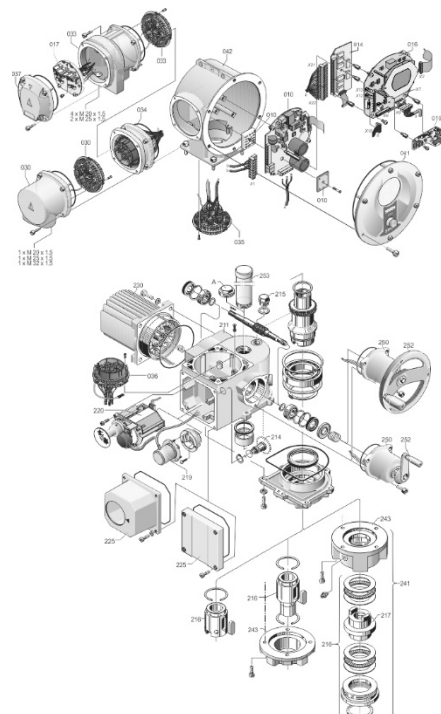


Recommended spare parts and often used accessories

Electric Actuators

- Rotary Actuators 2SA7
- Part-turn Actuators 2SG7
- Part-turn Actuators 2SQ7



Definition of spare parts**Recommended spare parts**

Base order No. ¹⁾ (2SY7 + part No.) part No.	Short description	Explosion views see attachment ...	2 years / commissioning 8 years	Delivery period [weeks]	Spare part definition + detailed description Page	
Electronics						
....001-.....-....	Electronics unit	a, b	5	5	4	3-6
....041-.....	Electronics housing cover	a, b	1	1	2	7
Mechanical						
....218-.....	Gasket set for commissioning	all depictions	10	-	2	8
....219-.....	non-intrusive position encoder	c, d	1	1	2	9
....220-.....	Signaling gear	c, d	2	5	2	10
....225-.....	Signaling gear hood	c, d	5	5	2	11
....250-.....	Hand manual	c, d, e	5	5	4	12
....252-.....	Handle	c, d, e	5	5	2	13

Often used accessories

Short description	Order No.	Delivery period [weeks]	Detailed description Page
COM-SIPOS PC parameterization program	2SX7100-3PC02	1	14
Parking socket	2SX7303-0PS01	2	14
Separate mounting	2SX7300-. GA . .	4	15

Attachments

(explosion views)

a	Electronics	▪ ECOTRON	16
b		▪ PROFITRON/HiMod	17
c	Mechanical	▪ Rotary actuator - 2SA7 . 1/2/3/4.-	18
d		- 2SA7 . 5/6/7/8.-	19
e		▪ small Part-turn actuator - 2SG7 . . . -	20
f		▪ small Part-turn actuator - 2SQ7 . . . -	21

1) Numbers printed in bold are part Nos. of the explosion views!

Definition of spare parts

Electronics

2SY7001- Electronics unit

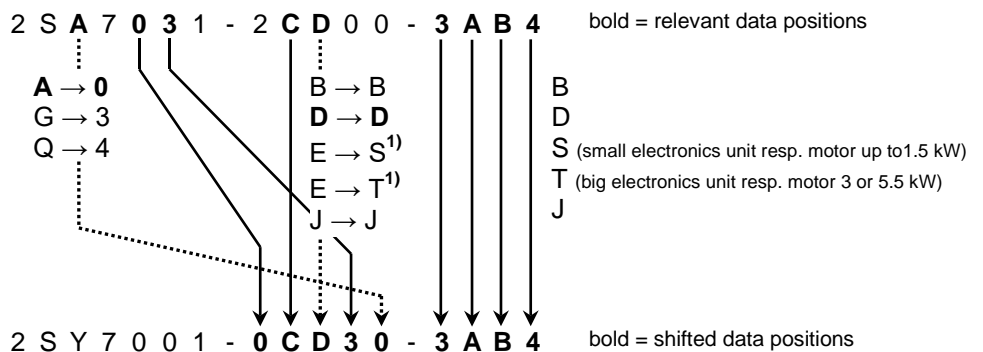
- Version:** Silver-gray coating (similar RAL7037), completely assembled, including mounting parts for mounting to the actuator's gear unit, with mounting instruction.
 Connection openings are covered for transport/stocks.
 (including the parts 010 – 016, 019, 034, 035, 041, 042 and for version with electrical connection „8“ the parts 017, 30, 33 and 37 that are used depending on the version)
- Notes:**
- Electronics units are function-tested and are documented with a separate serial number and order number (2SY7...-) and are specified on a neutral rating plate.
 A wiring diagram is included.
 - Current data such as the number of elapsed hours of the motor cannot be imported from the original electronics unit. Wherever applicable, maintenance intervals must be reparameterized.

Identical electronics unit:

Determining spare parts with importing of all actuator-specific data by the supplier.

(Electronics unit can only be used for absolutely identical actuator versions, e.g. rotary actuators with 37-125 Nm and 5-40 rpm.)

Example: supplied type



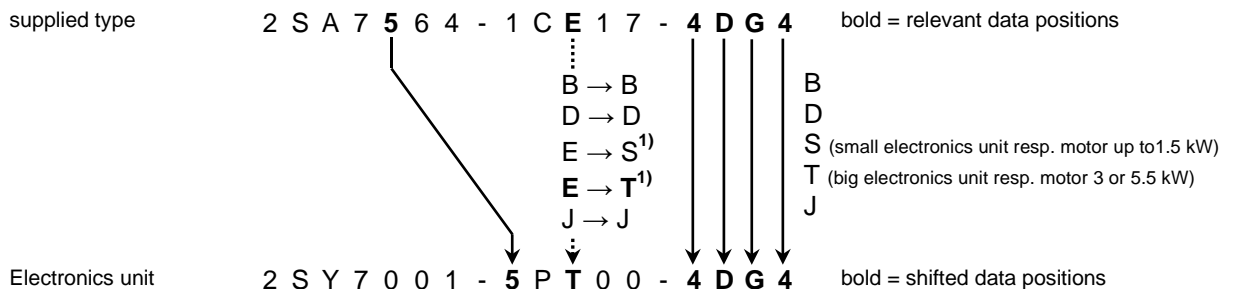
- An identical electronics unit is required if the actuator parameters (COM-SIPOS STE-file) of the old actuator are not available!
- A replacement for a SIPOS 5 electronics unit where the actuator parameters are not available is only possible, if the complete order number of the SIPOS 5 actuator is communicated!

Actuator-neutral electronics unit:

Determining spare parts exclusively taking into account the data relevant to the version.

(Electronics unit is largely actuator-neutral. With the PC parameterization program COM-SIPOS, Order No. **2SX7100-3PC02**, the actuator parameters like actuator type, torques or forces and speed, positioning time, etc. are downloaded and uploaded to the replacement electronics.)

Example: supplied type



- Higher grade neutral electronics unit (value at the 5th digit of the order number) can also be used for lower grade, e.g. an electronics unit for the 2S.78 (HiMod) can also be used for the actuator types 2S.75, 2S.73 und 2S.70!
- A neutral electronics unit can also be used as replacement for a SIPOS 5 actuator!

1)	Version	Actuator types
	small electronics unit „S“	2SA701., 2SA702., 2SA703., 2SA704.-C, 2SA731., 2SA732., 2SA733., 2SA734.-C, 2SA751., 2SA752., 2SA753., 2SA754.-C, 2SA781., 2SA782., 2SA783., 2SA784.-C, 2SG7..., 2SQ7...
	big electronics unit „T“	2SA704.-D, 2SA704.-E, 2SA705., 2SA706., 2SA707., 2SA708., 2SA734.-D, 2SA734.-E, 2SA735., 2SA736., 2SA737., 2SA738., 2SA754.-D, 2SA755., 2SA756., 2SA757., 2SA758., 2SA784.-D, 2SA785., 2SA786., 2SA787., 2SA788..

