EcoDrive

QE3760/QE5540

CE

Type

Q342EDx

Instruction Manual

Part 3

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Englisch 2005-04-29

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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 1 or 0. 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> = 1
1 limited by <105>
0 limited by <607>

Explanation:
Parameter 107 is valid only the the value (content) of parameter <106> = 1.
If parameter 107 is set to 1 (<107> = 1), then the speed for the front backtack is limited by parameter 105, e.g. <105> = 1500. If parameter 107 is set to 0 (<107> = 0), then the speed for the front backtack is limited by the value of parameter 607, e.g. <607> = 4000.

11.3 Parameter survey Q342EDx 1_906_07 (PARAM.ENO)

Function	Abbrev'n	Parameter	Input Output	Connection Socket/Contacts
Accelerate	DRZAN	722		
Backtack	RIE	105/110		
Brake	DRZAB	723		
Catcher	FANG	707		
Chopper	MESSER	105/110/537 714		
Control	REG	880/884/885 886/887/889 890/999		
Defect search	HWT	797		
Delay	VERZ	545/623/642 643/716/717 730/761/770 999		
Direction of rotation	DRR	800		
Display	ANZ	389/390/605 933		
End backtack	ER	110		
Engine	MOT	897		
Feed reverse	TUM	301/643/721		
Front backtack	AR	105		
Hardware test	HWT	797		
Inverse rotation	RDR	623/801		
Machine class	MAKL	790/799		
Needle position	NAPO	700/702/703 704/705/707		
Number of stitches	STZA	111/112/145 760		
ON period	EINZ	389/537/714 715/889		
Photocell	LS	111/112/113 161/188/199 615		
Presser foot	PF	642/651/719 729/730/770		

Programming level C	EBC	798
Residual brake	STBR	718
Seam end	NE	110/145
Seam start	NA	105
Soft start	SANL	116/117
Speed	DRZ	105/110/117 199/605/606 607/608/609
Speed decrease	DRZAB	723
Speed increase	DRZAN	722
Start	START	113/161/188 603
Start delay	STVERZ	729
Starting block	ANLSP	619/665
Stepper motor	SMOT	1000/1001/1002 1003/1020/1050 1052/1100/1101 1102/1103/1104 1105/1106/1107 1108/1109/1120 1121/1200/1201
Stitch condensation	STVD	105/110
Stitchcounter	STZ	760
Stop	STOP	619/665
Stroke adjustment	HV	720
Thread monitor	FW	660/760
Thread puller	FZ	761
Thread tension	FS	673
Thread tension release	FSL	673/707/761
Thread trimming	SN	609/619/704 705/714/717
Thread wiper	WI	715/716
Time needed to switch on	EINZ	389/537/714 715/889
Timing output	TA	642/643/705 719/720/721
Vacuum	SAUG	105/110/545

