

MINI-STOP

QE3760

CE

Type

Q41MS II

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 Q41MS II (7z_932_C.hex)

Function	Abbrev'n	Parameter	Input Output	Connection Socket/Contacts
Accelerate	DRZAN	722		
Affichage	ANZ	605		
Backtack	RIE	105/110/126		
Backtack inversion	RIV	419		
Backtack suppression	RIUNT	419		
Brake	DRZAB	723/758/851		
Chain blowing	KEBLA	548		
Chaining-off finger	KEFI	215/216/766		
Chopper	MESSER	105/110/126 537		
Control	REG	758/880/881 884/885/886 887/889/890 891/990		
Defect search	HWT	797		
Delay	VERZ	216/545/623 641/730/770		
Direction of rotation	DRR	800		
Display	ANZ	605		
End backtack	ER	110/126		
Feed reverse	TUM	721		
Flip-Flop	FF	415		
Front backtack	AR	105		
Hardware test	HWT	797		
Inverse rotation	RDR	618/623/801		
Machine class	MAKL	790/799		
Needle position	NAPO	521/648/701 702/703		
Number of stitches	STZA	112/215/540 541/542/543 564		
ON period	EINZ	537/548/889		

Photocell	LS	112/177/188 451/543/564 615/641
Presser foot	PF	651/719/729 730/770
Program	PR	203/206/221 851
Programming level C	EBC	798
Residual brake	STBR	718
Seam end	NE	110/126/206 543/548
Seam start	NA	105
Soft start	SANL	116/117
Speed	DRZ	105/110/117 126/203/221 605/606/607 609/676
Speed decrease	DRZAB	723/758/851
Speed increase	DRZAN	722
Speed limitation	DB	221/676
Start	START	188/540/541 603/641
Start delay	STVERZ	729
Stitch condensation	STVD	105/110/126 419
Stop	STOP	206/564
Stroke adjustment	HV	720
Thread tension release	FSL	540/542/636
Thread trimming	SN	609
Time needed to switch on	EINZ	537/548/889
Timing output	TA	719/720/721 766
Vacuum	SAUG	105/110/126 541/543/545

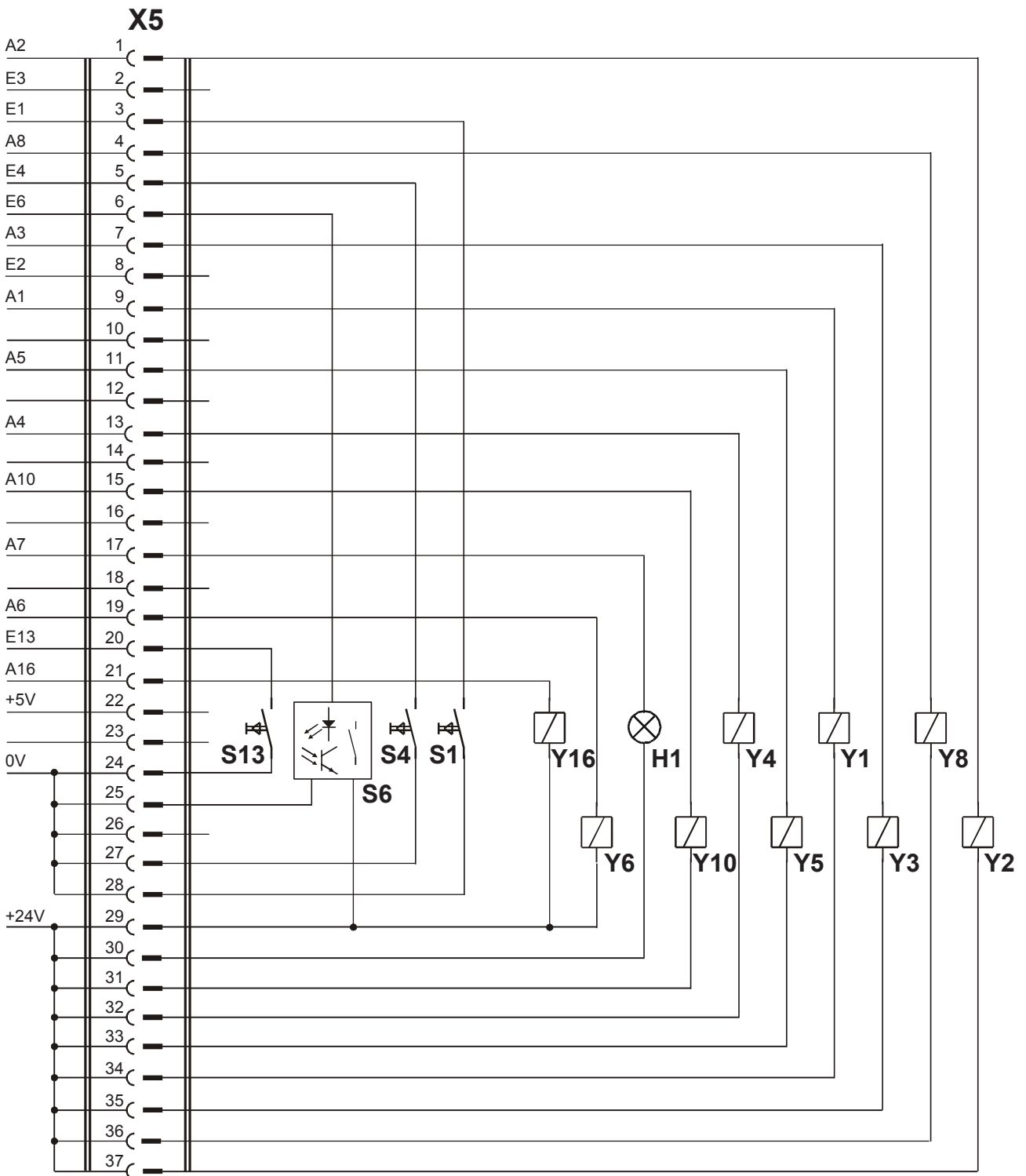
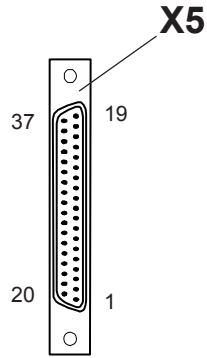
11.4 List of Parameters Q41MS II (7z_932_C.hex)

