

b) Automatic Reset Protector:
Operated for 72 hours
Test started with motor at room temperature.

Maximum motor windings temperature during first test hour: 195°C
Maximum motor windings temperature after first test hour: 194°C
Average motor windings temperature after first test hour:

Max after 2nd test hour: 194°C -----	} Average: 195°C -----	} Average: 164°C
Max after 72nd test hour: 195°C -----		
Min after 2nd test hour: 132°C -----	} Average: 133°C -----	
Min after 72nd test hour: 134°C -----		

Cycling rate: 14/hr

Test repeated on polyphase motor under single-phasing conditions
Repeated test started with motor at room temperature
Repeated test: 2 hours minimum

The protector cycled during repeated test: Yes

Under single-phasing conditions for polyphase motors:

Maximum motor windings temperature during first test hour: 185°C
Maximum motor windings temperature after first test hour: 186°C
Average motor windings temperature after first test hour:

Max after 2nd test hour: 186°C -----	} Average: 186°C -----	} Average: 160°C
Max after 72nd test hour: 186°C -----		
Min after 2nd test hour: 132°C -----	} Average: 133°C -----	
Min after 72nd test hour: 133°C -----		

Cycling rated: 17 /hr

Maximum motor winding temperature exceed Table 2 values: No
Series injury to motor: No
Excessive deterioration of the insulation: No
Flashover to the frame: No
3 A fuse blew: No
Dielectric Strength (Clause 5.5): No
Voltage Used: 1000 V ac
Breakdown: No

Test Equipment and Instrumentation Used: A, B, C and D

Dielectric Strength: Clause 5.5

Protector intended to be connected to external control circuit: Yes

If yes:

- (a) protector circuit was connected to motor frame during motor winding dielectric strength tests.
Voltage used: 1000 V ac
Breakdown: No
- (b) motor windings and other metal parts were connected to the frame during protector circuit dielectric strength tests.
Voltage used (see Table 4): $2 \times V_r + 1000$ V: 1500 V ac
Breakdown: No

Serious injury to motor: No
Excessive deterioration of the insulation: No
Flashover to the frame: No
3 A fuse blew: No

Test Equipment and Instrumentation Used: D

Endurance: Clause 5.6

- The motor, with its integral parts (mounting brackets, gear unit or base, if any) was mounted in a manner representing the field conditions, vertically with shaft facing upward.
- Test voltage for motor: 208 V
- Test voltage for protection circuit, if different than for motor: 120 V
- Ambient temperature: 21 °C
- Test frequency: 60 Hz
- The enclosure of the combination was grounded through a 3 A fuse.
- The rotor was locked.

- a) Automatic Reset Protector:
Operated for 15 days additional to the 72 hours required in the locked rotor temperature test (18 days total)

Motor rated more than 1 hp (764 W): No
If no, test continued for 2000 cycles minimum with:

- protector and substitute load or: No
- protector and motor: No

Note: substitute load had current equal to LRA of motor at 0.4-0.5 power factor and cycling rate was the same as when used in motor.

Serious injury to motor: No
Excessive deterioration of the insulation: No
Flashover to the frame: No
3 A fuse blew: No

Dielectric Strength (Repeated clause 6.6.8): No
The lowest between 1000 V plus the rated voltage and twice the maximum respective rated circuit voltage for 1 minute.

Voltage used: 1500 V ac
Breakdown: No

Test Equipment and Instrumentation Used: D

DESCRIPTION

Manufacturer: ATB-LOHER
Product: Motor (Reversible)
Model: ERBU0.09/2-71R
Rating: 120 V, 60 Hz, 1 ph, 1.4 FLA, 0.09 hp, 3410 RPM, Insulation Class F (225°C)
Type of protection (automatic reset)
Protector operating temperature: 160°C

The clause numbers refer to CSA Standard C22.2 No. 77-1988.

Locked Rotor Temperature: Clause 5.4

- The motor, with its integral parts (mounting brackets, gear unit or base, if any) was mounted in a manner representing the field conditions vertically with drive shaft pointing up.
- Test voltage for motor: 120 V
- Test voltage for protection circuit, if different for motor: 120 V
- Ambient temperature: 23°C
- Test frequency: 60 Hz
- Motor tested with capacitor in the circuit
- Protector intended for use in the motor starter coil circuit: No
- The enclosure of the combination was grounded through a 3 A fuse.
- The rotor was locked.

b) Automatic Reset Protector:
Operated for 72 hours
Test started with motor at room temperature.

Maximum motor windings temperature during first test hour: 197°C

Maximum motor windings temperature after first test hour: 198°C

Average motor windings temperature after first test hour:

Max after 2nd test hour: 197°C -----

Max after 72nd test hour: 199°C -----

Min after 2nd test hour: 134°C -----

Min after 72nd test hour: 134°C -----

Average: 198°C -----

Average: 134°C -----

-----Average: 166°C

Cycling rate: 4.8/hr

Maximum motor winding temperature exceed Table 2 values: No

Series injury to motor: No

Excessive deterioration of the insulation: No

Flashover to the frame: No

3 A fuse blew: No

Dielectric Strength (Clause 6.5): No

Voltage Used: 1000 V ac

Breakdown: No

Test Equipment and Instrumentation Used: E, F, C, D, G, H

Dielectric Strength: Clause 5.5

Protector intended to be connected to external control circuit: Yes

If yes:

- (a) protector circuit was connected to motor frame during motor winding dielectric strength tests.
Voltage used: 1000 V ac
Breakdown: No
- (b) motor windings and other metal parts were connected to the frame during protector circuit dielectric strength tests.
Voltage used (see Table 4): $2 \times V_r + 1250$: 1250 V ac
Breakdown: No

Serious injury to motor: No
Excessive deterioration of the insulation: No
Flashover to the frame: No
3 A fuse blew: No

Test Equipment and Instrumentation Used: D

Endurance: Clause 5.6

- The motor, with its integral parts (mounting brackets, gear unit or base, if any) was mounted in a manner representing the field conditions, vertically with drive shaft pointing up.
- Test voltage for motor: 120 V
- Test voltage for protection circuit, if different than for motor: 120 V
- Ambient temperature: 22°C
- Test frequency: 60 Hz
- The enclosure of the combination was grounded through a 3 A fuse.
- The rotor was locked.

- a) Automatic Reset Protector:
Operated for 15 days additional to the 72 hours required in the locked rotor temperature test (18 days total)
Motor rated more than 1 hp (764 W): No
If no, test continued for 2000 cycles minimum with:
 - protector and substitute load or: No
 - protector and motor: NoNote: substitute load had current equal to LRA of motor at 0.4-0.5 power factor and cycling rate was the same as when used in motor.
Serious injury to motor: No
Excessive deterioration of the insulation: No
Flashover to the frame: No
3 A fuse blew: No
Dielectric Strength (Repeated clause 6.6.8): No
The lowest between 1000 V plus the rated voltage and twice the maximum respective rated circuit voltage for 1 minute.
Voltage used: 1250 V ac
Breakdown: No

Test Equipment and Instrumentation Used: D

Edition: 3 (Application LR 110186-4)

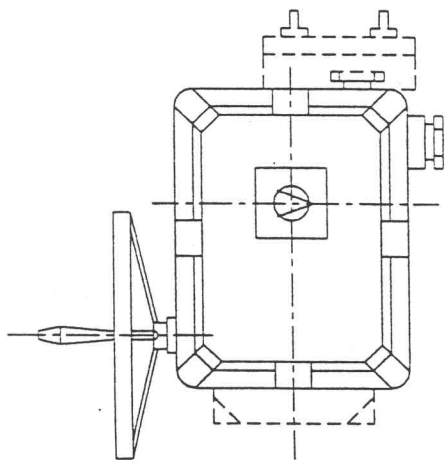
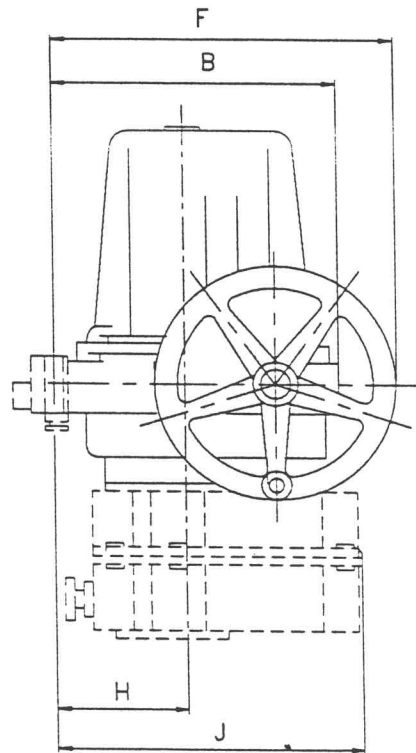
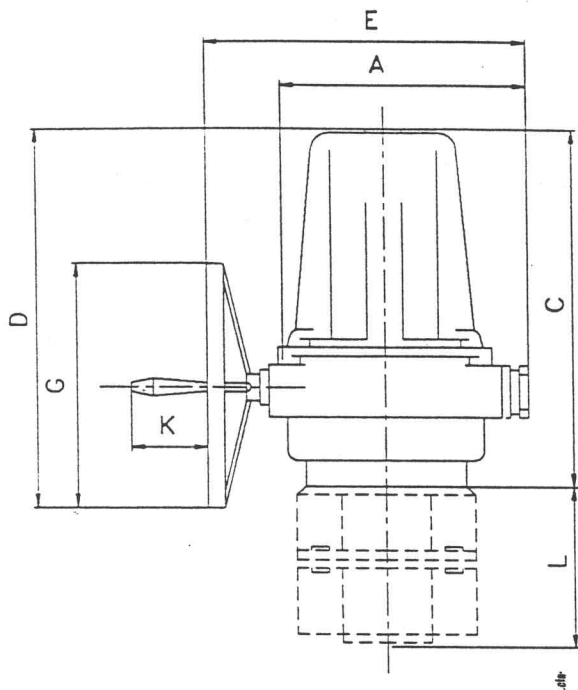
Correction to -1 to include MOK Series of actuators. Tests already conducted in -3 report.



ZPA INC.

MODACT™
MOK Series

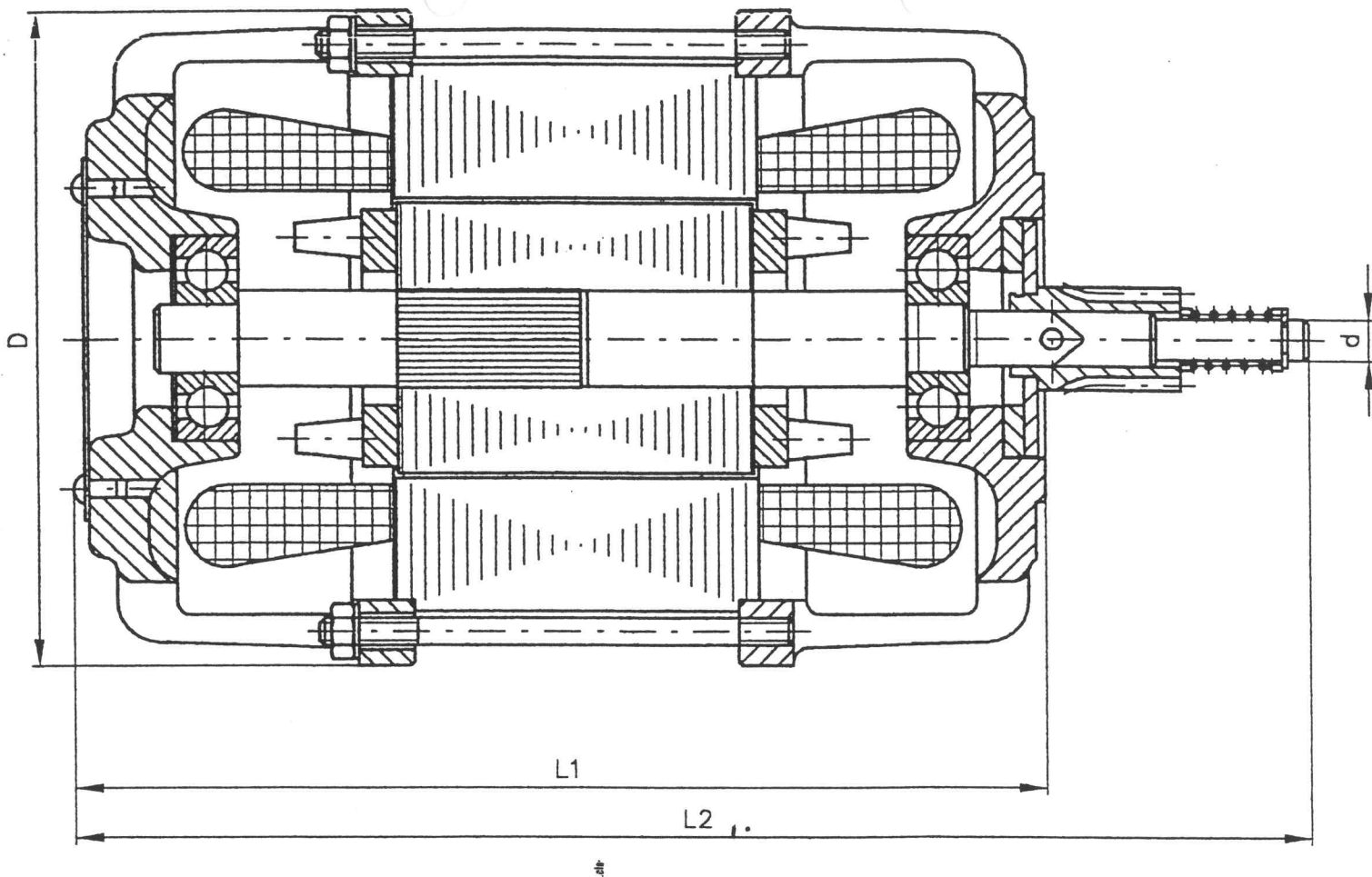
TECHNICAL DRAWINGS



Model	A	B	C	D	E	F	G	H	J	K	L	Flange
MOK 63	173	203	227	224	213	245	160	98	-	72	-	P05 (P04)
MOK 125	204	237	305	327	252	290	200	111	-	73	-	P07 (P05)
MOK 250	204	237	305	327	252	290	200	111	263	73	128	P10 (P07)
MOK 500	250	290	366	378	325	362	250	128	-	76	-	P12 (P10)
MOK 1000	250	290	366	378	325	362	250	128	323	76	155	P12

LR 110186-1 ILL.2

APPL. LR 110186-4



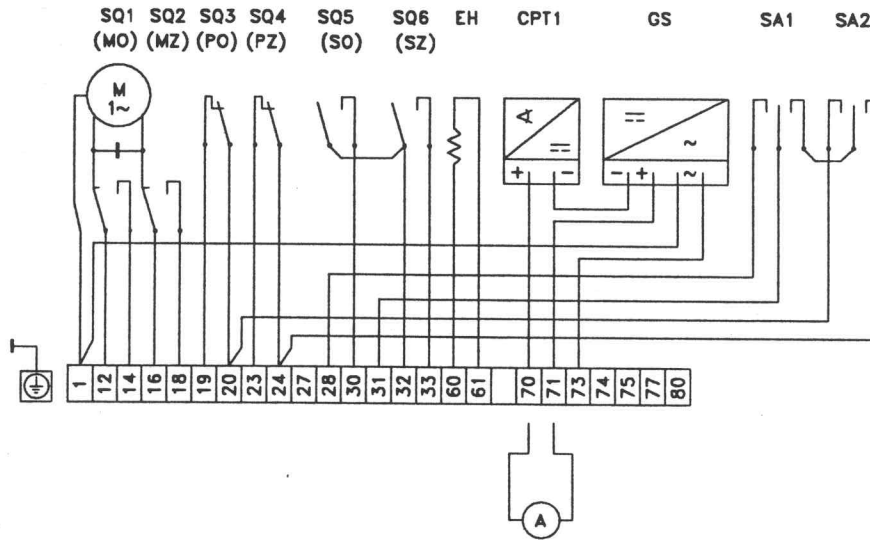
Model	Motor	L1	L2	D	d
EAMCB 56N02	ERB 0,09/2-71; 110W	140	180	100	6
EAMCB 56N02	ERB 0,09/2-71; 70W	140	180	100	6
EAMCB 56N04	ERB 0,09/4-71; 90W	140	180	100	6
EAMC 56N02	ER 0,06/2-71; 70W	140	180	100	6
EAMC 56N04	ER 0,06/4-71P; 25W	115	155	100	6
EAMC 63L02	ER 0,06/2-71; 110W	145	190	120	6
EAMC 63L02	ER 0,06/2-71; 70W	145	190	120	6
EAMC 63N04	EA 63/4-71; 145W	145	190	120	10



ZPA INC.

MODACT™ MOK 63 Control Series

WIRING DIAGRAM WITH THE CAPACITANCE TRANSMITTER AND POWER SUPPLY



- | | | | | |
|----------|-------------------------------------|--------|------|---|
| SQ1 (MO) | torque switch (opening direction) | CHERRY | EH | heating element |
| SQ2 (MZ) | torque switch (closing direction) | B.R.D. | CPT1 | capacitance transmitter CPT1/A |
| SQ3 (PO) | position switch (opening direction) | | GS | power supply |
| SQ4 (PZ) | position switch (closing direction) | | SA1 | switch (local control - remote control) |
| SQ5 (SO) | signal switch (opening direction) | | SA1 | switch (open - close) |
| SQ6 (SZ) | signal switch (closing direction) | | YB | electromagnetic brake |

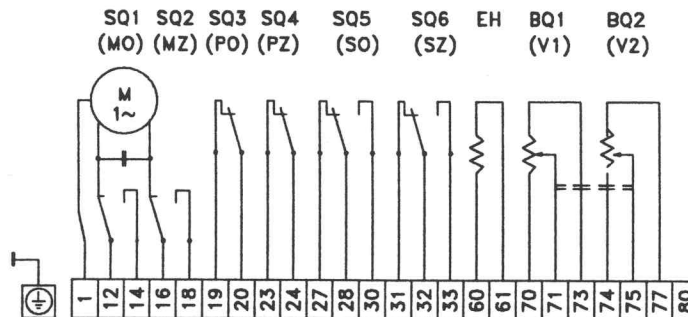
NOTE

When using the capacitance transmitter signal, a common ground must be made between the capacitance transmitter and all other connected circuits. The voltage between the capacitance transmitter and all other circuitry connected must not exceed 50VDC.

APPL. LR 110186-4

LR 110186-1 ILL.4

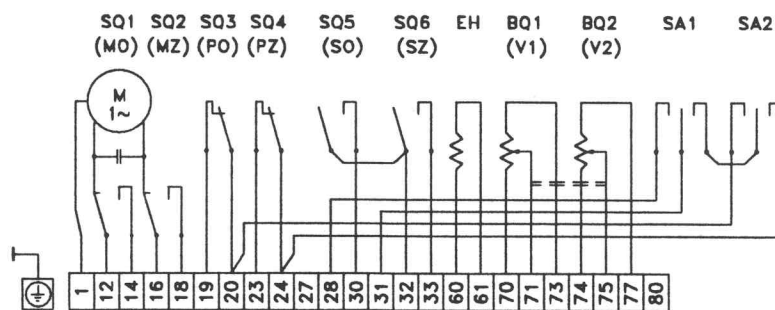
WIRING DIAGRAM



- SQ1 (MO) torque switch (opening direction)
- SQ2 (MZ) torque switch (closing direction)
- SQ3 (PO) position switch (opening direction)
- SQ4 (PZ) position switch (closing direction)
- SQ5 (SO) signal switch (opening direction)
- SQ6 (SZ) signal switch (closing direction)

- EH heating element
- BQ1, BQ2 resistance transmitter 2x100Ω

WIRING DIAGRAM WITH THE LOCAL CONTROLLER



- SQ1 (MO) torque switch (opening direction)
- SQ2 (MZ) torque switch (closing direction)
- SQ3 (PO) position switch (opening direction)
- SQ4 (PZ) position switch (closing direction)
- SQ5 (SO) signal switch (opening direction)
- SQ6 (SZ) signal switch (closing direction)

- EH heating element
- BQ1, BQ2 resistance transmitter 2x100Ω
- SA1 switch (local control - remote control)
- SA2 switch (open - close)



ZPA INC.

MODACT™
MOK Series - Parts & Materials

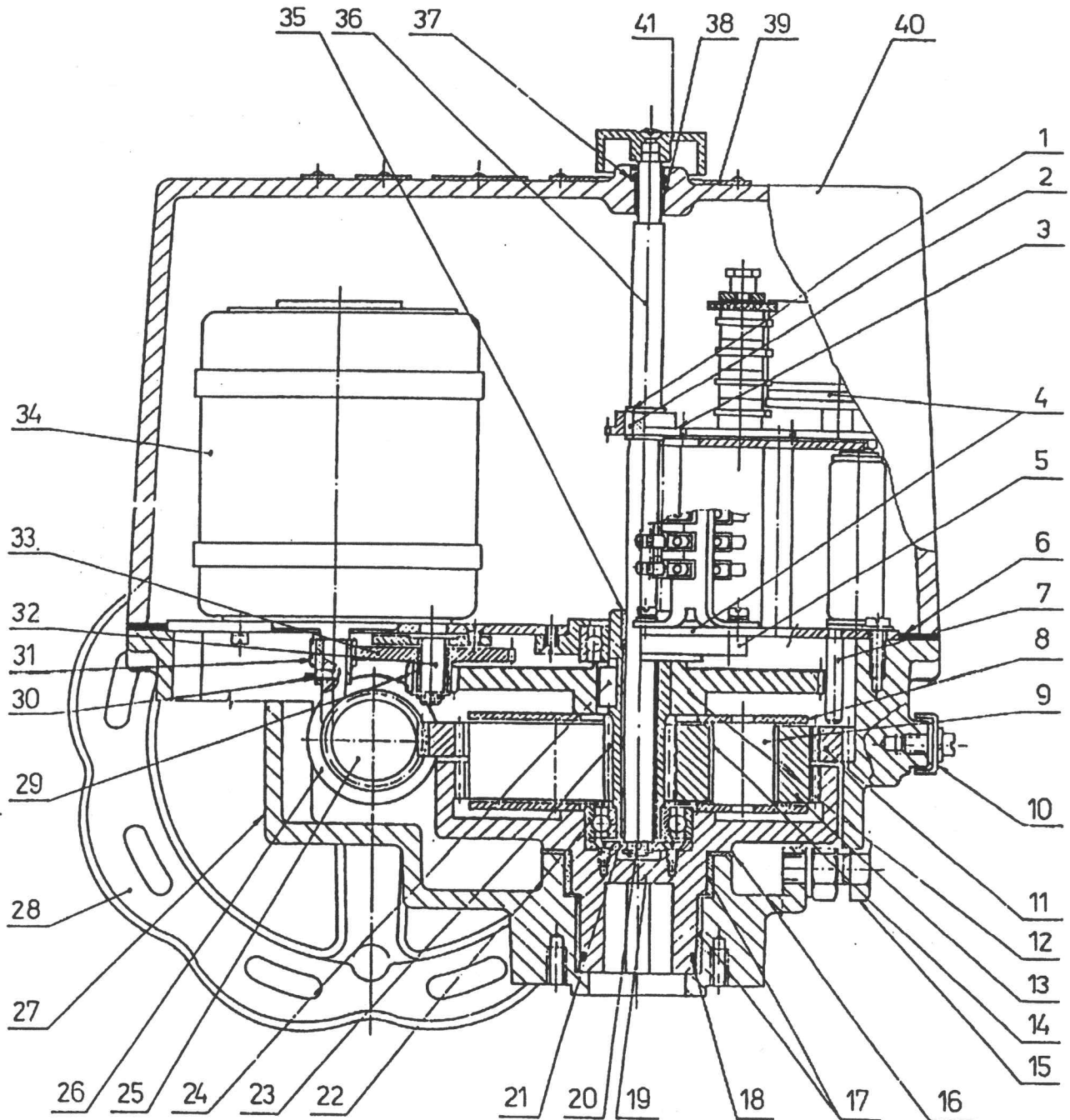
ACTUATOR MOK 52325

NO.	ITEM	MATERIAL	P/N	QTY
1	Locking ring	Steel	2331173006	1
2	Close fit key	Steel	214627670	1
3	Gear wheel for resistance pos. control	Steel	224629420	1
	Gear wheel for capacitance pos. control	Steel	224634330	1
4	Control panel (Fig.2)			1
5	Flange	Steel	224629010	1
6	Seal	Rubber	223535600	1
7	Pin	Steel	224629700	3
8	Planet	Steel	224628980	2
9	Pin	Steel	224628990	3
10	Ground terminal	Steel, Brass	224626550	1
		Aluminum	224626930	1
			2331121080	1
			2330983068	1
11	Gear wheel	Nodular cast iron	223535390	1
12	Gear wheel (10 s/90°)	Steel	223535510	1
	Gear wheel (20, 40, 80 s/90°)	Steel	223535520	1
13	Planet wheel	Steel	224629000	3
14	Housing	Steel, Bronze, Plastic	224631340	3
15	Shank	Steel	2330920254	2
16	Washer	Steel	224627460	1
17	Housing	Steel, Bronze, Plastic	2332320014	1
			224630170	1
18	Ring	Rubber	2327311033	2
19	Shaft assembly	Nodular cast iron	212529250	1
20	Pin	Steel	2331122228	11
21	Carrier	Steel	224629950	1
22	Bearing	Steel	2332416002	1
		Steel	2332416012	1
23	Pinion	Steel	223535500	1
24	Close fit key	Steel	224629300	1
25	Shaft	Steel	223535400	1
26	Spring (10 s/90°)	Steel	2331523605	21
	Spring (20, 40, 80 s/90°)	Steel	2331523609	34
27	Cover	Aluminum alloy	221516140	1
28	Hand wheel	Aluminum alloy, Steel	213535550	1
29	Housing	Steel, Bronze, Plastic	2332320009	1
30	Pin	Steel	2331122228	1
31	Pinion (10, 20 s/90°)	Steel	224629060	1
	Pinion (40, 80 s/90°)	Steel	224629070	1
32	Pin	Steel	224629190	1
33	Gear wheel (10 s/90°)	Steel	214629561	1
	Gear wheel (20 s/90°)	Steel	214629562	1
	Gear wheel (40, 80 s/90°)	Steel	214629563	1
34	Electromotor (Fig. 2)			1
35	Housing	Steel, Bronze, Plastic	2332320010	1
36	Shaft	Steel	233535590	1
37	Ring	Rubber	2327311001	1
38	Housing	Steel, Bronze, Plastic	224629480	1
39	Sticker	Aluminum		6
40	Cover	Aluminum alloy	222526350	1
41	Indicator	Plastic	2332111120	1
42	Bushing	Plastic	2332184102	2



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MODACT™ MOK Series - Parts & Materials

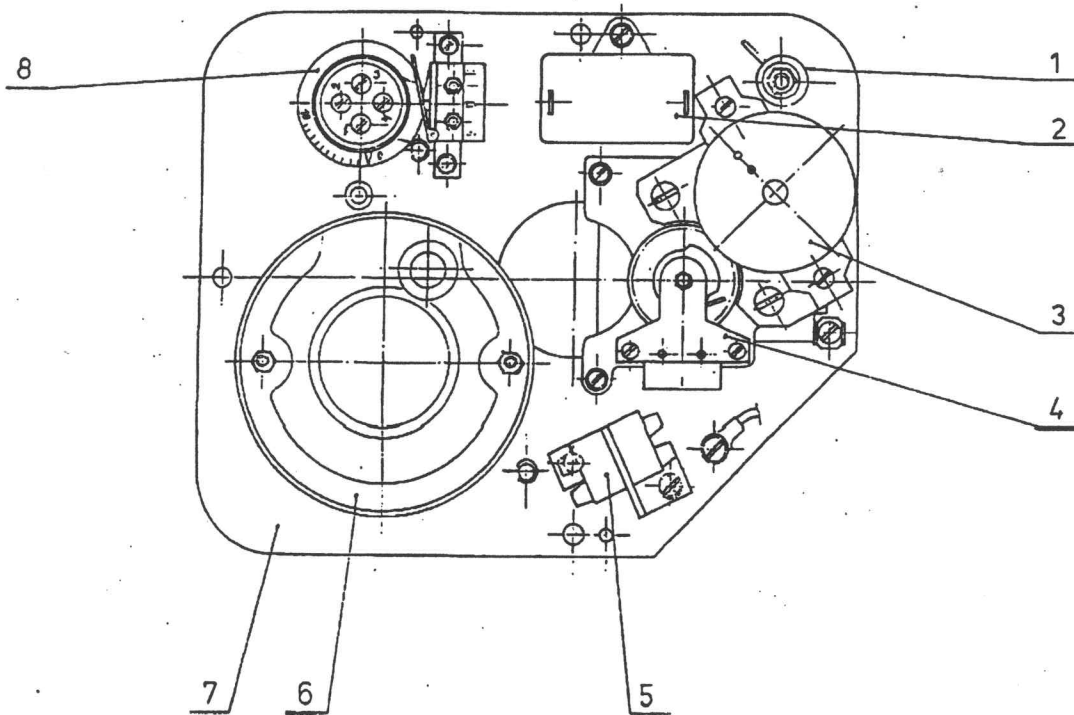




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MODACT™
MOK Series - Parts & Materials