11.4 List of Parameters Q342EDx 1_906_07 (PARAM.EN)

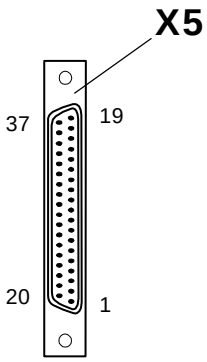
No.	Function (Meaning)	Level	Range of Values	Value	Standard
105	(AR/RIE/DRZ/MESSER/NA/SAUG/STVD) Speed for front backtack / stitch condensation	B,C	0100 - 6000	2000	Kl. 1
110	(ER/RIE/DRZ/MESSER/NE/SAUG/STVD) Speed for end backtack / stitch condensation	B,C	0100 - 3000	2000	Kl. 1
111	(LS/STZA) Light barrier compensation stitches 1 (stitches from light barrier clear to seam end)	A,B,C	0001 - 0100	8	Kl. 1
112	(LS/STZA) Number of stitches for light barrier fade-out on knit fabrics (according to stitch size)	A,B,C	0000 - 0100	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
116	(SANL) Soft start stitches	A,B,C	0000 - 0030	0	Kl. 1
117	(SANL/DRZ) Speed for soft start stitches	B,C	0100 - 2000	600	Kl. 1
145	(NE/STZA) Number of stitches for seam end	A,B,C	0000 - 0099	12	Kl. 1
161	(LS/START) Start delay for start of photocell	B,C	0000 - 2000	100	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	C	0001 - 0003	2	Kl. 1
301	(TUM) Switch-on voltage of the magnet for transport change-over 1 24V 0 32V	C		1	Kl. 1
389	(LFZ/EINZ/ANZ) Display of data 0 = None 1 = Switch-time of the drive 2 = Run time of the motor (the machine)	C	0000 - 0002	0	Kl. 1
390	(FANZ/ANZ) Display of max. 10 stored malfunctions 0 = None 1 = Last malfunction (x) 2 = Last but one malfunction (x-1) 3 = Previous malfunction (x-2) 4 = Previous malfunction (x-3) 5 = Previous malfunction (x-4) 6 = Previous malfunction (x-5) 7 = Previous malfunction (x-6) 8 = Previous malfunction (x-7) 9 = Previous malfunction (x-8) 10 = Previous malfunction (x-9)	C	0000 - 0010	0	Kl. 1
537	(EINZ/MESSER) Chopper duty cycle (ms)	B,C	0000 - 2000	100	Kl. 1
545	(SAUG/VERZ) Delay (ms) to vacuum off	B,C	0000 - 2000	100	Kl. 1
603	(START) Start after seam end 1 after treadle 0 only 0 immediate start of operation	B,C		1	Kl. 1
605	(DRZ/ANZ) Actual speed in display 1 yes 0 no	B,C		1	Kl. 1
606	(DRZ) Speed: level 1 (min.)	B,C	0030 - 0600	180	Kl. 1
607	(DRZ) Speed: level 12 (max.)	B,C	0100 - 6000	4000	Kl. 1
608	(DRZ) Speed level curve (treadle characteristic) 1 linear 0 not linear	B,C		1	Kl. 1
609	(SN/DRZ) Trimming speed 1	B,C	0060 - 0300	180	Kl. 1
615	(LS) End recognition when photocell goes 1 from light to dark 0 from dark to light	B,C		0	Kl. 1

