

# 991-0702 **MOTORIZED CLOSED VARIABLE TWO WHEELS ATTENUATORS**



991-0702-01

Motorized Closed Variable Two Wheel Attenuator 991-0702 consists of two filter wheels. Each wheel contains eight filter mounts of ØD mm with clear aperture of Ød mm. Each mount is inclined by 4 degrees to prevent mutual reflections between filters.

We supply the attenuator 991-0702-01 with a standard, most popular, set of filters. See the table below. Alternatively, optics could be manufactured to individual orders. Or we could supply the attenuator without filters, which you can fit by yourself.

You bring a filter of each wheel into the optical path easily by hand or using automation. The two wheels are driven by a single step motor. A computer can operate

it via a controller and Computer Software come separately.

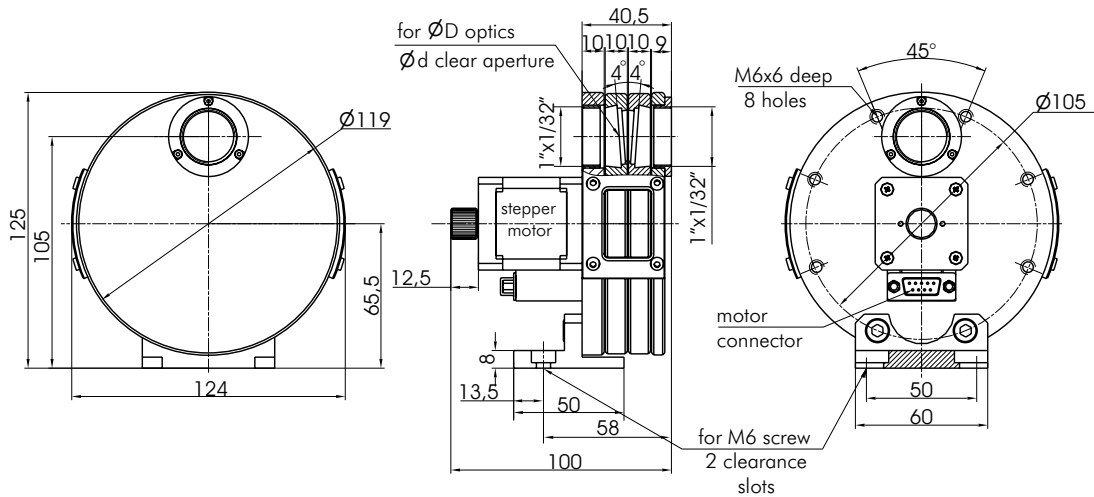
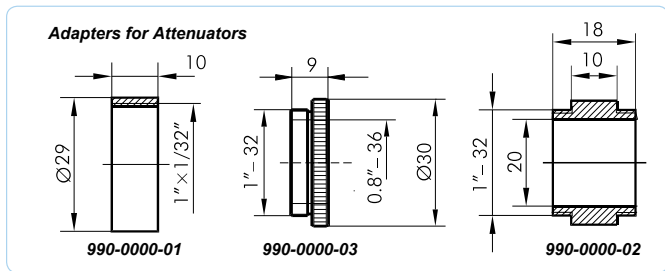
For fastening, the attenuator has clearance slots for M6 and M4 screws. There are also two M6 holes, and one M4 hole (opposite to one of the M6 holes).

Material: black anodized aluminium.

### SPECIFICATIONS

Step angle	1.8°
Step angle accuracy	5 minutes
Required electrical power	5.6 W
Weight	0,75 kg
Motor	4247
Mechanical reference switch	1
Switch polarity	pushed is closed

- Filter diameter – Ø20/Ø25.4 mm
- Clear aperture Ø18/Ø23 mm
- Non parallel filters (inclined by 4°)
- Maximum thickness of filters – 4 mm
- C-mount threads on both ends



Model	D, mm	d, mm	Weight, kg	Price, EUR
991-0702-01	Ø20	Ø18	0.7	1118
991-0702-02	Ø25.4	Ø23	0.75	938

**Note:**

991-0702-01 is with filters Ø20 mm.  
991-0702-02 is without filters. 991-0702-02 is suitable for Neutral Density and Colour Glass Filters Ø25.4 mm that should be ordered separately.

### RELATED PRODUCTS

Neutral Density Filters Ø25.4 mm

See page 1.13

Colour Glass Filters Ø25.4 mm

See page 1.15

Stepper, BLDC and DC Motor Controller 980-0040-USB

see page 8.189

### Standard set filters transmittance

Wheel N1	Wheel N2
1	1
0	0
0.9	0.8
0.5	0.3
0.1	0.03
0.01	0.003
0.001	0.0003
0.0001	0.00003

### Stepping motor specifications

Rated Current	0.4 A
Resistance	33 Ω
Inductance	52 mH
Holding torque	0.12 N·m
Step angle	1.8°
Step angle accuracy	5 minutes
Required electrical power	5.6 W

Motors of other types are available.