Definition of spare parts

Order No.	Description	List price
2SY7001 -	Electronics unit	
	add. features	
	see following page	
0	for 2S.70 and 2S.50	
3	for 2S.73 (actuator-neutral can also be used for 2S.70)	
5	for 2S.75 and 2S.55 (actuator-neutral can also be used for 2S.73 and 2S.70)	
8	for 2S.78 and 2S.58 (actuator-neutral can also be used for 2S.75, 2S.73 and 2S.70)	
		add. cost
A	Rotary actuators 2SA7 1.25 – 10 rpm	without
B	2.5 – 20 rpm	
C	5 – 40 rpm	80 – 10 sec/90°
D	10 – 80 rpm	80 – 10 sec/90°
E	20 – 160 rpm	
P	actuator-neutral → requires "0" in 11 th and 12 th place of order No.	
B	1x AC 110 – 115 V	without
D	1x AC 220 – 230 V	
J	3x AC 190 – 200 V	
S	3x AC 380 – 460 V	small electronics unit (motor up to 1.5 kW)
T		big electronics unit (motor 3 or 5.5 kW)
		add. cost
0	Rotary actuators 2SA7 actuator-neutral resp.	without
1	2SA7.1.	2SG7.0.
2	2SA7.2.	2SG7.1.
3	2SA7.3.	2SG7.2.
4	2SA7.4.	2SQ7.2.
5	2SA7.5.	
6	2SA7.6.	
7	2SA7.7.	
8	2SA7.8.	
0	actuator-neutral resp. for rotary actuator 2SA7	without
3	for small part-turn actuator 2SG7	
4	for small part-turn actuator 2SQ7	
3	ECOTRON	without
4	PROFITRON/HiMod	
A	without add-ons for electronics unit	without
B	relay board with 5 (ECOTRON) / 8 (PROFITRON/HiMod) outputs ¹⁾	
C	PROFIBUS DP - 1-channel	
D	PROFIBUS DP - 2-channel	
E	MODBUS RTU - 1-channel	
F	MODBUS RTU - 2-channel	
G	PROFIBUS DP - 1-channel, Micromaster compatible	
H	PROFIBUS DP - 2-channel, Micromaster compatible	
J	HART (only PROFITRON/HiMod) ¹⁾	
K	HART + relay board (only PROFITRON/HiMod) ¹⁾	
M	MODBUS TCP/IP - 1-channel	
O	prepared for remote control unit RCU (only PROFITRON/HiMod)	
Q	prepared for remote control unit RCU + MODBUS RTU - 1-channel (only PROFITRON/HiMod)	

*) Differentiation only necessary if the actuator parameters are not downloaded from the old unit with the PC parameterization program COM-SIPOS (Order No. 2SX7100-3PC02) and is uploaded into the replacement electronics. Actuator-neutral electronics unit: 2SY7001-.P.00-...!

1) No compatibility with SIPOS 5 → new wiring required at the customer connection and possibly for the control system!

Definition of spare parts

Order No.

Description

2SY7001 -

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add. features

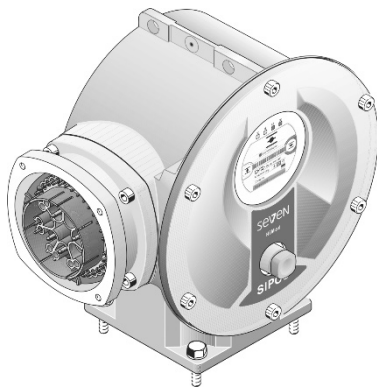
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Electronics unit

← See previous page

			add. cost
A	standard software-function		without
B	Positioner	for 2S.73 and 2S.75 (only PROFITRON) for 2SA78	without
C	Process controller	for 2S.75 (only PROFITRON) for 2SA78	
D	travel dependent output speed adjustment	(only PROFITRON)	
E	Positioner + travel dependent output speed adjustment	for 2S.73 and 2S.75 (only PROFITRON) for 2SA78	
F	external analog output speed setpoint ¹⁾	(only PROFITRON)	
G	Positioner + external analog output speed setpoint	for 2S.73 and 2S.75 (only PROFITRON) for 2SA78	
H	Positioner with split-range functionality	for 2S.73 and 2S.75 (only PROFITRON) for 2SA78	
J	travel dependent freely adjustable positioning times	(only PROFITRON)	
K	Positioner + travel dependent freely adjustable positioning times	for 2S.73 and 2S.75 (only PROFITRON) for 2SA78	
L	Process controller + travel dependent freely adjustable positioning times	for 2S.75 (only PROFITRON) for 2SA78	
4	for round plug / field bus interface		without
8	with connection hood ²⁾ with field bus connection	for PROFIBUS DP and MODBUS RTU for MODBUS TCP/IP	

Additional features → see following page



1) No compatibility with SIPOS 5 → new wiring required at the customer connection and possibly for the control system!

2) Required for replacement for SIPOS 5 with direct connection, terminal box or compact plug and for version with relay board or HART interface!

Definition of spare parts

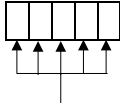

Additional features for **electronics unit 2SY7001-...** (add. "-Z" to order No.)

	add. features	add. cost
ECOTRON	M 1 8 1) Automatic motor stop period heater	
	C 5 5 Additional relay board with 5 outputs	
PROFITRON/HiMod	M 1 8 1) Automatic motor stop period heater	without
	C 5 5 Additional relay board with 8 outputs	
	C 5 6 Additional HART	
	C 5 7 Additional HART + Relay board with 8 outputs	
	C 6 3 Binary inputs OPEN/CLOSE for 120 V AC (internal power supply)	
	C 6 7 Analog position feedback externally powered with 24 V DC	
	C 6 8 2.analog input	
	C 7 3 LED "OPEN" = red (instead of green) and LED "CLOSED" = green (instead of yellow)	without
	C 8 0 HART communication via analog input 2 (instead of analog output 2)	
Setting / parameterization	M 2 0 1) Control mode adjusted to: binary pulse contact	
	M 2 1 1) Control mode adjusted to: binary permanent contact	
	M 2 2 1) Control mode adjusted to: binary proportional move	
	M 2 3 1) Control mode adjusted to: analog positioner AI1	
	M 4 0 1) Bluetooth switched off	
	V 5 0 Test to IEC 61800-2	
	Y 0 5 1) Torque dependent cut-off in end position:	without
	Y 1 1 1) Parameterization according to customer request → specify serial number!	
	Y 3 3 1) Binary and analog inputs freely usable via fieldbus	without
	Y . . 1) Project dependent parameterization: Y12, Y14, Y15, Y17, Y19, Y50, Y51, Y90	
	Y 9 9 1) Customer specific software-programming	
Customer plate	B 0 0 With freely definable text:	
	V 2 3 Additional tag for identification:	
Language for rating plate and wiring diagram	B . . Rating-plate foreign-language/English, wiring diagram foreign-language: AR (B65), CS (B55), DA (B62), EL (B60), EN (B49), ES (B51), FI (B54), FR (B50), IT (B52), NL (B67), NO (B66), PL (B57), PT (B64), RO (B59), RU (B53), SK (B61), SV (B56), TR (B63), ZH (B58)	without
Other	B 9 8 AUMA standard documentation	without
	B 9 9 SIPOS standard documentation	
	C 6 6 Open-circuit detection at the relay outputs	
	K 1 0 Power supply 220 V DC (instead of AC 3ph 190-200 V)	without
	K 5 1 Protection class IP68-8	
	P 4 0 1) Prepared for magnetic position sensor	without
	S 6 3 Glass display window	
	T 0 6 1) Temperature range -30 °C to +70 °C	without
	V 2 6 1) Actuator closes in counter-clockwise direction	
	V 2 8 1)	
Version with connection hood / fieldbus connection „8"	C 1 7 Fieldbus connection via FO in line or star topology „d-Light"	
	C 1 8 PROFIBUS connection via FO in loop topology „d-Light"	
	C 1 9 Fieldbus connection with overvoltage protection up to 6 kV	
	C 2 3 Input for 2x 24 V DC ext. auxiliary power supply parallel	
	C 2 5 Additional auxiliary supply of the electronics unit with 80-264 V AC (instead of 24 V DC)	on request
	D 0 6 Wiring diagram with neutral displayed binary inputs	without
	P 1 5 Connection with PG-threads	
	P 1 8 Connection with NPT- threads	
	P 2 5 Connection with Whitworth- threads	
	P 2 9 Connection with 2x M25x1.5 + 4x M20x1.5	
Special wiring diagram (only applicable for the electrical connection „4")	Project dependent wiring diagram: C . . C17, C18, C23, C25 D . . D06	without
Finish paint	L 3 0 Unpainted	
	L 3 2 Double thick-film paint 150 µm (instead of 80 µm)	
	L 3 8 Very high corrosion protection, corrosivity category C5 with long protection time	
	Y 3 5 Top coat of paint for colors other than RAL7037: → specify required color!	

