

Type No. 219-151-011

## Description / features

With the E-Shift Actuator GT, MEGA-Line once again redefines the state of the art of modern gearshift systems!

Like its sibling, the E-Shift Barrel OEM, the E-Shift Actuator GT is an e-motor powered direct drive gearbox barrel actuator.

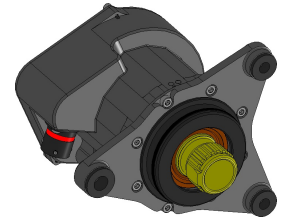
Besides replacing all pneumatic gearshift components incl. piping, also the ratchet mechanism of the sequential gearbox becomes obsolete by utilizing the E-Shift Actuator GT.

Considering the unit weight of only approx. 850g, the aggregated system weight is likely less than the standalone gearbox weight incl. ratchet.

Besides this significant weight reduction the E-Shift Actuator GT offers several new features and benefits over a any pneumatic gearshift system:

- Significantly increased position accuracy
- Possibility to achieve a neutral position between each gearpair (for easy disengagement of the drivetrain e.g. for coasting etc.)
- Different shift strategy per gearpair

The intelligent actuator includes active motor position control as well as the gear-pot. All relevant communication with the engine ECU is realized via CAN with an optional hard-wired "UP" and "DOWN" input available for use.



## Technical specifications

### Electronic data:

Operating voltage	13.5..15.6V nom.
Standby current	0.5 A
Peak current	60..100A programmable
Circuit breaker	not integrated, optionally use external breaker (e.g. ETA, 452 K34 FN2 – 80A)

### Mechanical data:

Dimensions L x W x H	approx. 111 x 95 x 89 mm
Weight	approx. 850g
Angle of rotation	360°
Angle error	less 0.1°
Spline	similar DIN 5480

### Connector:

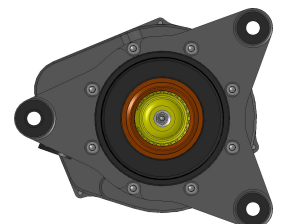
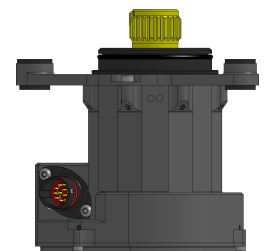
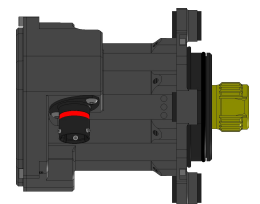
Deutsch 13 pin, flange mounted	AS010-35PN
Deutsch 13 socket, loom side	AS610-35SN

### Temperature range:

Ambient	-25 °C ... +80 °C
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### Ordering information:

Article no.	219-151-011
Order no.	please refer to page 4



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## Pin assignment

Pin	Function	Dia [AWG]	Type
1	+ 13.5V supply	22	pwr
2	GND supply	22	pwr
3	GND supply	22	pwr
4	GND supply	22	pwr
5	CAN1 low	22	data
6	CAN1 high	22	data
7	DOWN Paddle	26	digital in*
8	UP Paddle	26	digital in*
9	+ 13.5V supply	22	pwr
10	+ 13.5V supply	22	pwr
11	+ 13.5V supply	22	pwr
12	GND supply	22	pwr
13	Flash	26	digital in