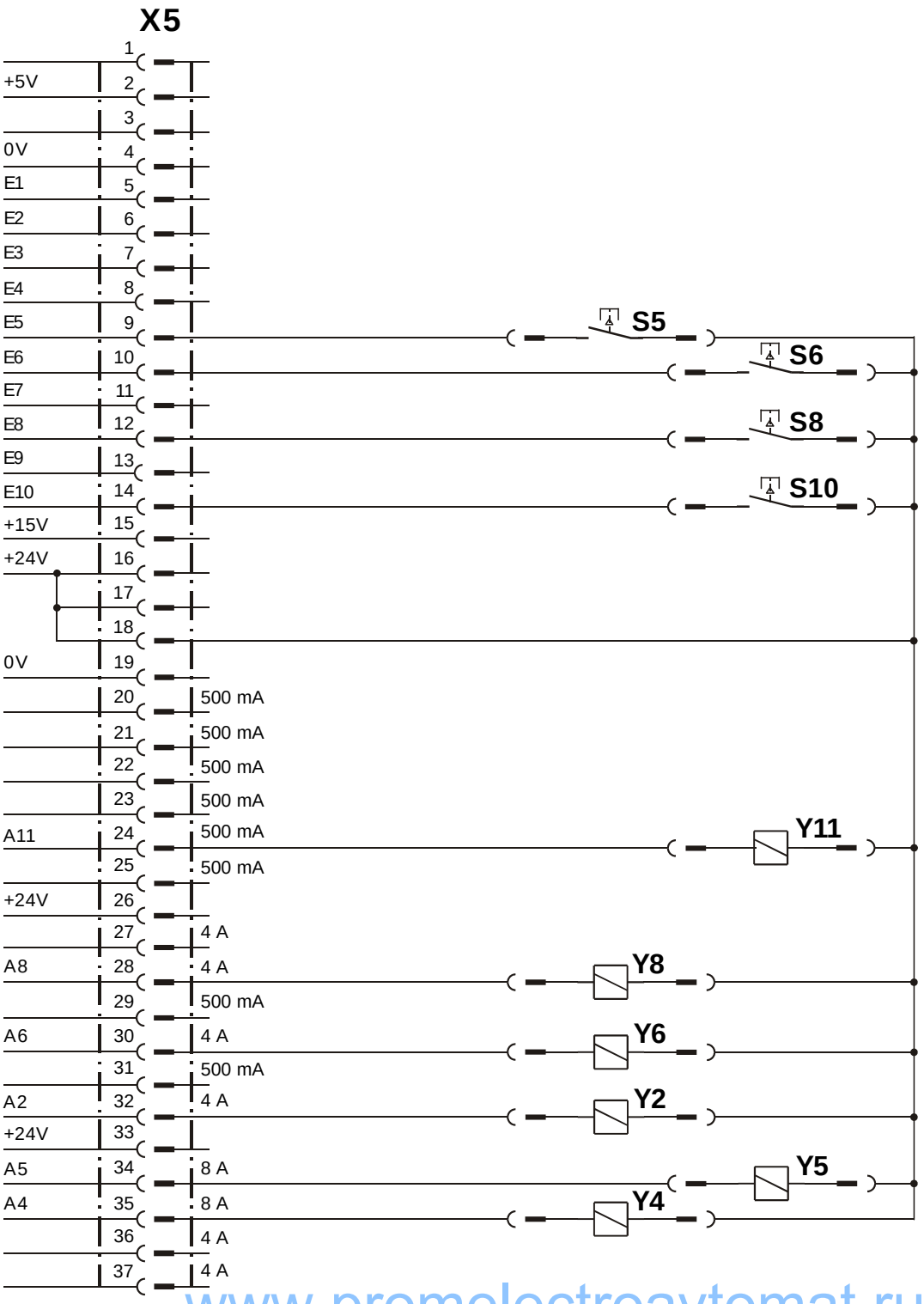
619	(SN/ANLSP/STOP) Control of thread trimming (safety switch no run) 1 yes 0 no	B,C		0	Kl.	1
642	(PF/VERZ/TA) preser foot time from switch-on to voltage reduction (cycling)	B,C	0010 - 0200	200	Kl.	1
643	(TUM/VERZ/TA) feed reverse time from switch-on to voltage reduction (cycling)	B,C	0010 - 0200	200	Kl.	1
651	(PF) Presser foot with automatic descent on machine stop 1 yes 0 no	B,C		1	Kl.	1
660	(FW) Bobbin thread monitoring 0 without (= *II*) 1 via a sensor (= **I*) 2 by a stitch count	B,C	0000 - 0002	0	Kl.	1
665	(ANLSP/STOP) Run locking/stop 1 contact closed 0 contact open	B,C		1	Kl.	1
673	(FS/FSL) Output „Ax“ is at 1 thread tension release 0 thread tension on	B,C		1	Kl.	1
700	(NAPO) Needle position 0 (reference position of the needle)	B,C	0000 - 0255	0	Kl.	1 *
702	(NAPO) Needle position 1 (needle down)	B,C	0000 - 0255	53	Kl.	1
703	(NAPO) Needle position 2 (thread take-up lever up)	B,C	0000 - 0255	222	Kl.	1
714	(EINZ/SN/MESSER) Duration (ms) for chainstitch trimming or chopper	B,C	0000 - 2000	300	Kl.	1
715	(EINZ/WI) Duration (ms) of thread wiper	B,C	0000 - 2000	1000	Kl.	1
716	(VERZ/WI) Delay in start-up time (ms) for thread wiper	B,C	0000 - 2000	400	Kl.	1
717	(SN/VERZ) Delay in start-up time (ms) for trimming method when the machine is not activated by the treadle	B,C	0000 - 2000	100	Kl.	1
718	(STBR) Timing of residual brake (0 = brake off)	B,C	0000 - 0100	0	Kl.	1
719	(PF/TA) Timing output A4 (lifting presser foot) (0 = 100% switched on)	B,C	0000 - 0090	40	Kl.	1
720	(HV/TA) Timing output Ax (stroke adjustment) (0 = 100% switched on)	B,C	0010 - 0090	10	Kl.	1
721	(TUM/TA) Timing output A5 (feed reverse) (0 = 100% switched on)	B,C	0010 - 0090	40	Kl.	1
722	(DRZAN) Acceleration ramp 1 gradual 50 steep	B,C	0001 - 0060	42	Kl.	1
723	(DRZAB) Brake ramp 1 gradual 50 steep	B,C	0001 - 0050	30	Kl.	1
729	(STVERZ/PF) Start delay after lowering presser foot	B,C	0010 - 2000	250	Kl.	1
730	(PF/VERZ) Lift delay for presser foot after seam end	B,C	0010 - 2000	150	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	B,C	0000 - 0250	5	Kl.	1
761	(FSL/FZ/VERZ) Prolongation Thread tension release/ Thread puller	B,C	0000 - 2000	100	Kl.	1
770	(PF/VERZ) Lifting delay of presser foot at threadle-position „-1“	B,C	0010 - 0250	80	Kl.	1
797	(HWT) Hardware test 1 yes 0 no	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	0001 - 0001	1	Kl. 1
800	(DRR) Direction of motor rotation viewed from belt pulley 1 left-hand rotation 0 right-hand rotation	C		0	Kl. 1
