

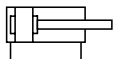
**Technical details**

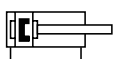
<b>Operating pressure</b>	1 ... 10 bar
<b>Temperature range</b>	-20°C ... +70°C
<b>Medium</b>	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
<b>Materials</b>	Cylinder tube: Al (anodized) End caps: Al (anodized) Piston rod: steel hard chrome plated Seals: PU, NBR



Double acting pneumatic cylinder with magnetic piston for proximity sensors and built-in cushioning rings.

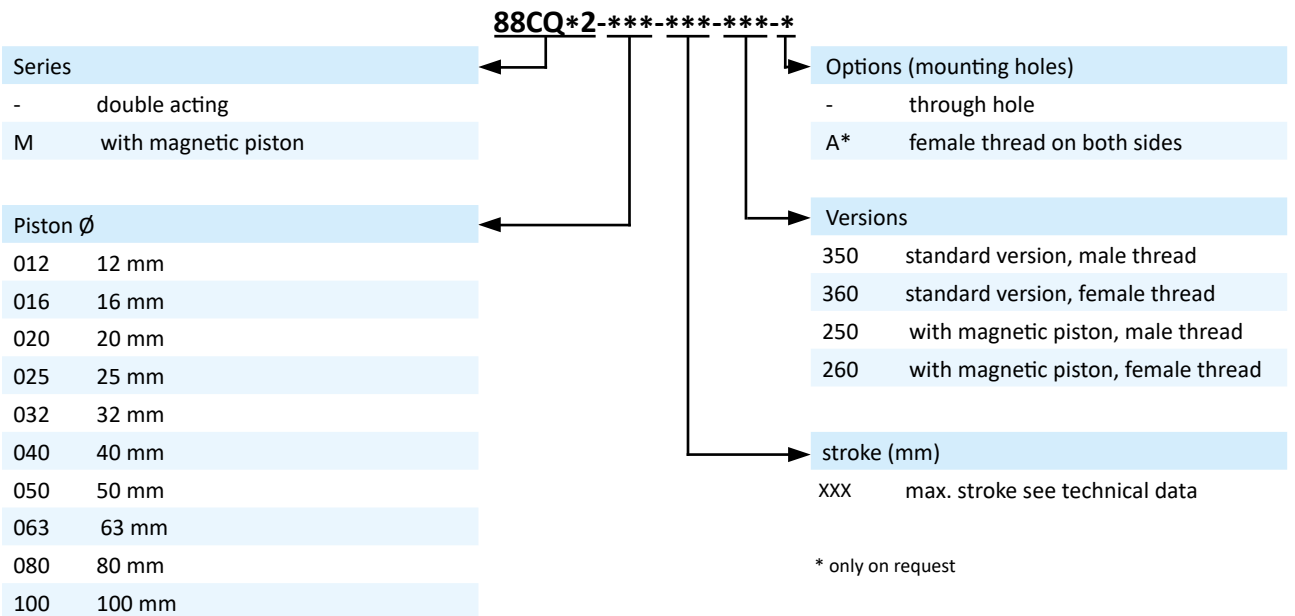
**Versions**

- 

350, 360  
double acting, built-in cushioning rings,
- 

250, 260  
double acting, built-in cushioning rings,  
with magnetic piston

**Order code**



Not all combinations are possible and available.

## Series 88CQ2

double acting

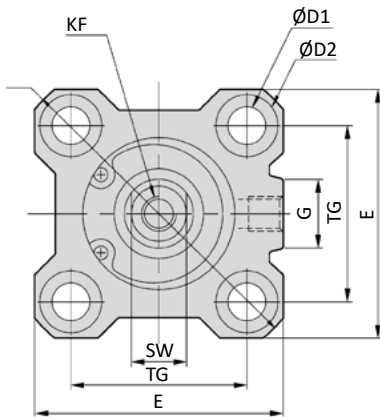
### Technical data

Model-no.:	88CQ2-012-...	88CQ2-016-...	88CQ2-020-...	88CQ2-025-...	88CQ2-032-...	
Piston Ø (mm)	12	16	20	25	32	
Force at 6 bar (N)	Extension	81	81	170	265	434
	Retraction	109	109	127	223	373
Connection	M5	M5	M5	M5	G1/8	
Speed	30 - 500 mm/s	30 - 500 mm/s	30 - 500 mm/s	30 - 500 mm/s	30 - 500 mm/s	
Stroke (mm)	5 - 30	5 - 30	5 - 50	5 - 50	5 - 100	
Piston rod thread	male	M5	M6	M8	M10 x 1.25	M14 x 1.5
	female	M3	M4	M5	M6	M8

