

POLE WHEELS



Together with a sensor (datasheet DS 103 E) the pole wheel is used for measured data acquisition. It consists of ferromagnetic material.

The dimensions of the teeth are defined by the module. The relation between the outer diameter (D), the number of poles (P) and the module (M) is:

$$D = (P + 2) M$$

Every pole of the wheel generates an electrical impulse when the wheel is turning. The impulse frequency induced in the transmitter is calculated according to the following formula:

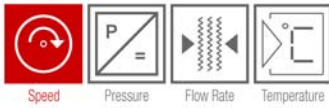
$$f = \frac{p \cdot n}{60}$$

f = frequency (Hz)
P = number of poles
n = speed min⁻¹

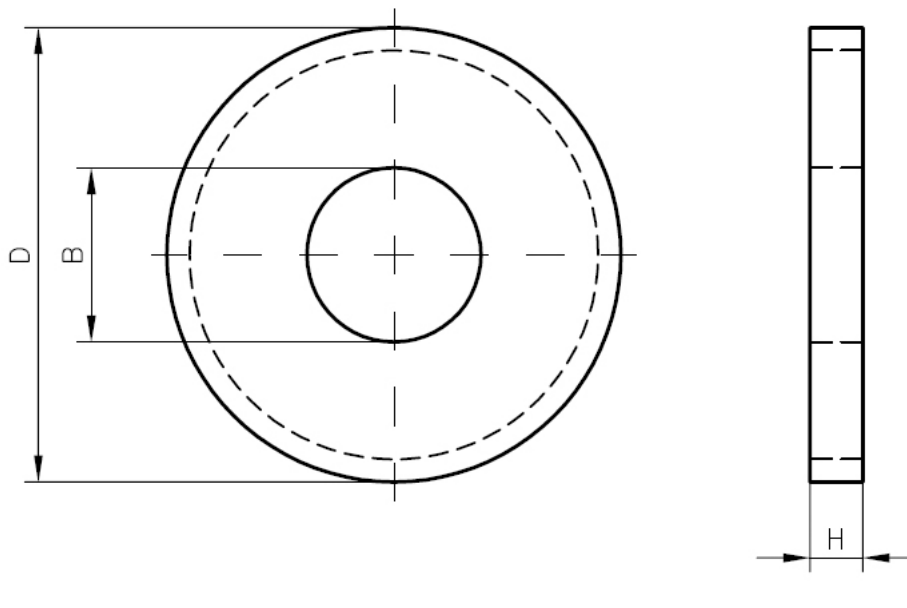
Single-piece pole wheel without boss

TYPE	P	M	D	H	ZB	B	KG
PR 401/60	60	1	62	10	10	10...45	0,2
PR 402/120	120	1	122	10	10	10...100	0,9
PR 411/30	30	2	64	15	10	10...45	0,3
PR 412/60	60	2	124	15	10	10...100	1,3

P = number of poles
M = module
D = outer diameter (mm)
H = width (mm)
ZB = center bore (mm)
B = bore size (mm)
Teeth involute.



Dimension diagram

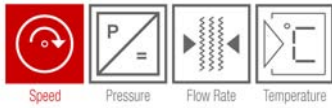


Single-piece pole wheel with boss

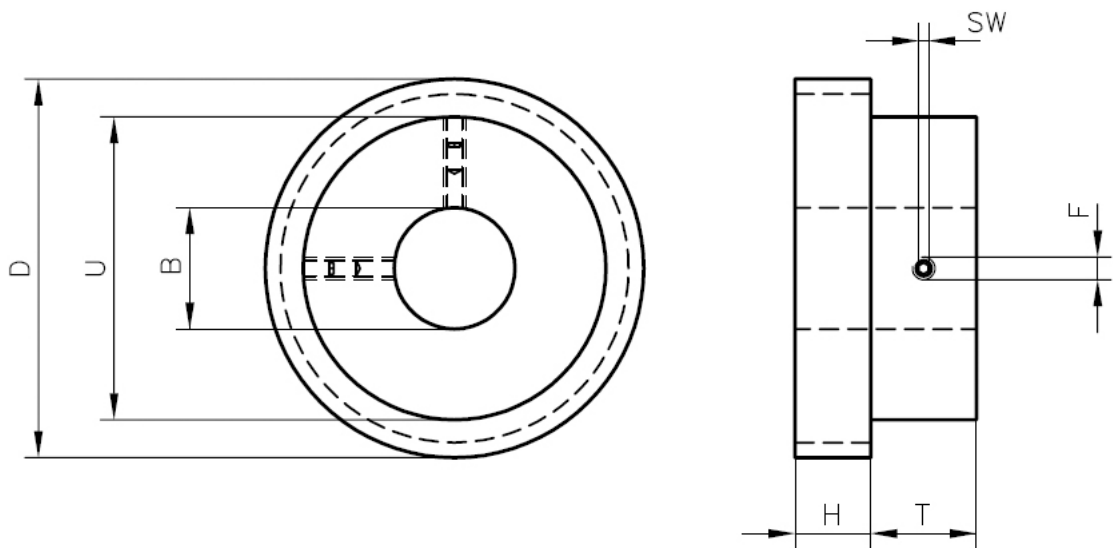
TYPE	P	M	D	H	U	T	ZB	B	F	SW	KG
PR 415/60	60	1	62	10	48	15	10	10...36	M5	2,5	0,4
PR 416/120	120	1	122	10	108	20	10	10...88	M8	4	2,3
PR 417/30	30	2	64	15	48	15	15	15...36	M5	2,5	0,5
PR 418/60	60	2	124	15	108	20	15	15...88	M8	4	2,7
PR 419/120	120	2	244	15	288	30	15	15...190	M12	6	14,6

