

General technical data:

- 1.) Anodised aluminium housing with a push rod made of aluminium (in the case of motor types G..A, G..B, G..C, G..D and G..E, the push rod is $\varnothing 18$, for all other motor types it is $\varnothing 22$)
- 2.) Radio interference suppression according to EN55011
- 3.) Cut-out in both limit positions by internal end switch
- 4.) Electronic emergency overload cut-out
- 5.) Electrical parallel connection is possible (NOTE: synchronising circuit is not possible)
- 6.) Eye bolt $\varnothing 6$, $\varnothing 8$ (standard) or $\varnothing 10$ mm
- 7.) Standard strokes 350, 550 and 750mm; special lengths available upon request
- 8.) Light grey silicone connecting cable standard length 2,5m; other lengths available upon request
 - > for standard design: 2x0.75qmm / sheathing \varnothing ca. 6mm
 - > with Option E: 2x2.5qmm / 3x1.5qmm / sheathing \varnothing ca. 11mm
 - > with Option TH: 2x2.5qmm / 5x1.5qmm / sheathing \varnothing ca. 11mm
 - > with Option SY: 2x2.5qmm / 5x1.5qmm / sheathing \varnothing ca. 11mm

Possible options:

- 1.) OPTION Diverse ground designs:
 Motor design also provides for ground suspensions (please refer to options page "suspension variants").
- 2.) OPTION Diverse cardan shaft suspensions:
 It is also possible to design motors with diverse cardan shaft suspensions (please refer to options page "Cardan shaft suspension variants").
- 3.) OPTION RAL... (available upon request):
 The motor housing can be painted in an RAL colour. For instance, if option "RAL3000" is specified, the motor housing will be painted in RAL3000 (RED).
- 4.) OPTION E:
 Internal potential-free end switches (Option E=opener) for both limit positions; current carrying capacity 24VDC/1A (e.g. for position indicator)
- 5.) OPTION TH... (available upon request):
 Installed thermal contact that responds if a specified temperature has been exceeded. The following designs can be delivered:
 TH70Ö ... response temperature 70°C - contact opens when actuated
 TH70S ... response temperature 70°C - contact closes when actuated
 TH93Ö ... response temperature 93°C - contact opens when actuated
 TH93S ... response temperature 93°C - contact closes when actuated
 Option TH... is NOT possible in connection with option SY. As this option is not possible in connection with all ground suspension variants, option TH is only possible available upon request.
- 6.) OPTION SY (available upon request):
 See datasheets G08X-...-SY to G26X-...-SY
- 7.) OPTION sealing variants:
 D05/D07 system of protection IP54
 IP42 system of protection IP42 (Caution: The overall length of the actuator is extended by 4mm!)

Ordering designation:

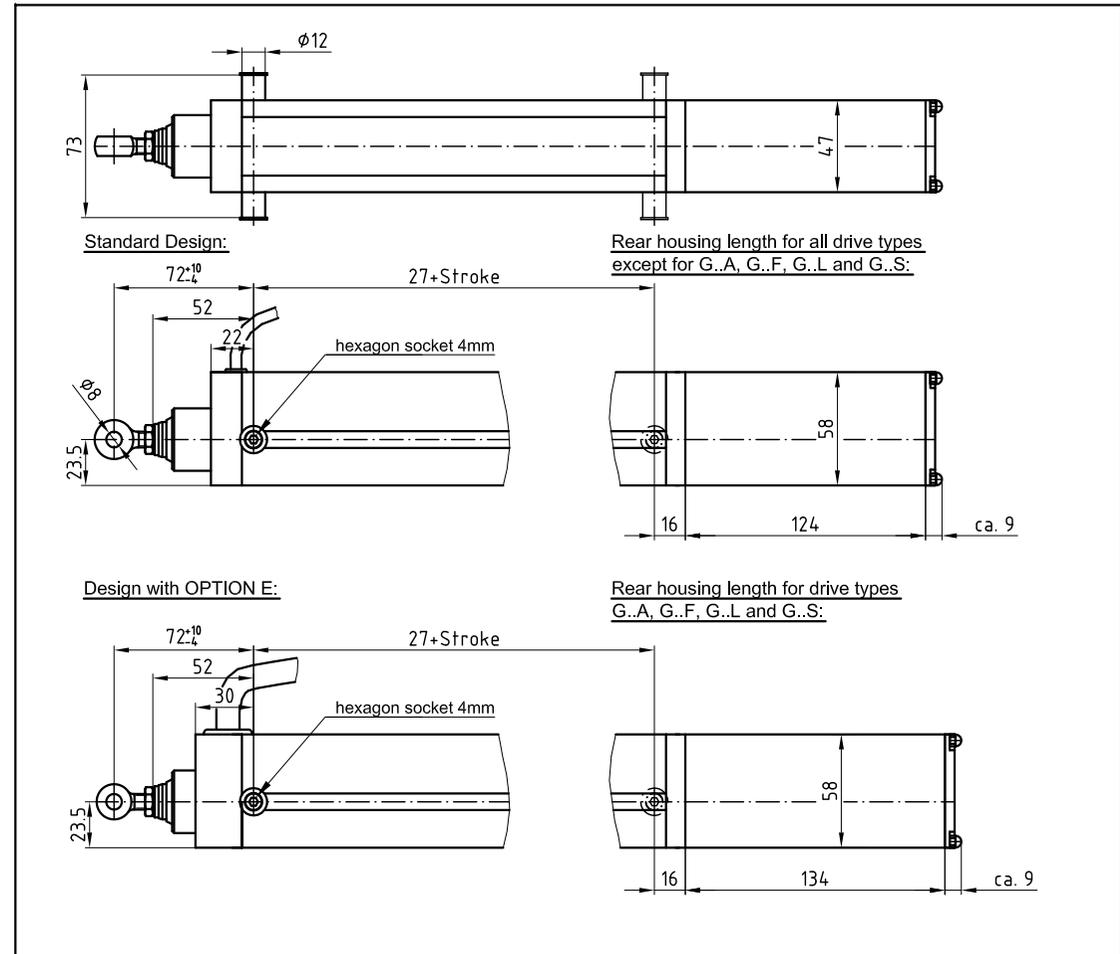
G(Type) - (Stroke) - (Eye bolt) - (Cable length) - (Options)

Legend:

- Type: Drive type as selected from list of drives
 Stroke: Driving stroke in [mm]
 Eye bolt: Bore diameter of eye bolt in [mm]. Instead of the eye bolt, it is also possible to specify a different cardan shaft suspension (see options page "Cardan shaft suspension variants")
 Cable length: Connecting cable length in [m]
 Options: List of all requested options

Ordering example: G13B - 750 - 8 - 2.5 - E - RAL3000

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 Fa. Grasl GmbH A-3454 Reidling, EuropastraÙ 1
 Die Weiterverwendung oder Vervielfältigung ohne unser schriftliches Einverständnis ist verboten!