880	(REG) Starting current max. [A]	C	0001 - 0020	7	Kl. 1
884	(REG) Proportional amplification of the speed control (in general)	C	0001 - 0030	8	Kl. 1
885	(REG) Integral amplification of the speed control	C	0001 - 0255	35	Kl. 1
886	(REG) Proportional amplification of the order controllers	C	0001 - 0025	15	Kl. 1
887	(REG) Differential amplification of the order controllers	C	0001 - 0025	10	Kl. 1
889	(EINZ/REG) Time required for order controlling (0 = always)	C	0000 - 2500	800	Kl. 1
890	(REG) Proportional amplification of the superior order controllers for the residual brake	C	0001 - 0025	15	Kl. 1
897	(MOT) MINI motor version 1 long 0 short	C		0	Kl. 1 *
933	(ANZ) Display change-over 1 diagnosis 0 normal display	C		0	Kl. 1
999	(REG/VERZ) Delay for travel-optimised positioning	C		0	Kl. 1
1000	(SMOT) Count of stepping motors	B,C	0000 - 0004	1	Kl. 1
1002	(SMOT) Operating mode 0 = Socket 1 = SM1, Socket 2 = SM2 1 = parallel mode (socket 1 - winder 1 - SM1, socket 2 -winder 2 - SM1)	B,C		0	Kl. 1
1003	(SMOT) Transport roller radius	B,C	0005 - 0050	10	Kl. 1
1020	(SMOT) Time for band stretching	A,B,C	0000 - 1000	0	Kl. 1
1050	(SMOT) P-content tape tensioning control	B,C	0001 - 0255	150	Kl. 1
1052	(SMOT) Tape tensioning control filter	B,C	0002 - 0020	5	Kl. 1
1100	(SMOT) Incremental motor 1 operating mode (puller, differential adjustment, etc.)	B,C	0000 - 0002	1	Kl. 1
1101	(SMOT) Rotational direction SM1 0 = anticlockwise 1 = clockwise	B,C		0	Kl. 1
1102	(SMOT) SM1 increment mode 1 = Full increment 2 = Half-increment 3 = Quarter-increment 4 = Eighth-increment	B,C	0001 - 0004	3	Kl. 1
1103	(SMOT) SM1 % maximum current	B,C	0001 - 0100	40	Kl. 1
1104	(SMOT) SM1 % power reduction	B,C	0000 - 0030	0	Kl. 1
1105	(SMOT) SM1 start/stop time (time for 1 increment at start / stop rpm)	B,C	0010 - 4000	500	Kl. 1
1106	(SMOT) Roof time (time for 1 increment in roof) SM1	B,C	0010 - 2000	300	Kl. 1
1107	(SMOT) SM1 acceleration (% increase from start / stop up to roof) SM1	B,C	0001 - 0100	5	Kl. 1
1108	(SMOT) SM1 braking increments (number of braking increments)	B,C	0001 - 0200	15	Kl. 1
1109	(SMOT) SM1 reduction ration (with electrical shaft and tape tensioning)	B,C	0010 - 0255	35	Kl. 1
1120	(SMOT) Count of gather value SM1	A,B,C	0001 - 0006	2	Kl. 1
1121	(SMOT) Gather value 1 SM1	A,B,C	0000 - 0099	10	Kl. 1
1300	(SMOT) Incremental motor 3 operating mode (puller, differential adjustment, etc.)	B,C	0000 - 0001	1	Kl. 1
1301	(SMOT) Rotational direction SM3 0 = anticlockwise 1 = clockwise	B,C		1	Kl. 1

