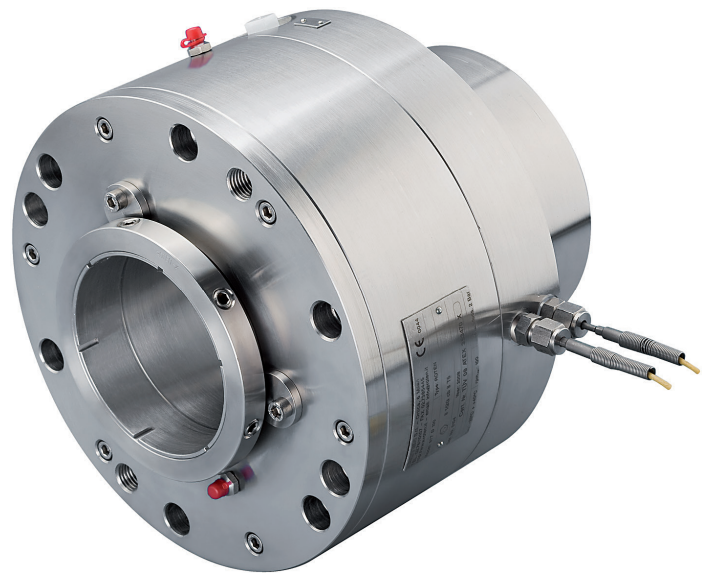
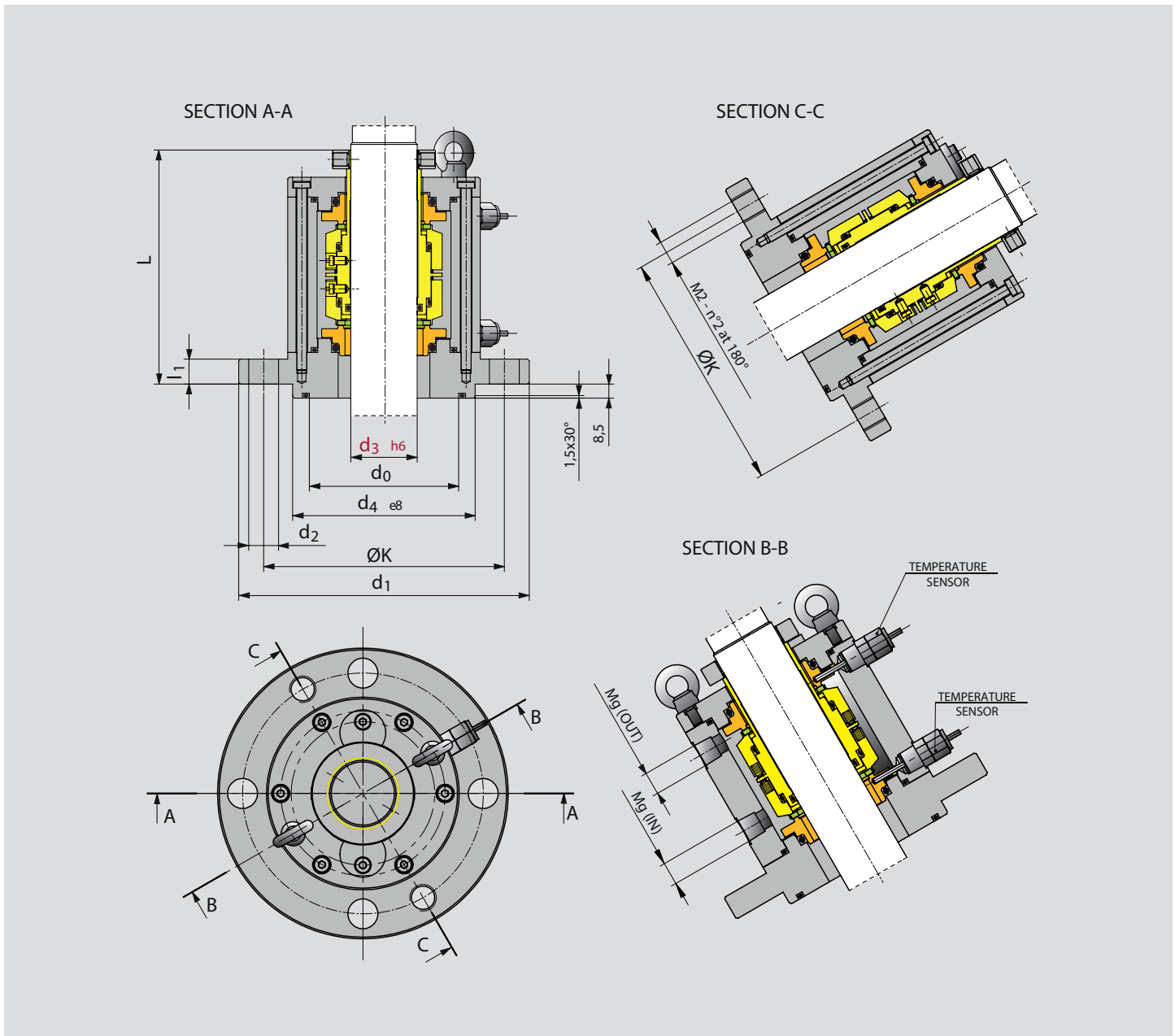


## TYPE 977-977A

The cartridge **977** has been certified by TÜV North (Certificate TÜV 08 ATEX 353470 X) for applications in Category 1 Atex. With the installed thermocouples it is possible to monitor the temperature close to the faces. This is the area where heat is generated. The materials of the seal faces are dependent on the barrier fluid, which can be water or inert gas, and these determine the application limits. The tables (pag. 66-67) show the dimensions of the standard seal but we can produce the seal to customer dimensions if required by the application. The type 977A has the bearing integrated on the seal. The cartridge type 977 can be also supplied without Atex certification.



# TYPE 977



## MAX. WORKING CONDITIONS

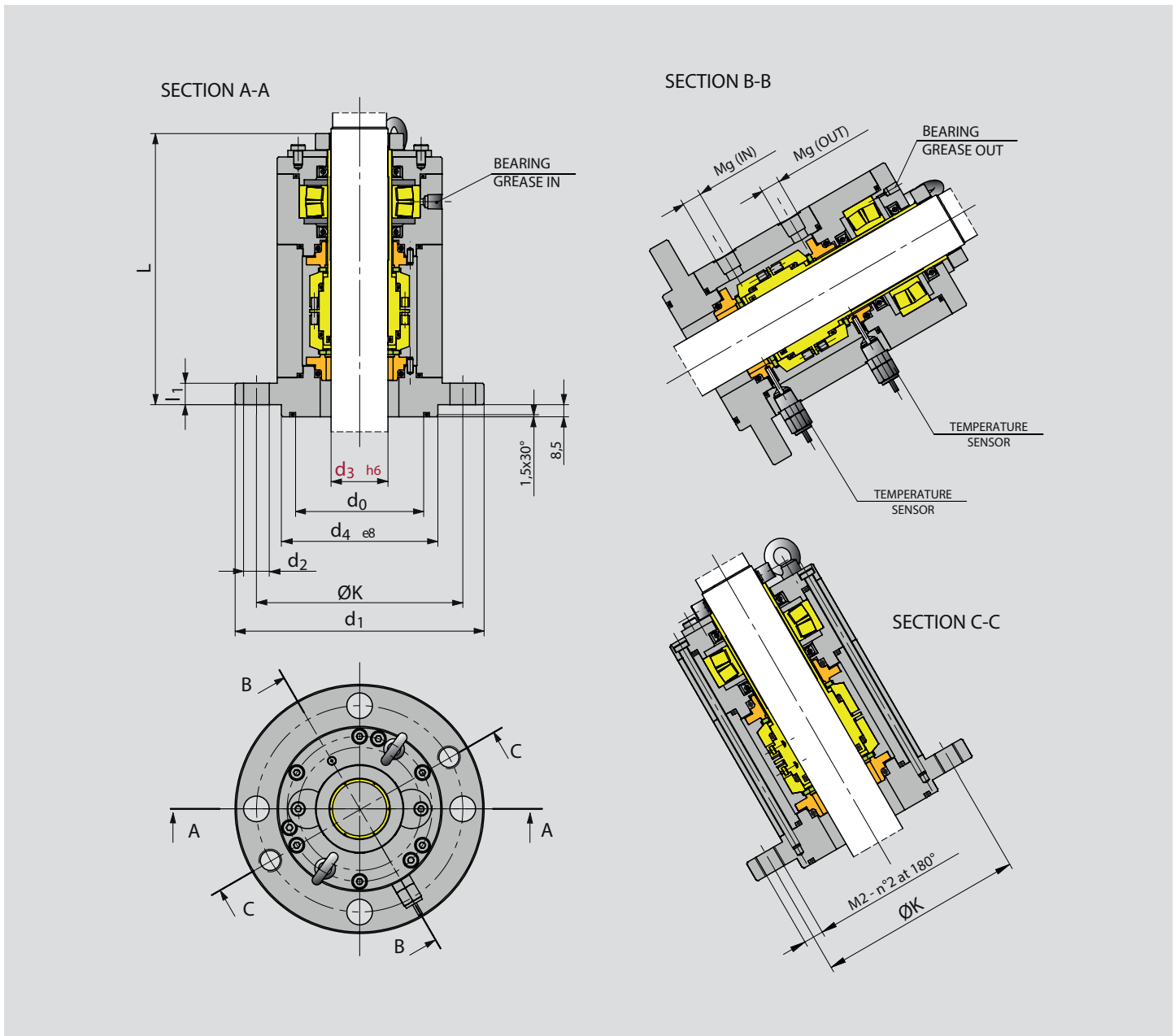
These depend on:  $\varnothing$  shaft, pressure, speed, temperature and fluid to be sealed.  
See page 74.