Σ List price = List price + Σ add. cost [...]

1) Not relevant for actuator-neutral electronics unit 2SY7001-**P.00**-...!

Definition of spare parts

Order No.	Description	List price
2SY7041 -  add. features 	Electronics housing cover¹⁾ (silver-gray coating (similar RAL7037), complete with turning push knob "drive controller", label, O-ring and mounting parts)	
3 M C 0 1	ECOTRON small electronics unit (motor up to 1.5 kW)	
3 M C 3 4	big electronics unit (motor from 3 kW)	
4 M C 0 1	PROFITRON small electronics unit (motor up to 1.5 kW)	
4 M C 3 4	big electronics unit (motor from 3 kW)	
8 M C 0 1	HiMod small electronics unit (motor up to 1.5 kW)	
8 M C 3 4	big electronics unit (motor from 3 kW)	

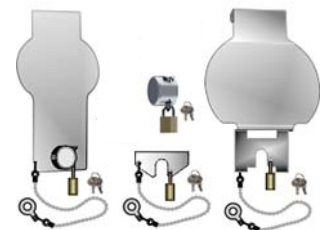
Additional features (add. "-Z" to order No.)

	add. features		add. cost
Display	S 6 3	Glass display window	
Label	B 9 8	AUMA front label	without
	B 9 9	SIPOS front label	
Customer plate	V 2 3	Additional tag for identification:	
Finish paint	L 3 2	Double thick-film paint 150 µm (instead of 80 µm)	
	L 3 8	Very high corrosion protection, corrosivity category C5 with long protection time	
	Y 3 5	Top coat of paint for colors other than RAL7037: → specify required color!	

Σ List price = List price + Σ add. cost [...]



Locking device for drive controller	- with protection cap	Order No.: 2SX7302-0BS00	
	- with locking plate	Order No.: 2SX7302-0BS01	
	- with display protection for small electronics unit ¹⁾	Order No.: 2SX7302-0DS10	
	- with display protection for all sizes ¹⁾	Order No.: 2SX7302-0DS20	



1)	Version	Actuator type
small electronics unit	2SA701., 2SA702., 2SA703., 2SA704.-C, 2SA731., 2SA732., 2SA733., 2SA734.-C, 2SA751., 2SA752., 2SA753., 2SA754.-C, 2SA781., 2SA782., 2SA783., 2SA784.-C, 2SG7..., 2SQ7...	
big electronics unit	2SA704.-D, 2SA704.-E, 2SA705., 2SA706., 2SA707., 2SA708., 2SA734.-D, 2SA734.-E, 2SA735., 2SA736., 2SA737., 2SA738., 2SA754.-D, 2SA755., 2SA756., 2SA757., 2SA758., 2SA784.-D, 2SA785., 2SA786., 2SA787., 2SA788..	

Definition of spare parts

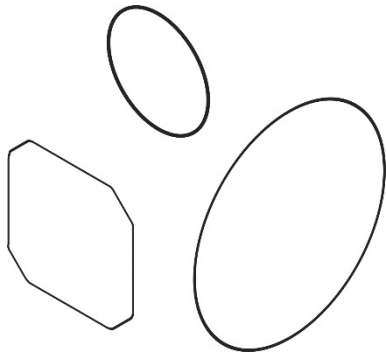
Mechanical

<u>Order No.</u>	Description	List price
2SY7218 - DS10 add. features ↑ 0	Gasket set for commissioning (O-rings) Recommended gasket set for commissioning for 2S.7- actuators (O-rings for electronics housing cover, signaling gear hood and connection cover/hood)	

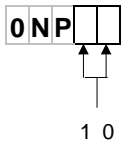
Additional features (add. "-Z" to order No.)

	add. features		add. cost
Ambient condition	T 0 9	Temperature range -20 °C to +90 °C for gear unit	
Customer plate	V 2 3	Additional tag for identification:	

Σ List price = List price + Σ add. cost [..]



Definition of spare parts

Order No.	Description	List price
2SY7219 - 0NP 	non-intrusive position encoder¹⁾ (with mounting parts)	[...]

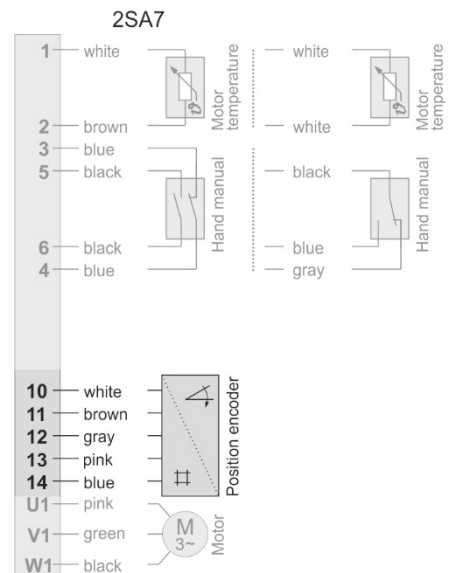
Additional features (add. "-Z" to order No.)

Customer plate	add. features	Additional tag for identification:	add. cost
	V 2 3		

Σ List price = List price + Σ add. cost [...]

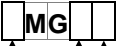



Assignment overview - Part 036
Plug element for gear unit connection



1) The pressing-out tool **2SX7501-0CD02** is needed to release the contacts pins in part 036!