GRASL Pneumatic-Mechanik GmbH A-3454 Reidling, EuropastraÙ 1				FreimaÙtoleranz nach DIN 7168:		MaÙstab: 1:1		Werkstoff:		
				Datum		Name		ID - Nr.:		
				Bear. 26.11.2009		Simefzberger		Bezeichnung:		
				Gepr. 17.01.2018		HA		Data sheet		
				Norm				Electro-linear-actuator		
								Type: G08x, G10x and G13x		
03	Tschechisch	17.01.2018	SA	Type:	Baureihe G				Zeichnung Nr.:	Blatt
02	Polnisch	25.07.2011	SA					07.009.DAT.00.03-E		
01	Text	12.04.2010	SA							BL.
Zus.	Änderung	Datum	Name	(Urspr.)			(Ers.f.)	07.009.DAT.00.02	(Ers.d.)	

General technical data:

Seal variation	Standard:	Option D05/D07	Option IP42	unit
Rated current	24			VDC
No-load current	0.2			A
Permissible ambient temperature	-25 - +60			°C
Max. permissible temperature to EN12101-2 attachment G	300° - 30min			°C
System of protection according to DIN EN 60 529	IP 40 ¹⁾	IP 54	IP 42	

Technical data for drive types G08X:

Designation	G08A	G08B	G08C	G08F	G08G	G08H	G08L	G08M	G08N	unit	
Transverse and tensile forces (full load)	900	650	450	680	490	340	810	580	400	N	
Current at full load	0.8									A	
Velocity (no-load)	4.3	7.8	10.5	5.7	10.4	14.0	4.3	7.8	10.5	mm/s	
Velocity at full load	3.4	6.1	8.4	4.5	8.1	11.2	3.4	6.1	8.4	mm/s	
Maximum stroke at full load	2) 524	617	741	1288	1517	1821	944	1116	1344	mm	
Class of rating for peak load according to DIN VDE 0530 Part 1 (at 25°C ambient temperature)	S2 4min.										
Class of rating for continuous load according to DIN VDE 0530 Part 1 (at 40°C ambient temperature)	S3 36% ⁴⁾ (Maximum time of operation in one direction: 4min)										
Stability (locking force)	3) 3500									5)	N

Technical data for drive types G10X:

Designation	G10A	G10B	G10C	G10F	G10G	G10H	G10L	G10M	G10N	unit	
Transverse and tensile forces (full load)	1200	850	600	910	640	450	1080	760	540	N	
Current at full load	1.0									A	
Velocity (no-load)	4.3	7.8	10.5	5.7	10.4	14.0	4.3	7.8	10.5	mm/s	
Velocity at full load	3.2	5.5	7.7	4.3	7.3	10.3	3.2	5.5	7.7	mm/s	
Maximum stroke at full load	2) 454	539	642	1113	1327	1583	818	975	1157	mm	
Class of rating for peak load according to DIN VDE 0530 Part 1 (at 25°C ambient temperature)	S2 2.5min.										
Class of rating for continuous load according to DIN VDE 0530 Part 1 (at 40°C ambient temperature)	S3 24% ⁴⁾ (Maximum time of operation in one direction: 2.5min)										
Stability (locking force)	3) 3500									5)	N

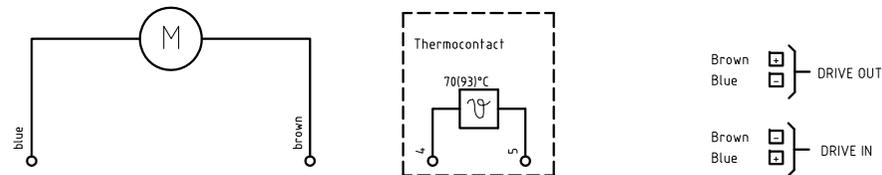
Technical data for drive types G13X:

Designation	G13A	G13B	G13C	G13F	G13G	G13H	G13L	G13M	G13N	unit	
Transverse and tensile forces (full load)	1650	1150	830	1250	870	630	1480	1030	750	N	
Current at full load	1.3									A	
Velocity (no-load)	4.3	7.8	10.5	5.7	10.4	14.0	4.3	7.8	10.5	mm/s	
Velocity at full load	2.7	4.7	6.6	3.6	6.3	8.8	2.7	4.7	6.6	mm/s	
Maximum stroke at full load	2) 387	464	546	950	1138	1338	699	838	982	mm	
Class of rating for peak load according to DIN VDE 0530 Part 1 (at 25°C ambient temperature)	S2 1.5min.										
Class of rating for continuous load according to DIN VDE 0530 Part 1 (at 40°C ambient temperature)	S3 14% ⁴⁾ (Maximum time of operation in one direction: 1.5min)										
Stability (locking force)	3) 3500									5)	N

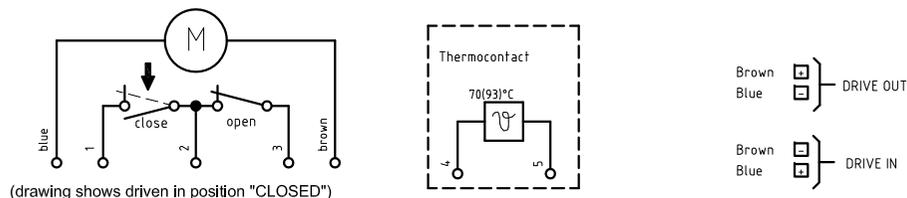
- 1) CAUTION: Not suitable for the use in damp locations or outside!
- 2) The maximum stroke at full load is the stroke that the drive can travel at full load without buckling of the spindle! The transverse force must be reduced for larger strokes. We can supply the corresponding force-stroke diagrams
- 3) The stability is the maximum tensile force that may occur at the retracted cardan shaft. (locking force = locking pressure)
- 4) Either under load extending and load supporting retracting or under load retracting and load supporting extending.
- 5) If a bottom suspension (ground suspension) is used, stability is reduced to 2500N!

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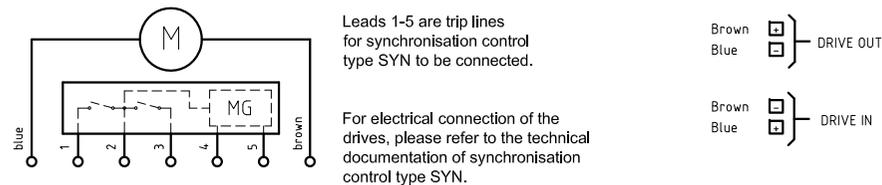
Connection diagram for standard design (with/without option TH)
OPTION TH: thermal contact integrated in the drive



Connection diagram with option E (with/without option TH)
OPTION E: drive with potential-free opener contacts for both limit positions
OPTION TH: thermal contact integrated in the drive



Connection diagram with option SY
OPTION SY: drive with trip lines for synchronisation control type SYN



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						ID - Nr.:			
				Datum		Name		Bezeichnung:	
07 Tschechisch				17.01.2018		SA Bear. 26.11.2009		Simefzberger	
06 Zul. Umgebungstemp.				24.07.2012		SA Gepr. 17.01.2018		HA	
05 Spindel Tr12x6 hinaus				13.06.2012		SA Norm			
04 zusätz. Antriebstopfen				12.06.2012		SA			
03 Polnisch				25.07.2011		SA Type:		Zeichnung Nr.:	
02 Text Mercor				30.05.2011		SA		07.009.DAT.01.07-E	
01 Französisch				05.04.2011		SA		Blatt	
Zus. Änderung				Datum		Name (Urspr.)		BL.	
						Baureihe G		07.009.DAT.01.06	
								(Ers.f.) 07.009.DAT.01.06	
								(Ers.d.)	

General technical data:

- 1.) Anodised aluminium housing with a connecting rod made of aluminium (in the case of motor types G..B, G..C, G..D and G..E, the connecting rod is $\varnothing 18$, for all other motor types it is $\varnothing 22$)
- 2.) Radio interference suppression according to EN55011
- 3.) Cut-out in both limit positions by internal end switch
- 4.) Electronic emergency overload cut-out
- 5.) Electrical parallel connection is possible (NOTE: synchronising circuit is not possible)
- 6.) Eye bolt $\varnothing 6$, $\varnothing 8$ (standard) or $\varnothing 10$ mm
- 7.) Standard strokes 350, 550 and 750mm; special lengths available upon request
- 8.) Light grey silicone connecting cable standard length 2,5m; other lengths available upon request
 -> for standard design: 2x0.75qmm / sheathing \varnothing ca. 6mm
 -> with Option E: 2x2.5qmm / 3x1.5qmm / sheathing \varnothing ca. 11mm
 -> with Option TH: 2x2.5qmm / 5x1.5qmm / sheathing \varnothing ca. 11mm
 -> with Option SY: 2x2.5qmm / 5x1.5qmm / sheathing \varnothing ca. 11mm

Possible options:

- 1.) OPTION Diverse ground designs:
 Motor design also provides for ground suspensions (please refer to options page "suspension variants").
- 2.) OPTION Diverse cardan shaft suspensions:
 It is also possible to design motors with diverse cardan shaft suspensions (please refer to options page "Cardan shaft suspension variants").
- 3.) OPTION RAL... (available upon request):
 The motor housing can be painted in an RAL colour. For instance, if option "RAL3000" is specified, the motor housing will be painted in RAL3000 (RED).
- 4.) OPTION E:
 Internal potential-free end switches (Option E=opener) for both limit positions; current carrying capacity 24VDC/1A (e.g. for position indicator)
- 5.) OPTION TH... (available upon request):
 Installed thermal contact that responds if a specified temperature has been exceeded. The following designs can be delivered:
 TH70Ö ... response temperature 70°C - contact opens when actuated
 TH70S ... response temperature 70°C - contact closes when actuated
 TH93Ö ... response temperature 93°C - contact opens when actuated
 TH93S ... response temperature 93°C - contact closes when actuated
 Option TH... is NOT possible in connection with option SY. As this option is not possible in connection with all ground suspension variants, option TH is only possible available upon request.
- 6.) OPTION SY (available upon request):
 See datasheets G08X-...-SY to G26X-...-SY
- 7.) OPTION sealing variants:
 D05/D07 system of protection IP54
 IP42 system of protection IP42 (Caution: The overall length of the actuator is extended by 4mm!)

Ordering designation:

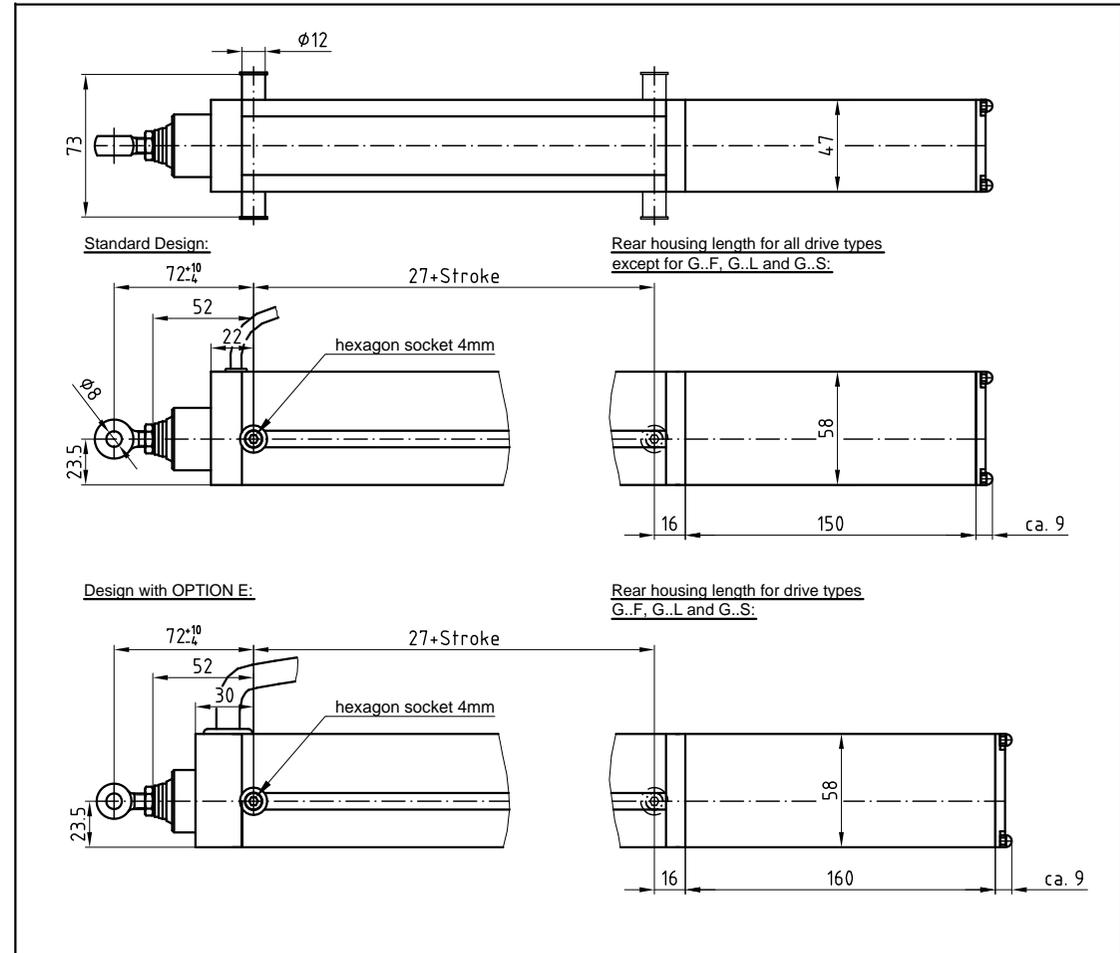
G(Type) - (Stroke) - (Eye bolt) - (Cable length) - (Options)