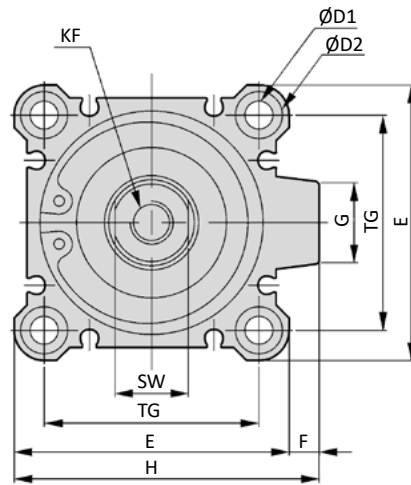
Model-no.:	88CQ2-040-...	88CQ2-050-...	88CQ2-063-...	88CQ2-080-...	88CQ2-100-...	
Piston Ø (mm)	40	50	63	80	100	
Force at 6 bar (N)	Extension	678	1060	1682	2713	4239
	Retraction	617	951	1574	2543	3974
Connection	G1/8	G1/4	G1/4	G3/8	G3/8	
Speed	30 - 350 mm/s	30 - 350 mm/s	30 - 250 mm/s	30 - 250 mm/s	30 - 250 mm/s	
Stroke (mm)	5 - 100	5 - 100	5 - 100	5 - 100	5 - 100	
Piston rod thread	male	M14 x 1.5	M18 x 1.5	M18 x 1.5	M22 x 1.5	M26 x 1.5
	female	M8	M10	M10	M16	M20

**Dimensions series 88CQ2**

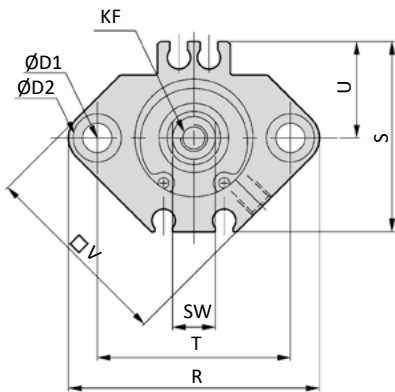
**88CQ2,  $\varnothing$  12 - 25**



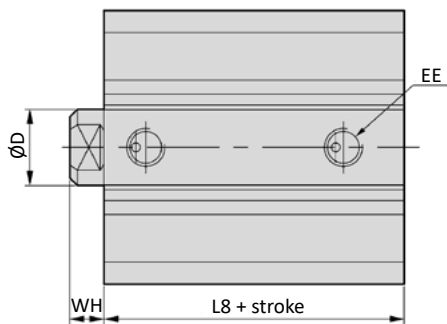
**88CQ2, 88CQM2,  $\varnothing$  32 - 100**



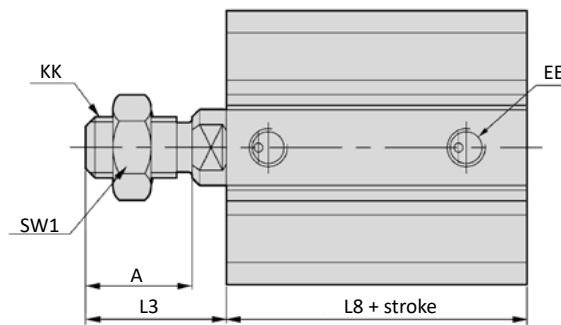
**88CQM2,  $\varnothing$  12 - 25**



**Versions 260, 360**



**Versions 250, 350**



# Series 88CQ2

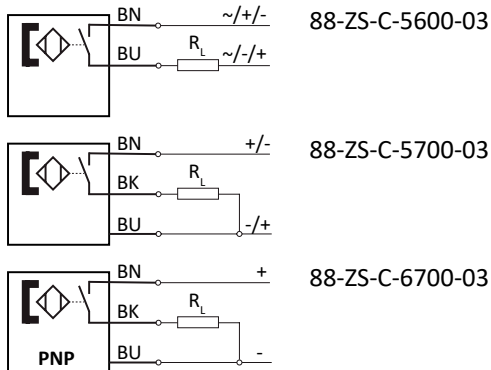
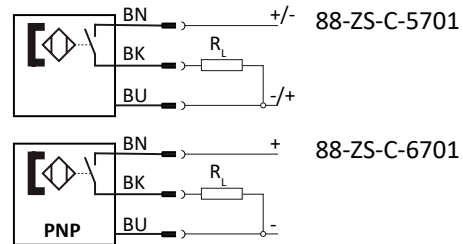
double acting

## Dimensions series 88CQ2

Piston Ø	A	Ø D	Ø D1	Ø D2	Ø D2 (Option A)	E	EE	F	G
12	10.5	6	3.5	6.5 x 3	M4 x 7	25	M5	-	-
16	12	8	3.5	6.5 x 3	M4 x 7	29	M5	-	10
20	14	10	5.5	9 x 7	M6 x 10	36	M5	-	10
25	17.5	12	5.5	9 x 7	M6 x 10	40	M5	-	10
32	23.5	16	5.5	9 x 7	M6 x 10	45	G1/8	4.5	14
40	23.5	16	5.5	9 x 7	M6 x 10	52	G1/8	5	15
50	28.5	20	6.6	11 x 8	M8 x 14	64	G1/4	7	19
63	28.5	20	9	14 x 10.5	M10 x 18	77	G1/4	7	19
80	35.5	25	11	17.5 x 13.5	M12 x 22	98	G3/8	6	25
100	35.5	32	11	17.5 x 13.5	M12 x 22	117	G3/8	6.5	25

