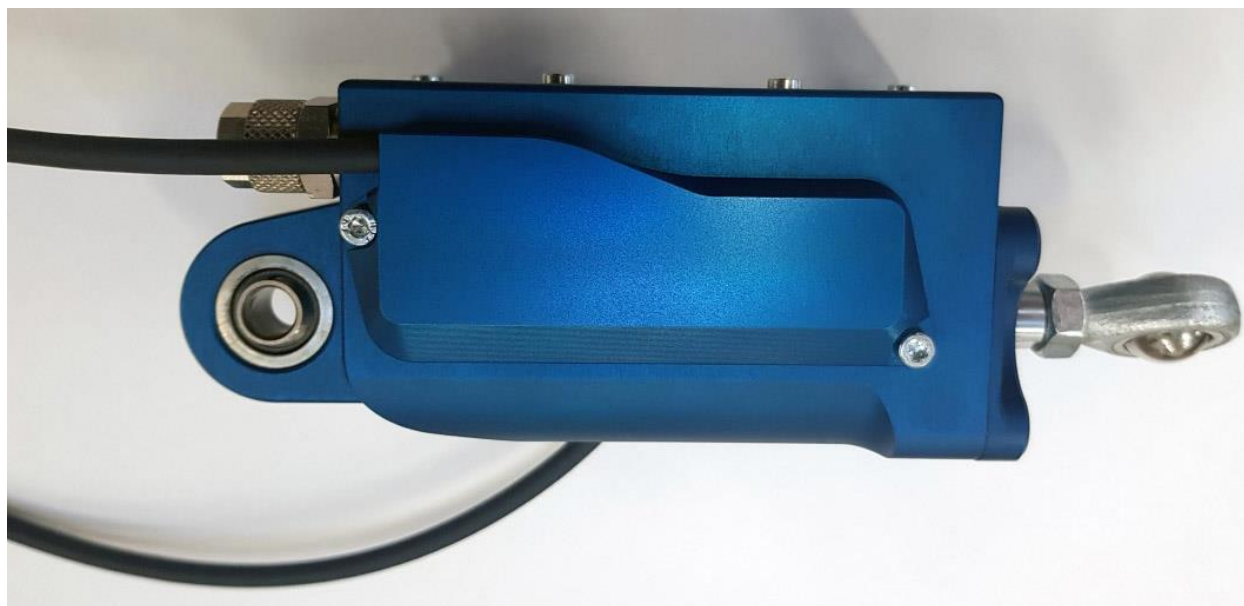


Gearbox Actuator With Integrated Valves And Position Sensor



Features

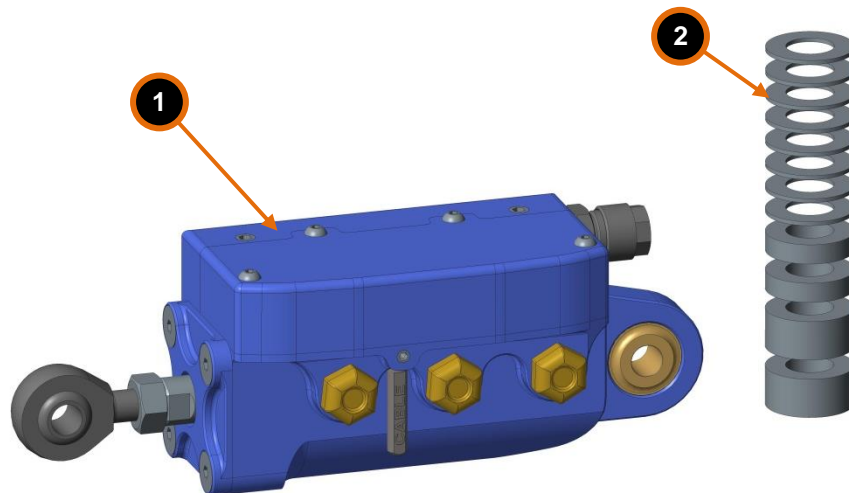
- Powered by MME's Hypervelocity valves (Flow 900NI/min @ 8 bars)
- Two way actuator (max +20mm / -20mm) with integrated valves
- No need for extra valve block
- Integrated position sensor with calibration capability
- Fully adjustable (washers included in the kit). Stroke adjustable from 12 to 40 mm
- Very compact (measures only 150mm + stroke)
- 650 N push and 560 pull force @ 8 bars

Technical specifications

Dimensions L x W x H	177 x 50 x 57 mm	
Weight	750 g	
Operating temperature	-20 ... 80°C	
Operating pressure	6 ... 8 Bar	
Voltage	12 V	
Valve coil resistance	137 ohm	
Stroke	43 mm	
	adjustable from 12 to 40 mm	
Operating force [6 Bar]	Push	650 N
	Pull	560 N
Position sensor supply	5V	
Position sensor output	0.5V – 4.5V	
Position sensor current	100 mA	