Legend:

Type: Drive type as selected from list of drives
 Stroke: Driving stroke in [mm]
 Eye bolt: Bore diameter of eye bolt in [mm]. Instead of the eye bolt, it is also possible to specify a different cardan shaft suspension (see options page "Cardan shaft suspension variants")
 Cable length: Connecting cable length in [m]
 Options: List of all requested options

Ordering example: G20B - 750 - 8 - 2.5 - E - RAL3000

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				Datum		Name		ID - Nr.:	
				Bear. 26.11.2009		Simefzberger		Bezeichnung:	
				Gepr. 25.07.2011		GH		Data sheet	
				Norm				Electro-linear-actuator	
				Type:		Baureihe G		Type: G16x, G20x and G26x	
02 Polnisch				25.07.2011		SA		Zeichnung Nr.:	
01 Text				12.04.2010		SA		07.009.DAT.03.02-E	
Zus. Änderung				Datum		Name (Urspr.)		Blatt	
								BL.	
								(Ers.f.) 07.009.DAT.03.01	
								(Ers.d.)	

General technical data:

Seal variation	Standard:	Option D05/D07	Option IP42	unit
Rated current	24			VDC
No-load current	0.3			A
Permissible ambient temperature	-25 - +60			°C
Max. permissible temperature to EN12101-2 attachment G	300° - 30min			°C
System of protection according to DIN EN 60 529	IP 40 ¹⁾	IP 54	IP 42	

Technical data for drive types G16X:

Designation	G16F	G16L	unit
Transverse and tensile forces (full load)	1480	1750	N
Current at full load	1.6		A
Velocity (no-load)	5.9	4.4	mm/s
Velocity at full load	4.8	3.6	mm/s
Maximum stroke at full load ²⁾	873	643	mm
Class of rating for peak load according to DIN VDE 0530 Part 1 (at 25°C ambient temperature)	S2 4min.		
Class of rating for continuous load according to DIN VDE 0530 Part 1 (at 40°C ambient temperature)	S3 21% ⁴⁾ (Maximum time of operation in one direction: 4min)		
Stability (locking force) ³⁾	3500 ⁵⁾		N

Technical data for drive types G20X:

Designation	G20F	G20L	unit
Transverse and tensile forces (full load)	1930	2290	N
Current at full load	2.0		A
Velocity (no-load)	5.9	4.4	mm/s
Velocity at full load	4.4	3.3	mm/s
Maximum stroke at full load ²⁾	764	562	mm
Class of rating for peak load according to DIN VDE 0530 Part 1 (at 25°C ambient temperature)	S2 2.5min.		
Class of rating for continuous load according to DIN VDE 0530 Part 1 (at 40°C ambient temperature)	S3 13% ⁴⁾ (Maximum time of operation in one direction: 2,5min)		
Stability (locking force) ³⁾	3500 ⁵⁾		N

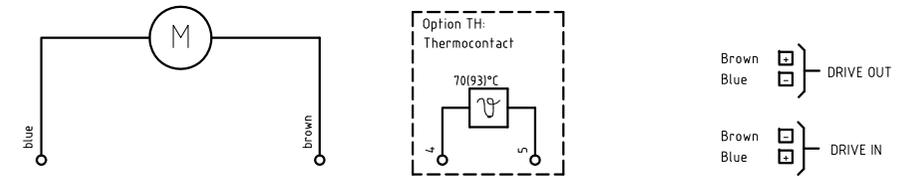
Technical data for drive types G26X:

Designation	G26F	unit	
Transverse and tensile forces (full load)	2620	N	
Current at full load	2.6		A
Velocity (no-load)	5.9	mm/s	
Velocity at full load	4.0	mm/s	
Maximum stroke at full load ²⁾	656	mm	
Class of rating for peak load according to DIN VDE 0530 Part 1 (at 25°C ambient temperature)	S2 1.5min.		
Class of rating for continuous load according to DIN VDE 0530 Part 1 (at 40°C ambient temperature)	S3 8% ⁴⁾ (Maximum time of operation in one direction: 1,5min)		
Stability (locking force) ³⁾	3500 ⁵⁾		

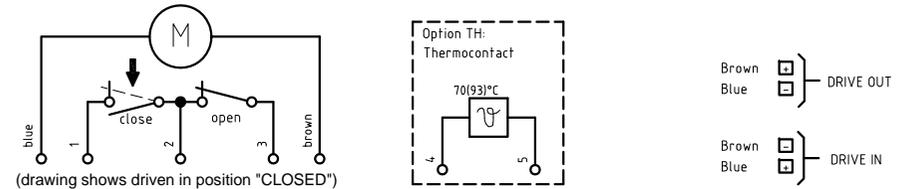
- CAUTION: Not suitable for the use in damp locations or outside!
- The maximum stroke at full load is the stroke that the drive can travel at full load without buckling of the spindle!
The transverse force must be reduced for larger strokes. We can supply the corresponding force-stroke diagrams upon request.
- The stability is the maximum tensile force that may occur at the retracted cardan shaft. (locking force = locking pressure)
- Either under load extending and load supporting retracting or under load retracting and load supporting extending.
- If a bottom suspension (ground suspension) is used, stability is reduced to 2500N!

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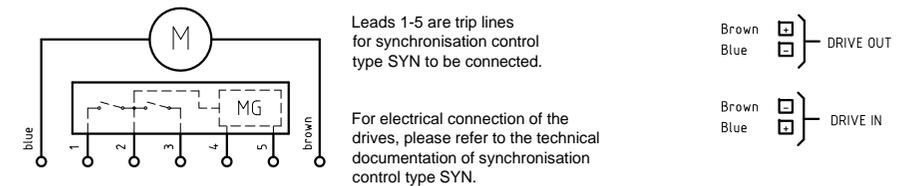
Connection diagram for standard design (with/without option TH)
OPTION TH: thermal contact integrated in the drive



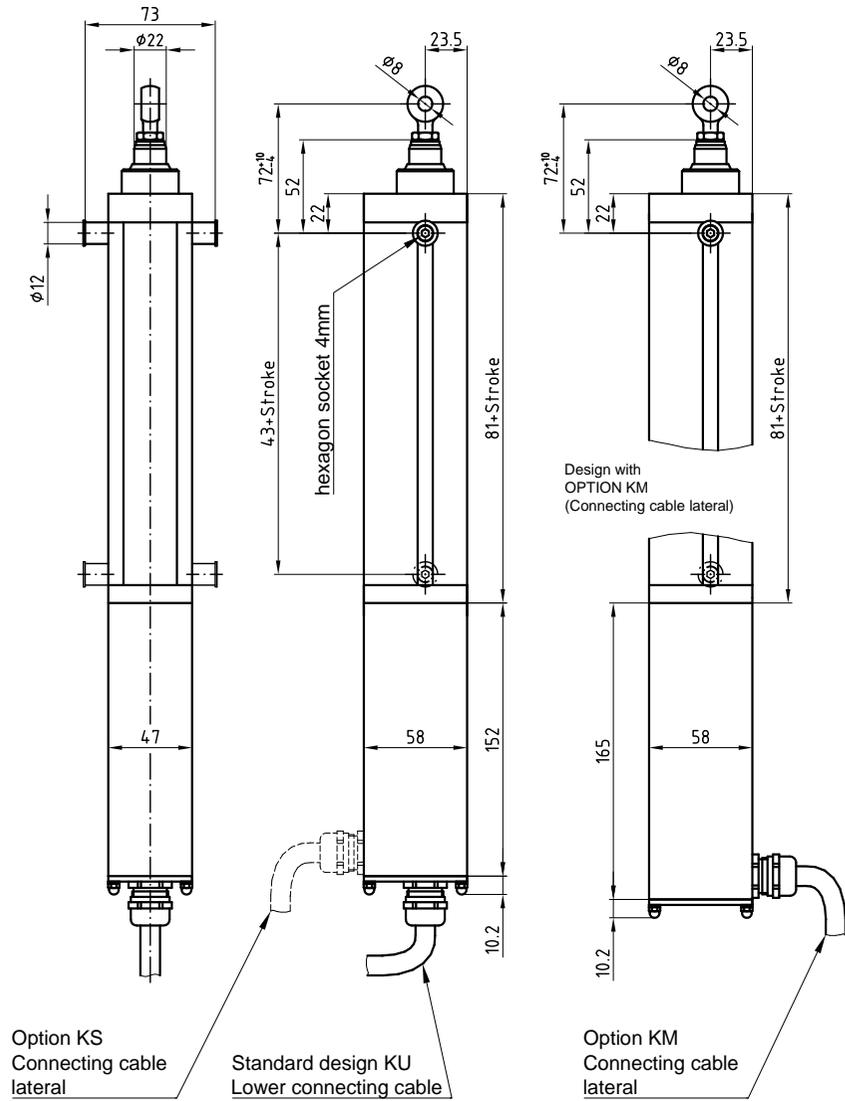
Connection diagram with option E (with/without option TH)
OPTION E: drive with potential-free opener contacts for both limit positions
OPTION TH: thermal contact integrated in the drive



Connection diagram with option SY
OPTION SY: drive with trip lines for synchronisation control type SYN



GRASL Pneumatic-Mechanik GmbH A-3454 Reidling EuropastraÙe 1				FreimaÙtoleranz nach DIN 7168:		MaÙstab: 1:1		Werkstoff:	
						ID - Nr.:			
				Datum		Name		Bezeichnung:	
				26.11.2009		Simefzberger		Technical data G16x, G20x and G26x Electro-linear-actuator available on request	
				24.07.2012		HA			
05	Zul. Umgebungstemp.	24.07.2012	SA	Type:		Zeichnung Nr.:		Blatt	
04	Spindel Tr12x6 hinaus	13.06.2012	SA	Baureihe G		07.009.DAT.05.05-E		BL.	
03	zusätz. Antriebstypen	12.06.2012	SA						
02	Polnisch	25.07.2011	SA						
01	Text Mercor	30.05.2011	SA						
Zus.	Änderung	Datum	Name	(Urspr.)	(Ers.f.)	07.009.DAT.05.04	(Ers.d.)		



Option KS
Connecting cable lateral

Standard design KU
Lower connecting cable

Option KM
Connecting cable lateral

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 gung ohne unser schriftliches Einver-
 ständnis ist verboten!