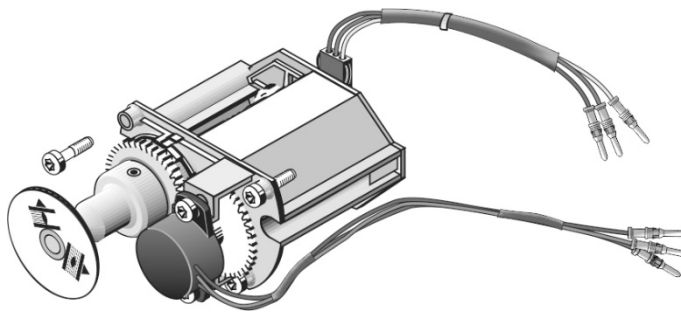
Definition of spare parts

Order No.	Description	List price
2SY7220 -  <div style="display: inline-block; vertical-align: middle; margin-left: 10px;"> add. features  </div>	Signaling gear^{1) 2)} (complete mounted and adjusted, with potentiometer, standstill detection and wiring harness)	
0 0 2 0 0 3	for 2SA70 without mechanical position indicator with mechanical position indicator	
5 0 2 5 0 3	for 2SA73 and 2SA75 without mechanical position indicator with mechanical position indicator	

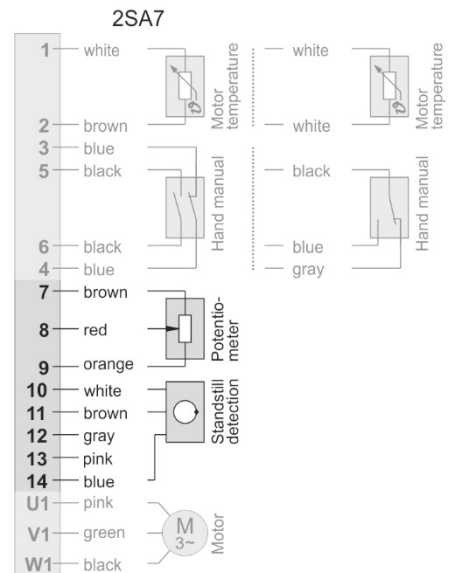
Additional features (add. "-Z" to order No.)

	add. features		add. cost
> 4020 revs/stroke	P 3 4	Signaling gear for > 4020 revs/stroke	
non-contact type position transmitter	P 4 0	Magnetic position sensor (instead potentiometer)	
Customer plate	V 2 3	Additional tag for identification:	
Ambient condition	K 5 7	Accelerations up to 5 g	
	K 5 8	Accelerations up to 2 g	
	K 5 9	„Seismic class S2A“	

Σ List price = List price + Σ add. cost [..]

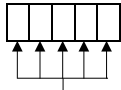



Assignment overview - Part 036
 Plug element for gear unit connection



1) The pressing-out tool **2SX7501-0CD02** is needed to release the contacts pins in part 036!
 2) Secure screws with Loctite 222!

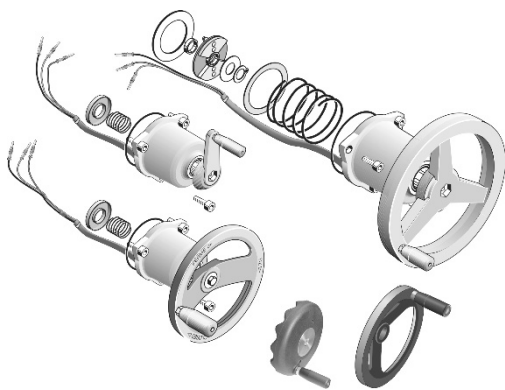
Definition of spare parts

Order No.	Description	List price
2SY7250 -  add. features  1 H U 1 0 3 H U 1 0 1 H M 1 0 3 H M 1 0 4 H U 1 0 5 H U 1 0 6 H U 0 0 7 H U 0 0 7 H U 0 2	Hand manual ¹⁾ (depending on the version silver-gray (similar RAL7037) or black coating, complete with support plate, compression spring, connecting cable with contact pins, O-ring, centrifugal lock, handle and mounting parts) 2SA70, 2SA73 and 2SA75 Hand manual 2SA7.1/2 with crank 60 mm Hand manual 2SA7.3/4 90 mm 2SA78 ²⁾ Hand manual 2SA7.1/2 with hand wheel Hand manual 2SA7.3/4 2SA7 Hand manual 2SA7.5/6 Hand manual 2SA7.7/8 2SG7 Hand wheel complete 2SQ7 ²⁾ Hand wheel complete, clockwise Hand wheel complete, anti-clockwise	

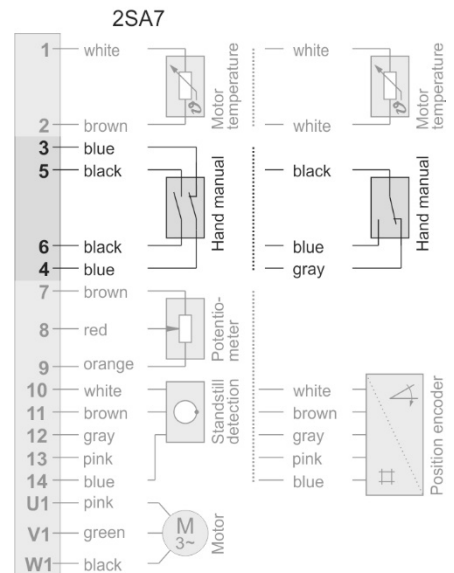
Additional features (add. „Z“ to order No.)

	add. features		add. cost
Chain wheel drive	V 0 0	2SA7.1/2 2SA7.3/4 2SG7 2SQ7	
Hand wheel	V 2 5	Hand wheel instead of hand crank	
Direction of rotation	V 2 6	Direction of rotation "Close" at the hand wheel in clockwise direction	
	V 2 7	Direction of rotation not indicated on the actuator	
	V 2 8	Direction of rotation "Close" at the hand wheel/crank in counter-clockwise direction	
Ambient condition	K 5 1	Protection class IP68-8 2SA7.1/2 2SA7.3/4 2SA7.5/6/7/8	
	T 0 9	Temperature range -20°C to +90°C for gear unit	
	Customer plate	V 2 3	Additional tag for identification:
Finish paint	L 3 2	Double thick-film paint 150 µm (instead of 80 µm)	
	L 3 8	Very high corrosion protection, corrosivity category C5 with long protection time	
	V 2 1	Hand wheel/crank in special color: → specify required color!	
	Y 3 5	Top coat of paint for colors other than	

Σ List price = List price + Σ add. cost [...]



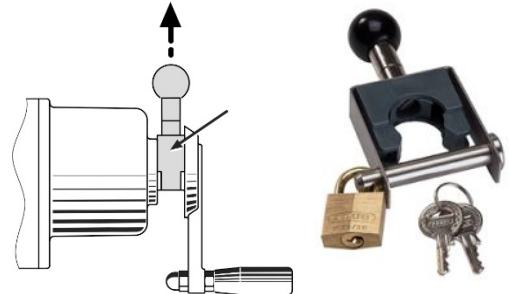
Assignment overview - Part 036
Plug element for gear unit connection



1) The pressing-out tool **2SX5501-0CD02** is needed to release the contacts pins in part 036.
 2) Black coating.

Definition of spare parts

Locking device for hand wheel/crank	- for 2SA7.1/2/3/4	Order No.: 2SX7302-0HA01	
	- for 2SA7.5/6/7/8	Order No.: 2SX7302-0HA04	

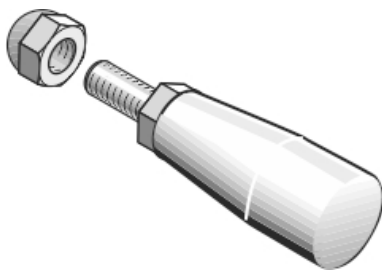


Order No.	add. features	Description	List price
2SY7252 -		Handle	
		Handle ¹⁾	
	1 G M 0 6	2SA7.1/2/3/4 with hand crank	
	1 G M 1 1	2SA7 with hand wheel	
	6 G M 0 0	2SG7	
	7 G M 0 0	2SQ7	

Additional features (add. "-Z" to order No.)

	add. features		add. cost
Hand wheel	V 2 5	for hand wheel instead of hand crank	
Customer plate	V 2 3	Additional tag for identification:	

Σ List price = List price + Σ add. cost [..]



1) Secure screw with Loctite 243!

Accessories

Order No.	Description	List price
2SX7100 - 3 P C 0 2	COM-SIPOS PC parameterization program (for commissioning, programming, diagnosis, maintenance and visualization)	[...]

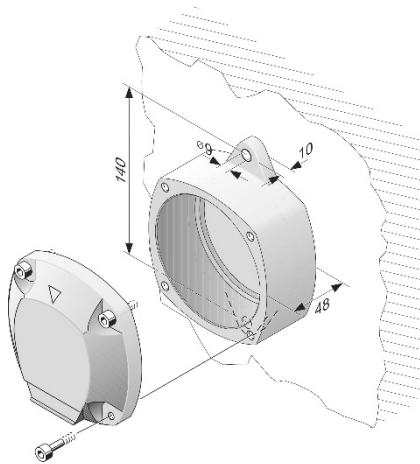


USB stick COM-SIPOS

Scope of supply

- PC parameterization program
- User manual DE and EN/US (on USB stick)
- USB cables type A/A and A/B for connection to the USB port of the laptop

Order No.	Description	List price
2SX7303 - 0 P S 0 1	Parking socket (for round plug connection, silver-gray coating (similar RAL7037))	[...]



Parking socket

Scope of supply

- Parking socket
- Cover with screws

Accessories

Order No.	Description			List price
2SX7300 - GA	Installation kit for separate mounting (anthracite anodized, complete with mounting bracket, tubular steel stirrup and, depending on version, with O-rings, mounting parts, caps or heavy-gauge threaded joint and all parts needed for electrical connection such as covers and plugs etc.)			
	Add. version of the original delivery Length of connecting cable ¹⁾ Version of connection			
4	7 0	S41 + R70	3 m	(a)
	7 1	+ R71	5 m	
	7 2	+ R72	10 m	
8	7 0	S47 + R70	3 m	(b)
	7 1	+ R71	5 m	
	7 2	+ R72	10 m	

(a) Fixed cable connection

Connecting cable with connection plug hoods (electronics unit and gear unit) completely assembled. Cable ends ready for plugging in.

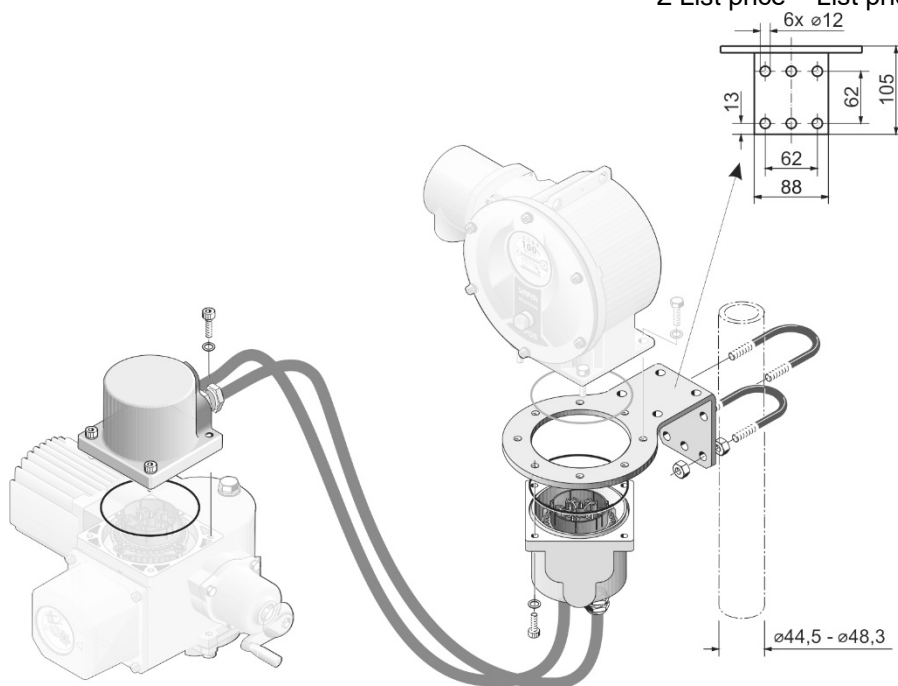
(b) Fixed cable connection for variable lengths

Connecting cable with connection plug hood (electronics unit) and with free ends towards the gear unit, completely assembled. The cable ends to the connection plug hood on the gear unit side must be connected locally after individual cutting to length and in accordance with the included connection diagram. Cable ends ready for plugging in.

Additional features (add. "-Z" to order No.)

	add. features		add. cost
Ambient condition	K 5 1	Protection class IP68-8	
	T 0 9	Temperature range -20 °C to +90 °C for gear unit	
Finish paint	L 3 2	Silver-gray coating (similar RAL7037)	
	L 3 8	Very high corrosion protection, corrosivity category C5 with long protection time	

Σ List price = List price + Σ add. cost [...]

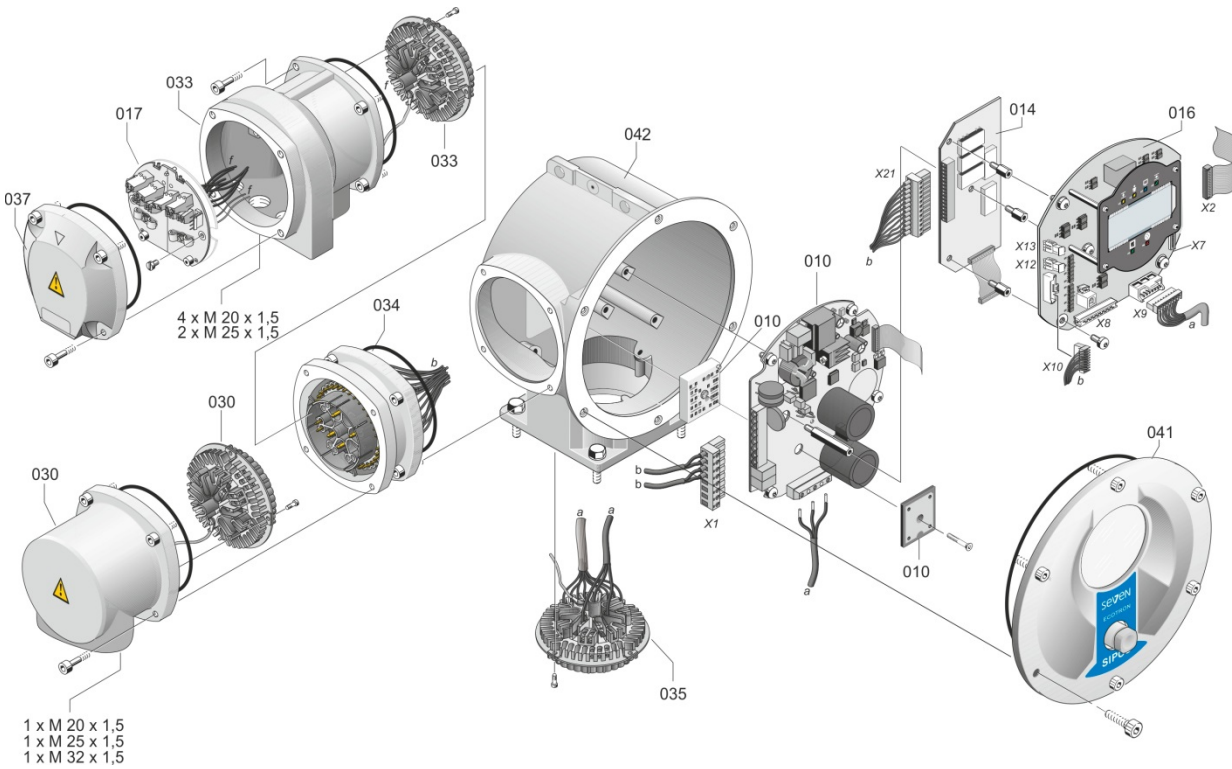


Separate mounting, version shown 2SX7300-4GA..

