



# HUS Hydraulic double-piston rotary units

**DKSE** Technical notes

Product group 420

## End position setting

In the standard version, the DKSE 25.090 and DKSE 40.090 rotary actuators are designed for a fixed rotary angle, i.e. without end position adjustment.

Types DKSE 032-A2 to DKSE 100-A2 have an adjustable end position limitation of  $-4^\circ$  for the closed position and  $+4^\circ$  for the open position. The stroke of the piston can be adjusted for the desired valve position by means of the adjusting screw (915) and lock nut in cover D2 for the closed position and in cover D4 for the open position. The pressure-tight closure is made by the screw plugs (908) with sealing rings.

## Pressure fluid

The choice of a suitable pressure fluid has a crucial influence on trouble-free operation, service life and operational safety. The use of mineral oil-based pressure fluids according to group HLP, DIN 51525, is recommended. Please provide detailed information if flame-retardant pressure fluids according to DIN 51502 need to be used owing to special regulations.

The viscosity range should be between 20 and 150 cSt. The ideal viscosity after the operating temperature is reached is approx. 40 cSt. Suitable filters must be used to clean the pressure fluid; the mesh size should be 50  $\mu$ m.

## Leakage      Leakage oil removal

The use of high-quality sealing elements and the precise manufacture of the installation spaces and sealing surfaces ensure an excellent sealing effect. The small amount of leakage and drag oil that accumulates will collect in the unpressurised centre section of the actuator. A leakage oil pipe should be run from the threaded connection in the centre of the housing to the pressure medium tank without pressure.

In many cases, a leakage oil pipe can be dispensed with if the accumulated leakage oil is drained off at inspection intervals determined according to operating conditions. However, it is always recommended to secure the leakage oil chamber with a pressure relief valve. This valve with an opening pressure of approx. 1 bar prevents impermissible high pressure in the central part of the housing. However, if oil should leak out of the safety valve during operation, either the inspection interval is too long or the piston seals are defective and must be replaced immediately. The installation of new sealing elements can be carried out by trained personnel using standard tools provided the installation instructions for hydraulic components are observed.