/106 107/148/739 791		
Hardware test	HWT	797		
Inverse rotation	RDR	618/623/801		
Machine class	MAKL	799		
Needle position	NAPO	522/701/702 703/705/706 710		
Needle position change-over	NPW	616	E2	X5:8
Needle up without trimming	NHOS	616/710	E2	X5:8
Photocell	LS	111/112/113 199/615		
Presser foot	PF	554/624/642 651/719/729 730	E4 A4	X5:5 X5:13

Program	PR	114/206/221 304/313/554 851		
Programming level C	EBC	798		
Repeat backtack	WRIE	731/740		
Residual brake	STBR	718		
Seam end	NE	114/206/602		
Single stitch	EST	617	E3	X5:2
Soft start	SANL	116/117		
Speed	DRZ	105/106/107 110/117/199 221/530/605 606/607/608 609/676/901		
Speed decrease	DRZAB	723/758/851		
Speed increase	DRZAN	722		
Speed limitation	DB	221		
Start	START	113/603		
Start delay	STVERZ	729		
Starting block	ANLSP	624/665		
Stitch condensation	STVD	105/106/107 110/419/617 677/739		
Stop	STOP	114/206/624 665		
Stop time	STOPZ	775		
Target stitch	PEIPO	653/789		
Thread puller	FZ	761		
Thread tension release	FSL	761	A8	X5:4
Thread trimming	SN	601/604/609 705/706/732 901	A2	X5:1
Thread wiper	WI	668/715	A3	X5:7
Time needed to switch on	EINZ	715/889		
Timing output	TA	719/721		

11.4 List of Parameters P40MS-02 (7a_040_n.EN)

No.	Function (Meaning)	Level	Range of Values	Standard Value
104	(AR/RIE) Front backtack correction (delayed disabling of feed reverse)	B,C	0-15	8
105	(AR/DRZ/STVD) Speed for front backtack/stitch condensation	B,C	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
107	(AR/RIE/DRZ/STVD) Speed for front backtack/stitch condensation when <106> = I I limited by <105> II limited by <607>	B,C		II
110	(ER/RIE/DRZ/STVD) Speed for end backtack/stitch condensation	B,C	100-6400	1200
111	(LS) Photocell compensation stitches 1 (stitches from photocell clear to seam end)	A,B,C	1-255	6
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
116	(SANL) Soft start stitches	A,B,C	0-255	0
117	(SANL/DRZ) Speed for soft start stitches	B,C	30-640	400
148	(AR) Front backtack I double II single	A,B,C		I
149	(ER) End backtack I double II single	A,B,C		I
199	(DRZ/LS) Speed for photocell compensation stitches	B,C	300-6400	1200
206	(NE/PR/STOP) Interrupt/discontinue seam sections at speed = constant (<203> = II) I with treadle -2 II with treadle 0	B,C		II
221	(PR/DB/DRZ) Speed limitation for sewing programs (or sewing program 1)	B,C	300-6400	1200
304	(PR) Stitch compensation at feed reverse for a seam section	B,C	0-2550	30
313	(PR) Programs are backtack programs (darning programs) I yes II no	B,C		II