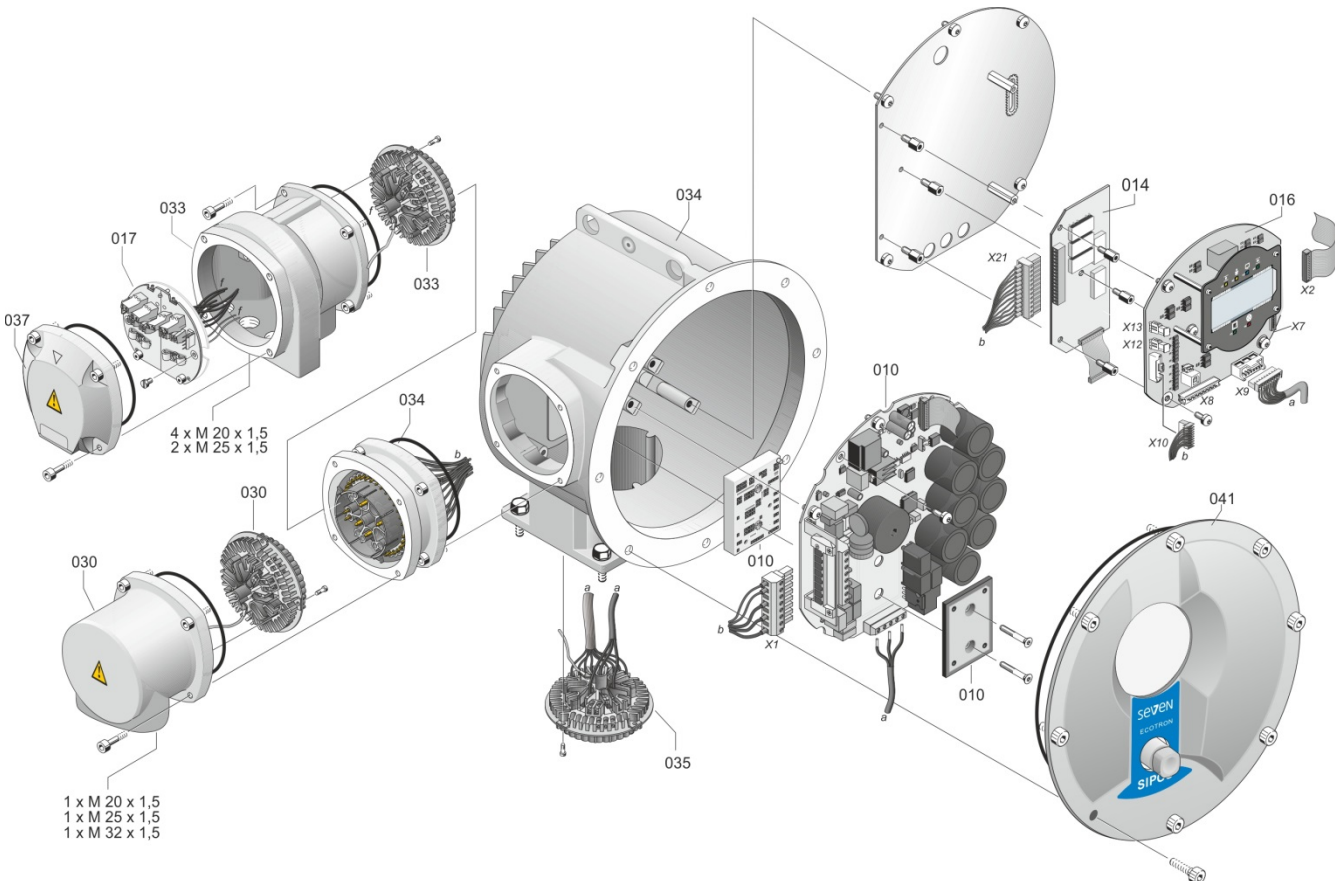
1) Other versions with cable lengths up to 150 m on request!

Definition of spare parts

Electronics unit ECOTRON (motor up to 1.5 kW)

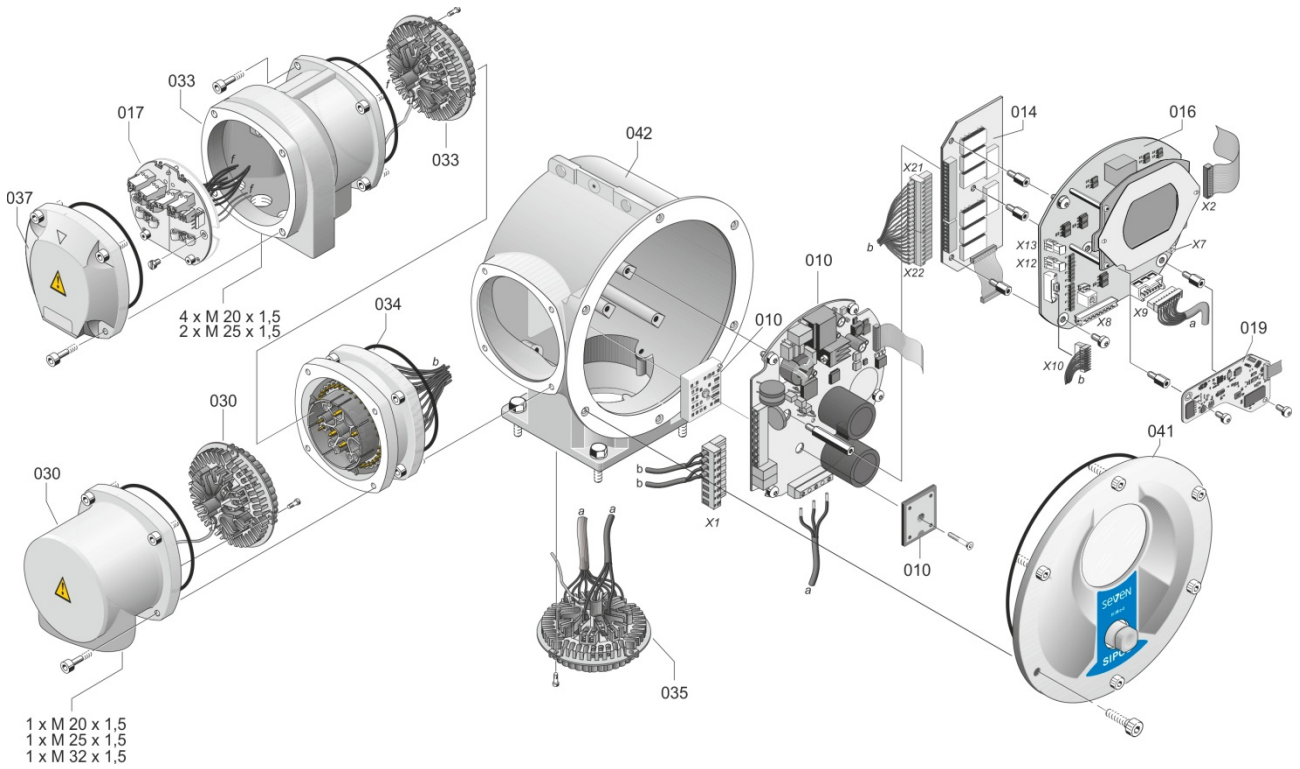


Electronics unit ECOTRON (motor from 3 kW)