Technical description:

- Maintenance-free
- Anodised aluminium housing, pushrod made of aluminium Ø22 (G40P/G40J) or steel Ø22 (GS40P/GS40J)
- Radio interference suppression according to EN55011
- Cut-out in both limit positions by internal end switch
- Electronic emergency overload cut-out
- Electrical parallel connection is possible (NOTE: synchronising circuit is not possible)
- Light grey silicone connecting cable 2x2.5qmm + 3x1.5qmm, sheathing Ø ca. 11mm, for standard length 2.5m, other length available upon request
- Eye bolt Ø6, Ø8 (standard) or Ø10mm
- Standard strokes 350, 550 and 750mm; special lengths available upon request
- OPTION E: potential-free end switches (opener) for both limit positions, current carrying capacity 1A/24VDC (e.g. for position indicator)
- Nominal triggering temperature of fire detection element that can be interfaced 93°C

Technical data Elektro-Linear-Drive G40P:

Designation	G40P	G40J	unit
Rated Current	24	24	VDC
Tolerance for rated voltage	-20/+30	-20/+30	%
No-load current	0.8	0.8	A
Nominal Load from 0 - 500mm stroke	1570	1330	N
Current at nominal load from 0 - 500mm stroke	4.0	4.0	A
Maximum overload cut-off current	4.8	4.8	A
Maximum current and maximum time of deadlock until system switches off by overload cut-out	14A for 80ms	14A for 80ms	
Maximum pressure force during deadlock	13000	13000	N
Number of deadlocks / time interval (trigger rate for deadlock)	15 times / 2 min	15 times / 2 min	
Ventilation- and nominal load course over the entire stroke	Load diagram	Load diagram	N
Max. stroke at no-load in 60s	800	985	mm
Permissible ambient temperature for RWA VdS 2580	-5 to +110 x)	-5 to +110 x)	°C
System of protection according to DIN EN 60 529	IP54	IP54	
(Class of rating for peak load according to DIN VDE 0530 Part 1 (at 25°C ambient temperature)	S3 30%	S3 30%	
Stability (locking force)	3500	3500	N
Environmental class according to VdS 2580	I	I	

x) stress period at 110°C max 2h

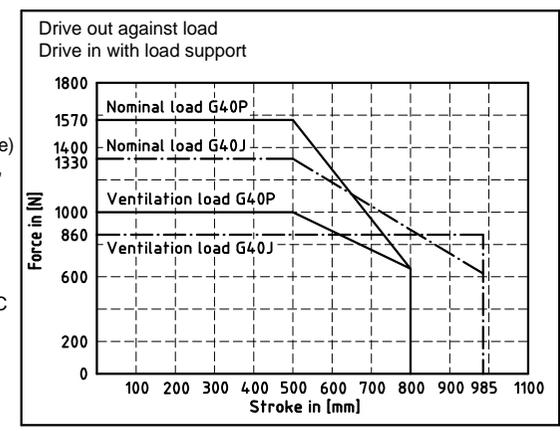
Description of function:

When connecting the rated voltage for "DRIVE OUT" at connecting cable (see wiring diagram) the drive will drive out and disconnect in limit position by end switch. If drive is equipped with Option E, the respective potential-free contact will open (see wiring diagram).

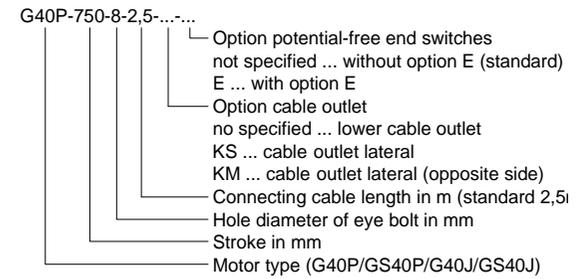
When connecting the rated voltage for "DRIVE IN" at connecting cable (see wiring diagram) the drive will drive in and disconnect in limit position by end switch. If drive is equipped with Option E, the respective potential-free contact will open (see wiring diagram).

The drive is also provided with an overload cut-out that will disconnect the drive in the event of overload to safeguard against any damage. This means that the overload cut-out will respond if charging rate exceeds maximum cut-off current (see technical data), and will lock to safeguard against restart. Once the drive is idle, lock is reset and drive is once again ready for operation.

Load diagramm:

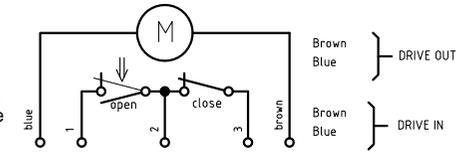


Type and ordering designation:



Circuit diagramm:

(drawing shows driven in position "CLOSED")



GRASL Pneumatic-Mechanik GmbH A-3454 Reidling EuropastraÙe 1		FreimaÙtoleranz nach DIN 7168:	MaÙstab: 1:1		Werkstoff:
			ID - Nr.:		
		Datum	Name		Bezeichnung: Data sheet Electro-linear-actuator Type: G40P / GS40P / G40J / GS40J
		Bear. 30.11.2009	Simefzberger		
		Gepr. 07.08.2013	KW		
		Norm			Zeichnung Nr.: 07.009.DAT.08.04-E
		Type:	Baureihe G		
04	G40J, diverse Änd.	24.06.2013	SA		Blatt
03	Version Französisch	26.07.2012	SA		
02	Text	10.06.2010	SA		BL.
01	Text	04.05.2010	SA		
Zus.	Änderung	Datum	Name	(Urspr.)	(Ers.f.) 07.009.DAT.08.03
					(Ers.d.)

General technical data:

- 1) Anodised aluminium enclosure with a push rod of aluminium Ø22.
- 2) Internal interference suppression to EN55011
- 3) Disconnection at either end position by integrated limit switches
- 4) Electronic "emergency stop" on overload
- 5) Allows electric parallel actuator cut-off control (IMPORTANT: no synchronism)
- 6) Eyebolt Ø 6, Ø 8 (standard) or Ø 10mm
- 7) Standard strokes 350, 550 and 750mm; special lengths on request
- 8) Light grey silicone supply lead, standard length 2.5m; other lengths on request
 - > for standard version 2x2.5sq.mm / sheathing Ø approx. 9mm
 - > with option E and ES: 2x2.5sq.mm / 3x1.5sq.mm / sheathing Ø approx. 11mm
 - > with option TH: 2x2.5sq.mm /5x1.5sq.mm / sheathing Ø approx. 11mm
 - > with option SY: 2x2.5sq.mm / 5x1.5sq.mm / sheathing Ø approx. 11mm

Possible Options:

1) OPTION KU, KS, KO and KM:

Cable connection at enclosure (see dimensional drawing). If this option is not specified, standard version KU will be executed.

Option KU is not possible with all types of lower end configuration (cf. table under item "2 Option: Various configurations of lower end")

2) OPTION Various configuration of lower end:

Actuators can also be arranged with lower end mounting (cf. option sheet "mounting variants").

Please refer to the following table to establish the possibilities of combining lower end configuration and variant of cable connection:

	Option KU	Option KS	Option KM	Option KO
Standard version:	●			
Option D (cap without cable outlet)		●	●	●
Option UØ6.1 (lower end borehole Ø6.1)	●	●	●	●
Option U M8 (thread M8 in lower end)	●	●	●	●
Option U Ø10.2 (lower end borehole Ø10.2)		●	●	●
Option UF Ø8.2 (mounting at lower end Ø8.2)		●	●	●

3) OPTION Various push rod mountings:

Please refer to option sheet "Variants of push rod mounting"

4) OPTION RAL... (on request):

Actuator enclosure can be painted to RAL colour code. Example: if "RAL 3000" is specified as an option, the actuator enclosure will have a red finish to RAL 3000.

5) OPTION E and ES:

Internal potential-free limit switches (option E=NC contact / option ES=NO contact) for either end position; load rating 24VDC / 1A (e.g. for indication of position)

6) OPTION TH... (on request):

Integrated thermal contact which responds as soon as a certain temperature is exceeded.

The following versions are available:

TH70Ö ... response temperature 70°C - contact opens at response

TH70S ... response temperature 70°C - contact closes at response

TH93Ö ... response temperature 93°C - contact opens at response

TH93S ... response temperature 93°C - contact closes at response

Option TH... CANNOT be combined with option SY. As option cannot be combined with all variants of lower end mounting, please inquire for option TH.

7) OPTION SY (on request):

While the standard actuators can be electrically connected in parallel, there may be differences in stroke while operating due to various factors (such as different loads, voltage drop in supply lead etc.), PREVENTING the actuators from running in synchronism. To ensure synchronised operation, select option SY in conjunction with a synchronising control.

8) OPTION sealing variants:

D05/D07 system of protection IP54

IP42 system of protection IP42 (Caution: The overall length of the actuator is extended by 4mm!)

Order reference:

G(type) - (stroke) - (Eyebolt) - (cable length) - (options)

Legend:

Type: Actuator type selected from list of drives

Stroke: Actuator stroke in mm

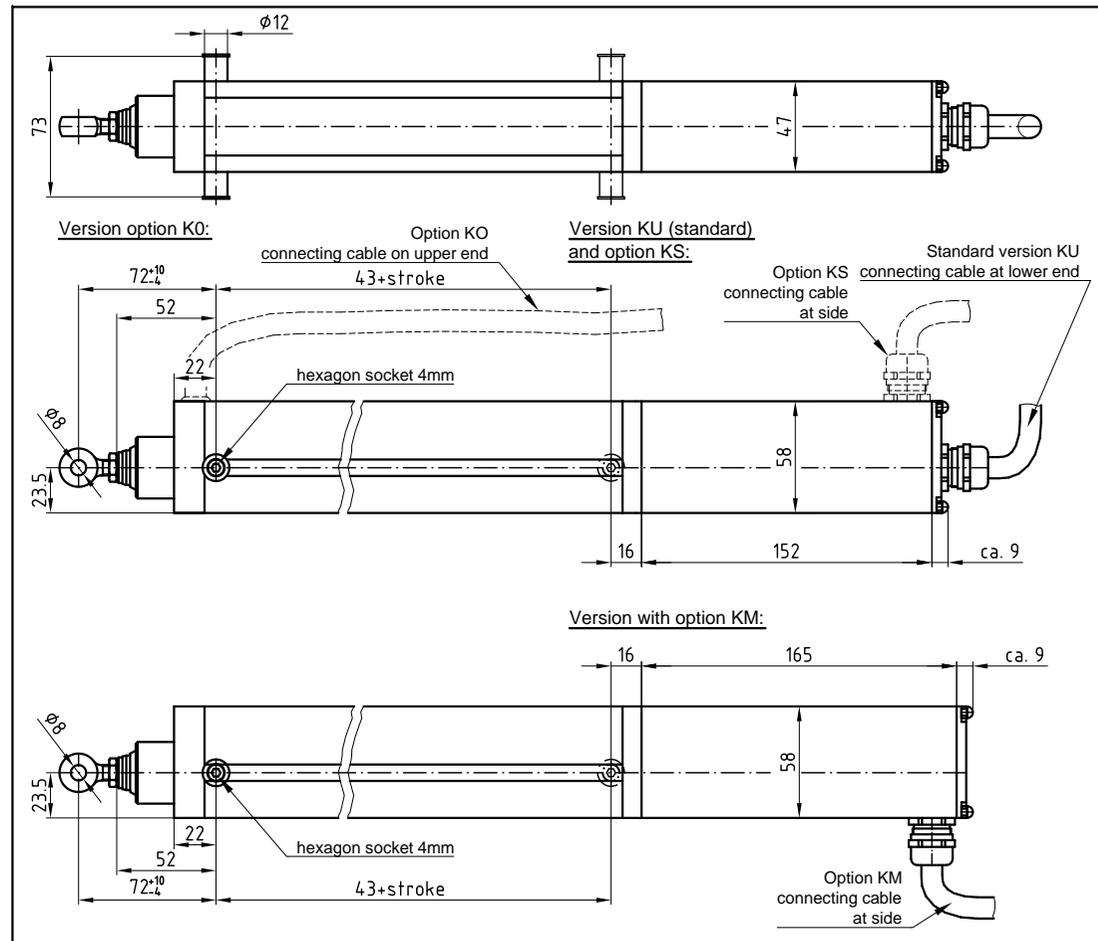
Eyebolt: Eye diameter of eyebolt in mm. Instead of eyebolt, another type of push rod mounting may be specified (see sheet of options "variants of push rod mounting")

Cable length: Length of connecting cable in mm

Options: List of all desired options

Ordering example: G40P - 750 - 8 - 2,5 - KS - E - RAL 3000

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Die Weiterverwendung oder Vervielfälti-
gung ohne unser schriftliches Einver-
ständnis ist verboten!