CONTROL PANEL

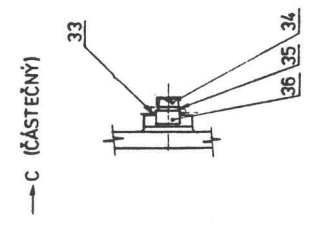
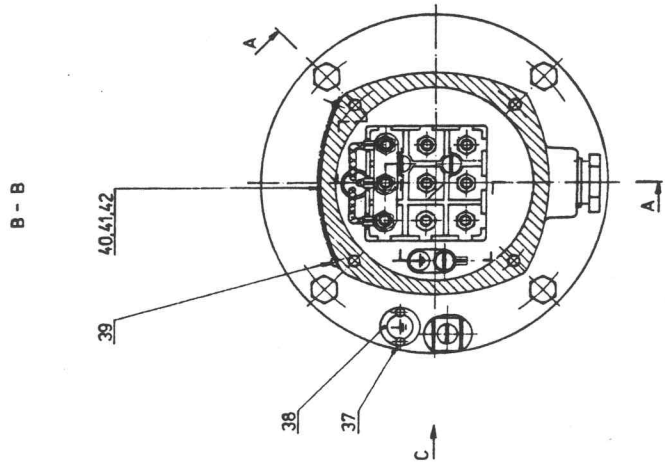
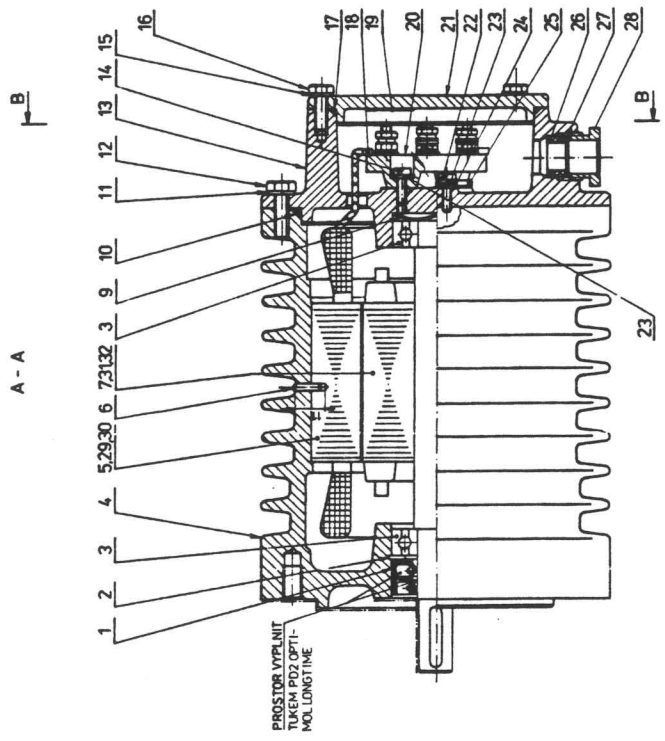


NO.	ITEM	MATERIAL	P/N	QTY
1	Heating element	Ceramic	2337110542	1
2	Capacitor	Plastic encapsulated	2337130460	1
3	Resistance position control	Plastic/Ni	2340510340	1
	Capacitance position control	Plastic/Aluminum	2340510393	1
4	Position microswitches for resistance pos. control Position microswitches for capacitance pos. control	Steel/Bronze	212528450	1
		Brass/Ag alloy	212528460	1
5	Terminal board	Brass/Plastic	214629600	1
6	Electromotor (80 s/90°) Electromotor (10,20,40 s/90°)	Aluminum/Copper	2335920130	1
		Steel	2335920125	1
7	Plate for resistance pos. control Plate for capacitance pos. control	Steel	222526500	1
		Steel	222528000	1
8	Torque microswitches	Steel/Bronze/Plastic	214623910	1
		Brass/Ag alloy	2337441092	2

PREVZATY
VÝZEB

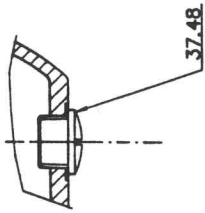
TYP	OBED VÝRBEU	PROVEDENÍ DLE NEROKA
EL. MOTORU	12-1003	KONSTRUKCE
EAM71-46	26.151605.1.0	BEZ POZ. 5, 7, 9, 10, 20, 21, 22
EAM71-46	26.151605.1.1	BEZ POZ. 20, 21, 22, 24, 25, 26, 27, 28
EAM71-46	26.151605.1.2	BEZ POZ. 5, 7, 9, 10, 20, 21, 22

POZNÁMKY: 1-ZALISOMÁNÍ STATORU DO KOSTRY POZ. 4. PROVÁDĚT V 1. OPERACI.
2-PRĚD ZALISOMÁNÍ STATORU DO KOSTRY SE KOSTRA ZAHŘEJE NA TEPLŮTU 110±10°C.
3-PRÍ ZALISOMÁNÍ STATORU MUSÍ BÝT VÝVODY VINUTÍ ORIENTOVÁNY NA STŘED MEZI OTVORY M6 V PŘÍ-
RUBE KOSTRY MOTORU
4-PPRO KOLÍK POZ. 6 SVYRTAT KOSTRU SE STATOREM, OTVOR Ø23. STRUŽIT NA Ø37



ČÍSLO ČÁSTI	NÁZEV ČÁSTI	POZ.	ČÍSLO KRESBY	ČÍSLO ČÁSTI
1	ROTOR	1	1	1
2	STATOR	2	2	2
3	KOSTRA	3	3	3
4	PROSTOR VYPLNIT TLUKEM POZ OPTI-MOLINGTINE	4	4	4
5	...	5	5	5
6	...	6	6	6
7	...	7	7	7
8	...	8	8	8
9	...	9	9	9
10	...	10	10	10
11	...	11	11	11
12	...	12	12	12
13	...	13	13	13
14	...	14	14	14
15	...	15	15	15
16	...	16	16	16
17	...	17	17	17
18	...	18	18	18
19	...	19	19	19
20	...	20	20	20
21	...	21	21	21
22	...	22	22	22
23	...	23	23	23
24	...	24	24	24
25	...	25	25	25
26	...	26	26	26
27	...	27	27	27
28	...	28	28	28
29	...	29	29	29
30	...	30	30	30
31	...	31	31	31
32	...	32	32	32
33	...	33	33	33
34	...	34	34	34
35	...	35	35	35
36	...	36	36	36
37	...	37	37	37
38	...	38	38	38
39	...	39	39	39
40	...	40	40	40

PROVEDENÍ 2



ČÍSLO VÝKRESU	POZNÁMKA	PROJEKČNÍ DLE MATERIÁLU	POZNÁMKA
2151553 0		MS	
2151553 1		5 PŘE 7.5, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49	
2151553 2		3 PŘE 37.47, 48 - HANOVSKÝ	

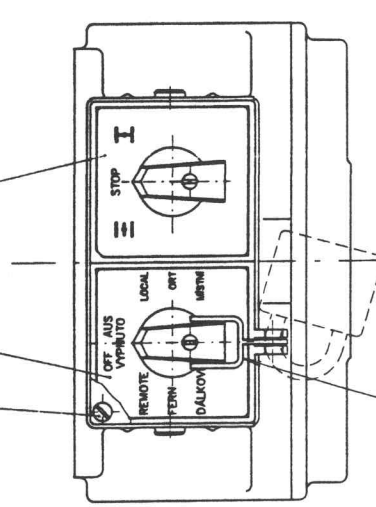
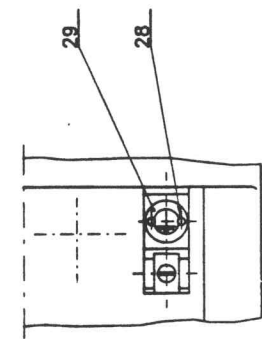
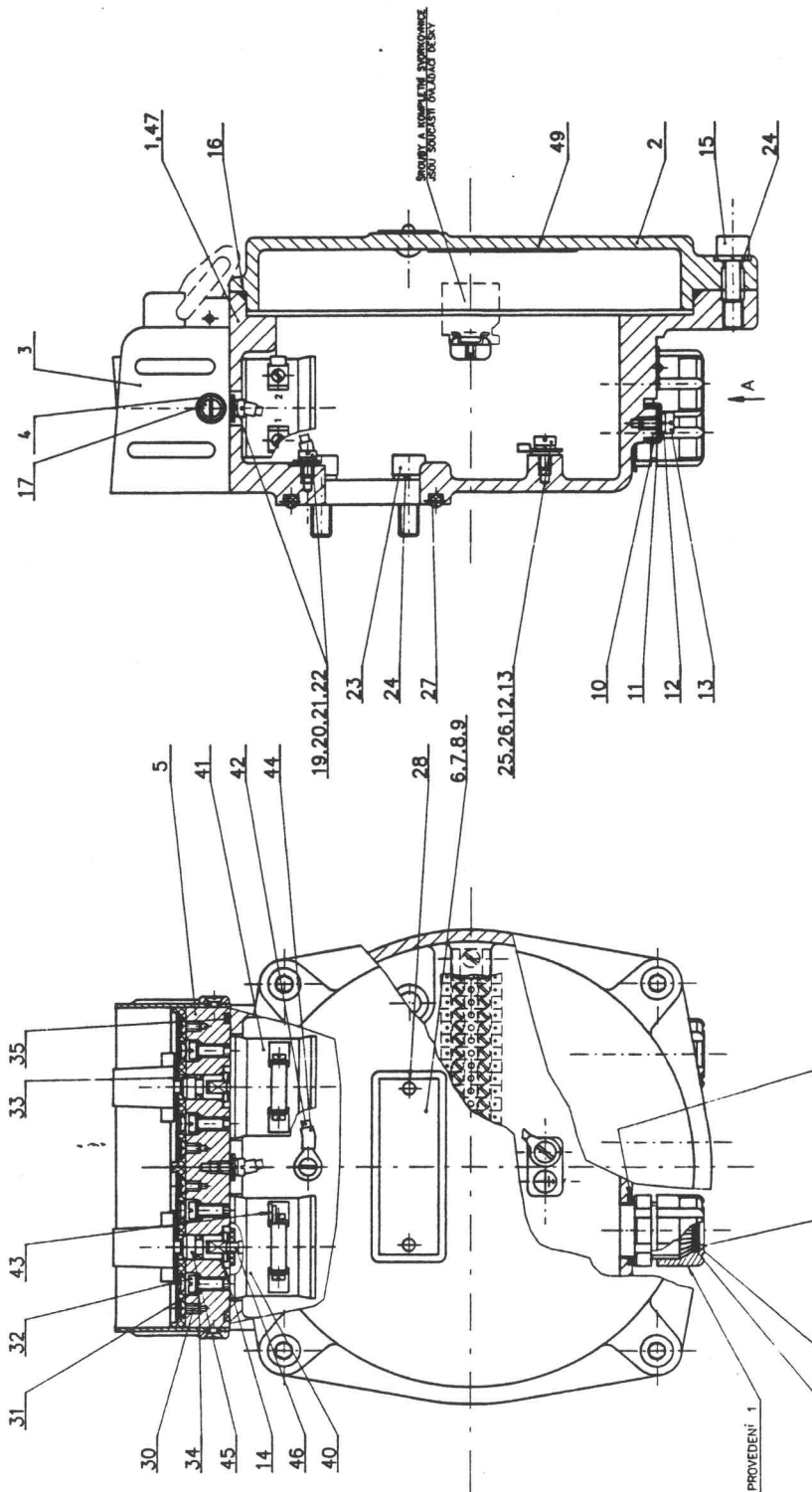
ČÍSLO VÝKRESU	POZNÁMKA	PROJEKČNÍ DLE MATERIÁLU	POZNÁMKA
P-0798	23483257	500308-50/P	21700 2
P-0799	23483258	500308-50/P	21700 2

POZNÁMKA:
 BOREKAD PLOCHU POD SOLENOIDU SVORKOU SLEVNĚT VZDÁLENOU NA KONTAKTY
 BOREKAD PLOCHU POD SOLENOIDU SVORKOU SLEVNĚT VZDÁLENOU NA KONTAKTY
 SÍŤEK SE KLÍČI DO MĚNA NA PŘEDNÍ ODMĚNĚNÍ A SÍŤEK POUŽIT

▼ TATO PŘÍLOHA JE POUŽITA POUZE PRO VÝKRESY PŘÍLOHY SVORKY.

OSTATNÍ PŘÍLOHY JSOU PRO VÝKRESY PŘÍLOHY SVORKY.

