MINI-STOP

QE3760

$C \epsilon$

Type

P43MSII

Instruction Manual

Part 3

List of Contents Part 3

Technical updatings reserved!

www.promelectroavtomat.ru

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 P43MS II (7A_043_I.ENO)

Function	Abbrev'n	Parameter	Input Output	Connection Socket/Contacts
Accelerate	DRZAN	722		
Backtack	RIE	104/105/107 110/523/584 585		
Backtack inversion	RIV	419/617		
Backtack suppression	RIUNT	419		
Blower	BLA	668		
Brake	DRZAB	723/758/851		
Catcher	FANG	707		
Chopper	MESSER	105/110/560		
Control	REG	758/880/881 884/885/886 887/889/890 891/990		
Decorative backtack	ZRIE	522/523/530 775		
Defect search	HWT	797		
Delay	VERZ	623/641/642 643/730/731 732/733/739 740/761/770 791		
Direction of rotation	DRR	800		
Display	ANZ	605		
Edge trimmer	KS	356/776		
End backtack	ER	110/149/604 731/732/740		
Feed reverse	TUM	301/643/721 733	E1	X5:3
Front backtack	AR	104/105/106 107/148/739 791		
Hardware test	HWT	797		
Inverse rotation	RDR	618/623/801		
Machine class	MAKL	799		

Machine run	ML	904	A1	X5:9
Needle position	NAPO	522/701/702 703/705/706 707/710		
Needle position change-over	NPW	616		
Needle up without trimming	NHOS	616/710	E2	X5:8
Number of stitches	STZA	111/112/560 760		
ON period	EINZ	528/715/889		
Photocell	LS	111/112/113 188/199/560 615/641		
Presser foot	PF	356/554/636 642/651/719 729/730/770	A4	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	110/114/206 602		
Seam start	NA	105		
Single stitch	EST	617	E3	X5:2
Soft start	SANL	116/117		
Speed	DRZ	105/106/107 110/117/199 221/530/585 605/606/607 608/609/676 901		
Speed decrease	DRZAB	723/758/851		
Speed increase	DRZAN	722		
Speed limitation	DB	221/585/676		
Stacker	STAP	528/776		
Start	START	113/188/603 641		
Start delay	STVERZ	729		

Stitch condensation	STVD	105/106/107 110/419/617 739		
Stitchcounter	STZ	560/760		
Stop	STOP	114/206	E6	X5:6
Stop time	STOPZ	775		
Stroke adjustment	HV	720		
Target stitch	PEIPO	653/789		
Thread monitor	FW	660/760		
Thread puller	FZ	761		
Thread tension release	FSL	538/636/707 761		
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	528/715/889		
Timing output	TA	538/642/643 705/719/720 721		
Vacuum	SAUG	105/110/356		

11.4 List of Parameters P43MS II   (7A_043_I.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	8	Kl. 1
105	(AR/RIE/DRZ/MESSER/NA/SAUG/STVD) Speed for front backtack / stitch condensation	B,C	300 - 2000	1200	Kl. 1
106	(AR/DRZ/STVD) Speed for front backtack/stitch condensation 1 variable (treadle-controlled) 0 constant (corresponding to <105>)	B,C		0	Kl. 1
107	(AR/RIE/DRZ/STVD) Speed for front backtack/stitch condensation when <106> = I 1 limited by <105> 0 limited by <607>	B,C		0	Kl. 1
110	(ER/RIE/DRZ/MESSER/NE/SAUG/STVD) Speed for end backtack / stitch condensation	B,C	300 - 2000	1200	Kl. 1
111	(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 1 when light barrier is dark only 0 also when light barrier is clear	B,C		0	Kl. 1
114	(PR/STOP/NE) Stop before seam end after stitch count (last seam section) 1 yes 0 no	B,C		0	Kl. 1
116	(SANL) Soft start stitches	A,B,C	0 - 255	0	Kl. 1
117	(SANL/DRZ) Speed for soft start stitches	B,C	30 - 640	400	Kl. 1
148	(AR) Front backtack 1 double 0 single	A,B,C		1	Kl. 1
149	(ER) End backtack 1 double 0 single	A,B,C		1	Kl. 1
188	(LS/START) Start by light barrier 1 even when light barrier is light 2 only when light barrier is dark 3 without pedal when light barrier is dark	B,C	1 - 3	1	Kl. 1
199	(DRZ/LS) Speed for light barrier compensation stitches	B,C	300 - 6400	1200	Kl. 1
206	(NE/PR/STOP) Interrupt/discontinue seam sections at speed = constant (<203> = II) 1 with treadle -2 0 with treadle 0	B,C		1	Kl. 1
221	(PR/DB/DRZ) Speed limitation for sewing program 1 (or for all sewing programs)	B,C	300 - 6400	1200	Kl. 1
301	(TUM) Switch-on voltage of the magnet for transport change-over 1 24V 0 32V	C		0	Kl. 1
304	(PR) Stitch compensation at feed reverse for a seam section	B,C	0 - 2550	30	Kl. 1
313	(PR) Programs are backtack programs (darning programs) 1 yes 0 no	B,C		0	Kl. 1
356	(PF/SAUG/KS) Input E4 is at 1 Presser foot 0 Vacuuming	B,C		1	Kl. 1