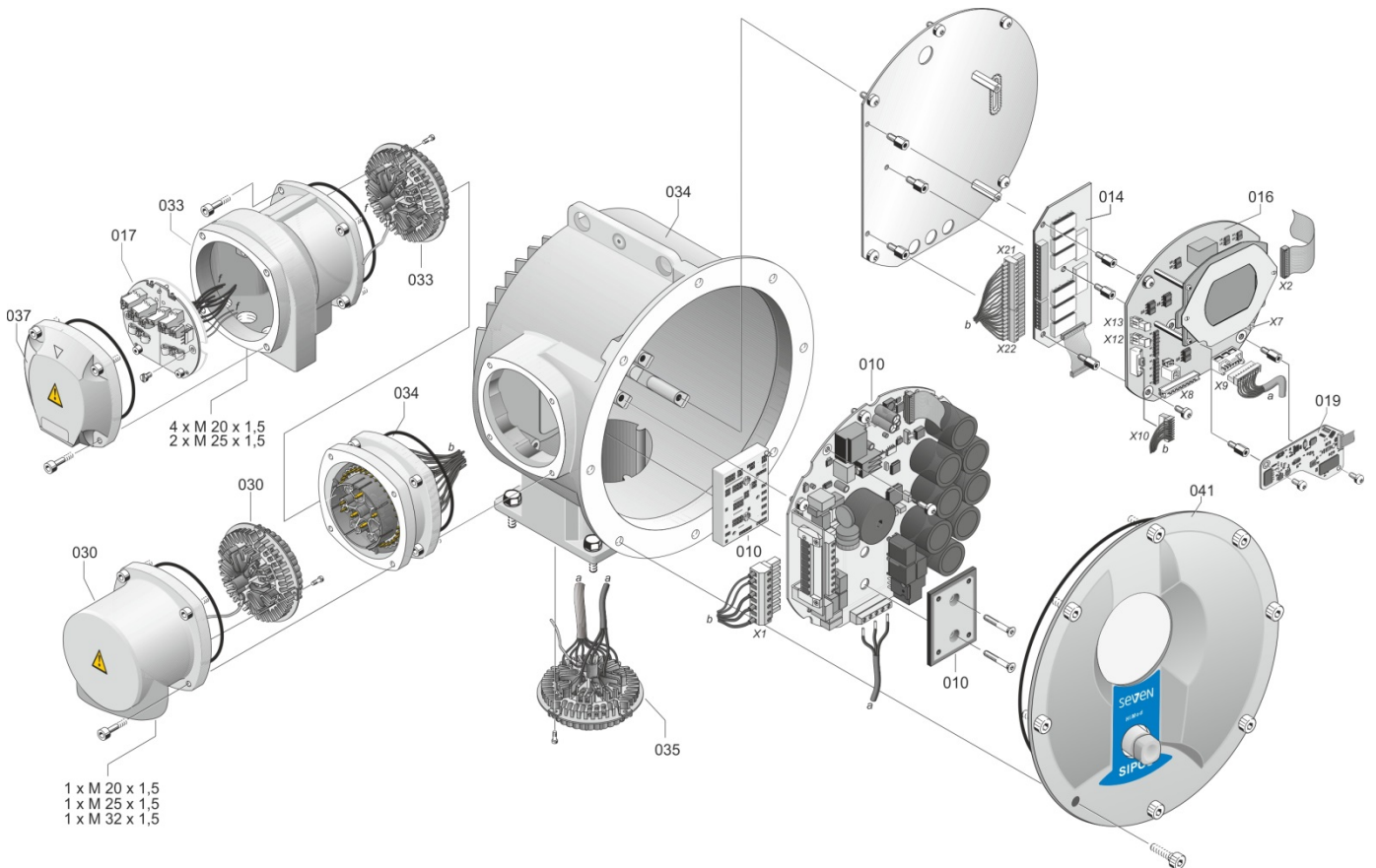


Definition of spare parts

Electronics unit PROFITRON/HiMod (motor up to 1.5 kW)

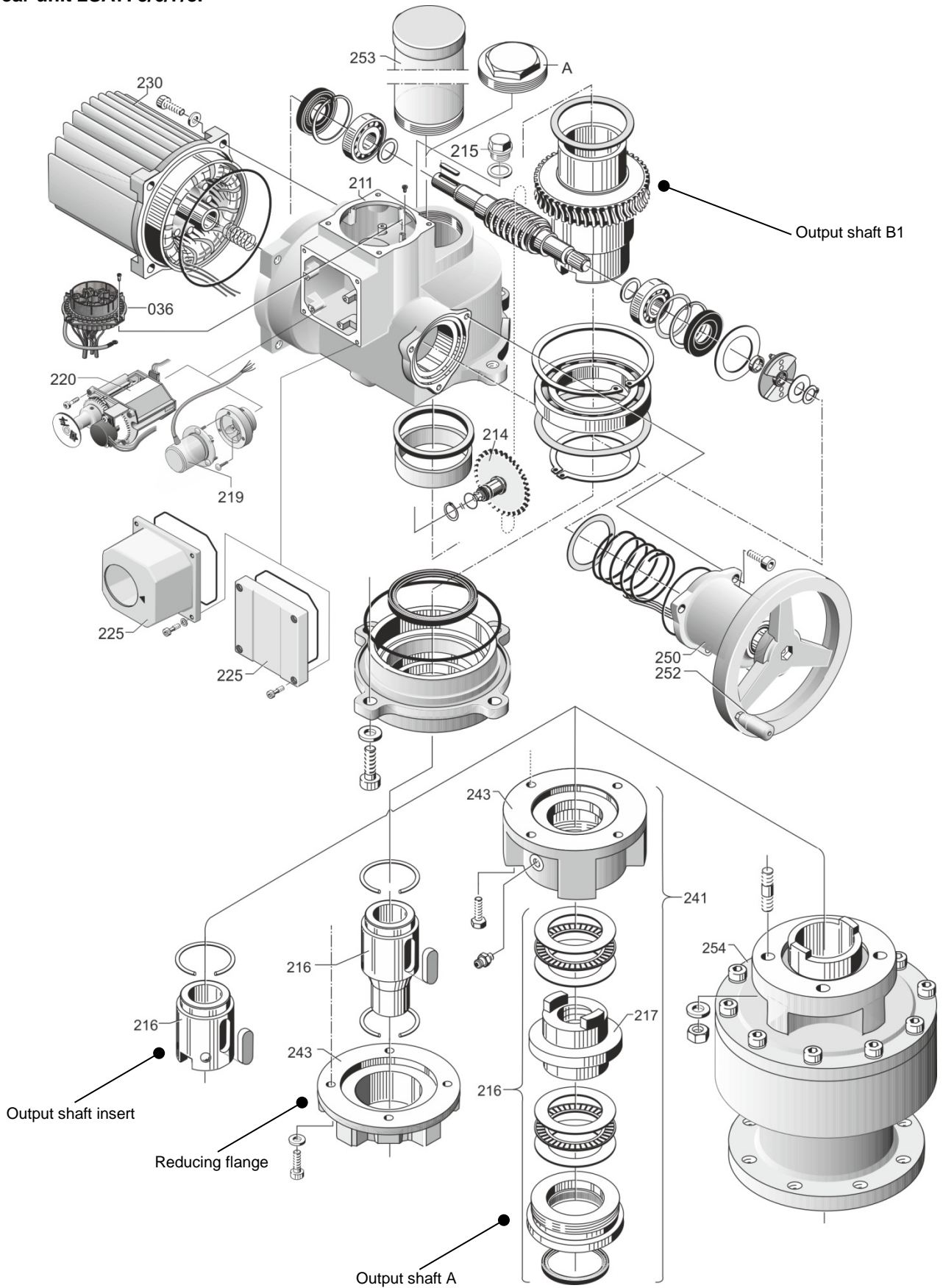


Electronics unit PROFITRON/HiMod (motor from 3 kW)