No.	Function (Meaning)	Level	Range Values	of Value	Standard
105	(AR/RIE/DRZ/MESSER/NA/SAUG/STVD) Speed for front backtack / stitch condensation	B,C	100 - 6400	1500	Kl. 1, 2, 3
110	(ER/RIE/DRZ/MESSER/NE/SAUG/STVD) Speed for end backtack / stitch condensation	B,C	100 - 6400	1500	Kl. 1, 2, 3
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, 2, 3
116	(SANL) Soft start stitches	A,B,C	0 - 255	0	Kl. 1, 2, 3
117	(SANL/DRZ) Speed for soft start stitches	B,C	30 - 640	500	Kl. 1, 2, 3
126	(ER/DRZ/MESSER/NE/RIE/SAUG/STVD) Speed for End backtack / stitch condensation I variable (treadle-controlled) II constant (corresponding to <110>)	B,C		II	Kl. 1, 2, 3
177	(LS) Maximum stitch count (indication x 10) for a seam segment with sensor control	C	1 - 4	1	Kl. 1, 2, 3
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, 2, 3
203	(PR/DRZ) Speed for seam program I variable (treadle-controlled) II constant (corresponding to <221> or <222>)	B,C		I	Kl. 1, 2, 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, 2, 3
215	(KEFI/STZA) Number of stitches for chaining-off finger	A,B,C	0 - 255	5	Kl. 3, 1, 2
216	(KEFI/VERZ) Delay in start-up time (ms) for chaining-off finger	B,C	0 - 255	4	Kl. 3, 1, 2
221	(PR/DB/DRZ) Speed limitation for sewing program 1 (or for all sewing programs)	B,C	300 - 6400	1000	Kl. 1, 2, 3
415	(FF) Flip-flop reset after seam end I yes II no	B,C		I	Kl. 1, 2, 3
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, 2, 3
451	(LS) Light barrier connection I directed to the control system II via the external operator panel	B		II	Kl. 1, 2, 3
521	(NAPO) Needle position at stop before seam end I position 2 (up) II position 1 (down)	B,C		I	Kl. 1, 2, 3
537	(EINZ/MESSER) Chopper duty cycle (ms)	B,C	0 - 2550	200	Kl. 1, 2, 3
540	(FSL/START/STZA) Number of stitches from start to thread tension release off	B,C	0 - 255	3	Kl. 1, 2, 3
541	(SAUG/START/STZA) Number of stitches from start to vacuum off	B,C	0 - 255	3	Kl. 1, 2, 3
542	(FSL/STZA) Number of stitches from photocell clear to thread tension release on	B,C	0 - 255	3	Kl. 1, 2, 3
543	(LS/NE/SAUG/STZA) Number of stitches from light barrier clear to vacuum on	B,C	0 - 255	3	Kl. 1, 2, 3
545	(SAUG/VERZ) Delay (ms) to vacuum off	A,B,C	0 - 2550	200	Kl. 1, 2, 3
548	(EINZ/KEBLA/NE) Duration (ms) of chain blowing at seam end	B,C	0 - 2550	200	Kl. 1, 2, 3










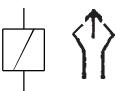
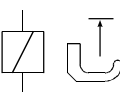
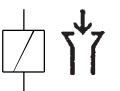
564	(LS/STOP/STZA) Number of stitches from photocell clear to stop	B,C	0 - 255	0	Kl. 1, 2, 3
603	(START) Start after seam end I after treadle 0 only II immediate start of operation	B,C		I	Kl. 1, 2, 3
605	(DRZ/ANZ) Actual speed in display I yes II no	B,C		II	Kl. 1, 2, 3
606	(DRZ) Speed: level 1 (min.)	B,C	30 - 640	200	Kl. 1, 2, 3
607	(DRZ) Speed: level 12 (max.)	B,C	100 - 9900	1500	Kl. 1, 2, 3
609	(SN/DRZ) Trimming speed 1	B,C	30 - 300	200	Kl. 1, 2, 3
615	(LS) End recognition when photocell goes I from light to dark II from dark to light	B,C		II	Kl. 1, 2, 3
618	(RDR) Inverse rotation after seam end I yes II no	B,C		II	Kl. 1, 2, 3
623	(RDR/VERZ) Delay in start-up time (ms) for inverse rotation	B,C	0 - 2550	50	Kl. 1, 2, 3
636	(FSL) Thread tension release I yes II no	B,C		I	Kl. 1, 2, 3
641	(LS/START/VERZ) Delay before start (ms) after photocell (at <640> = I)	B,C	0 - 2550	100	Kl. 1, 2, 3
648	(NAPO) Needle positions I one II two	B,C		II	Kl. 1, 2, 3
651	(PF) Presser foot with automatic descent on machine stop I yes II no	B,C		I	Kl. 1, 2, 3
676	(DRZ/DB) Speed adjustment via potentiometer possible I yes II no	A,B,C		I	Kl. 1, 2, 3
701	(NAPO) Angular adjustment I with handwheel (teach-in) II by keys (+/-)	B,C		I	Kl. 1, 2, 3
702	(NAPO) Needle position 1 (needle down)	B,C	0 - 127	40	Kl. 1, 2, 3
703	(NAPO) Needle position 2 (thread take-up lever up)	B,C	0 - 127	108	Kl. 1, 2, 3
718	(STBR) Timing of residual brake (0 = brake off)	B,C	0 - 100	0	Kl. 1, 2, 3
719	(PF/TA) Timing output A4 (0 = 100% switching on)	B,C	0 - 90	40	Kl. 1, 2, 3
720	(HV/TA) Timing output AX (0 = 100% switching on)	B,C	0 - 90	40	Kl. 1, 2, 3
721	(TUM/TA) Timing output A5 (0 = 100% switching on)	B,C	0 - 90	50	Kl. 1, 2, 3
722	(DRZAN) Acceleration ramp 1 gradual 50 steep	B,C	1 - 50	40	Kl. 1, 2, 3
723	(DRZAB) Brake ramp 1 gradual 50 steep	B,C	4 - 50	25	Kl. 1, 2, 3
729	(STVERZ/PF) Start delay after lowering presser foot	B,C	0 - 2550	130	Kl. 1, 2, 3
730	(PF/VERZ) Lift delay for presser foot after seam end	B,C	0 - 2550	30	Kl. 1, 2, 3
758	(REG/DRZAB) Deceleration ramp I braking as per <723> II braking with maximal moment	B,C		II	Kl. 1, 2, 3
766	(KEFI/TA) cycling output A2 (0=100% enable)	B,C	0 - 90	50	Kl. 3 - Kl. 1, 2
770	(PF/VERZ) Lifting delay of presser foot at threadle-position „-1“	B,C	0 - 250	30	Kl. 1, 2, 3