GRASL Pneumatic-Mechanik GmbH A-3454 Reidling EuropastraÙe 1		FreimaÙtoleranz nach DIN 7168:	MaÙstab: 1:1	Werkstoff:
		Datum	ID - Nr.:	
	Bear.	27.11.2009	Bezeichnung:	
	Gepr.	14.07.2017	Data sheet	
	Norm		Electro-linear-actuator	
		Name	Type: G40x, G60x and G80x	
			Zeichnung Nr.:	
03	Allg. Techn. Dat. P. 8)	14.07.2017	SA	Blatt
02	Polnisch	25.07.2011	SA	
01	Text	12.04.2010	SA	BL.
Zus.		Änderung	Datum	Name (Urspr.)
				(Ers.f.) 07.009.DAT.06.02
				(Ers.d.)
				fachlich geprüft am 29.5.2002 KW

General technical data:

Seal variation	Standard:	Option D05/D07	Option IP42	unit
Rated voltage	24			VDC
No-load current	0.8			A
Admissible ambient temperature	-25 - +60			°C
Max. permissible temperature to EN12101-2 attachment G	300° - 30min			°C
Protective standard DIN EN 60 529	IP 40 1)	IP 54	IP 42	

Technical data of drive system G40X:

Description	G40G	G40H	G40J	G40K	G40N	G40P	G40R	unit
Push/pull force (full load)	2500	1600	1330	880	1890	1570	1040	N
Current at full load	4.0							A
No-load speed	11.4	16.5	21.0	28.5	12.4	15.8	21.4	mm/s
Speed at full load	9.4	13.4	17.3	23.6	10.1	13.0	17.7	mm/s
Max. stroke at full load	2)	672	839	921	1132	678	834	mm
Duty cycle (DIN VDE 0530 part 1) at 25° ambient temperature	S2 4min.							
Class of rating for continuous load according to DIN VDE 0530 Part 1 (at 40°C ambient temperature)	S3 20% 4) (Maximum time of operation in one direction: 4min)							
Stability (locking force)	3)	3500 5)						N

Technical data of drive system G60X:

Description	G60J	G60K	G60P	G60R	unit	
Push/pull force (full load)	2160	1440	2560	1710	N	
Current at full load	6.0				A	
No-load speed	21.0	28.5	15.8	21.4	mm/s	
Speed at full load	15.0	20.5	11.3	15.4	mm/s	
Max. stroke at full load	2)	722	885	531	650	mm
Duty cycle (DIN VDE 0530 part 1) at 25° ambient temperature	S2 2min.					
Class of rating for continuous load according to DIN VDE 0530 Part 1 (at 40°C ambient temperature)	S3 10% 4) (Maximum time of operation in one direction: 2,5min)					
Stability (locking force)	3)	3500 5)			N	

Technical data of drive system G80X:

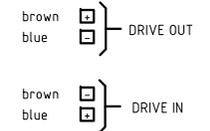
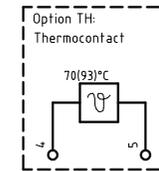
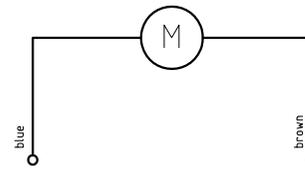
Description	G80K	G80R	unit	
Push/pull force (full load)	2000	2370	N	
Current at full load	8.0		A	
No-load speed	28.5	21.4	mm/s	
Speed at full load	17.4	13.1	mm/s	
Max. stroke at full load	2)	751	552	mm
Duty cycle (DIN VDE 0530 part 1) at 25° ambient temperature	S2 1min.			
Class of rating for continuous load according to DIN VDE 0530 Part 1 (at 40°C ambient temperature)	S3 5% 4) (Maximum time of operation in one direction: 1,5min)			
Stability (locking force)	3)	3500 5)		

- 1) CAUTION: not suitable for use in moist rooms!
- 2) Maximum stroke at full load is the stroke performed by the actuator at full load without deflection of the spindle!
For longer strokes pushing force must be reduced. Appropriate force/stroke diagram will be made available on request.
- 3) Stability is the maximum pulling force allowed to act on the push rod when retracted. (Locking force = closing force)
- 4) Either under load extending and load supporting retracting or under load retracting and load supporting extending.
- 5) In the case of mounting at lower end, stability will decrease to 2,500N!

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Terminal diagram standard version (with/without option TH)

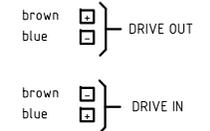
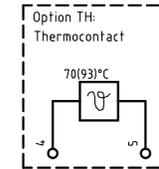
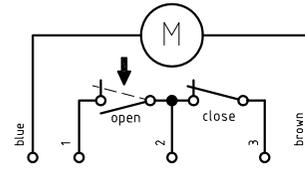
OPTION TH: thermal contact integrated in drive



Terminal diagram with option E (with/without option TH)

Option E: drive with potential-free opening contacts for both end positions

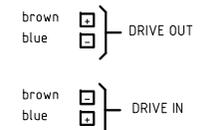
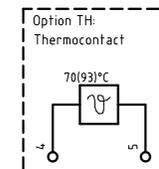
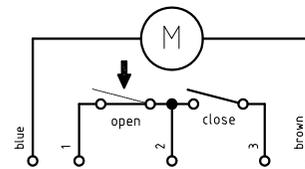
OPTION TH: thermal contact integrated in drive



Terminal diagram with option ES (with/without option TH)

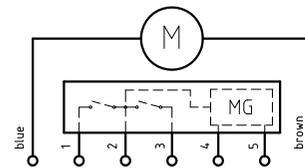
Option E: drive with potential-free closing contacts for both end positions

OPTION TH: thermal contact integrated in drive

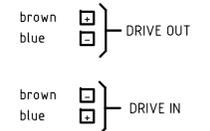


Terminal diagram with option SY

OPTION SY: drive with control lines for synchronising control unit Type SYN



Wires 1-5 are control for connection of synchronising control SYN.



For the electrical connection of the drives, see the technical documentation of the synchronising control unit Type SYN.

GRASL Pneumatic-Mechanik GmbH A-3454 Reidling Europastraße 1		Freimaßtoleranz nach DIN 7168:		Maßstab: 1:1		Werkstoff:	
				ID - Nr.:			
				Bezeichnung:		Technical data G40x, G60x and G80x Electro-linear-actuator	
				Zeichnung Nr.:		Blatt	
				Baureihe G		07.009.DAT.07.05-E	
				Zus. Änderung Datum Name (Urspr.)		fachlich geprüft am	
				Bear. 30.11.2009 Simefzberger		29.5.2002 KW	
				Gepr. 24.07.2012 HA			
				Type:		BL.	
				05 Zul. Umgebungstemp. 24.07.2012 SA			
				04 Spindel Tr12x6 hinaus 13.06.2012 SA			
				03 zusätz. Antriebstypen 12.06.2012 SA			
				02 Polnisch 25.07.2011 SA			
				01 Text Mercor 30.05.2011 SA			
				(Ers.f.) 07.009.DAT.07.04		(Ers.d.)	