**p ≤ 40 bar**  
**t = -50 ÷ 300°C**  
**v ≤ 0-5 m/s**

COMPONENTS	STANDARD MATERIALS
Housing, sleeve, drive ring, flanges	L1 X1
Faces	K1 R1 V1 V2 V3
Gaskets	B1 E1 F1 N1 P1 W1 Y1

ROTEN									
TYPE 977									
d <sub>3</sub>	d <sub>1</sub>	d <sub>4</sub>	d <sub>0</sub>	L	l <sub>1</sub>	ØK	n x d2	M2	Mg
40	175	110	90	170	15	145	4x18	M16	G 3/8
60	240	176	135	185	17	210	8x18	M16	G 3/8
80	275	204	155	200	20	240	8x22	M20	G1/2
100	305	234	190	210	20	270	8x22	M20	G1/2
120	330	260	215	240	20	295	8x22	M20	G1/2
140	395	313	250	255	20	350	12x22	M20	G1/2
160	395	313	265	260	25	350	12x22	M20	G1/2
180	445	364	310	275	25	400	12x22	M20	G1/2
200	445	364	310	290	25	400	12x22	M20	G1/2
220	505	422	340	320	25	460	16x22	M20	G1/2

Dimensions in mm. Additional sizes on request.



### MAX. WORKING CONDITIONS

These depend on:  $\varnothing$  shaft, pressure, speed, temperature and fluid to be sealed.  
See page 74.

**p ≤ 40 bar**  
**t = -50 ÷ 300°C**  
**v ≤ 0-5 m/s**

COMPONENTS	STANDARD MATERIALS
Housing, sleeve, drive ring, flanges	L1 X1
Faces	K1 R1 V1 V2 V3
Gaskets	B1 E1 F1 N1 P1 W1 Y1

### ROTEN

TYPE 977A with bearing

d <sub>3</sub>	d <sub>1</sub>	d <sub>4</sub>	d <sub>0</sub>	L	l <sub>1</sub>	ØK	n x d2	M2	Mg
40	175	110	90	210	15	145	4x18	M16	G 3/8
60	240	176	135	230	17	210	8x18	M16	G 3/8
80	275	204	155	270	20	240	8x22	M20	G1/2
100	305	234	190	270	20	270	8x22	M20	G1/2
120	330	260	215	300	20	295	8x22	M20	G1/2
140	395	313	250	315	20	350	12x22	M20	G1/2
160	395	313	265	315	25	350	12x22	M20	G1/2
180	445	364	310	330	25	400	12x22	M20	G1/2
200	445	364	310	350	25	400	12x22	M20	G1/2
220	505	422	340	370	25	460	16x22	M20	G1/2

Dimensions in mm. Additional sizes on request.