No.	Description	Class	Range	Default	
419	(RIV/RIUNT/STVD) Function of external key	B,C		1	Kl. 1
	1 backtack / stitch condensation inversion				
	0 backtack / stitch condensation suppression (flip-flop function)				
522	(NAPO/ZRIE) Needle position when stop occurs during decorative backtack (stitch in stitch)	B,C		0	Kl. 1
	1 position 2 (up)				
	0 position 1 (down)				
523	(RIE/ZRIE) Backtack	A,B,C		0	Kl. 1
	1 decorative backtack (stitch in stitch)				
	0 standard backtack				
528	(EINZ/STAP) Duration (ms) of stacker function	B,C	0 - 2550	120	Kl. 1
530	(DRZ/ZRIE) Speed (max.) for decorative backtack	B,C	100 - 6400	1000	Kl. 1
538	(FSL/TA) Timing of output Ax (thread tension release) (0 = 100%)	B,C	10 - 100	50	Kl. 1
554	(PF/PR) Presser foot position after seam section stitch count and treadle position > +1	B,C		1	Kl. 1
	1 up				
	0 down				
560	(MESSER/LS/STZ/STZA) Seam start: number of stitches 1 from start (light barrier dark) to chopper	A,B,C	0 - 255	5	Kl. 1
584	(RIE) Backtack	B,C		0	Kl. 1
	1 four times				
	0 double				
585	(DRZ/DB/RIE) Speed limitation	B,C	300 - 2500	1000	Kl. 1
601	(SN) Trimming	B,C		1	Kl. 1
	1 yes				
	0 no				
602	(NE) Seam end at treadle position	B,C		0	Kl. 1
	1 slightly heeled (-1)				
	0 fully heeled (-2)				
603	(START) Start after seam end	B,C		1	Kl. 1
	1 after treadle 0 only				
	0 immediate start of operation				
604	(SN/ER) Trimming after single end backtack	B,C		1	Kl. 1
	1 forward				
	0 backward				
605	(DRZ/ANZ) Actual speed in display	B,C		0	Kl. 1
	1 yes				
	0 no				
606	(DRZ) Speed: level 1 (min.)	B,C	30 - 640	180	Kl. 1
607	(DRZ) Speed: level 12 (max.)	B,C	100 - 5500	4000	Kl. 1
608	(DRZ) Speed level curve (treadle characteristic)	B,C		1	Kl. 1
	1 linear				
	0 not linear				
609	(SN/DRZ) Trimming speed 1	B,C	60 - 300	180	Kl. 1
615	(LS) End recognition when photocell goes	B,C		0	Kl. 1
	1 from light to dark				
	0 from dark to light				
616	(NPW/NHOS) Function of external key (input E2)	B,C		0	Kl. 1
	1 needle position change-over (NPW)				
	0 needle up without trimming (NHOS)				
617	(EST/RIV/STVD) Function of external key (input E3)	B,C		0	Kl. 1
	1 single stitch (EST)				
	0 backtack / stitch condensation inverted (RIV)				
618	(RDR) Inverse rotation after seam end	B,C		0	Kl. 1
	1 yes				
	0 no				
623	(RDR/VERZ) Delay in start-up time (ms) for inverse rotation	B,C	0 - 2550	30	Kl. 1
636	(FSL/PF) thread tension release in conjunction with presser foot	B,C		0	Kl. 1
	1 yes				
	0 no				

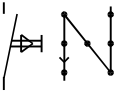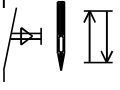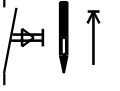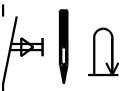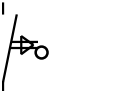|						
641	(LS/START/VERZ) Delay before start (ms) after photocell (at <640> = I)	B,C	10 - 2550	150	Kl. 1	
642	(PF/VERZ/TA) preser foot time from switch-on to voltage reduction (cycling)	C	10 - 200	100	Kl. 1	
643	(TUM/VERZ/TA) feed reverse time from switch-on to voltage reduction (cycling)	C	10 - 200	100	Kl. 1	
651	(PF) Presser foot with automatic descent on machine stop 1 yes 0 no	B,C		1	Kl. 1	
653	(PEIPO) Target stitch before sewing 1 yes 0 no	B,C		0	Kl. 1	
660	(FW) Bobbin thread monitoring 0 without (= *II*) 1 via a sensor (= **I*) 2 by a stitch count	A,B,C	0 - 2	0	Kl. 1	
668	(BLA/WI) Thread wiper/thread clearer 1 yes 0 no	B,C		1	Kl. 1	
676	(DRZ/DB) Speed limitation via potentiometer at the SERVO-TOP control or via the keys V+ / V- at the MINI-STOP control 1 yes 0 no	B,C		1	Kl. 1	
701	(NAPO) Angular adjustment 1 with handwheel (teach-in) 0 by keys (+/-)	B,C		1	Kl. 1	
702	(NAPO) Needle position 1 (needle down)	B,C	0 - 127	15	Kl. 1	
703	(NAPO) Needle position 2 (thread take-up lever up)	B,C	0 - 127	113	Kl. 1	
705	(NAPO/SN/TA) Needle position 5 (end of trimming signal 1 (magnetic thread trimmer) / clock pulses start of the trimming signal 1)	B,C	0 - 127	82	Kl. 1	
706	(NAPO/SN) Needle position 6 (start trimming signal 2 (pneumatic thread trimmer))	B,C	0 - 127	68	Kl. 1	
707	(NAPO/FSL/FANG) Needle position 9 (thread tension release or thread catcher start)	B,C	0 - 127	68	Kl. 1	
710	(NAPO/NHOS) Needle position 3 (needle up)	B,C	0 - 127	106	Kl. 1	
715	(EINZ/WI) Duration (ms) of thread wiper	B,C	0 - 2550	120	Kl. 1	
718	(STBR) Timing of residual brake (0 = brake off)	B,C	0 - 100	0	Kl. 1	
719	(PF/TA) Timing output A4 (lifting presser foot) (0 = 100% switched on)	B,C	0 - 100	40	Kl. 1	
720	(HV/TA) Timing output Ax (stroke adjustment) (0 = 100% switched on)	B,C	0 - 40	10	Kl. 1	
721	(TUM/TA) Timing output A5 (feed reverse) (0 = 100% switched on)	B,C	10 - 100	40	Kl. 1	
722	(DRZAN) Acceleration ramp 1 gradual 50 steep	B,C	1 - 50	15	Kl. 1	
723	(DRZAB) Brake ramp 1 gradual 50 steep	B,C	4 - 50	20	Kl. 1	
729	(STVERZ/PF) Start delay after lowering presser foot	B,C	0 - 2550	120	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	70	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	
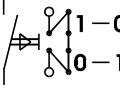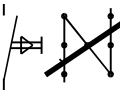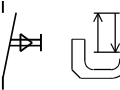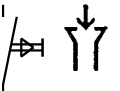
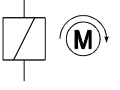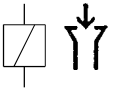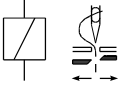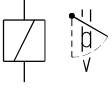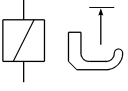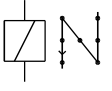|					
740	(ER/WRIE/VERZ) Delay before stitch counting for end backtack backward	B,C	0 - 2550	60	Kl. 1
758	(REG/DRZAB) Deceleration ramp 1 braking as per <723> 0 braking with maximal moment	C		0	Kl. 1
760	(FW/SPFW/STZ/STZA) - Stitch count for the remnant thread after the bobbin thread monitor responds with direct bobbin thread monitoring - Multiplicator for the fixed value (200) for determining the start value of the stitch counter with indirect bobbin thread monitoring	A,B,C	0 - 250	5	Kl. 1
761	(FSL/FZ/VERZ) Prolongation Thread tension release/ Thread puller	B,C	0 - 80	0	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
776	(STAP/KS) Output „Ax" is at 1 edge cutter 0 stapler	B,C	1 - 2	1	Kl. 1
789	(PEIPO) Needle position 10 (target stitch)	B,C	0 - 127	120	Kl. 1
791	(AR/VERZ) Delay before stitch counting (ms) for front backtack	B,C	0 - 2550	30	Kl. 1
797	(HWT) Hardware test 1 yes 0 no	B,C		0	Kl. 1
798	(EBC) Programming level C 1 yes 0 no	B,C		0	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 1 left-hand rotation 0 right-hand rotation	B,C		0	Kl. 1 *
801	(RDR) Reverse rotation angle after seam end	B,C	5 - 106	16	Kl. 1
851	(PR/DRZAB) Brake ramp for stitch-count seams 1 steep 0 gradual	C		0	Kl. 1 *
880	(REG) Starting current max. [A]	C	1 - 10	6	Kl. 1 *
881	(REG) adaption of positioning characteristics of motor to machine to avoid vibration	B,C	0 - 12	6	Kl. 1
884	(REG) Proportional amplification of the speed control (in general)	B,C	1 - 255	15	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	30	Kl. 1
887	(REG) Differential amplification of the order controllers	C	1 - 255	30	Kl. 1
889	(EINZ/REG) Time required for order controlling (0 = always)	C	0 - 2550	200	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	300	Kl. 1
904	(ML) Output Ax (motor operation) is active 1 with motor running 0 with motor stationary	B,C		0	Kl. 1
990	(REG) Removal of setpoint position upon change-over from speed control to position control	C	1 - 127	12	Kl. 1