Piston Ø	H	KF	KK	L3	SW	SW1	TG	WH
12	-	M3	M5	14	5	8	15.5	3.5
16	-	M4	M6	15.5	6	10	20	3.5
20	-	M5	M8	18.5	8	13	25.5	4.5
25	-	M6	M10x1.25	22.5	10	17	28	5
32	49.5	M8	M14x1.5	28.5	14	22	34	7
40	57	M8	M14x1.5	28.5	14	22	40	7
50	71	M10	M18x1.5	33.5	17	27	50	8
63	84	M10	M18x1.5	33.5	17	27	60	8
80	104	M16	M22x1.5	43.5	22	32	77	10
100	123.5	M20	M26x1.5	43.5	27	41	94	12

Piston Ø	Stroke (mm)	88CQ2		88CQM2					
		L8	L8	R	S	T	U	V	
12	5 - 30	17	28	33	27.5	22	14	25	
16	5 - 30	18.5	30.5	37	29.5	28	15	29	
20	5 - 50	19.5	31.5	47	35.5	36	18	36	
25	5 - 50	22.5	32.5	52	40.5	40	21	40	
32	5 - 49	23	33	-	-	-	-	-	
	50 - 100	33	33	-	-	-	-	-	
40	5 - 49	29.5	39.5	-	-	-	-	-	
	50 - 100	39.5	39.5	-	-	-	-	-	
50	5 - 49	30.5	40.5	-	-	-	-	-	
	50 - 100	40.5	40.5	-	-	-	-	-	
63	5 - 49	36	46	-	-	-	-	-	
	50 - 100	46	46	-	-	-	-	-	
80	5 - 49	43.5	53.5	-	-	-	-	-	
	50 - 100	53.5	53.5	-	-	-	-	-	
100	5 - 49	53	63	-	-	-	-	-	
	50 - 100	63	63	-	-	-	-	-	




**Proximity sensors with cable**

**Proximity sensors with plug**

**Technical data**

Model-no.:	88-ZS-C-5600-03	88-ZS-C-5700-03
<b>Mounting</b>	C-Nut	C-Nut
<b>Design</b>	2-pole Reed sensor	3-pole Reed sensor
<b>Contact function</b>	NO	NO
<b>Output</b>		
<b>Rated operational voltage</b>	5 ... 120 V AC / DC	5 ... 30 V DC
<b>Rated operational current I<sub>E</sub></b>	≤ 100 mA	≤ 300 mA
<b>Max. voltage drop at I<sub>E</sub></b>	≤ 2,5	≤ 0,1
<b>Breaking capacity</b>	3,5 W	3,5 W
<b>Cable length</b>	3 m	3 m
<b>Temperature range</b>	-10 ... +70°C	-10 ... +70°C
<b>Protection</b>	IP 67	IP 67
<b>Switching status indication</b>	LED red	LED yellow

## Series 88-ZS-C

### Proximity sensors

#### Technical data

Model-no.:	88-ZS-C-5701	88-ZS-C-6700-03	88-ZS-C-6701
			
<b>Mounting</b>	C-Nut	C-Nut	C-Nut
<b>Design</b>	3-pole Reed sensor	3-pole inductive	3-pole inductive
<b>Contact function</b>	NO	NO	NO
<b>Output</b>		PNP	PNP
<b>Rated operational voltage</b>	5 ... 30 V DC	5 ... 30 V DC	5 ... 30 V DC
<b>Rated operational current <math>I_E</math></b>	$\leq 300$ mA	$\leq 200$ mA	$\leq 200$ mA
<b>Max. voltage drop at <math>I_E</math></b>	$\leq 0,1$	$\leq 0,5$	$\leq 0,5$
<b>Breaking capacity</b>	3,5 W	6 W	6 W
<b>Cable length</b>	0,15 m with M8 connection	3 m	0,15 m with M8 connection
<b>Temperature range</b>	-10 ... +70°C	-10 ... +70°C	-10 ... +70°C
<b>Protection</b>	IP 67	IP 67	IP 67
<b>Switching status indication</b>	LED yellow	LED red	LED red

#### Cable with bushing for proximity sensors

Model-no.:	KA-30	KA-50	KA-51	KA-100	KA-101
<b>Connection</b>	M8, snap-in	M8, snap-in	M8, snap-in	M8, snap-in	M8, snap-in
<b>Version</b>	straight	straight	elbow 90°	straight	elbow 90°
<b>Cable length</b>	3 m	5 m	5 m	10 m	10 m

#### Mounting

The sensors are mounted at the groove of the cylinder profile. It is fixed by turning the fixing screw at the sensor clockwise.