\* Standard input is low side (switch to GND); high side available on request

# E-SHIFT ACTUATOR GT

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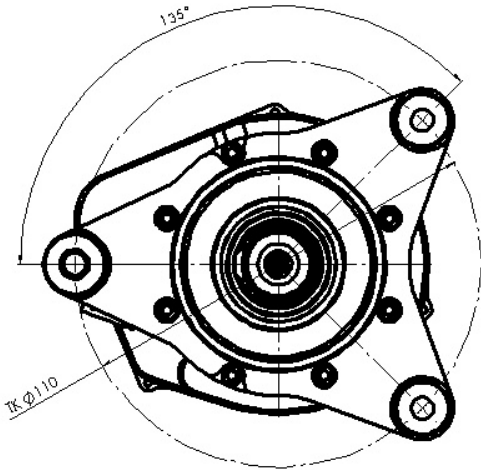
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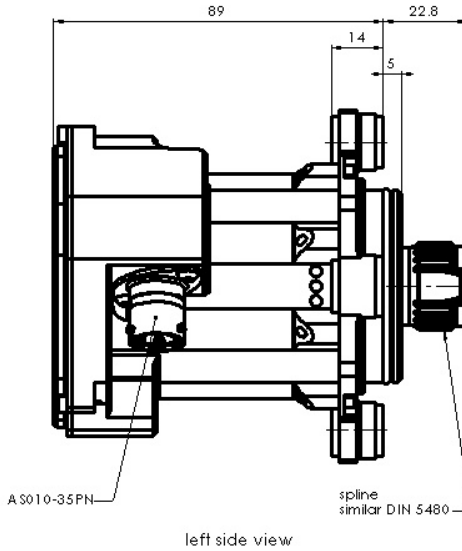
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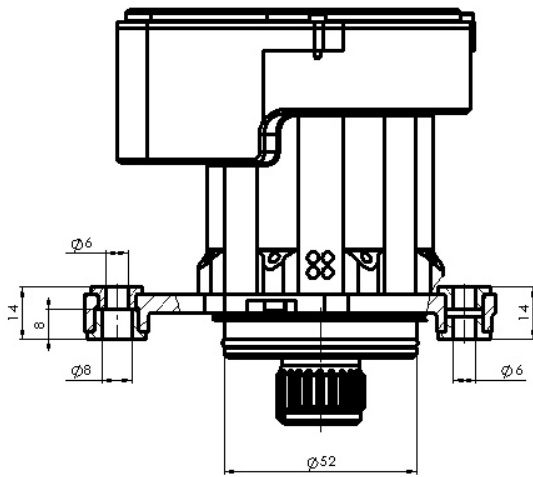
## Assembly dimensions\*



front view



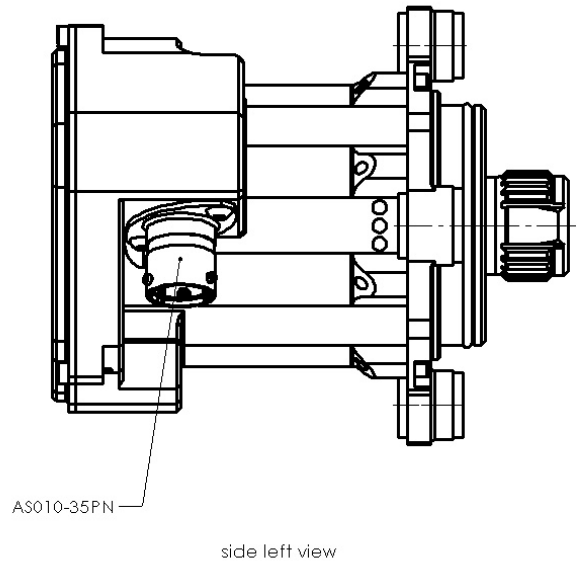
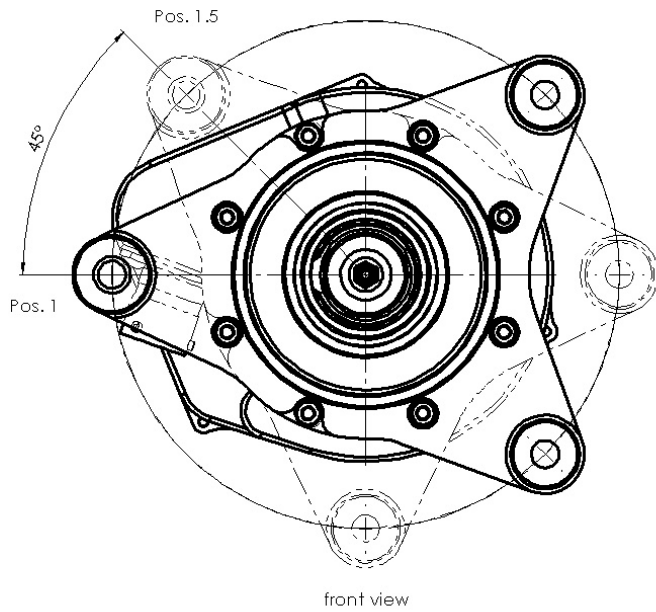
left side view



top view

\* Flange orientation variable; please check next page for available options

### Available options for flange orientation

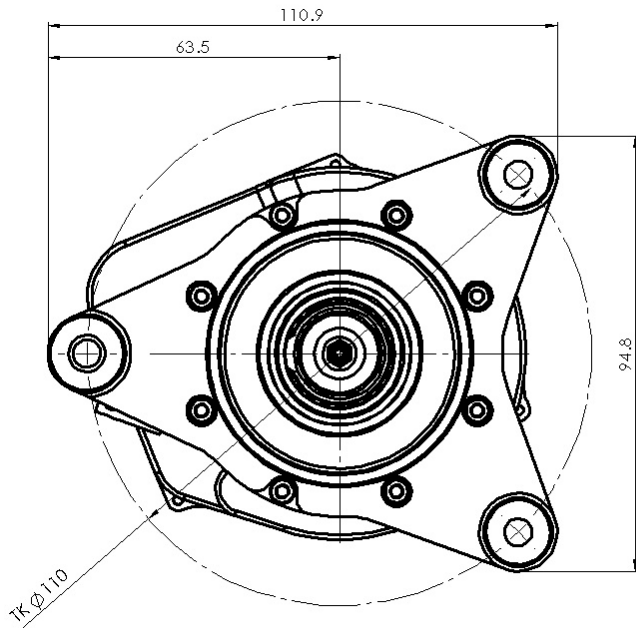


Available positions of flange	
Pos. 1	0° Standard, as shown
Pos. 1.5	45°
Pos. 2	90°
Pos. 2.5	135°
Pos. 3	180°
Pos. 3.5	225°
Pos. 4	270°
Pos. 4.5	315°

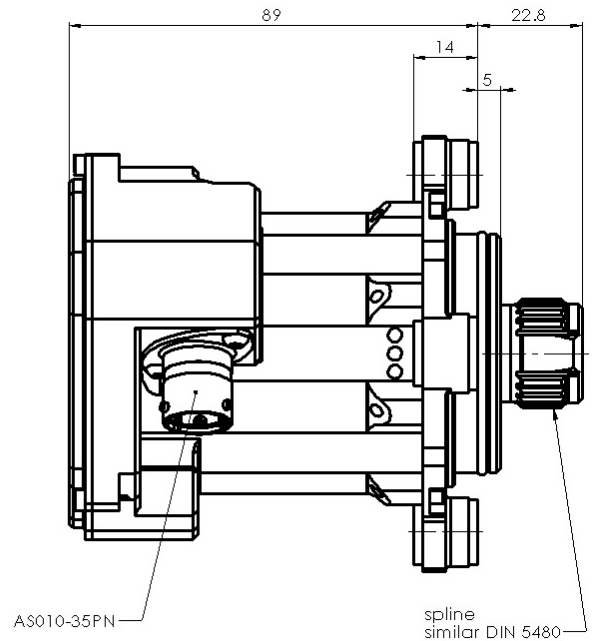
### Order information

Orientation	Order no.	Detailed article no.
Pos. 1.0	12469	219-151-011-V1.0
Pos. 1.5	12470	219-151-011-V1.5
Pos. 2.0	12471	219-151-011-V2.0
Pos. 2.5	12472	219-151-011-V2.5
Pos. 3.0	12473	219-151-011-V3.0
Pos. 3.5	12474	219-151-011-V3.5
Pos. 4.0	12475	219-151-011-V4.0
Pos. 4.5	12476	219-151-011-V4.5

### Mechanical dimensions

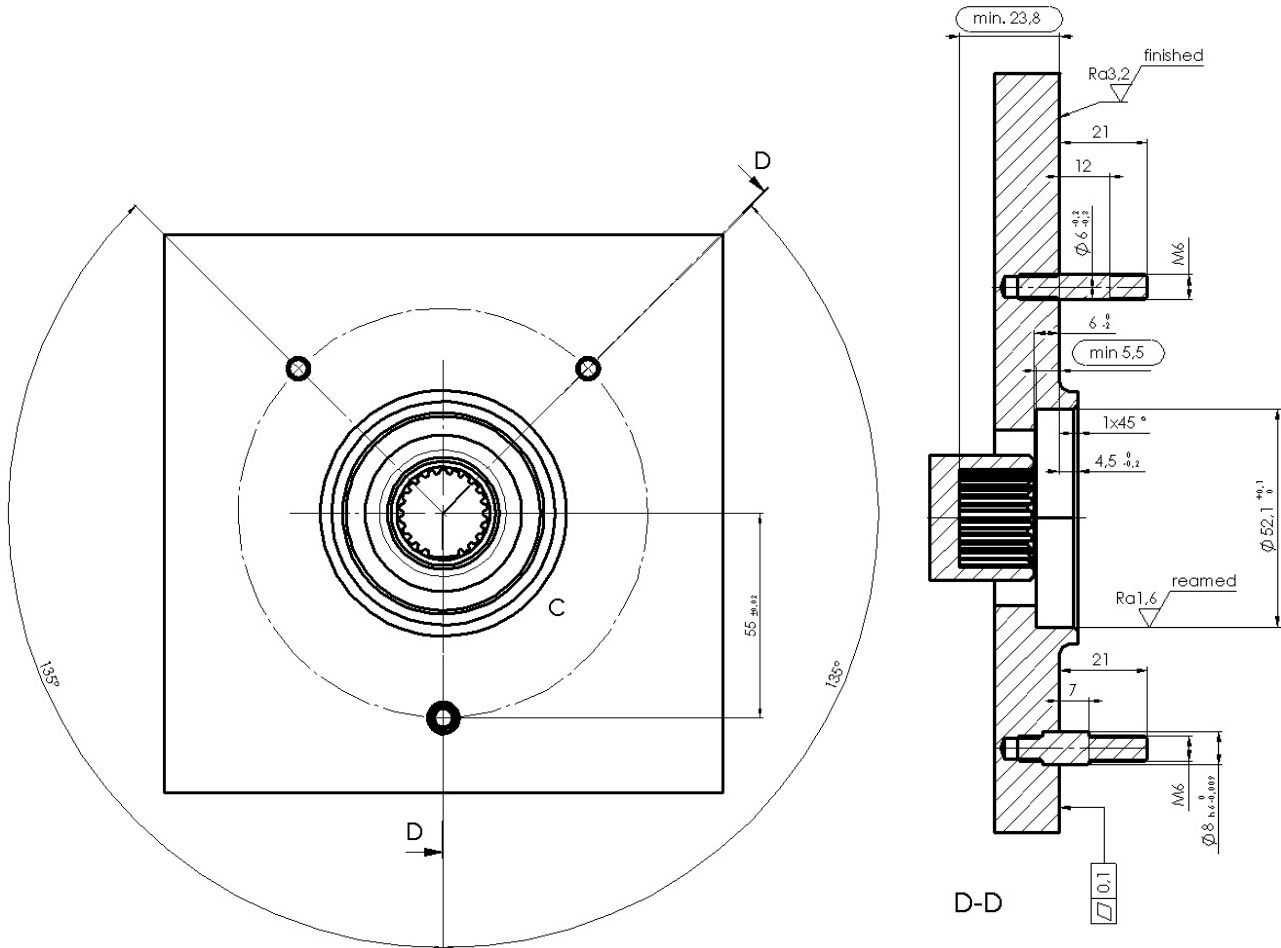


front view

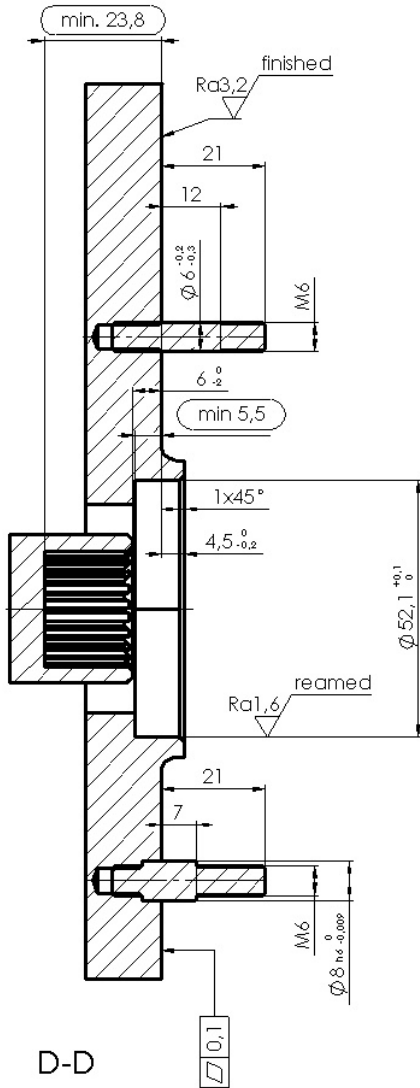


left side view

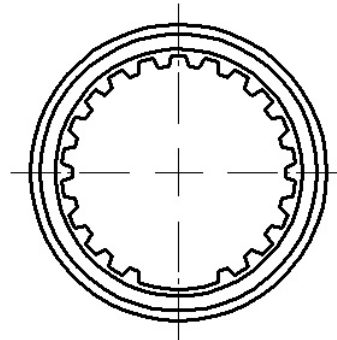
### Recommended dimensions on gearbox side



