

### Mounting instructions

Prior to installation and use, check if the identification number on the shock absorber or on the package corresponds to the number on the delivery sheet. Industrial shock absorbers are maintenance-free and ready-to-fit.

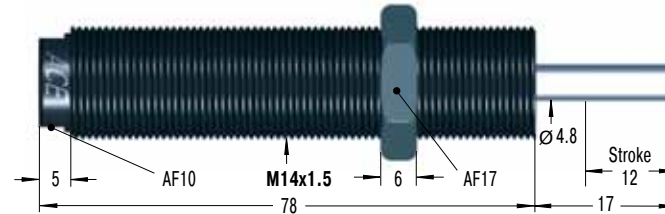
**Operating temperature range:** 0 °C to 66 °C

**Mounting:** In any position, but always so that the complete stroke can be used. The shock absorber is to be mounted so that the forces can be guided centrally via the piston rod.

The maximum permissible side load of 2° should not be exceeded. An existing side load leads generally to a reduced lifetime. When exceeding the maximum permissible side load, a side load adaptor should be used.

### Disposal of packaging

Dispose of packaging in an environmentally safe manner. The recycling of packaging saves raw materials and lowers the amount of waste. The used packaging materials do not contain illegal substances.



### WARNING

- Thermal effect:** The values given in the capacity chart W<sub>1</sub> and m<sub>e</sub> (see operating and installation instructions or main catalogue) are valid for room temperature. Different values apply for higher temperatures.
- Moving masses** can lead to injuries or bodily harm when installing the shock absorber. Secure moving masses against accidental movement.
- The shock absorbers may be unsuitable for the application and show insufficient damping performance. Check for proper suitability of shock absorber.
- When operating outside the allowed temperature range, the shock absorber may lose its functionality. Permissible temperature range must be adhered to. Do not paint the shock absorber due to heat radiation.
- Ambient fluids, gases and dirt particles may affect or damage the sealing system and lead to failure of the shock absorber. Piston rods and sealing systems must be protected against foreign substances.
- Damage to the piston rod surface may destroy the sealing system. Do not grease, oil, etc. the piston rod and protect it from dirt particles.
- The piston rod can be torn out of the shock absorber. Do not put tensile stress on the piston rod.
- The shock absorber can tear off upon impact. The mount must be calculated so that the maximum operating reaction forces can be accepted with sufficient safety. The maximum reaction forces given in the calculation report may deviate from the actual reaction forces since these are based on theoretical values.

### Initial Start-Up Checks

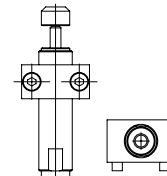
> After installation, start a test run on the moving mass initially with a reduced operating speed.

During the test run:

> Accelerate the load capacity step-by-step up to the subsequent operating speed. This can be taken from the calculation of your application. In the correct end position, the piston rod on the shock absorber reaches the end piece (fixed impact) without a hard impact.

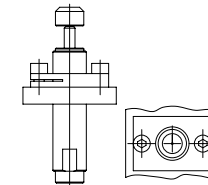
### Mounting Options

#### Usage of the mounting blocks MBSC2

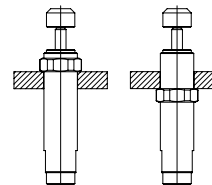


Tightening torque:  
KM14 = 13-14 Nm

#### Usage of the rectangular flange RF



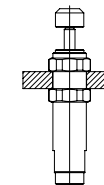
#### Screwing in the shock absorbers into a tapped hole with an additional locknut



Tightening torque:  
KM14 = 13-14 Nm

Minimum thread depth:  
1.5 x thread diameter

#### Mounting the shock absorbers in the tapped hole with two locknuts



Tightening torque:  
KM14 = 13-14 Nm

### Accessories

When using accessories and mounting elements, please consider the separate mounting instructions for accessories.

### EU Marking

Starting with the production date September 2010 (Code IB or 10244) all shock absorbers are to be marked with an additional EU letter code in the identification number. The EU marking refers to the adherence to the required norms, laws, and guidelines of the EU. Only products marked with EU ensure the worldwide standard and the guarantee for liability.