790	(MAKL) Program selection for machine classes by operators box	B,C	0 - 1	0	Kl. 1, 2, 3
797	(HWT) Hardware test I yes II no	B,C		II	Kl. 1, 2, 3
798	(EBC) Programming level C I yes II no	B,C		II	Kl. 1, 2, 3
799	(MAKL) Machine class which has been selected	B,C	1 - 3	1 2 3	Kl. 1 Kl. 2 Kl. 3
800	(DRR) Direction of motor rotation viewed from belt pulley I left-hand rotation II right-hand rotation	B,C		I	Kl. 1, 2, 3
801	(RDR) Reverse rotation angle after seam end	B,C	5 - 106	16	Kl. 1, 2, 3
851	(PR/DRZAB) Brake ramp for stitch-count seams I steep II gradual	B,C		II	Kl. 1, 2, 3
880	(REG) Starting current max. [A]	C	1 - 10	5	Kl. 1, 2, 3
881	(REG) adaption of positioning characteristics of motor to machine to avoid vibration	B,C	1 - 12	6	Kl. 1, 2, 3
884	(REG) Proportional amplification of the speed control (in general)	B,C	4 - 255	15	Kl. 1, 2, 3
885	(REG) Integral amplification of the speed control	C	0 - 255	35	Kl. 1, 2, 3
886	(REG) Proportional amplification of the order controllers	C	1 - 255	25	Kl. 1, 2, 3
887	(REG) Differential amplification of the order controllers	C	1 - 255	25	Kl. 1, 2, 3
889	(EINZ/REG) Time required for order controlling (0 = always)	C	0 - 2550	150	Kl. 1, 2, 3
890	(REG) Proportional amplification of the superior order controllers for the residual brake	C	1 - 255	25	Kl. 1, 2, 3
891	(REG) Proportional amplification of the lower speed controllers for the residual brake	C	1 - 255	20	Kl. 1, 2, 3
990	(REG) Removal of setpoint position upon change-over from speed control to position control	B,C	1 - 64	16	Kl. 1, 2, 3

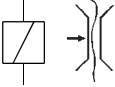
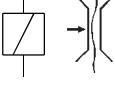

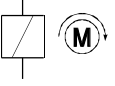
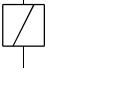

12. Electrical Connections Diagram X5 Q41MS



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  <799> = 1	Abhacker / chopper / chopper / guilhotina / taglio / guillotina / afhakker
S1  <799> = 2	Schnelle Schere / fast scissors / ciseaux rapide / tesoura rápida / forbici rapida / tijeras rapida / snelle schaar
S4  	Programmweitschaltung / switch over program
S6  	Lichtschranke / light barrier / barrière lumineuse / barreira luminosa / cellula fotoeletttrica / fotocélula / foto-elektrische beveiliging
S13  	FLIP-FLOP
Y1  I max 8 A * <799> = 1	Abhacker / chopper / chopper / cortar / coltello / guillotina / mes
Y1  I max 8 A * <799> = 2	Schnelle Schere vorwärts / fast scissors forward / ciseaux rapide en avant / tesoura rápida para a frente / forbici rapida avanti / tijeras rapida adelante / snelle schaar voorwaarts
Y2  I max 8 A * <799> = 1, 2	FLIP-FLOP
Y2  I max 8 A * <799> = 3	Kettelfinger / chaining-off finger / crochet de remmaillage / dedo remalhador / levetta di rimettaggio / dedo de remaller / klemvinger
Y3  I max 8 A *	Kette blasen / chain blowing / soufflage de chaînette / soprar de cadeia / soffiatura catenella / soplar cadeneta / blazen van een ketting
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 *	Kette saugen / chain vacuuming / aspiration de chaînette / aspirar de cadeia / aspirare catenella / aspirar cadeneta / zuigen van een ketting

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

Y6 I max 8 A * <799> = 1,2		Fadenspannungslösen / thread tension release / détenteur de fil / soltar tensão da linha / sbloccaggio tendifilo / detensión del hilo / verbreken van de draadspanning
Y6 I max 8 A * <799> = 3		Fadenspannung ein / thread tension on / tendeur de fil en / tensão da linha / insertimento tendifilo / tensión del hilo / draadspanning aan
H1 (A7) I max 8 A * <799> = 1		Signallampe H1 / display H1 / affichage H1 / indicação H1 / visualizzazione H1 / display H1 / indicatie H1
Y8 I max 8 A *		Motor läuft / motor runs / moteur en marche / motor em movimento / motore in moto / motor en marcha / loop van de machine
Y10 I max 8 A * <799> = 2		Schnelle Schere rückwärts / fast scissors backward / ciseaux rapide en arrière / tesoura rápida para trás / forbici rapida indietro / tijeras rapida inverso / snelle schaar achterwaarts
Y16 I max 80 mA		Zählsignal / count signal / signal de comptage / sinal de contagem / segnale conteggio / señal del contador / telsignaal

- * 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 (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).