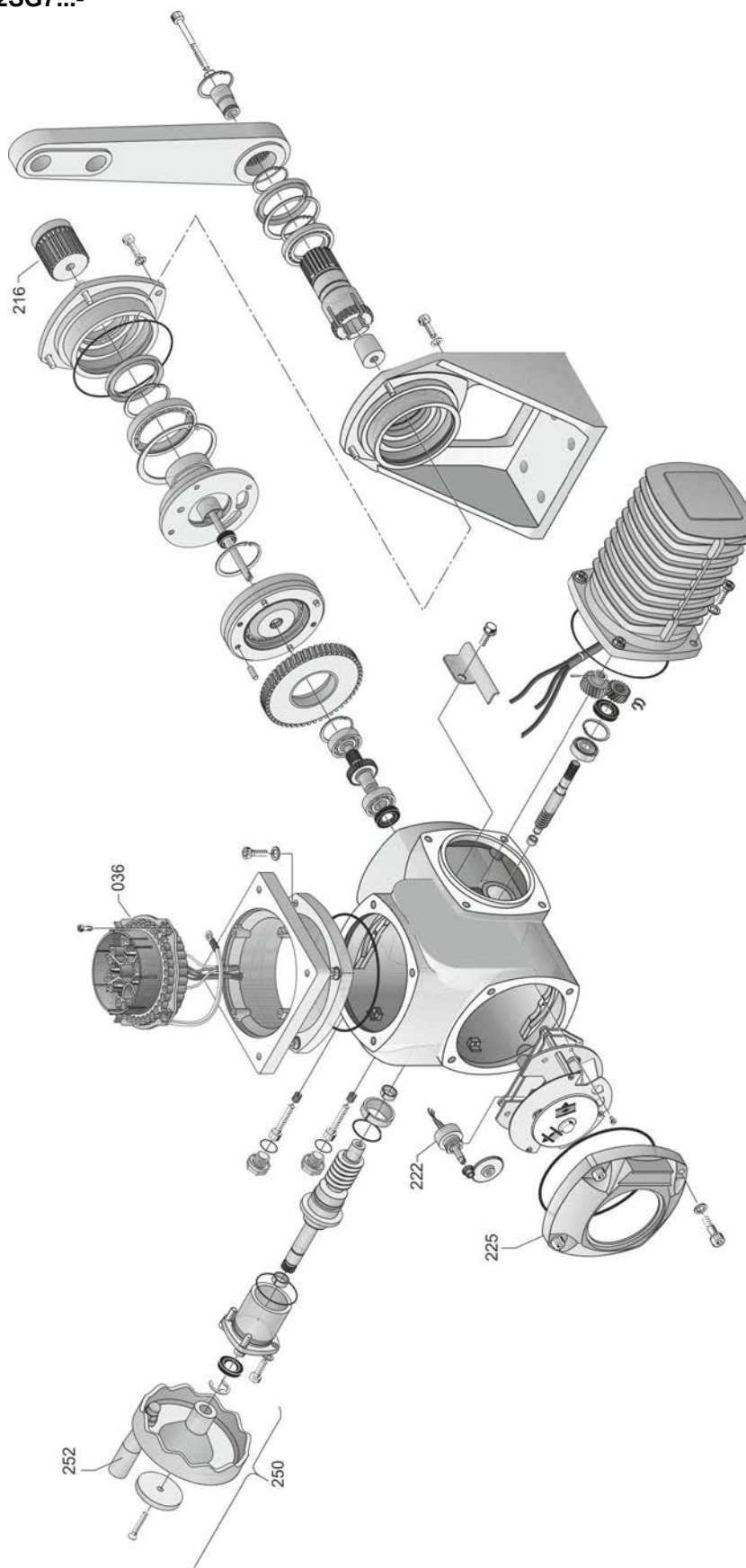
Definition of spare parts

Gear unit 2SA7. 5/6/7/8.-



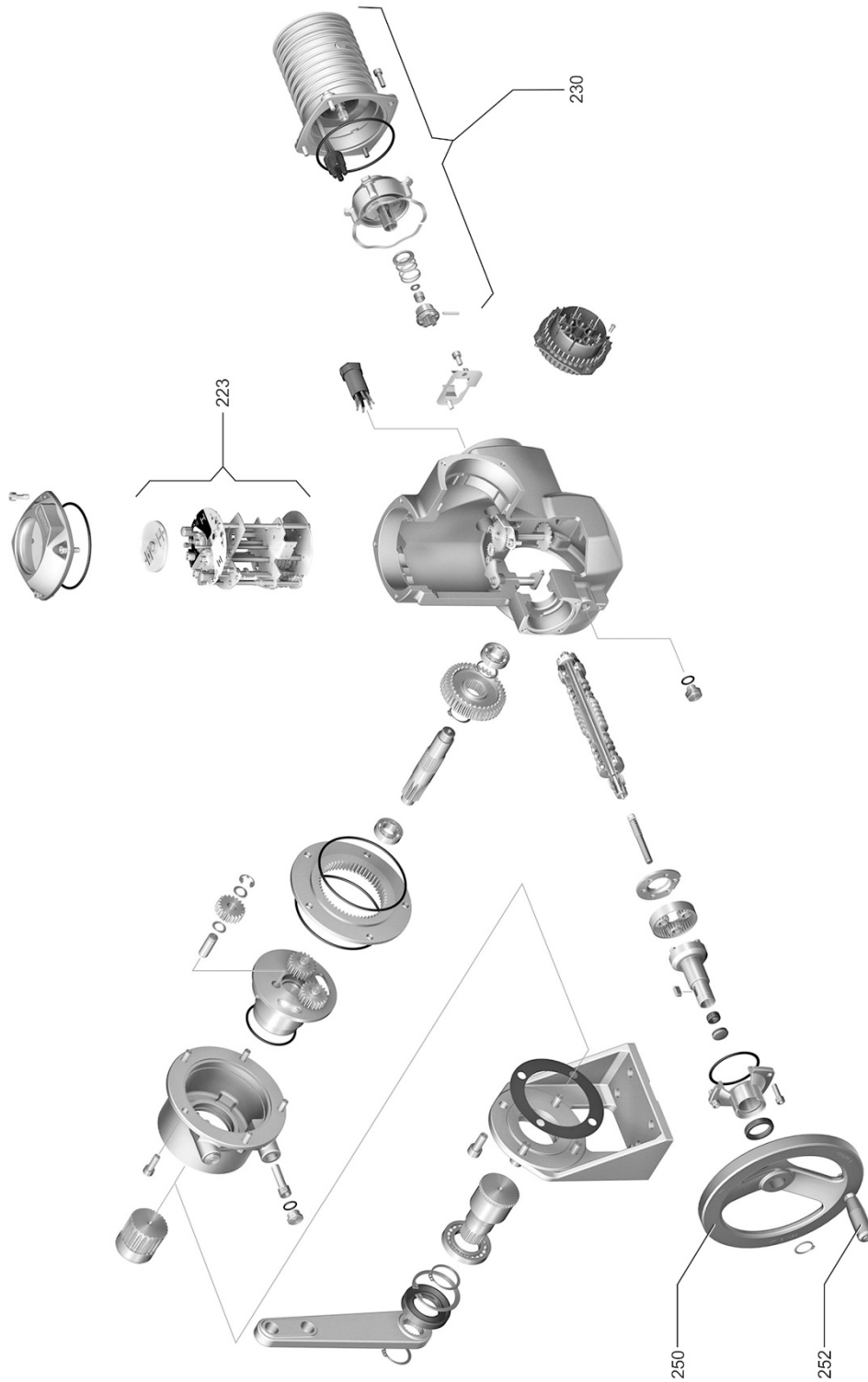
Definition of spare parts

small part-turn gear 2SG7...-



Definition of spare parts

small part-turn gear 2SQ7...-



Definition of spare parts