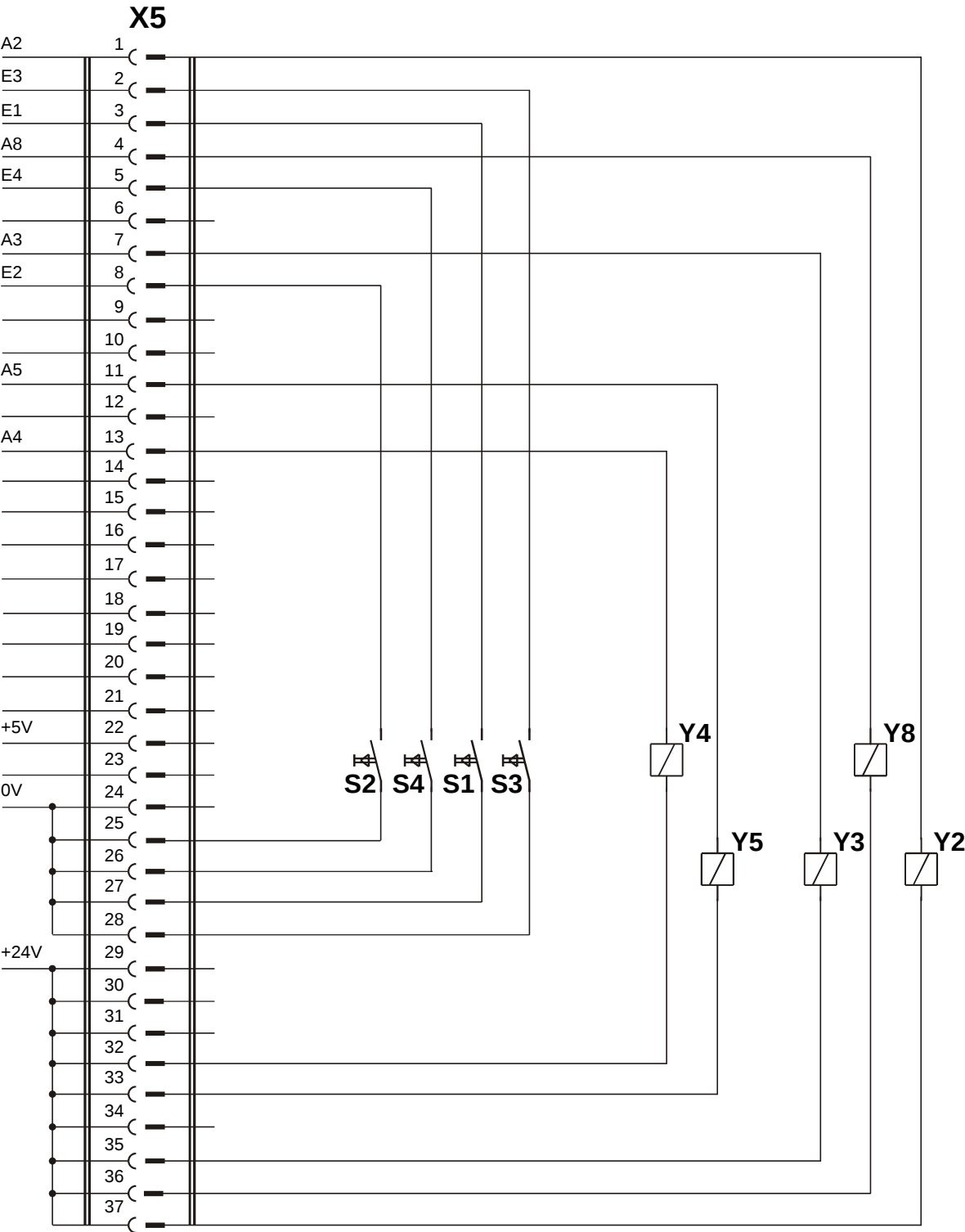
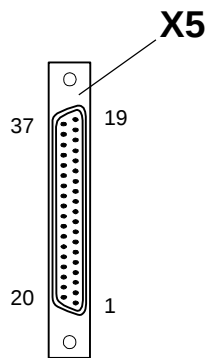
419	(RIV/RIUNT/STVD) Function of external key	B,C		I
	I backtack/stitch condensation inversion			
	II backtack/stitch condensation suppression (flip-flop function)			
522	(NAPO/ZRIE) Needle position when stop occurs during decorative backtack (stitch in stitch)	B,C		II
	I position 2 (up)			
	II position 1 (down)			
523	(RIE/ZRIE) Backtack	A,B,C		II
	I decorative backtack (stitch in stitch)			
	II standard backtack			
530	(DRZ/ZRIE) Speed (max.) for decorative backtack	B,C	100-6400	1000
554	(PF/PR) Presser foot position after seam section stitch count and treadle position > +1	B,C		I
	I up			
	II down			
584	(RIE) Backtack	B,C		II
	I four times			
	II double			
601	(SN) Trimming	B,C		I
	I yes			
	II no			
602	(NE) Seam end at treadle position	B,C		II
	I slightly heeled (-1)			
	II fully heeled (-2)			
603	(START) Start after seam end	B,C		I
	I after treadle 0 only			
	II immediate start of operation			
604	(SN/ER) Trimming after single end backtack	B,C		I
	I forward			
	II backward			
605	(DRZ) Actual speed in display	B,C		II
	I yes			
	II no			
606	(DRZ) Speed: level 1 (min.)	B,C	30-640	180
607	(DRZ) Speed: level 12 (max.)	B,C	100-5500	4000
608	(DRZ) Speed level curve (treadle characteristic)	B,C		I
	I linear			
	II not linear			
609	(SN/DRZ) Trimming speed 1	B,C	60-300	180
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)			
617	(EST/RIV/STVD) Function of external key (input E3)	B,C		II
	I single stitch (EST)			
	II backtack/stitch condensation inverted (RIV)			