12. Electrical Connections Diagram X5 P43MSII
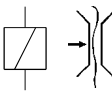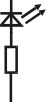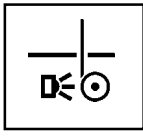
Bedeutung der Magnete bzw. Magnetventile, Taster / Meaning of magnets and/or solenoids and keys
Signification des aimants resp. solenoides et touches / Significação dos imaõs e/ou as solenoidas e teclas
Significato dei magneti, delle valvole magnetiche e dei tasti / Significación de los imanes y/o los 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 / troça de posião 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 <617> = I	Einzelstich / single stitch / point unique / ponto individual / punto singolo / puntada individual / enkele steek
S3 <617> = II <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
S3 <617> = II <419> = II	Riegelunterdrückung / backtack suppression / suppression de bridage / supressão do remate / soppresione dell' affrancatura / supresión del remate / onderdrukking van het strookje
S4 <356> = I	Presserfuß / presser foot / pied presseur / calcador / alzapiedino / prensatelas / drukvoet
S4 <356> = II	Absaugung / vacuum / aspiration / aspirar / aspirazione / aspiración / zuigen
S6	STOP/Anlaufsperre / STOP/Safety switch no run / STOP/Verrouillage de remise en marche / STOP/Bloqueio de arranque / STOP/Blocco avviamento / STOP/Bloqueo de repuesta en marcha / STOP/Startblokkering
Y1 I max 8 A * <356> = I	Motorlauf / motor runs / moteur en marche / motor em movimento / motore in moto / motor en marcha / loop van de machine
Y1 I max 8 A * <356> = II	Absaugung / vacuum / aspiration / aspirar / aspirazione / aspiración / zuigen
Y2 I max 8 A * <720>	Fadenschneiden / thread trimmer / coupe-fil / corte de linhas / rasafilo / cortahilos / draadsnijder

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

Y3 I max 8 A **✱**		Fadenwischer / thread wiper / écarteur de fil / retira-linhas / scartafilo / retirahilos / draadwisser
Y4 I max 8 A **✱** <719>		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 **✱** <721>		Transportumsteller / feed reverse / renversement de marche / mudança do transporte / commutazione trasporto / inversión de transporte / transportomschakeling
Y6 I max 8 A **✱** <776> = 1		Kantenschneider / edge trimmer coupe de bord / corte cantos rasa bordi / corta bordes zoomsnijder
Y6 I max 8 A **✱** <776> = 2		Stapler / stacker / empileur / empilhadeira / impilatore / apiladora / hefapparaat
Y8 I max 8 A **✱**		Fadenspannungslösen / thread tension release / détendeur de fil / soltar tensão da linha / sbloccaggio tendifilo / detensión del hilo / verbreken van de draadspanning
A10		Signal Unterfadenwächter / signal bobbin thread sensor
FW **A7, A16, E13**		Fadenwächter / thread monitor / garde-fil / guarda da linha / controllafilo / guardahilos / draadcontrole **A7**: Reset **A16**: Zählsignal / count signal / signal de comptage / sinal de contagem / segnale conteggio / señal del contador / telsignaal **E13**: Spulfaden / bobbin thread / fill de bobine / fio da canilha / filo bobina / hilo de canilla / spoeldraad

⬜ 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 (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 (magneti, 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).