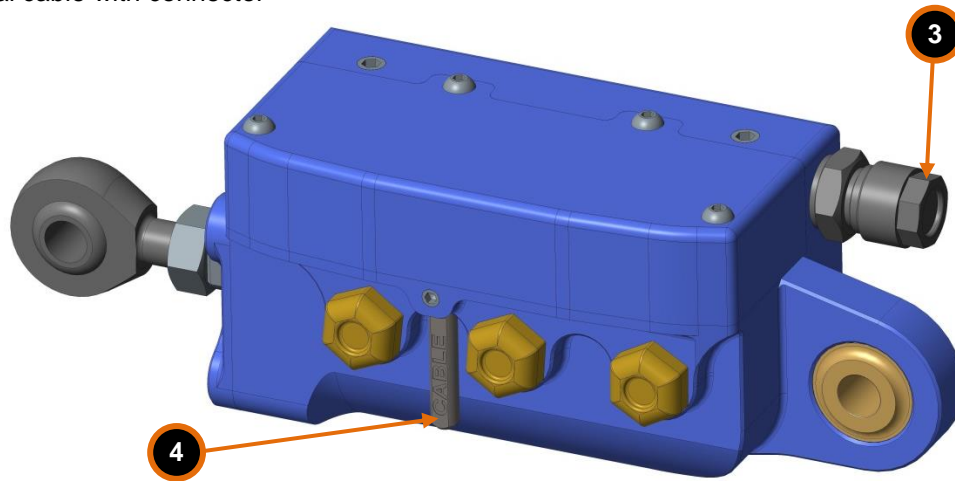
Included in the kit

- ① Gearbox actuator with integrated valves
- ② Washers for stroke adjustment
Connector with pins



Connection Diagram

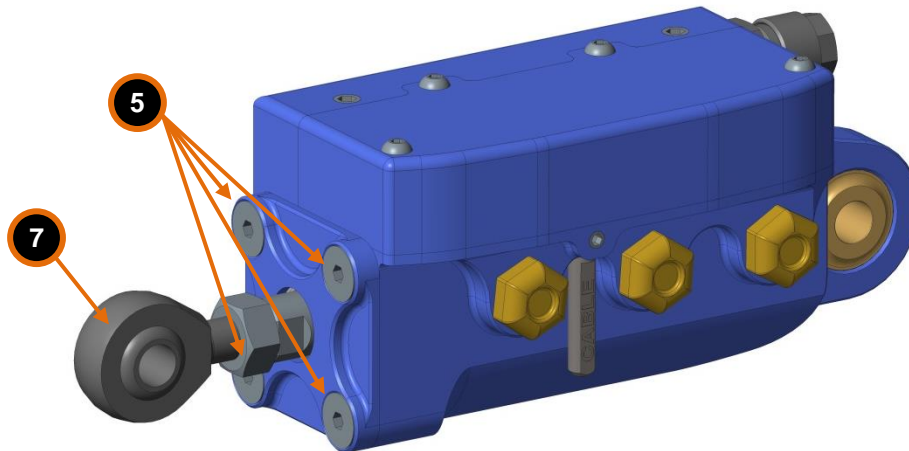
- ③ Air supply (Ø 8 mm pneumatic pipe). Swap fitting and plug if needed
- ④ Electrical cable with connector



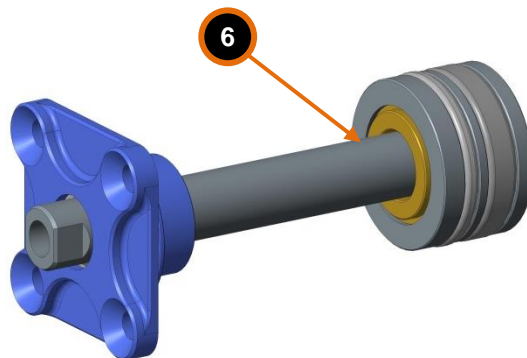
Adjusting the travel

Travel is adjusted by adding or removing washers inside the cylinder. Cylinder has 40 mm stroke without washers (+20mm / - 20mm), by adding 10mm washer you reduce stroke to 30 mm.

1. Measure the stroke of the actuator and the stroke you need.
2. Unscrew the bolts ⑤ and pull out the with the actuator piston.



3. Remove the rod end ⑦ from the piston rod and pull out the piston rod from the cover. Insert the washer set on the piston rod ⑥ and insert cover back to the piston.



4. Insert the piston with the cover back to the actuator and screw bolt back in place. Watch the seals and take care of lubrication when assembling the actuator back (see servicing below)

Electrical diagram

Actuator is shipped with two cables.

1) Power connection with cable and pre-crimped epoxy glued 4 pin connector ATM04-4S. Mating connector is ATM04-4P or DTM04-4P. Mating pins are AT60-202-20141 or AT60-20-0122. AWM-4P 4-Way Wedgelock is also attached.

Power (4 pin) connector pinout

1	12V
2	OUT
3	IN
4	Not used

2) Position sensor connection with cable and pre-crimped epoxy glued 6 pin connector ATM04-6P. Mating connector is ATM04-6S or DTM04-6S. Mating pins are AT62-202-20141 or AT62-20-0122. AWM-6S 6-Way Wedgelock is also attached.

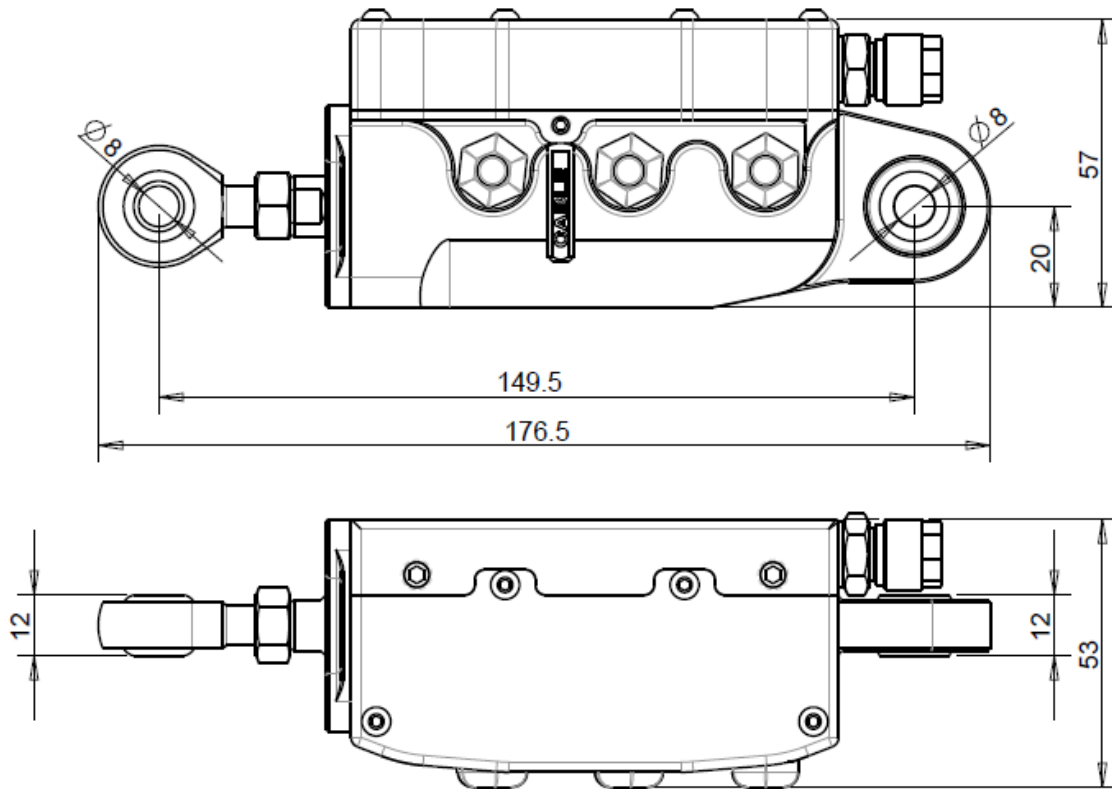
Position (6 pin) connector pinout

1	5V
2	Output (0.5 – 4.5V)
3	Calibration pin 1
4	Calibration pin 2
5	N.C.
6	GND

Sensor needs stable 5V supply and outputs 0.5V when completely closed and 4.5V when completely extended. Anything below 0.45V and above 4.55V means there’s an error and reading should be ignored. Actuator comes calibrated to a maximum travel (43mm). If you change the travel of the actuator, you will need to re-calibrate the sensor using this procedure:

- 1) Connect pin 3+4 (Calibration pin 1 and 2) together and hold it for 5 seconds. Output voltage will drop to about 0.1V. This is indication that calibration is in progress.
- 2) While holding these 2 wires, close and extend the actuator.
- 3) Disconnect the pin 3+4 and sensor should now output 0.5V at min and 4.5 at max travel.

Technical drawing



Servicing

If there's any damage to the rod at any time, we recommend replacing the actuator.

Yearly inspection:

- Disassemble the actuator
- Check for any damage to the inside or outside of the actuator
- With piston rod removed, clean the inside and outside of the actuator with gasoline (Do not use Nitroglycerin).
- Seals, bushing and internal cylinder bore should be lubricated with FESTO grease LUB-KB1-SILIKONFREI.