618	(RDR) Inverse rotation after seam end I yes II no	B,C		II
623	(RDR/VERZ) Delay in start-up time (ms) for inverse rotation	B,C	0-2550	30
624	(ANLSP/STOP/PF) Function of external key (input E4) I stop/safety switch no run II presser foot	B,C		II
642	(PF/VERZ) presser foot time from switch-on to voltage reduction (cycling)	C	10-200	100
643	(TUM/VERZ) feed reverse time from switch-on to voltage reduction (cycling)	C	10-200	100
651	(PF) Presser foot with automatic descent on machine stop I yes II no	B,C		I
653	(PEIPO) Target stitch before sewing I yes II no	B,C		II
665	(ANLSP/STOP) Run locking/stop I contact closed II contact open	B,C		I
668	(BLA/WI) Thread wiper/thread clearer I yes II no	B,C		I
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
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	15
703	(NAPO) Needle position 2 (thread take-up lever up) (11000000)	B,C	0-127	113
705	(NAPO/SN) Needle position 5 (end of trimming signal 1) (00100000)	B,C	0-127	82
706	(NAPO/SN) Needle position 6 (start trimming signal 2) (10100000)	B,C	0-127	68
710	(NAPO/NHOS) Needle position 3 (needle up)	B,C	0-127	106
715	(EINZ/WI) Duration (ms) of thread wiper	B,C	0-2550	120

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	50
723	(DRZAB) Brake ramp 1 gradual 50 steep	B,C	4-50	20
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	70
732	(SN/ER/VERZ) Delay (ms) for trimming after single end backtack	B,C	0-2550	30
739	(AR/STVD/VERZ) Delay (ms) for speed after front backtack/stitch condensation	B,C	0-2550	120
740	(ER/WRIE/VERZ) Delay before stitch counting for end backtack (ERR)	B,C	0-2550	60
758	(REG/DRZAB) Deceleration ramp I braking as per <723> II braking with maximal moment	C		II
761	(FSL/FZ) Prolongation Thread tension release/ Thread puller	B,C	0-80	0
775	(ZRIE/STOPZ) Stop time (ms) with stitch in stitch backtack (decorative backtack)	B,C	0-2550	100
789	(PEIPO) Needle position 10 (target stitch)	B,C	0-127	120
791	(AR/VERZ) Delay before stitch counting (ms) for front backtack	B,C	0-2550	30
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	C	1-1	1
800	(DRR) Direction of motor rotation viewed from belt pulley I left-hand rotation II right-hand rotation (10000000)	C		II *
801	(RDR) Reverse rotation angle after seam end	B,C	5-106	16
851	(PR/DRZAB) Brake ramp for stitch-count seams I steep II gradual	C		II *
880	(REG) Starting current max. [A]	C	1-10	5

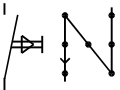
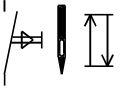
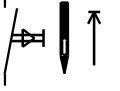
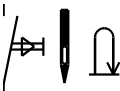
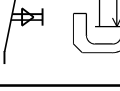
881	(REG) adaption of positioning characteristics of motor to machine to avoid vibration	B,C	1-12	6
884	(REG) Proportional amplification of the speed control (in general)	B,C	1-255	15
885	(REG) Integral amplification of the speed control	C	0-255	35
886	(REG) Proportional amplification of the order controllers	C	1-255	30
887	(REG) Differential amplification of the order controllers	C	1-255	30
889	(EINZ/REG) Time required for order controlling (0 = always)	C	0-2550	200
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
901	(DRZ/SN) Trimming release speed	C	30-500	300
990	(REG) Distance to position at switch over from speed control to position control	C	1-127	12

12. Electrical Connections Diagram P40MS-02



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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 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

S1 	Transportumstellung von Hand / manual feed reverse / renversement de marche manuel / mudança do transporte manual / commutazione trasporto a mano / inversión de transporte manual / handmatige transportomschakeling
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
S3 	Einzelstich / single stitch / point unique / ponto individual / punto singolo / puntada individual / enkele steek
S4 	Presserfuß / presser foot / pied presseur / calcador / alzapiedino / prensatelas / drukvoet
Y2 I max 8 A *	Fadenschneiden / thread trimmer / coupe-fil / corte de linhas / rasafilo / cortahilos / draadsnijder
Y3 I max 8 A *	Fadenwischer / thread wiper / écarteur de fil / retira-linhas / scartafilo / retirahilos / draadwischer
Y4 I max 8 A *	Presserfuß heben / lifting presser foot / relevage du pied presseur / levantar do calcador / sollevamento del alzapiedino / elevación de prensatelas / drukvoet optillen
Y5 I max 8 A *	Transportumsteller / feed reverse / renversement de marche / mudança do transporte / commutazione trasporto / inversión de transporte / transportomschakeling
Y8 I max 8 A *	Fadenspannungslösen / thread tension release / détenteur de fil / soltar tensão da linha / sbloccaggio tendifilo / detensión del hilo / verbreken van de draadspanning

- * 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 (magnet, magneetventielen) mag in totaal niet meer dan 4 A bedragen (zie hiervoor hoofdstuk 2. Technische gegevens).