ČÍSLO VÝKRESU	POZNÁMKA	PROJEKČNÍ DLE MATERIÁLU	POZNÁMKA
2151553 0		MS	
2151553 1		5 PŘE 7.5, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49	
2151553 2		3 PŘE 37.47, 48 - HANOVSKÝ	



BANENO PRO ZÁNEK OPRÁVNĚNÍ
 RE SÍŤENÍ SAMOLEPČÍ PÁSKOU

3	MODEL 0 212 2	CSN 021081.2	33
			POD ČÍSLO MĚŘÍ

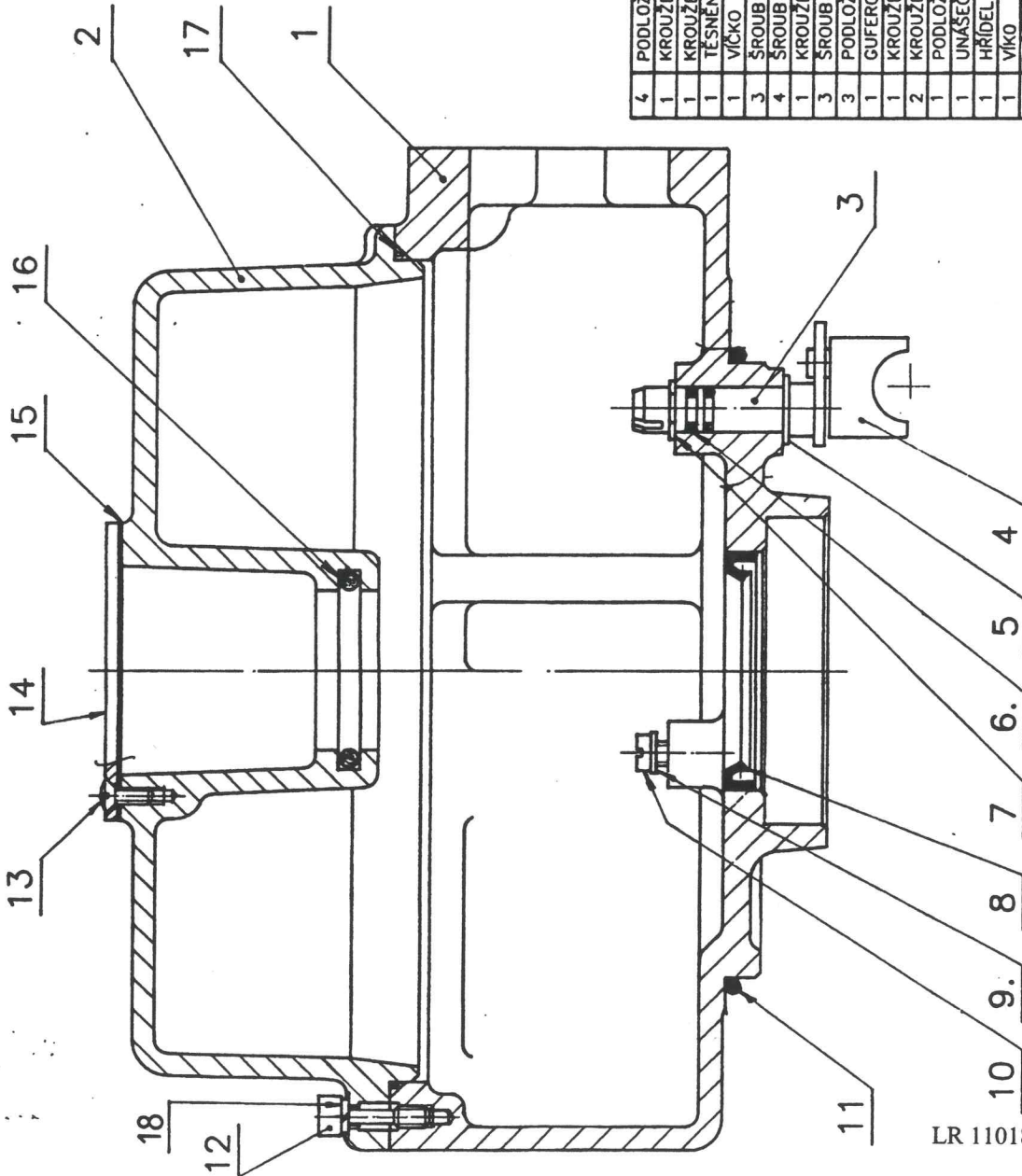
LR 110186-1 ILL.10

26151653
 SKRIN SVORKOVICOVA
 S M
 1:1
 ZIA
 2151553
 2151553

2. března 1998

SNZ - Ústav pro fyziku
Jen pro informaci
 neposílá zálohovou řízení

ČÍSLO VÝKRESU		PROVEDENÍ DLE HLEDISKA	
ZÁKLADNÍ	DOPLNKOVÉ	KONSTRUKCE	KLIMATIZACE
26353794	0	JEDNOZNAČNÉ	—



4	PODLOŽKA 5	ČSN 021740.07	2331121080	18
1	KROUŽEK 170x3	ČSN 02 9281.2	2327311054	17
1	KROUŽEK 43x35	ČSN 02 9280.1	2327311008	16
1	TĚŠENÍ		224612280	15
1	VÍČKO		224612293	14
3	ŠROUB M4x10	ČSN EN ISO 2010 (021155.27)	2330925187	13
4	ŠROUB ÚPRAVA		224638220	12
1	KROUŽEK 130x3	ČSN 029281.2	2327311041	11
3	ŠROUB M5x8	ČSN EN ISO 1207 (021131.27)	2330923094	10
3	PODLOŽKA 5,3	ČSN 021745.07	2331122016	9
1	GUFERO 40x52x7	ČSN 029401	2327352066	8
1	KROUŽEK 7	ČSN 022929.0	2331173007	7
2	KROUŽEK 10x6	ČSN 029280.2	2327311001	6
1	PODLOŽKA		224564740	5
1	UNÁŠEČ S POUZDREM		214612220	4
1	HRÍDEL S PÁČKOU		214611670	3
1	VÍKO		222529850	2
1	SKŘIŇ ŘÍDICÍ		221516300	1

ZDA		PIEČKY	
ZMĚNA	DATUM	POZNÁMKA	MĚŘÍTKO
			1:1
VYPRACOVAL NOVÁKOVÁ	NORMALIZÁTOR		
PREZKOUSEL	SCHVÁLIL		
TECHNOLOG	DATUM	START VÝKRES	VEČNÉ ČÍSLO VÝSS
NÁZEV	TP 52030.XXXXP		
NÁZEV		VEČNÉ ČÍSLO NIŽŠÍ POZ	
SKŘIŇ ŘÍDICÍ			
		26353794	
		LIST	

LR 110186-1 ILL.11

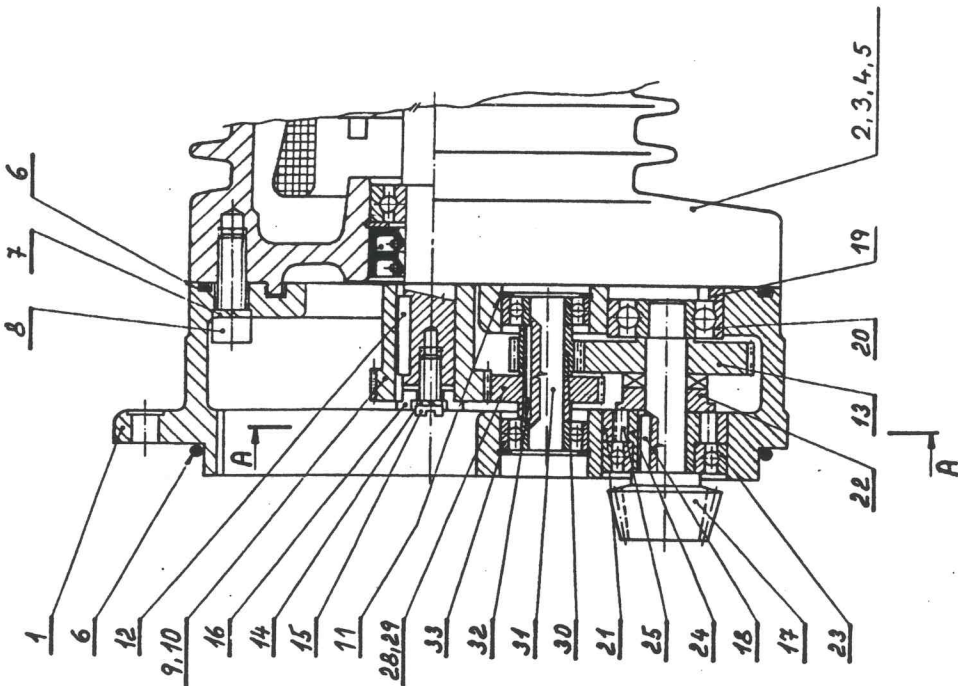
SNZ - ÚSTAV FYZIKY
PREZKOUSEL
 VÝKRES

TYPOVÉ ČÍSLO	ČÍSLO VÝKRESU		PROVEDENÍ DLE HEDISKA	
	ZÁKLADNÍ	ÚPRAVA	KONSTRUKCE	ÚPRAVA
52030.xx2xP.xx9xP	24252953	0	VHS	-
52030.xx2xP.xx9xP	26252953	1	S P02. 2,9,28	1/12, 1/2
52030.xx2xP.xx9xP	26252953	2	S P02. 3,9,28	1/25, 1/2
52030.xx3xP	26252953	3	S P02. 3,10,28	1/25, 1/2
52030.xx4xP	26252953	4	S P02. 5,9,28	1/25, 1/2
52030.xx5xP	26252953	5	S P02. 4,9,28	1/25, 1/2
52030.xx6xP	26252953	6	S P02. 4,10,28	1/25, 1/2

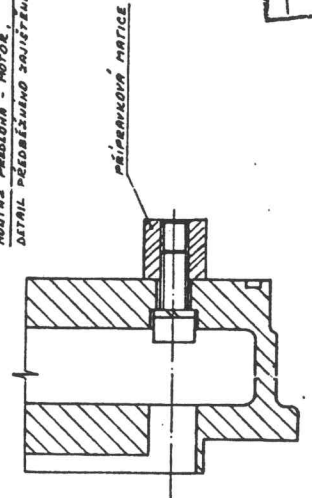
POZNÁMKA :

TAKTO OZNAČENÉ PRVKY SE POUŽÍVAJÍ JEN PODLE PŘÍLOHY
JEDNOZNAČNOSTI, OSTATNÍ PRVKY JSOU PRO NĚCINÁŘI PŘEDVEDENÍ STEJNÉ

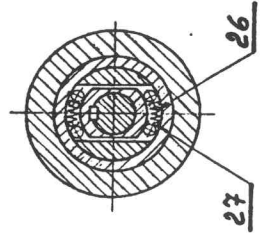
2	LOŽISKO 6000	CIN 021630	2332418001	35
1	PERO 3x3x28	CIN 022562	2321172004	34
1	ČEP		221611870	33
1	PASTOREK		221611870	32
1	KOLO ODBĚRNÉ PRO 40 1/min		221611870	31
1	KOLO ODBĚRNÉ PRO 16,25 1/min		221611870	30
4	PŘÍRUBA PŘÍRUBNÍ	4-6175D	221611870	29
4	VALEČEK OC. 6x8	CIN 022645	2327490928	28
1	VLČC		221611870	27
1	WRÁŽEC 6003	CIN 021630	221611870	26
1	WRÁŽEC 6300	CIN 021630	221611870	25
1	LOŽISKO 6300	CIN 021630	221611870	24
1	LEŽÁK 4x4x16	CIN 021630	221611870	23
1	PASTOREK KŘEVLONÝ		221611870	22
1	PODLŽKA		221611870	21
1	PODLŽKA M5x18	CIN EN ISO 1807 (02173)	221611870	20
1	PODLŽKA 5	CIN 021710.01	221611870	19
1	KOLO ODBĚRNÉ		221611870	18
1	PERO 5x5x25		221611870	17
2	LEŽÁK 70x125x25	CIN 021731	221611870	16
1	PASTOREK PRO 40 1/min		221611870	15
4	PODLŽKA M 8x20	CIN 021143.3D	221611870	14
2	LEŽÁK 80x125x40	CIN 021340.01	221611870	13
2	LEŽÁK 80x125x40	CIN 021340.01	221611870	12
1	MOTOR EAM 71-6		221611870	11
1	MOTOR EAM 71-6		221611870	10
1	MOTOR EAM 71-6		221611870	9
1	MOTOR EAM 71-6		221611870	8
1	MOTOR EAM 71-6		221611870	7
1	MOTOR EAM 71-6		221611870	6
1	MOTOR EAM 71-6		221611870	5
1	MOTOR EAM 71-6		221611870	4
1	MOTOR EAM 71-6		221611870	3
1	MOTOR EAM 71-6		221611870	2
1	MOTOR EAM 71-6		221611870	1



MONTÁŽ PŘEDLOHA - MOTOR.
DETAIL PŘEDBĚŽNĚHO ZAJISTĚNÍ JAKOVU



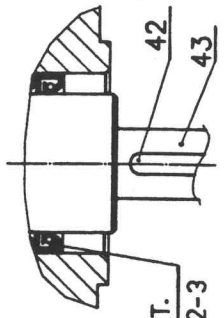
A-A



50
20
V.11.05

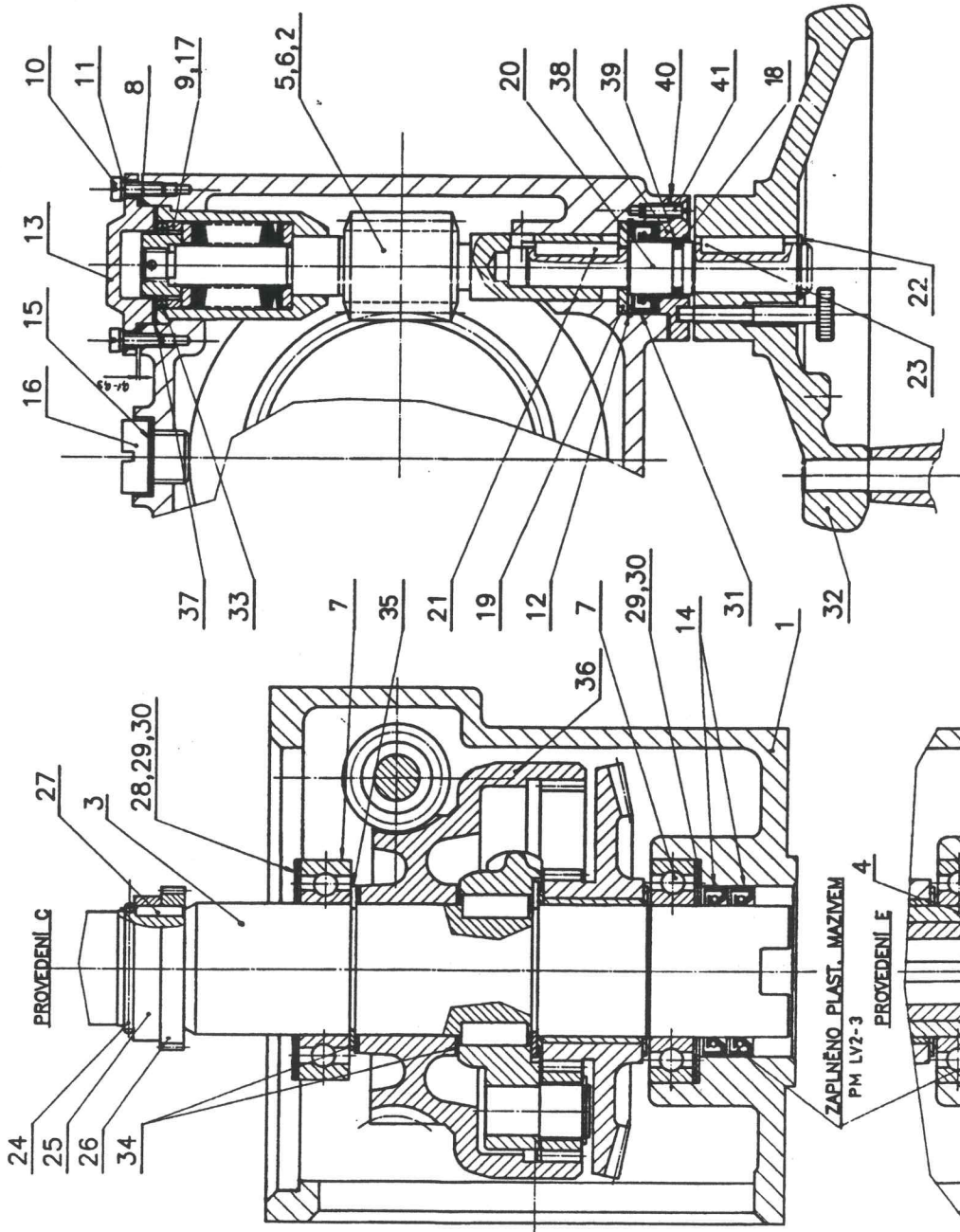
ZAPĚČKY
 MĚRITKO 1:1
 PODNÁMKA
 MONTÁŽNÍ KRESBA
 EDICE 13.11.1987
 Účel: 13.11.1987
 Typ 52030.001 P
 ŠKIC PŘEDLOHA F10
 (PRO 16,25,40 1/min)
 LIST 26252953
 LIST

PROVEDENÍ D



ZAPLNĚNO PLAST.
MAZIVEM PM LV2-3

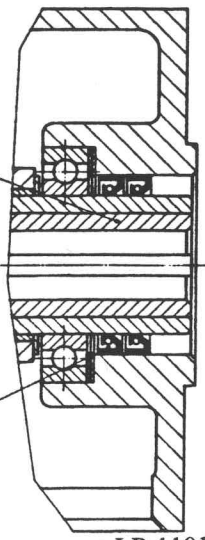
TKYTO BĚHÁRĚNÉ POJICE JE POUŽÍVÁNÍ JEN POODLE PRAZÍTEK JEDNÁKOVÁHO
MONTI, ODTAĚNÍ POJICE JINOU PRO KĚCHNA PŘÍKROVNÍ STĚNE



ČÍSLO VÝKRESU	PR. KŘÍŽEM DLE MĚŘENÍ	ROZMĚRY	POUŽITÍ
24	0	PM5	—
25	1	80 - 40 mm - C	M25,172
26	2	40 - 40 mm - C	M25,172
27	3	80 - 40 mm - C	M25,172
28	4	80 - 40 mm - D	M25,172
29	5	40 - 40 mm - D	M25,172
30	6	40 - 40 mm - D	M25,172
31	7	80 - 40 mm - F	M25,172
32	8	80 - 40 mm - F	M25,172
33	9	80 - 40 mm - E	M25,172

ZAPLNĚNO PLAST. MAZIVEM
PM LV2-3

PROVEDENÍ E

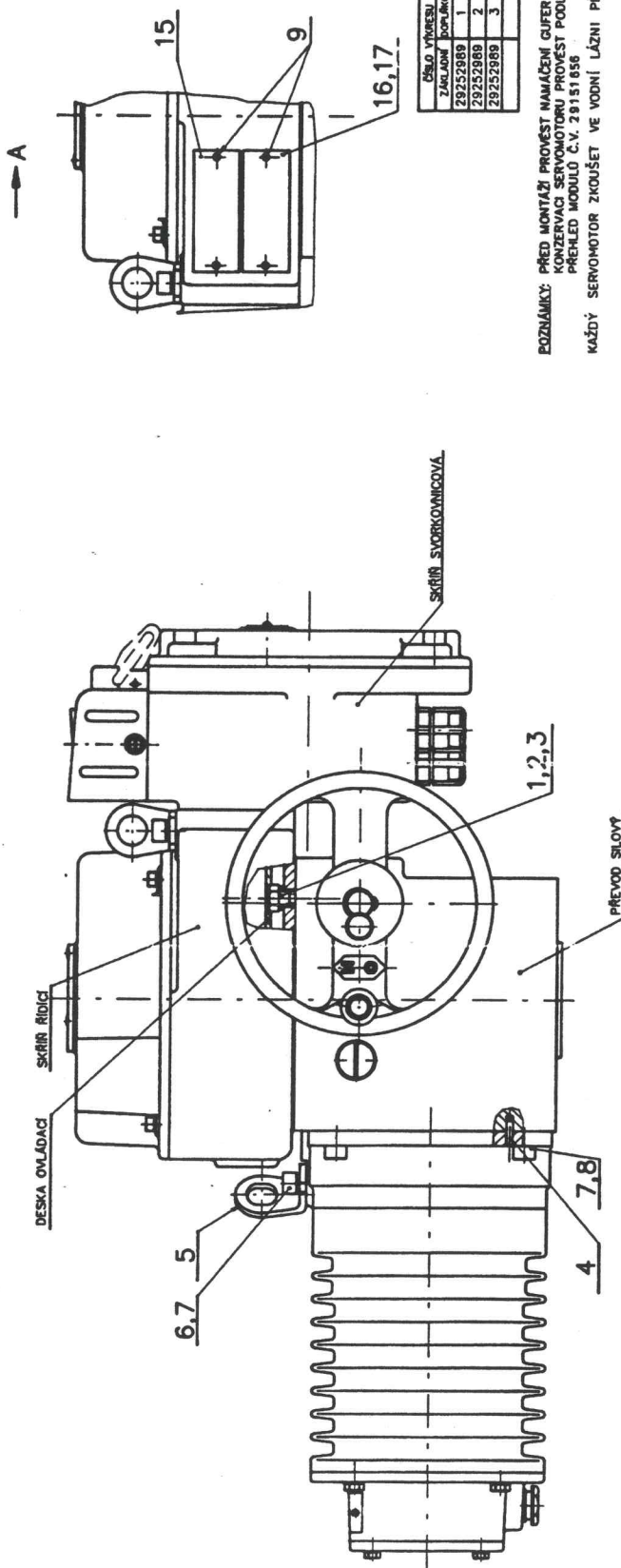


ZDA
PRŮMYSL
1:1

PROJEKTOVATEL: []
KONSTRUKTOR: []
KONTROLNÍK: []
SCHVÁLIL: []
DATUM: 4.7.1977

STAV: VÝKRES
VEŠNÍ ČÍSLO: 26252974
LIST: 1/1

VEŠNÍ ČÍSLO: 26252974
LIST: 1/1



→ A

ČÍSLO VÝKRESU	PROVEDĚNÍ DLE HLAVNÍ KONTAKT	POUR
29252989	1	MONTÁŽ FINÁLU PROV. C JEDNOT.
29252989	2	MONTÁŽ FINÁLU PROV. D JEDNOT.
29252989	3	MONTÁŽ FINÁLU PROV. E JEDNOT.

POZNÁMKY: PŘED MONTÁŽÍ PROVĚST NAMAČENÍ GUFER PODLE ČSN 029403 Č. 62
 KONZERVACI SERVO MOTORU PROVĚST PODLE PŘEDPISU Č.V. 29462790
 PŘEHLED MODULŮ Č.V. 29151856
 KAŽDÝ SERVO MOTOR ZKOUŠET VE VODNÍ LAZNI PŘETLAKEM 0,02 AŽ 0,025 MPa

0,22	EMAIL SVĚTLEČKY	S 2013/1110	2324611063
0,15	BARVA ZAKLADNÍ	S 2003/0600	2324611074
0,05	REDIDLO	C 6000/0000	2324611321
0,1	REDIDLO	S 6001/0000	2324611304
ZL	OLEJ PŘEVODOVÝ PP 80	ČSN 656641	
0,018	MAZIVO PM LVZ-3	ČSN 654451	
0,002	EMAIL C2001/8140		
1	ŠITEK PŘÍSTROJOVÝ PRO OPT. 1/A - RAŽENÍ	213538210	17
1	ŠITEK PŘÍSTROJOVÝ PRO V2 - RAŽENÍ	213538200	16
1	ŠITEK TYPOVÝ - RAŽENÍ	213538190	15
1	ŠITEK RUSKÝ	23454503/A	14
1	ŠITEK ANGLICKÝ	23454503/A	13
1	ŠITEK NĚMECKÝ	23454503/A	12
1	ŠITEK ČESKÝ	23454503/C	11
1	ŠITEK MADE IN ...	234629899	10
8	HRÉB ŠROUBOVÝ ZK4 NIKLOVAT	ČSN 021143.57	9
4	ŠROUB M6x20	ČSN 021143.57	8
7	POLOŽKA 6	ČSN 021740.07	7
3	ŠROUB M6x16 - Z litina 608	ČSN 021143.57	6
3	ZAVĚS	224624830	5
4	KOLÍK 4x16	ČSN 022150.1	4
4	KROUŽEK 0° 12x8	ČSN 022280.2	3
4	POLOŽKA	2322311076	2
4	ŠROUB M8	224637360	1
KUSY		224637390	2
		224637380	1
		224637370	1
		224637360	1
		224637350	1
		224637340	1
		224637330	1
		224637320	1
		224637310	1
		224637300	1
		224637290	1
		224637280	1
		224637270	1
		224637260	1
		224637250	1
		224637240	1
		224637230	1
		224637220	1
		224637210	1
		224637200	1
		224637190	1
		224637180	1
		224637170	1
		224637160	1
		224637150	1
		224637140	1
		224637130	1
		224637120	1
		224637110	1
		224637100	1
		224637090	1
		224637080	1
		224637070	1
		224637060	1
		224637050	1
		224637040	1
		224637030	1
		224637020	1
		224637010	1
		224637000	1

VYPRACOVANÉ: *Štefan* / *Štefan*
 PŘEZKOUŠEN: *Štefan* / *Štefan*
 TECHNOLOG: *Štefan* / *Štefan*
 NÁZEV: SERVO MOTOR MO F10
 TYP: 1:2
 ČÍSLO VÝKRESU: 29252989
 LIST: 1/10

02H11 4-08 0

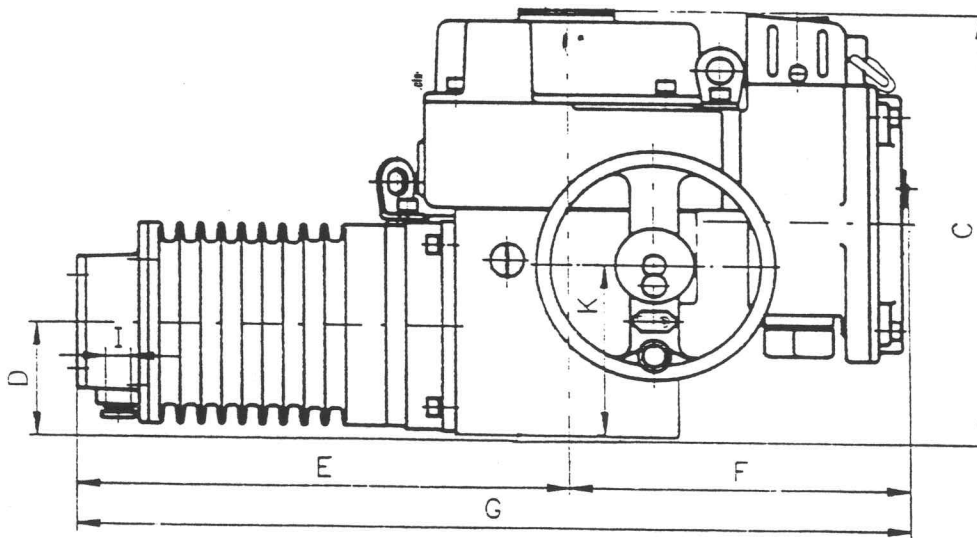
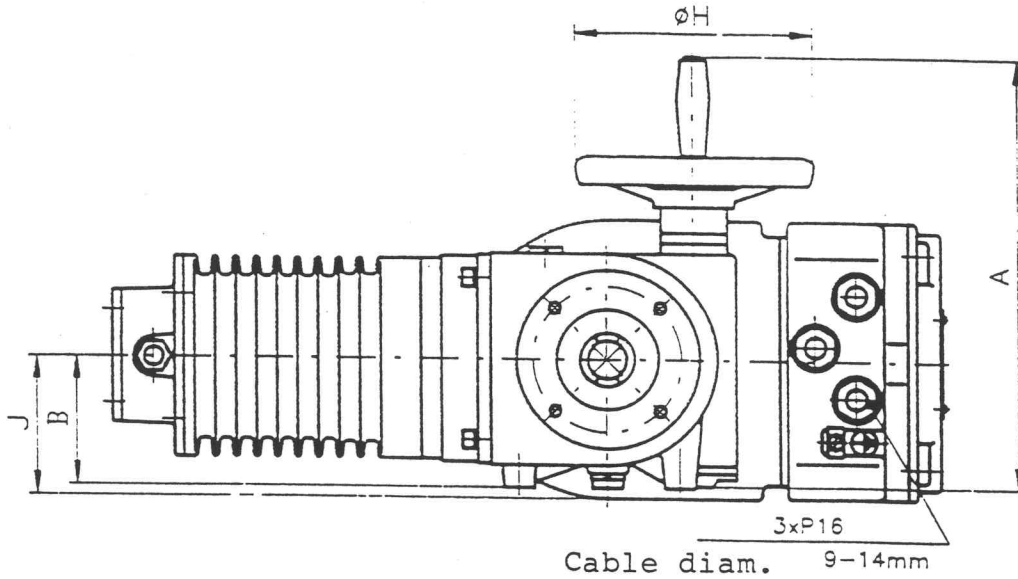
PROJEKČNÍ ČÍSLO	VERZE	STAV
02H11	4-08	0
02H11	4-10	1
02H11	1110	2
02H11	1110	3
02H11	1110	4
02H11	1110	5
02H11	1110	6
02H11	1110	7
02H11	1110	8
02H11	1110	9
02H11	1110	10
02H11	1110	11
02H11	1110	12
02H11	1110	13
02H11	1110	14
02H11	1110	15
02H11	1110	16
02H11	1110	17



ZPA INC.

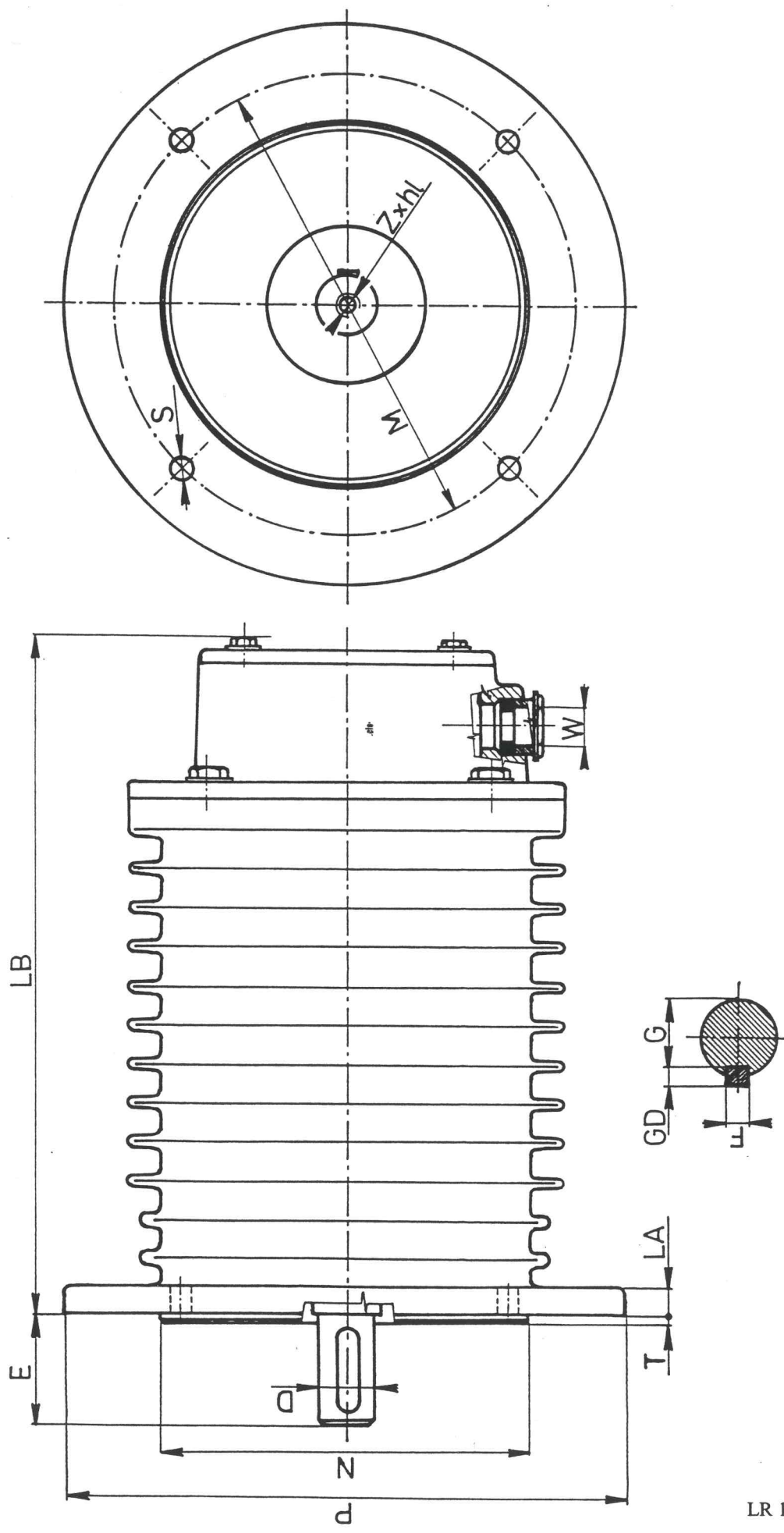
MODACT™
MO Series

TECHNICAL DRAWINGS

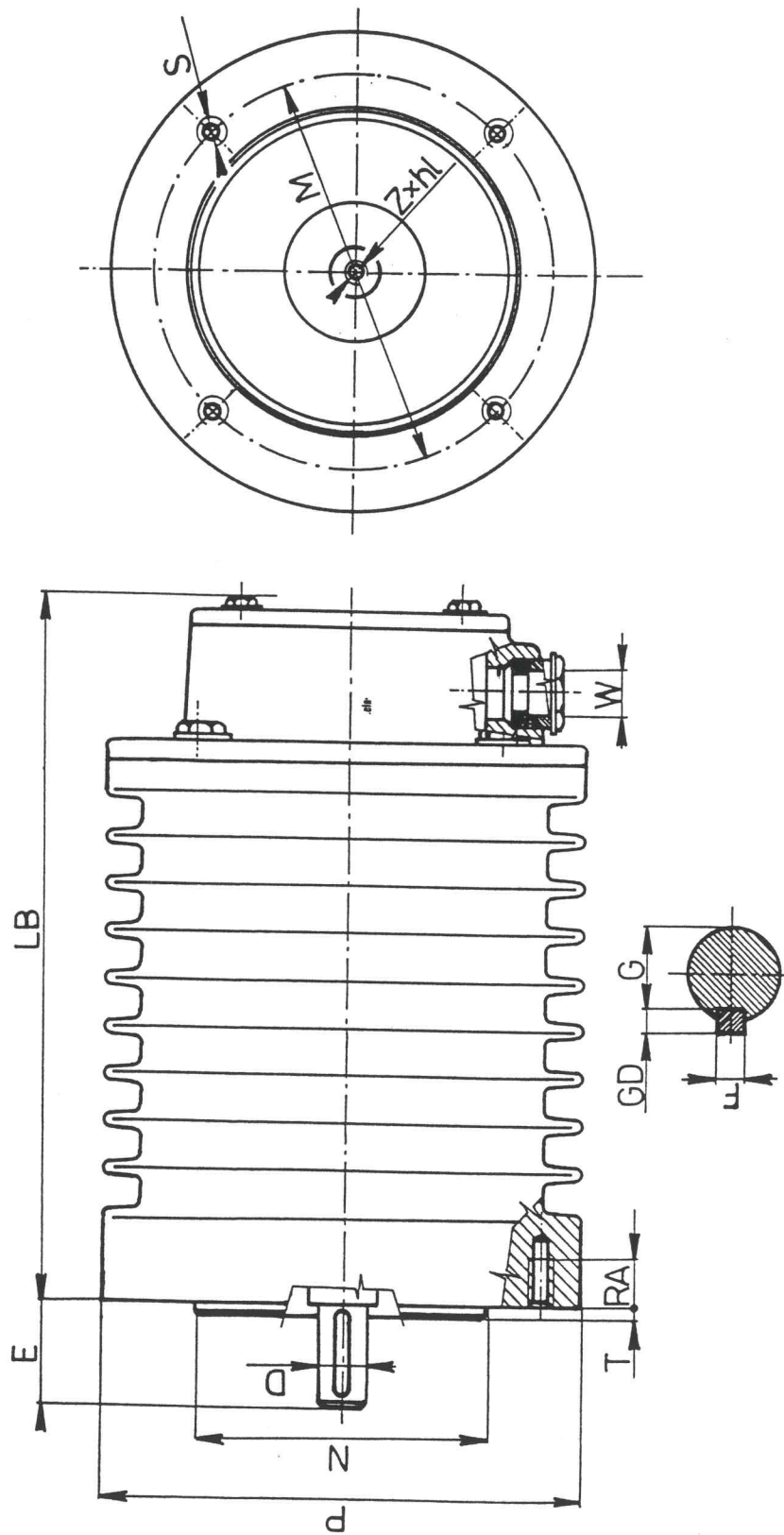


X dimensions for information only

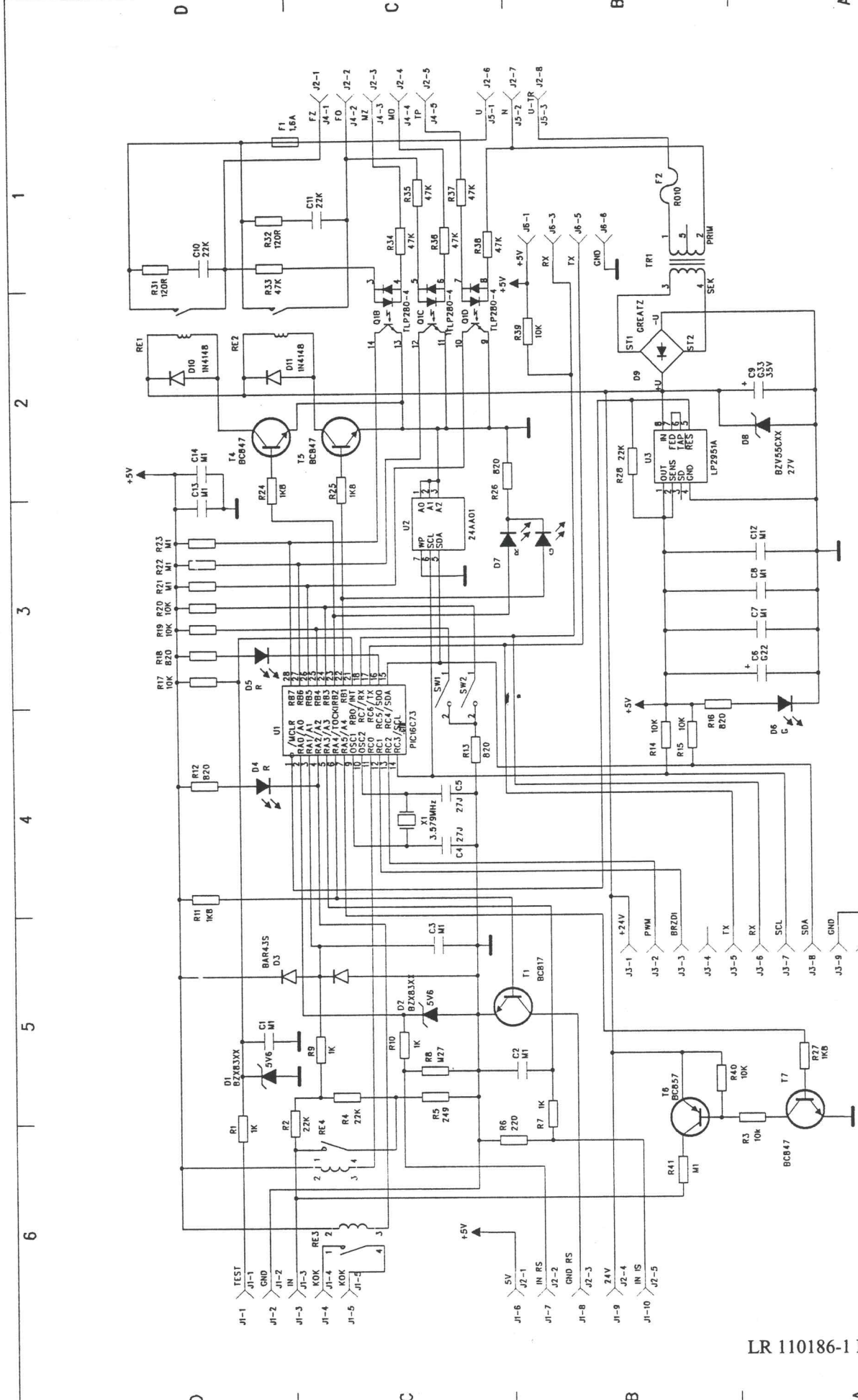
Type Typové označení	A	B	C	D	E ^x	F	G ^x	ØH	I	J	K
52030.xxxxP	305	90	300	78	338	228	566	160	P13,5	99	120
52031.xxxxP 52032.xxxxP	376	120	328	92	445	228	673	200	P16	—	144
52033.xxxxP 52034.xxxxP	455	145	382	123	543	258	801	250	P21	—	190
52035.xxxxP	540	178	442	153	639	298	937	375	P21	—	234



Typ	Příruba	LA	LB	M	N	P	S	T	W	D	E	F	G	GD	Z x hl
EAM 80-..	FF 165	10	245	165	130	200	12	3,5	P16	19	40	6	15,5	6	M6 x 16
EAM 90-..	FF 165	10	288	165	130	200	12	3,5	P16	24	50	8	20	7	M8 x 19
EAM100-..	FF 215	12	334	215	180	250	15	4	P16	28	60	8	24	7	x x x
EAM112-..	FF 215	12	355	215	180	250	15	4	P21	28	60	8	24	7	x x x
EAM132-..	FF 265	20	413	265	230	300	15	4	P21	38	80	10	33	8	x x x



Typ	Přiruba	LB	M	N	P	RA	S	T	W	D	E	F	G	GD	Z x hl
EAM 71-..	FT 115	212	115	95	140	16	M8	3	P13,5	14	30	5	11	5	M5 x 12



FIRMA: EHL elektronika
 ANALOG. REGULATOR ZP2.RE2K
 KRESLIL: Ing. Jozsef HAKL
 DATEM: 5.5.1997

List of components - ZP2.RE2K

Seznam součástek pro výrobu ZP2.RE2K

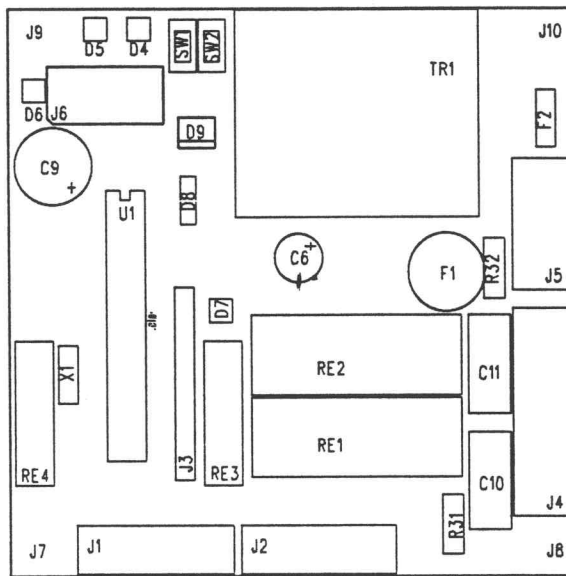
R1, R7, R9, R10	1K, RC11
R2, R4, R28	22K, RC11
R3, R14, R15, R17, R19, R20, R39, R40	10K, RC11
R5	249R, RC12
R6	220R, RC11
R8	M27, RC11
R11, R24, R25, R27	1K8, RC11
R12, R13, R16, R18, R26	820R, RC11
R21, R22, R23, R33,	M1, RC11
R34, R35, R36, R37, R38, R41	47K, RC11
R31, R32	120R, PR02
C1, C2, C3, C7, C8, C12, C13, C14	M1 0805
C4, C5	27J 0805
C6	ECA 0JM471 470M/ 6,3V
C9	ECA 1VHG471 470M/ 35V
C10, C11	2222-336 20 223 PHILLIPS
X1	3,579MHz, HC49-U
D1, D2	BZX 84-C5V6
D3	BAR 43S
D4	TLMH 3100
D5	TLMY 3100
D6	TLMG 3100
D7	TLMV 3100
D8	MMSZ 27
D9	MB2S (MB6S)
D10, D11	BAS 19
T1	BC817-25, SOT-23
T4, T5, T7	BC847-B, SOT-23 (BC 846 B)
T6	BC857-B, SOT-23 (BC 856 B)
Q1	TLP280-4
U1	PIC16C73A-04I/SP
U2	24LC01B-I/SN
U3	LP2951ACD
RE1, RE2	JS24-M-K, TAKAMISAWA
RE3, RE4	HE3621A0510, KUAN HSI
F1	SH166, FSKK01,6
F2	RXE 010
TR1	230/18VDC, 1,1VA
J1, J2	MCV 1,5/5-G-3,81 PHOENIX CONTACT
J3	SIL 10PZ
J4	MSTBVA 2,5/5-G-5,08 PHOENIX CONTACT
J5	MSTBVA 2,5/3-G-5,08 PHOENIX CONTACT
J6	75869-131, BERG
SW1, SW2	B 6850
SO1	SOKL 28 pin - ocadit do pozice U1 <i>set in position U1</i>

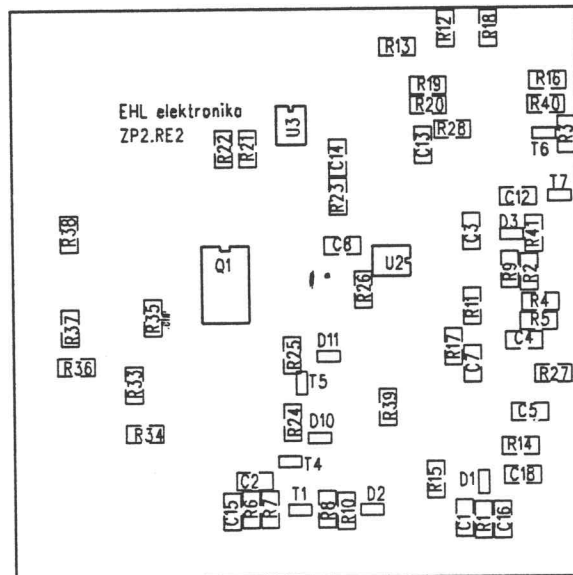
MATERIALS USED FOR REGULATOR ZP2- CANADA VERSION

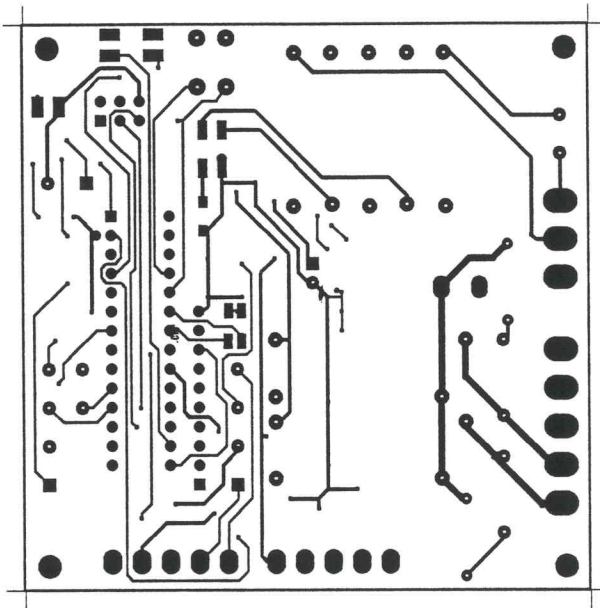
Transformer-	HAHN BV 302 2777	ta70/F, CSA, UL
Relay-	TAKAMISAWA JS24-M-K(JS24-K)	CSA, UL
Fuse-	ELU Type 166050-1,6A	UL, VDE
LED sensor-	Toshiba TLP280-4 Toshiba TLP126	BVS 2 500VAC UL 1577
Capacitor-	PHILIPS 2222 336 20223 22Nf/ 275 VDC 50/60 Hz	CSA, UL
Fuse-	Raychem RXE010	CSA, UL
Resistor-	PHILIPS PR 02 120 Ohm 2W	CSA, UL
Resistor-	PHILIPS RC11 47K	
Terminals-	PHOENIX CONTACT MSTBVA 2.5/5-G-5.08 PHEONIX CONTACT MSTBVA 2.5/3-G-5.08 PHOENIX CONTACT MSTBT 2.5/5-G-5.08 PHOENIX CONTACT MSTBT 2.5/3-G-5.08	CSA, UL CSA, UL CSA, UL

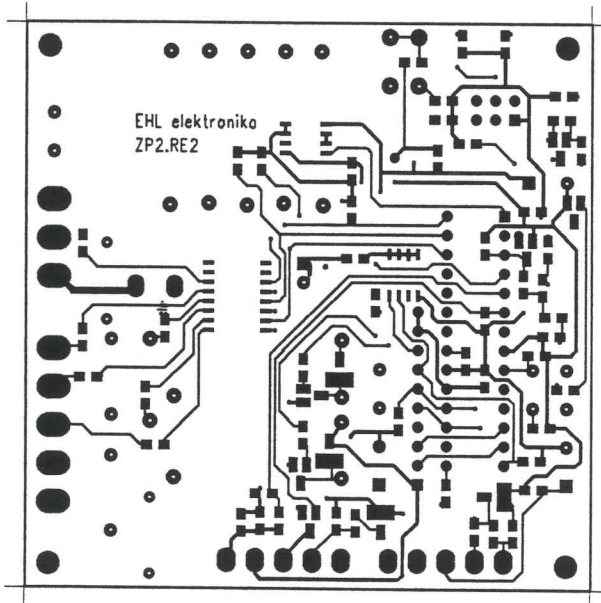
Materiál použitý pro regulátory ZP2 - Kanada

Transformátor	HAHN BV EI 302 2777	ta70/F, CSA, UL
Relé	TAKAMISAWA JS24-M-K (JS24-K)	CSA, UL
Pojistka	ELU Typ 166050-1,6A	UL, VDE
Optočlen	Toshiba TLP280-4 Toshiba TLP126	BVS 2 500VAC UL1577
Kondenzátor	PHILIPS 2222 336 20223 22nF / 275VDC 50/60 Hz	CSA, UL
Pojistka	Raychem RXE010	CSA, UL
Odpor	PHILIPS PR Q2 120Ohm 2W	
Odpor	PHILIPS RC11 47K	
Konektor	PHOENIX CONTACT MSTBVA 2,5/5-G-5,08	CSA, UL
Konektor	PHOENIX CONTACT MSTBVA 2,5/3-G-5,08	CSA, UL
Konektor	PHOENIX CONTACT MSTBT 2,5/5-G-5,08	CSA, UL
Konektor	PHOENIX CONTACT MSTBT 2,5/3-G-5,08	CSA, UL



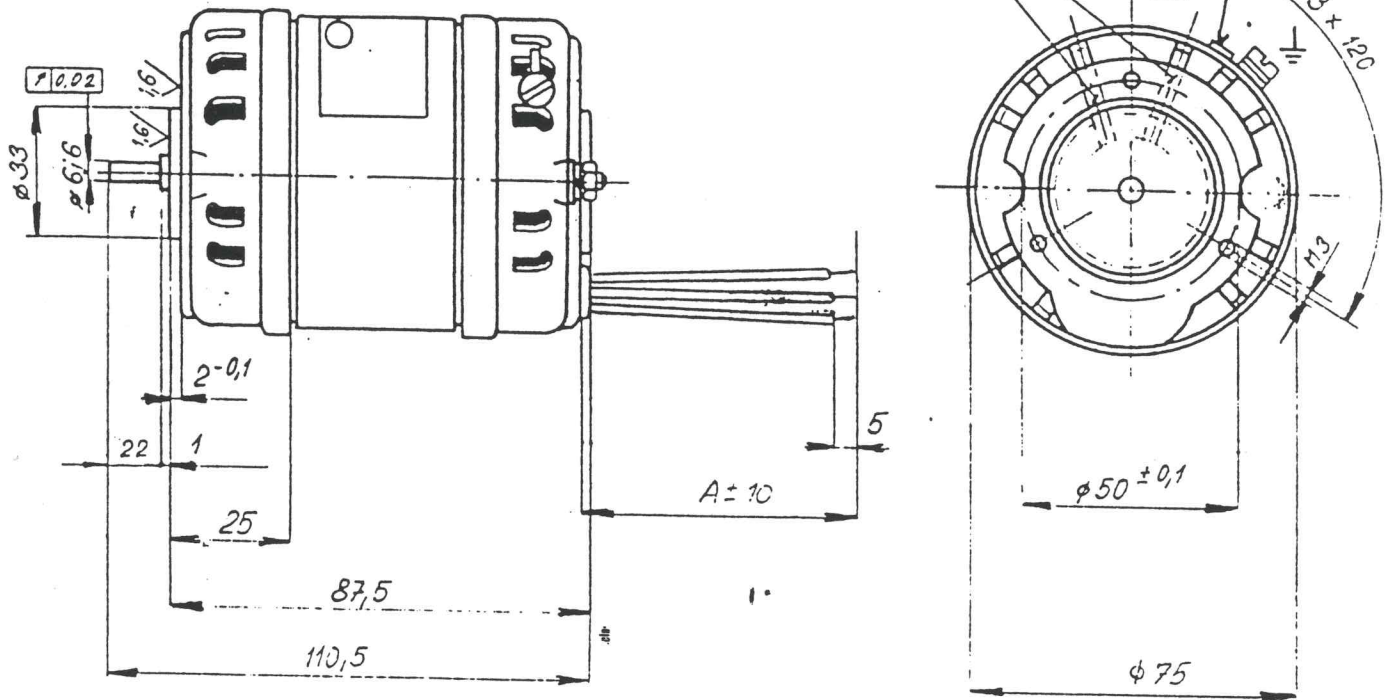






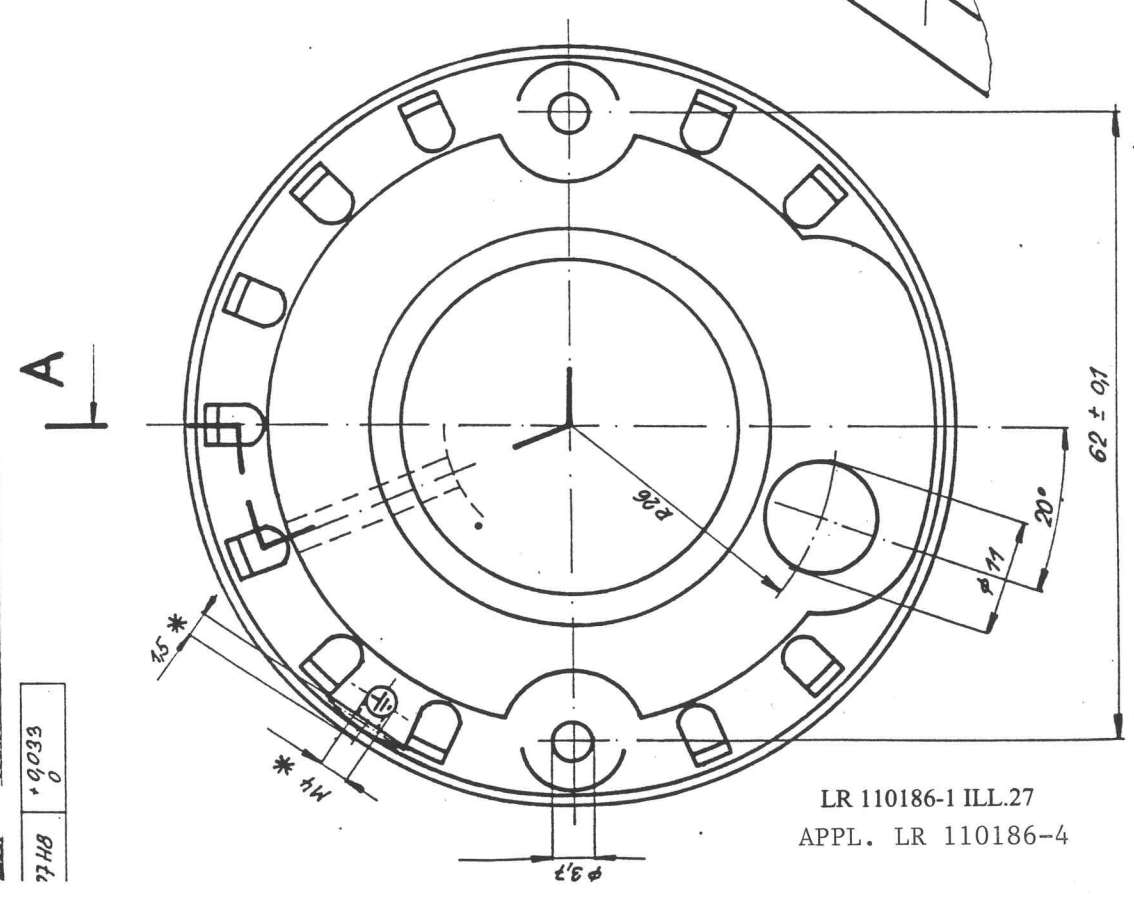
Cable crimp connector
77002-KOH-1-NOR

Greasing holes



Motor ATAS Nachod

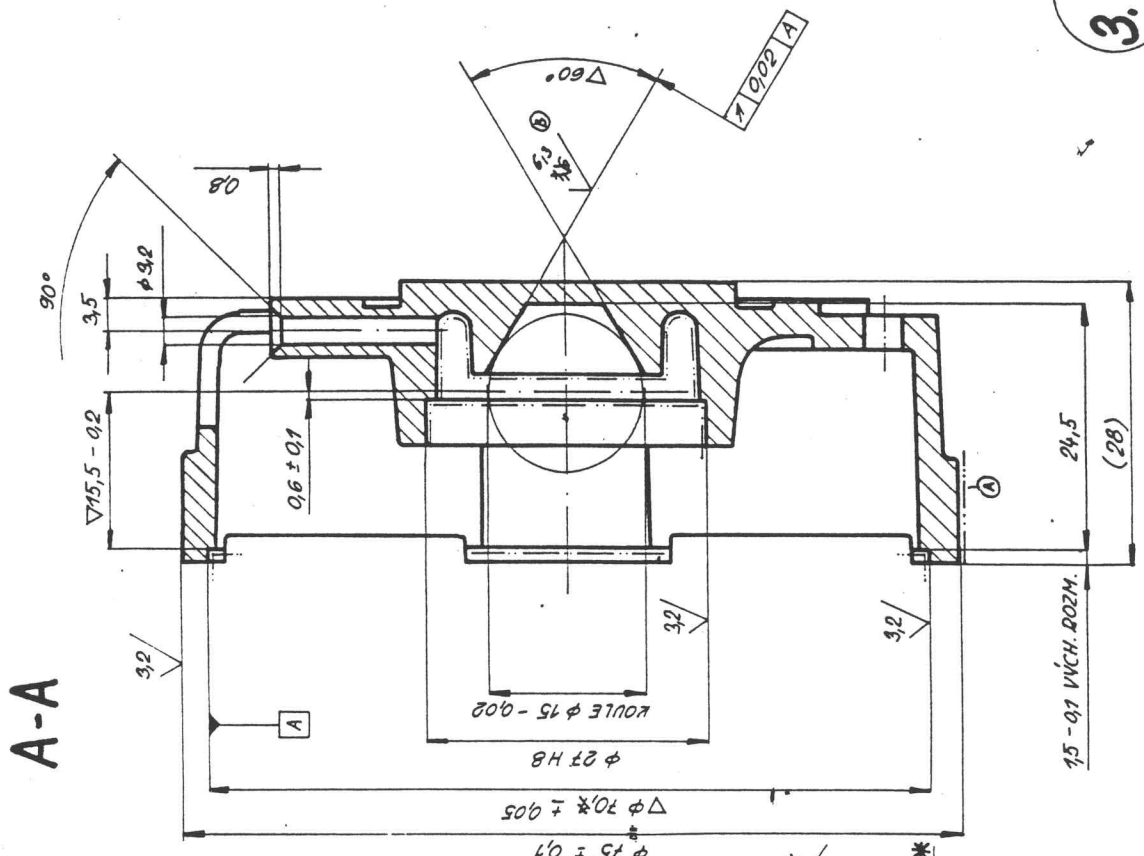
77H8
+0,033
0



LR 110186-1 ILL.27
APPL. LR 110186-4

HRANY OBEHLIT

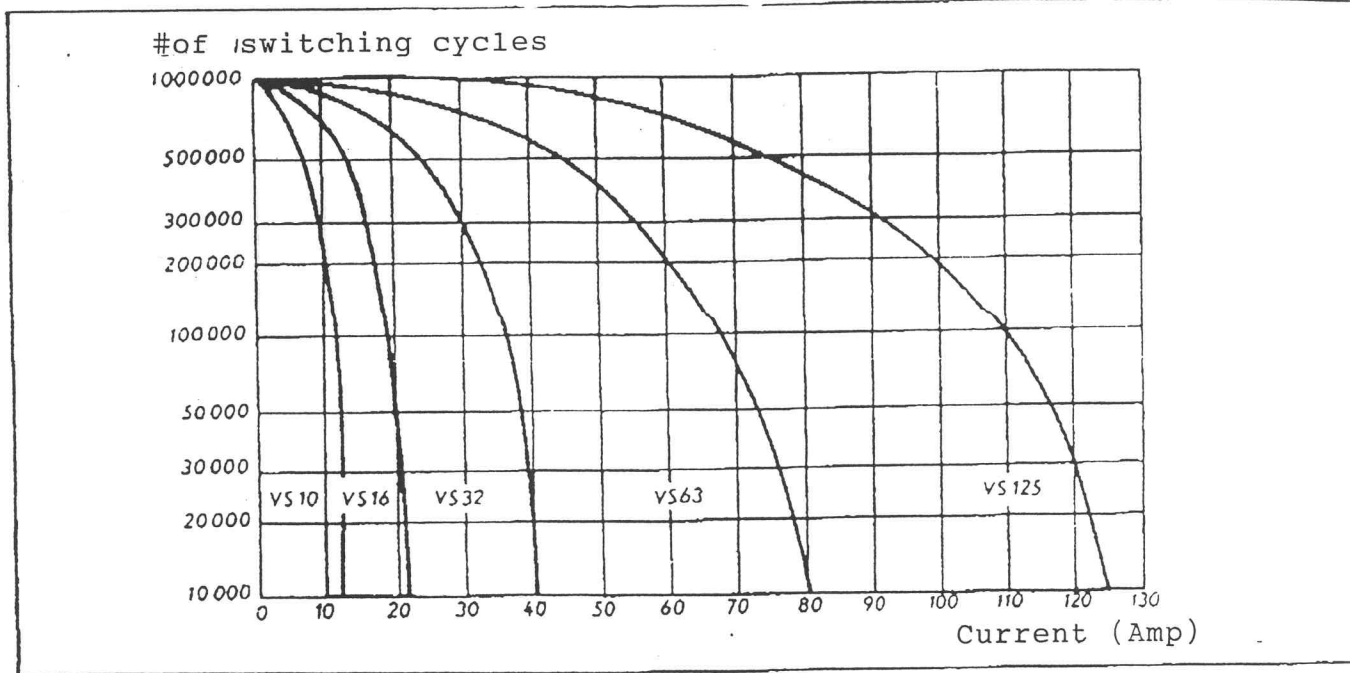
22 470/003 - ODPRAVAJÍ ROZMĚRY OZNAČENÉ *
 22 470/001 - ZNAČKU UZEMNĚNÍ ODSTRANIT.
 22 470/000/2 - MIMO PLOCH OZNAC. ——— POVRCHOVÉ
 UPRAVIT DĚL PN 40 05 15 A PN 40 04 04490
 * PŮV. MIMOD. ODSTRANĚNÍM ZABÍRANĚM PŘI DNÍ 01-05 15



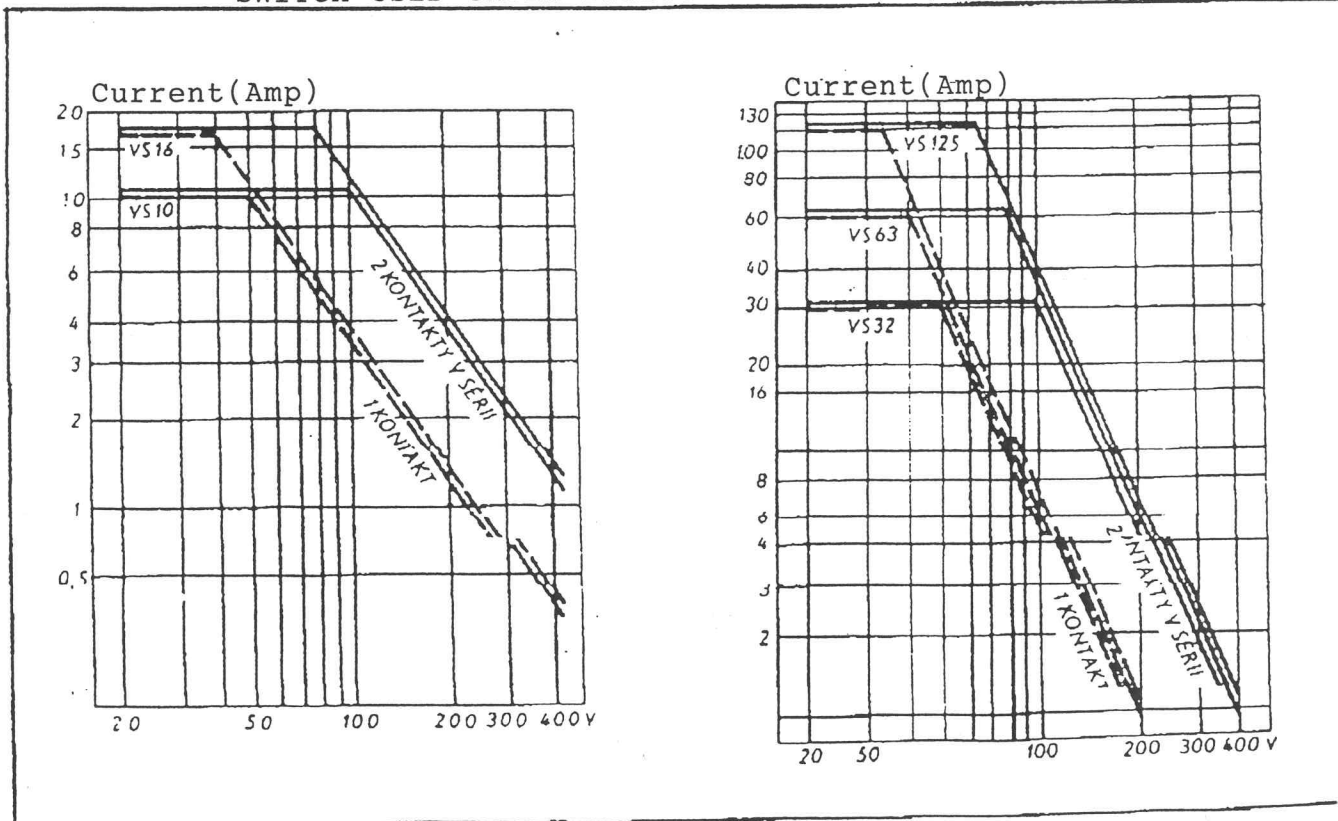
3.12

Č. dílu	Název	Kód	Průmysl - Konstrukce, materiál	Průmysl	Model č.
2.1	Kašp.		(HLINIK)		21.03/12
Měřítko	Norm. reference	Viz. reference			
	77112				
	Typ	Datum	Úprava		
	CVPB	11.3.1986	01.0.03-10 920		
ZSE - MEZ NÁCHOD koncernový podnik VŠB-MTU		LOZISKOVÝ ŠTÍT		3-22 470	

CONTACT DURABILITY
for different types under load of 380V, 50Hz



SWITCH USED UNDER DIRECT CURRENT (DC)

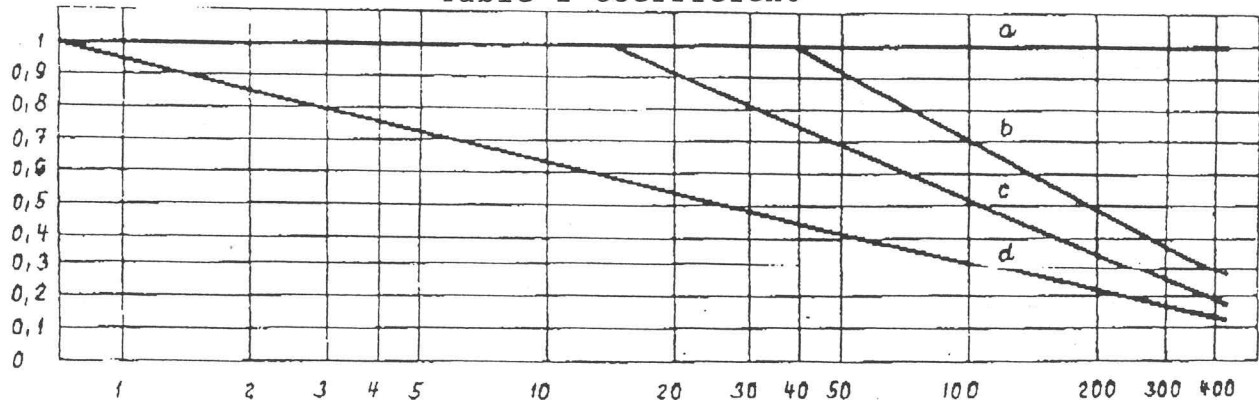


BASIC TECHNICAL INFORMATION

Type range	VS 10	VS 16	VS 32	VS 63	VS 125	
Nominal Voltage	380 V	380 500 V	500 V	500 V	500 V	
Nominal Current	10 A	16 A	32 A	63 A	125 A	
Contacts under steady load of	12 A	20 A	40 A	80 A	140 A	
Connected conductors section (mm ³)	1-2.5	1.5-4	4-10	6-10	10-50	
Max. number of switch positions	8	8	12	12	12	
Max. number of levels consisting of 1 or 2 contacts	12	12	12	12	6	
Max. number of contacts	24	24	24	24	12	
Dimensions of the control shaft (mm)	5 x 5	5 x 5	6 x 6	6 x 6	6 x 6	
Output for motors By the motor load = multiply number in table by coefficient in table 2	500 v	kW	—	12,2	23	49
	380 v	kW	4,4	6,4	18	38
	220 v	kW	3,1	5,2	10	20

Mechanical durability Contacts Control shaft Main advantage	more than one mil. on/off cycles double-break of electric arc continuous of one piece space saving, compact design
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Table 2 Coefficient



a) Ring motor with starter

b) starter Y-Δ

c) motor with anchor short circuit

d) electric brake, -reverse