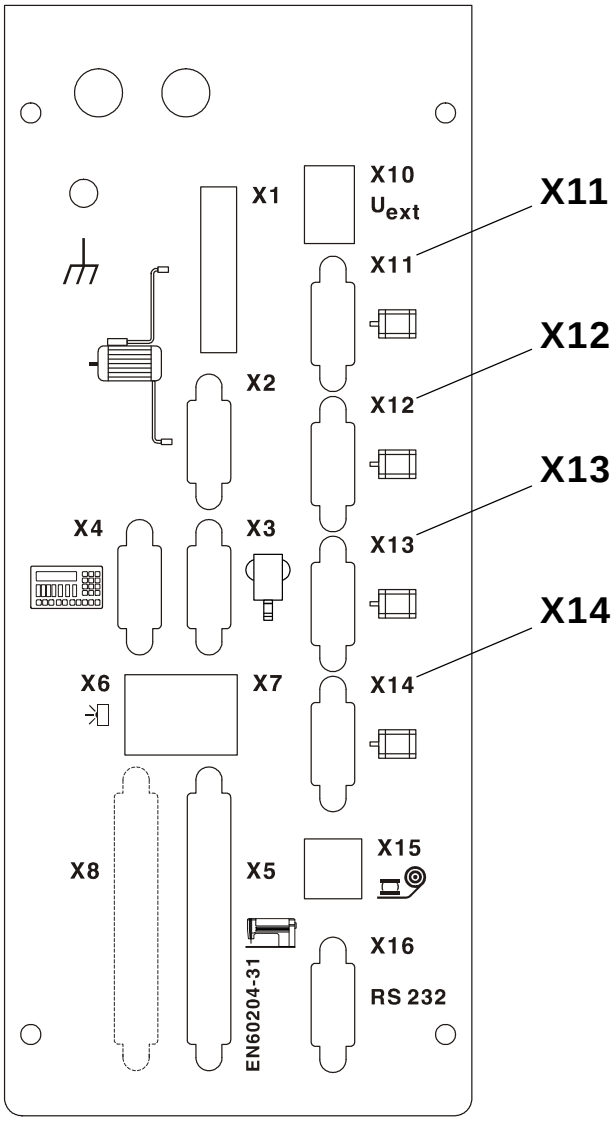
1302	(SMOT) SM3 increment mode 1 = Full increment 2 = Half-increment 3 = Quarter-increment 4 = Eighth-increment	B,C	0001 - 0004	2	Kl. 1
1303	(SMOT) SM3 % maximum current	B,C	0001 - 0100	60	Kl. 1
1304	(SMOT) SM3 % power reduction	B,C	0000 - 0020	10	Kl. 1
1305	(SMOT) SM3 start/stop time (time for 1 increment at start / stop rpm)	B,C	0010 - 4000	500	Kl. 1
1306	(SMOT) Roof time (time for 1 increment in roof) SM3	B,C	0010 - 2000	250	Kl. 1
1307	(SMOT) acceleration (% increase from start/stop up to roof) SM3	B,C	0001 - 0100	5	Kl. 1
1308	(SMOT) SM3 braking increments (number of braking increments)	B,C	0001 - 0200	5	Kl. 1
1309	(SMOT) SM3 reduction ration (with electrical shaft and tape tensioning)	B,C	0006 - 0200	100	Kl. 1