### Recommended dimensions on gearbox side (cont.)

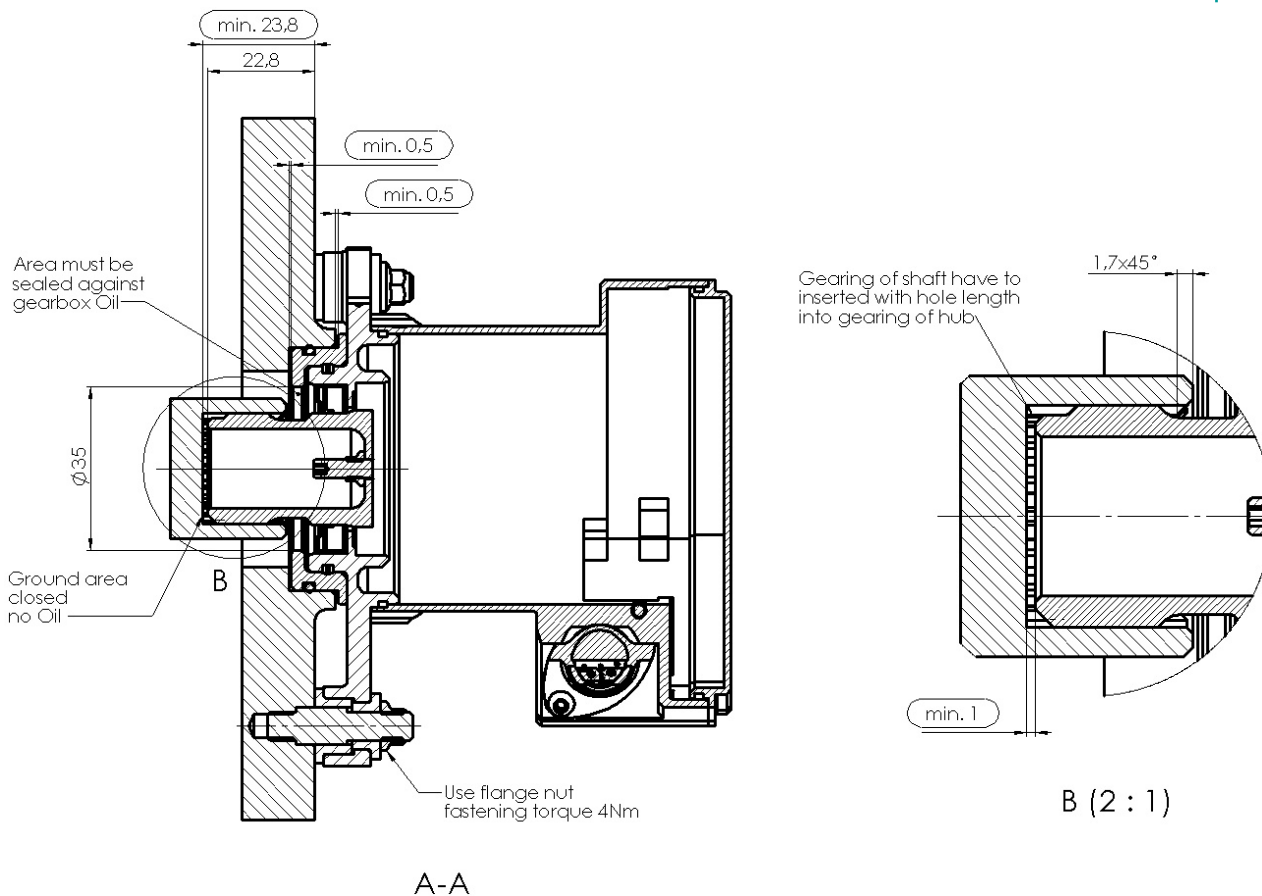


Gearing of hub:  
see attached data sheet  
DIN 5480



C (2:1)

### Recommended dimensions on gearbox side (cont.)





### Current consumption diagram

