

## No. 6989ME

### Built-in coupling mechanism



Order no.	Article no.	for coupling under pressure	for pressure-free coupling	Nominal bore [NW]	max. operating pressure [bar]	Coupling stroke [mm]	Weight [g]
328823	6989ME-03-01	●	-	3	350	4,5	14
327965	6989ME-03-02	-	●	3	350	4,5	14
328591	6989ME-05-01	●	-	5	500	4,5	25
328617	6989ME-05-02	-	●	5	500	4,5	25
328633	6989ME-08-01	●	-	8	300	7,0	56
328658	6989ME-08-02	-	●	8	300	7,0	56

### Design:

Cylinder body and internal parts made of stainless steel. Seals from NBR, Viton, POM and PU.

### Application:

Couplings are used for the leakage-free connection of hydraulic oil supplies. The coupling elements are installed in a body. The sealing between coupling mechanism and nipple is axial, and installed in the coupling mechanism. If the seal is worn, it can be replaced. The coupling mechanism must always be used in combination with a nipple of the same system. Depending on the version, the couplings can be connected and disconnected at the maximum working pressure. When installed in a tank line, a coupling nipple with pressure relief must be selected. This limits the pressure that can be built up in the uncoupled state (for example due to internal leakage of the clamping elements) to approx 5 bar. When the two parts of the coupling are engaged, the pressure relief is no longer active.

### Features:

For connection, the coupling mechanism and nipple must be axially aligned. The bodies of the two parts must be guided when the axial sealing surfaces are ca. 2-3 mm apart. The radial position tolerance must not be exceeded. The separating force due to hydraulic pressure is given by the formula NW3:  $F [N] = 9,4 \times p [\text{bar}]$ , NW5:  $F [N] = 15,4 \times p [\text{bar}]$ , NW8:  $F [N] = 31,4 \times p [\text{bar}]$ . This separating force must be countered by some external, mechanical means. The coupling mechanism must seal at the bottom of the hole in which it is installed. The mounting hole must be machined to the specified accuracy and surface finish.

### Note:

The axial sealing surfaces must be protected from dirt. Because the coupling elements have smooth, uninterrupted sealing surfaces, the danger of them collecting dirt is reduced, and the ease with which the user can clean them before the joint is made is increased. Good results can be achieved by washing them off and blowing clean with compressed air.

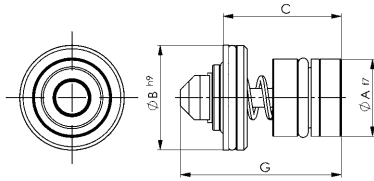
Positioning tolerance in axial direction for all coupling elements:  $\pm 0,5 \text{ mm}$ .

Positioning tolerance in radial direction for coupling elements:  $\pm 0,3 \text{ mm}$ .

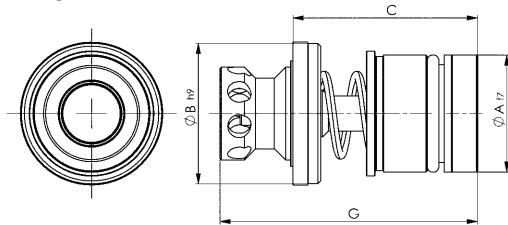
Permissible angle tolerance:  $\pm 1^\circ$ .

Diagrams: Coupling force and flow resistance, see 6989N.

### NW 3+5



### NW 8



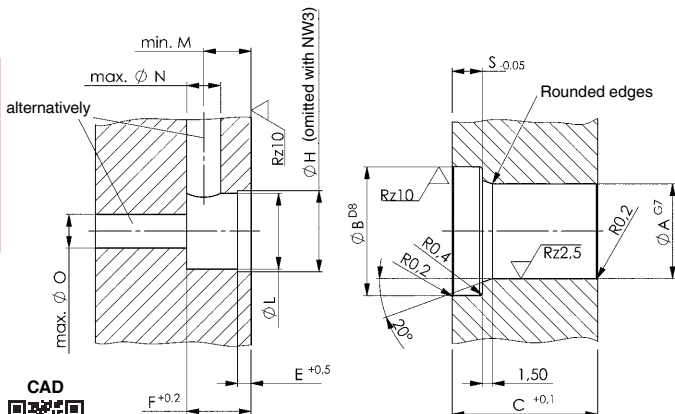
### On request:

Other sizes available on request.

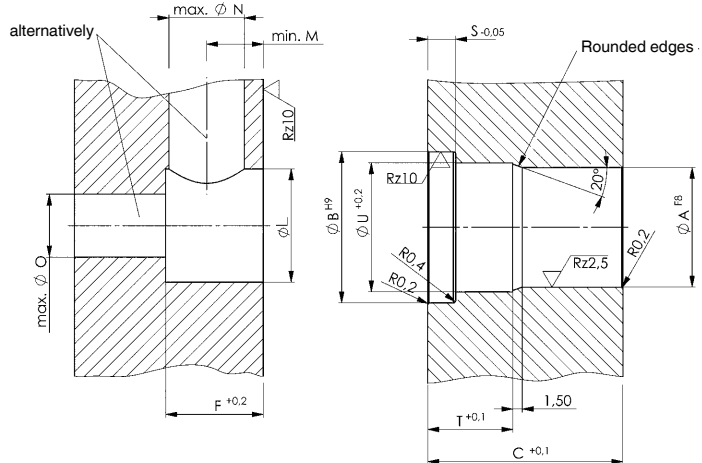
### Dimensions:

Order no.	Article no.	dia. A	dia. B	C	E	F	G	H +0,1	dia. L +0,1	M	dia. N	dia. O	S	T	dia. U
328823	6989ME-03-01	11	14	21,5	-	9,5	29	-	11,2	7	5	7	4,5	-	-
327965	6989ME-03-02	11	14	21,5	-	9,5	29	-	11,2	7	5	7	4,5	-	-
328591	6989ME-05-01	14	19	21,5	2	9,5	29	12	11,2	7	5	7	4,5	-	-
328617	6989ME-05-02	14	19	21,5	2	9,5	29	12	11,2	7	5	7	4,5	-	-
328633	6989ME-08-01	20	24	31,0	-	15,5	44	-	18,0	9	12	10	4,5	13,5	21,5
328658	6989ME-08-02	20	24	31,0	-	15,5	44	-	18,0	9	12	10	4,5	13,5	21,5

### Installation dimensions NW 3+5:

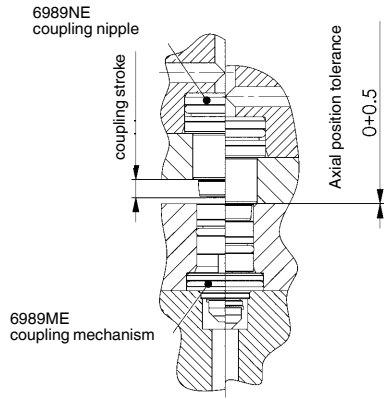


### NW 8:

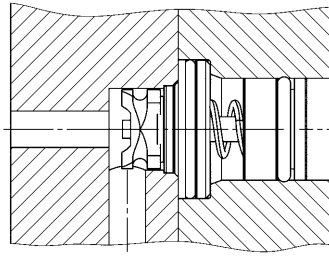


Subject to technical alterations.

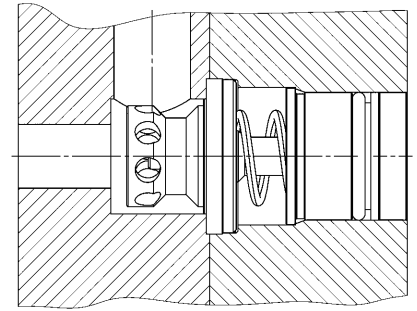




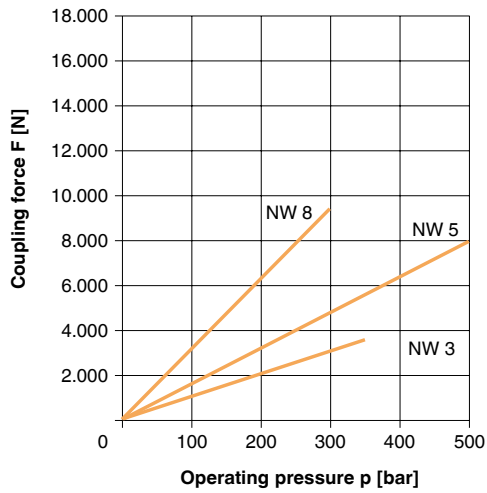
Installation example NW 3+5:



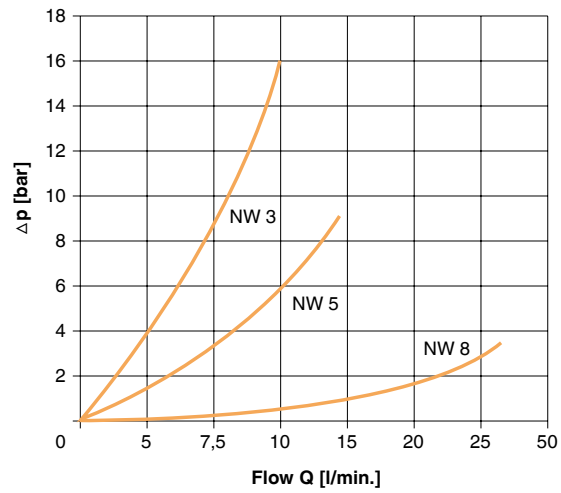
NW 8:



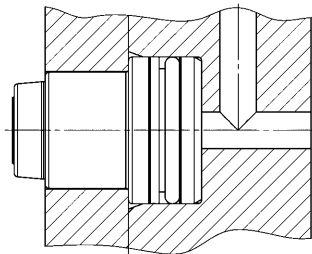
Coupling force:



Flow resistance:



Δp-characteristic with HLP 22, viscosity 34 cst



← →  
Separating force

Separating force:

- NW 3 = F [N] = 9,4 x p [bar]
- NW 5 = F [N] = 15,4 x p [bar]
- NW 8 = F [N] = 31,4 x p [bar]



Subject to technical alterations.