12. Electrical Connections Diagram X5 Q342EDx

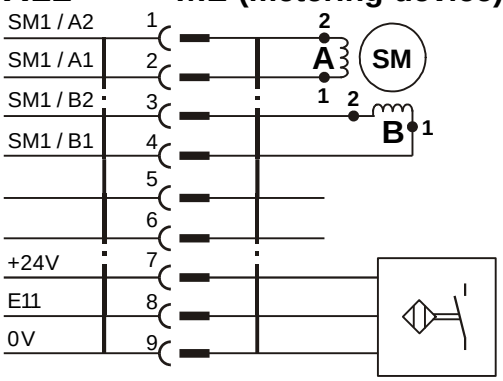




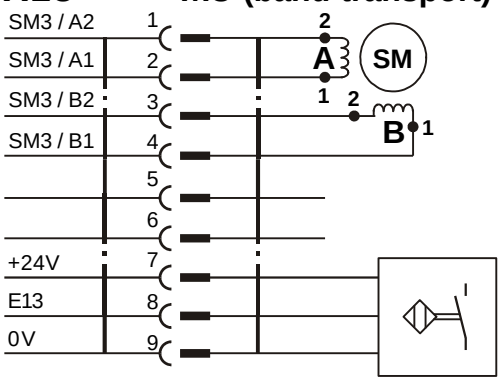
Back of the control box



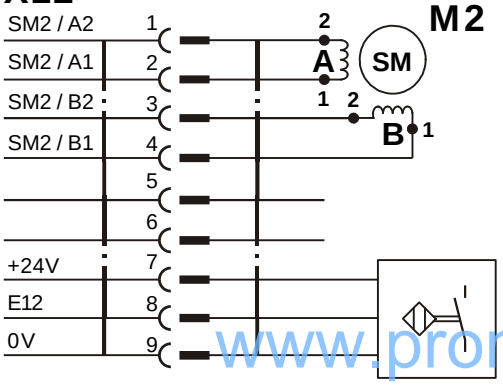
X11 M1 (metering device)



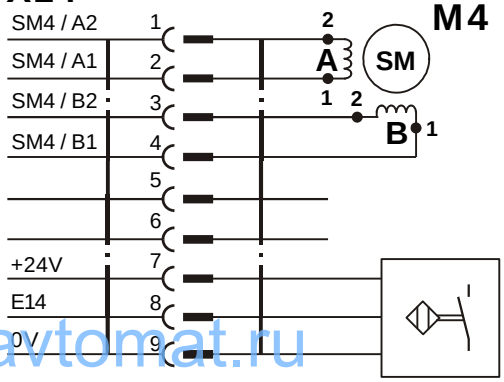
X13 M3 (band transport)



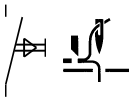
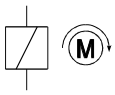
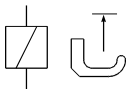
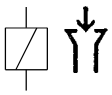
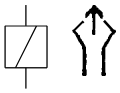
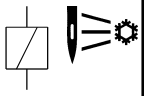
X12 M2



X14 M4



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

S5 	Bandschneider / chopper / chopper / guilhotina / taglio / guillotina / afhakker
S6 	Lichtschranke 3 Bandtrenner / Light barrier 2 chopper
S8 	Lichtschranke 2 Bandtrenner / Light barrier 3 chopper
S10  <1120> = 1 - 6	Raffwertweiterschaltung mit Kniehebel / switch-over tape tension with knee switch
Y2 I max 4 A ✱ 	Motor läuft / motor runs / moteur en marche / motor em movimento / motore in moto / motor en marcha / loop van de machine
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 4 A ✱ 	Kette saugen / chain vacuum / aspiration de chaînette / aspirar de cadeia / aspirazione catenella / aspiración cadeneta / zuigen van een ketting
Y6 I max 4 A ✱ 	Abhacker / chopper / chopper / cortar / coltello / guillotina / mes
Y8 I max 4 A ✱ 	Kette blasen / chain blowing / Soufflage de chaînette / soprar cadeia / soffiatura catenella / soplar cadeneta / blazen van een ketting
Y11  I max 500 mA	Nadelkühlung / needle cooling / refroidissement d'aiguille / refrigeração da agulha / rafreddamento ago / refrigeración de aguja / naaldkoeling

* 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).