- P = number of poles
- M = module
- D = outer dimensions (mm)
- H = width (mm)
- U = boss diameter (mm)
- T = boss width (mm)
- ZB = center boring (mm)
- B = bore size (mm)
- F = thread
- SW = width across flats for hexagon socket head screw

Setscrew flatted, teeth involute.



Dimension diagram



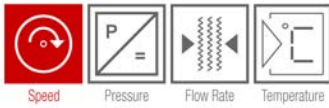
Rev-Nr.: DS 107 E_V0.2 2009-08-14

Two-piece pole wheel with boss

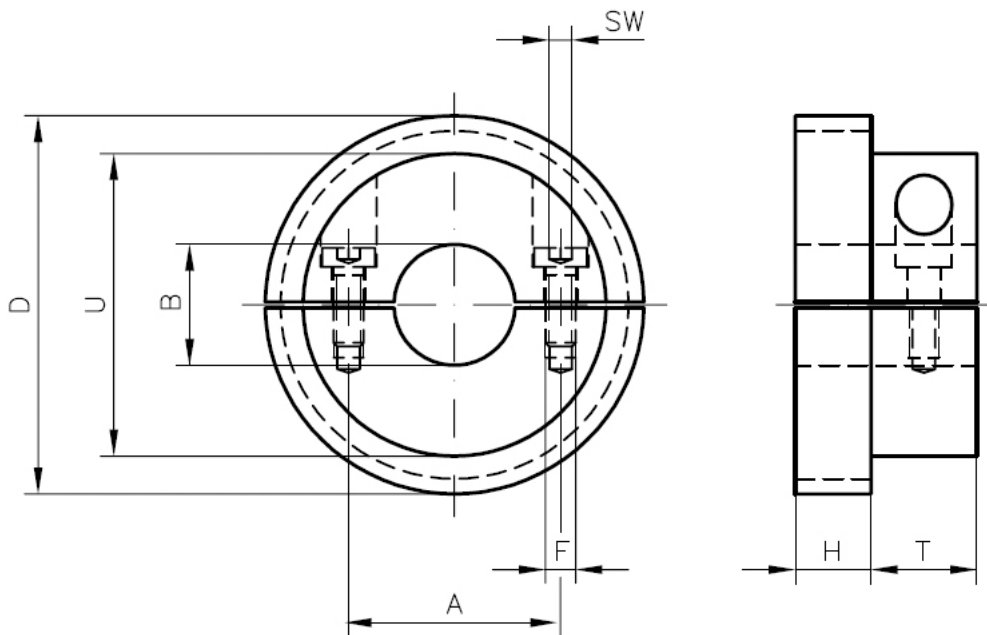
TYPE	P	M	D	H	U	T	B	F	SW	KG
PR 420/60	60	2	124	15	108	20	15...70	M8	6	2,7
PR 421/120	120	2	244	15	228	30	15...170	M12	10	14,6
PR 422/30	30	4	128	20	108	20	20...70	M8	6	3,1
PR 423/60	60	4	248	20	228	30	20...170	M12	10	16,4

- P = number of poles
- M = module
- D = diameter (mm)
- H = width (mm)
- U = boss diameter (mm)
- T = boss width (mm)
- ZB = center bore (mm)
- B = bore size (mm)
- F = thread
- SW = width across flats for hexagon socket head screw

Setscrew flattened, teeth involute



Dimension diagram



Additional information

Other types of pole wheels can be produced on demand.

Your local contact: