

Features and certifications

Series of rotary cylinders with rack and pinion, available in bores Ø 40, 63 and 80, double acting, magnetic, with 90° or 180° rotation angle. Equipped with adjustable cushionings, and with possibility to apply magnetic reed switches. Available in three configurations: male pinion, double male pinion or female pinion. Supplied as standard in compliance with Reach and RoHS directives.

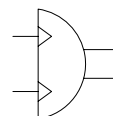


Type CRTH Ø 40 - 63 - 80

from page 1.40.20



Rotary cylinders with male pinion, available in bores Ø 40, 63 and 80, double acting, magnetic, with 90° or 180° rotation angle. Equipped with adjustable cushionings, and with possibility to apply magnetic reed switches.

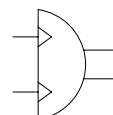


Type CRTHD Ø 40 - 63 - 80

from page 1.40.20



Rotary cylinders with double male pinion, available in bores Ø 40, 63 and 80, double acting, magnetic, with 90° or 180° rotation angle. Equipped with adjustable cushionings, and with possibility to apply magnetic reed switches.

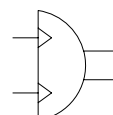


Type CRTF Ø 40 - 63 - 80

from page 1.40.20



Rotary cylinders with female pinion, available in bores Ø 40, 63 and 80, double acting, magnetic, with 90° or 180° rotation angle. Equipped with adjustable cushionings, and with possibility to apply magnetic reed switches.



Options

Description	Symbol	Suffix
Special versions on request		/S

Code key

Bore	/	Angle of rotation	Type	/	Special version
63	/	90°	CRTH	/	
Ø 40, 63, 80		90° - 180°	CRTH Double acting, magnetic Male pinion CRTHD Double acting, magnetic Double male pinion CRTF Double acting, magnetic Female pinion		S

How to order

Bore

63

 /

Angle

90°

Type

CRTH

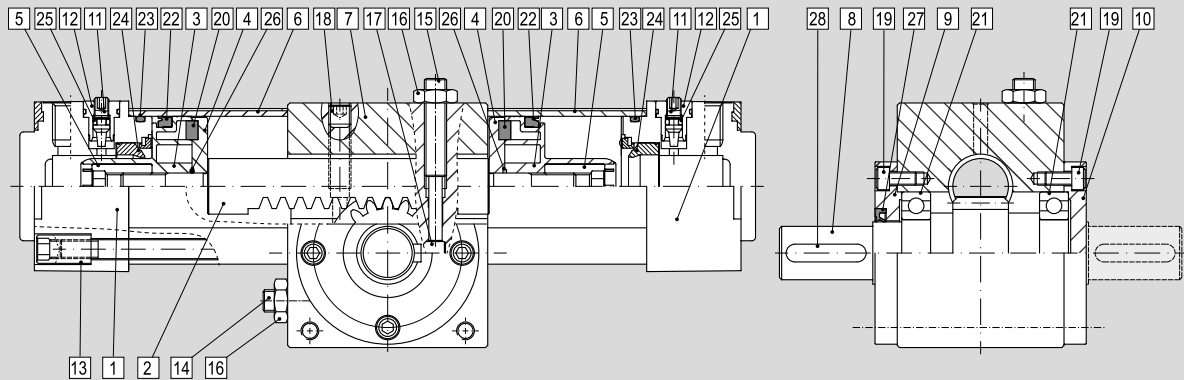
Options

Notes

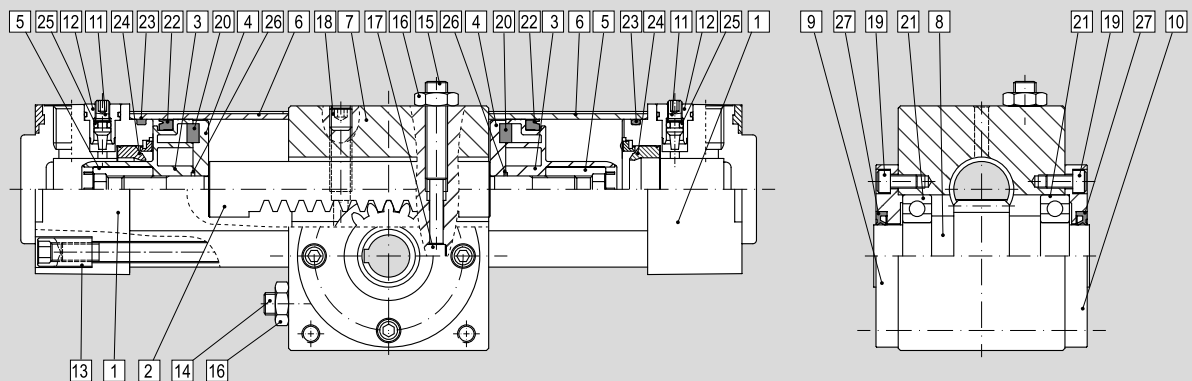
For further information on options see the table above.

Standard materials

Type: CRTH, CRTHD

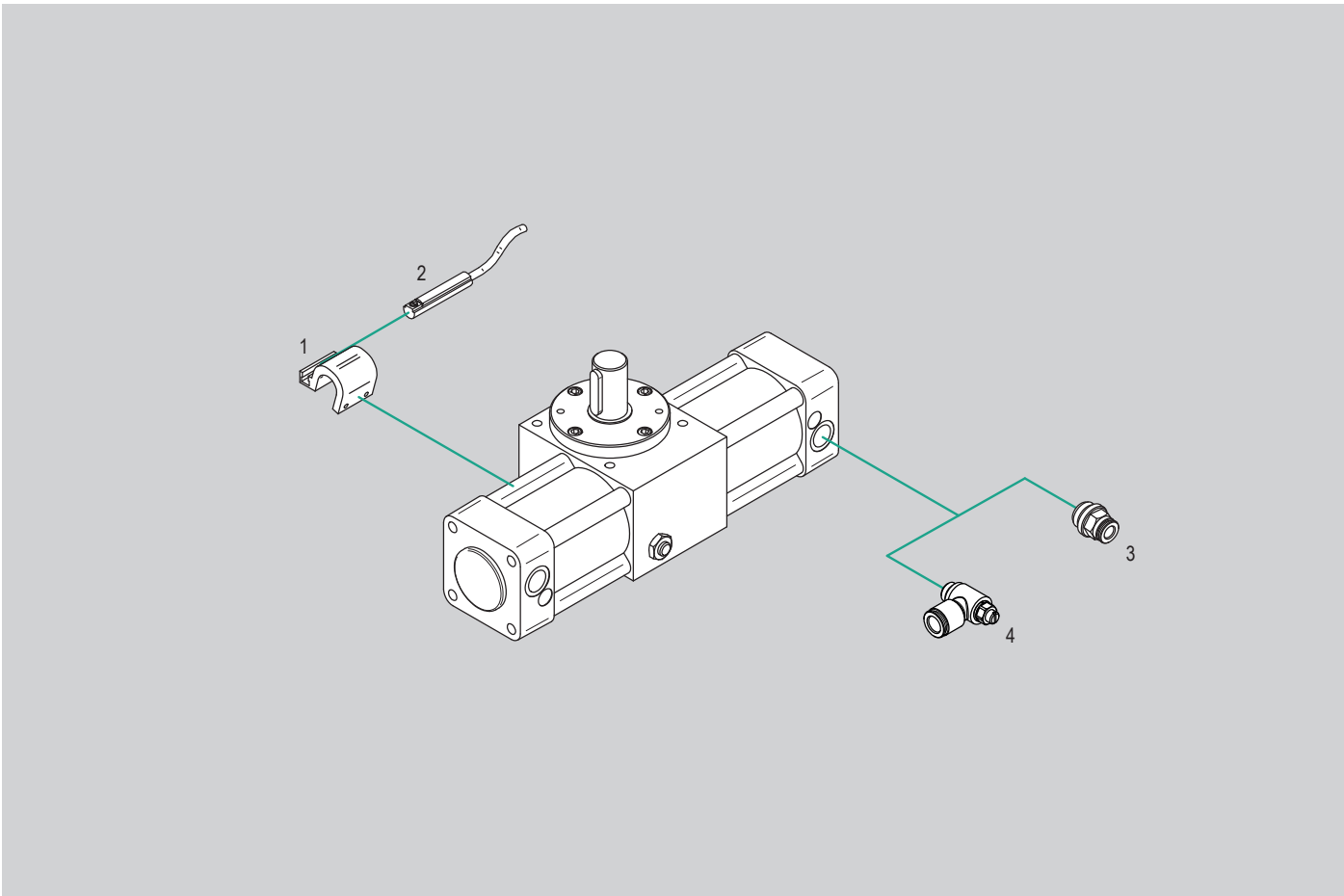


Type: CRTF



Position	Description	Materials
1	End cover	Anodised aluminium
2	Rack	Carbon steel
3	Piston	Acetalic resin (POM)
4	Magnet holder	Anodised aluminium
5	Piston nut	Carbon steel
6	Cylinder barrel	Anodised aluminium
7	Body	Anodised aluminium
8	Pinion	Carbon steel
9	End cover	Anodised aluminium
10	End cover	Anodised aluminium
11	Cushion needle	Stainless Steel
12	Cushion screw guide	Nickel-plated brass
13	Tie bolt	Galvanized carbon steel
14	Adjusting screw	Carbon steel blackening
15	Adjusting screw	Carbon steel blackening
16	Lock nut	Carbon steel
17	Stopper pin	Carbon steel
18	Adjusting screw	Carbon steel blackening
19	Screw	Nickel-plated carbon steel
20	Magnet	Magnetic material
21	Ball bearing	Carbon steel
22	Piston packing	NBR
23	Tube-head gasket	NBR
24	Cushioning seal	NBR
25	O-ring	NBR
26	Piston o-ring	NBR
27	Rod packing	NBR
28	Key	Carbon steel

Accessories



N.	Cylinder bore	Item	Description	Compliance	Matching			Code page	Data sheet page
					CRTH	CRTHD	CRTF		
1	Ø 40 - 63 - 80	AS..	Bracket for T type magnetic reed switches	-	●	●	●	1.40.90	1.120.3
2		ASV..	Magnetic reed switch T groove		●	●	●		1.110.10
3	Ø 40 - 63 - 80	R..	Push-in fittings		●	●	●	4.2.1	
4	Ø 40 - 63 - 80	V..C	Flow controls, for cylinders		●	●	●	4.94.1	

Key
● allowed matching; - not allowed matching

Main features

40 - 63 - 80

90°-180°



CRTH

Bores Ø

Angle of rotation

Double acting
Magnetic
Male pinion

Type



40 - 63 - 80

90°-180°



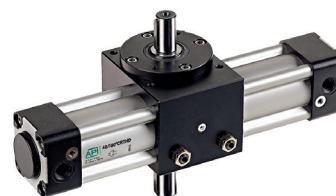
CRTHD

Bores Ø

Angle of rotation

Double acting
Magnetic
Double Male
Pinion

Type



40 - 63 - 80

90°-180°



CRTF

Bores Ø

Angle of rotation

Double acting
Magnetic
Female Pinion

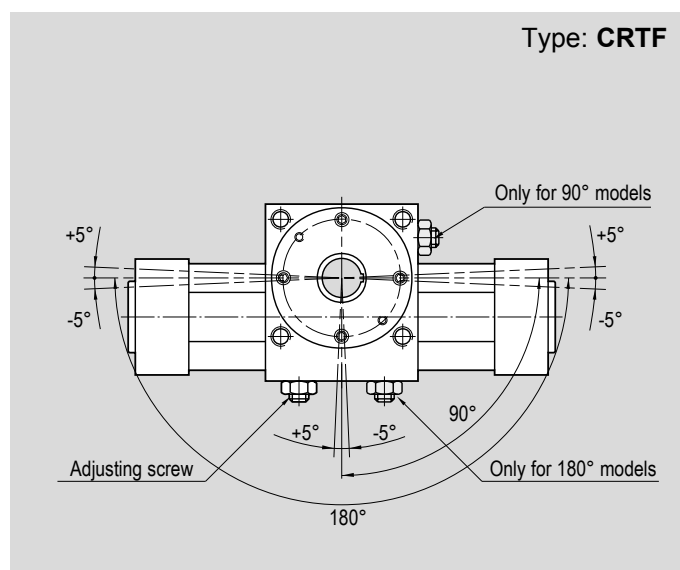
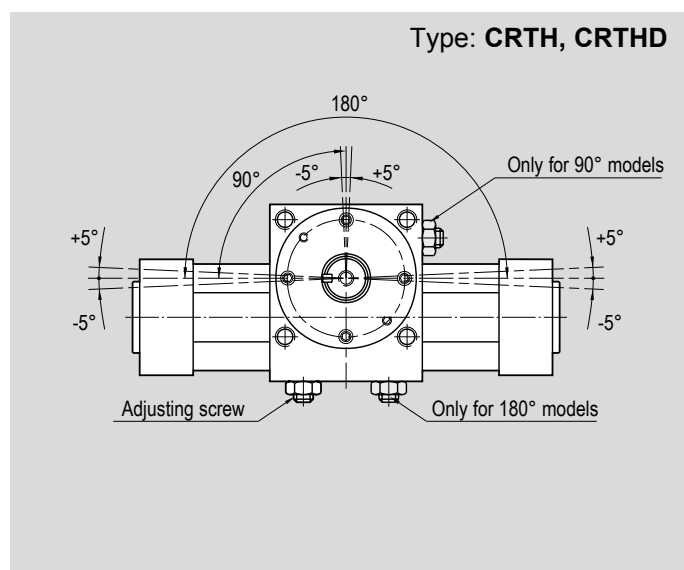
Type



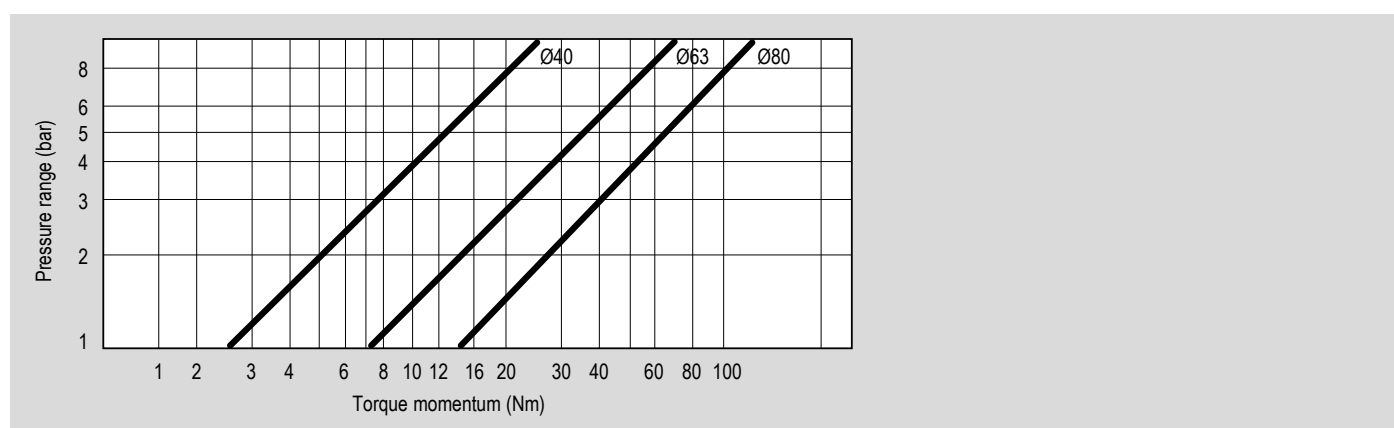
Technical data

Bore Ø mm		40		63		80	
Fluid		Filtered compressed air with or without lubrication. Lubrication, if started, must be continued.					
Angle of rotation		90°	180°	90°	180°	90°	180°
Adjustable angle		±5°					
Pinion diameter		16		24		28	
Pressure range		1,3 ÷ 7 bar					
Maximum allowable axial thrust (Kg)		10		12		20	
Cushion angle		74°		75°		80°	
Temperature range		-10°C ÷ +60°C					
Weight (g)	CRTH	3000	3100	5400	5800	9750	10300
	CRTHD	3050	3150	5550	5950	9990	10540
	CRTF	2840	2940	5070	5470	9990	9740

Rotating direction and adjustable angle



Output torque table



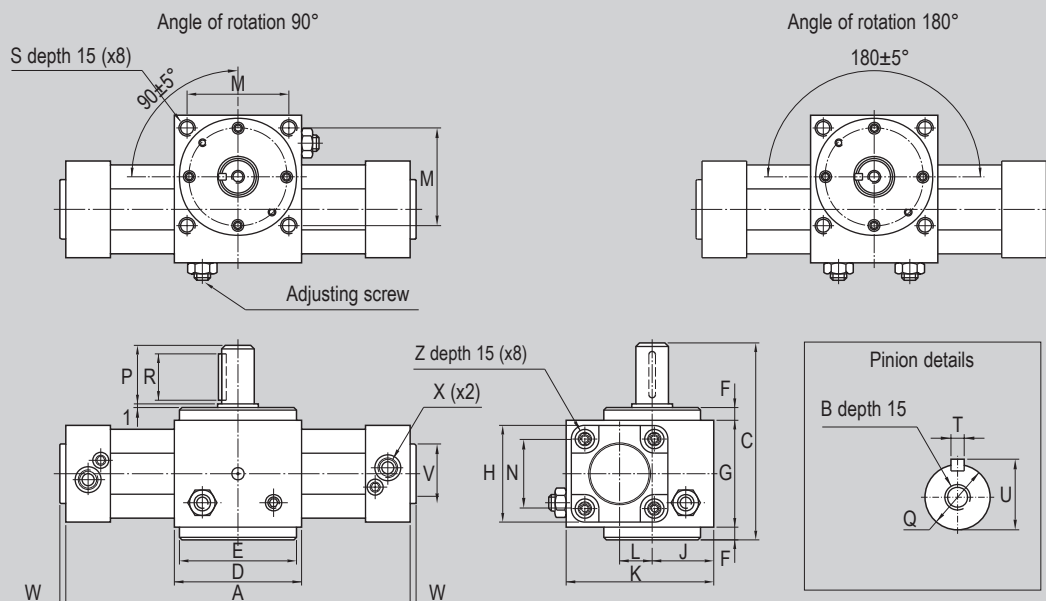
Air consumption for a complete circle

unit: litres/cycle

Ø (mm)	Rotation	Pressure range									
		1 bar	2 bar	3 bar	4 bar	5 bar	6 bar	7 bar	8 bar	9 bar	10 bar
40	90°	0,1571	0,2352	0,3133	0,3915	0,4696	0,5477	0,6259	0,7040	0,7821	0,8603
	180°	0,3141	0,4704	0,6267	0,7829	0,9392	1,0955	1,2517	1,4080	1,5643	1,7205
63	90°	0,4383	0,6564	0,8744	1,0925	1,3105	1,5286	1,7466	1,9647	2,1828	2,4008
	180°	0,8766	1,3127	1,7488	2,1850	2,6211	3,0572	3,4933	3,9294	4,3655	4,8016
80	90°	0,8480	1,2698	1,6917	2,1135	2,5354	2,9572	3,3791	3,8009	4,2228	4,6447
	180°	1,6959	2,5396	3,3834	4,2271	5,0708	5,9145	6,7582	7,6019	8,4456	9,2893

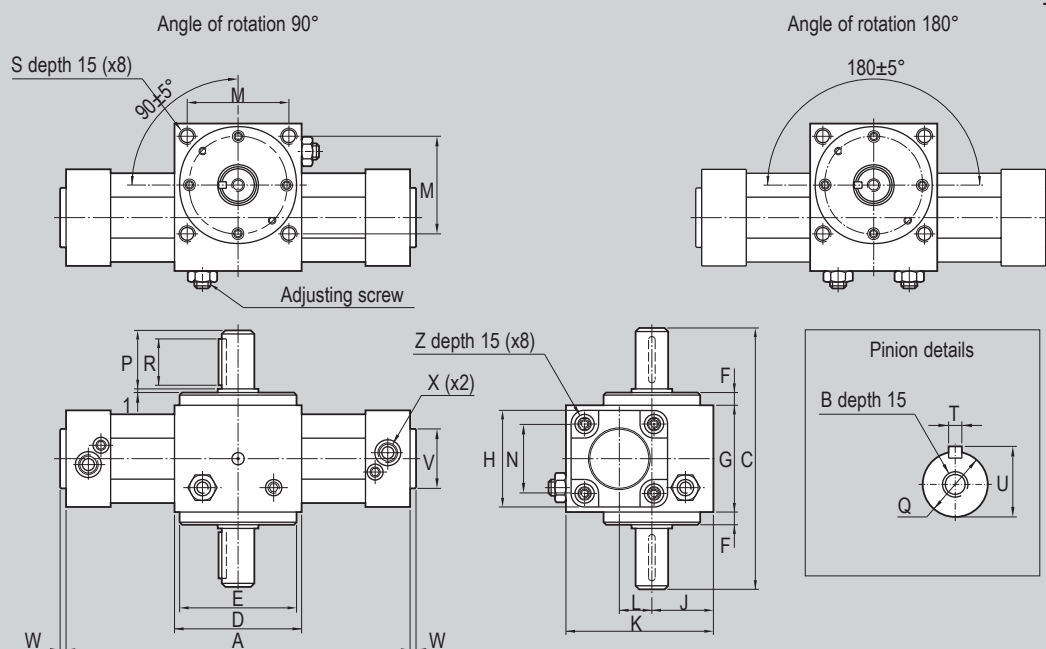
Dimensions

Type: **CRTH**



Ø (mm)	A		C	D	ØE	F	G	□H	J	K	L	M	□N	B	P	ØQ _{h6}	R	S	T	U	ØV	W	X	Z
	90°	180°																						
40	263	326	112	75	72	8	65	53	37,5	93	27,5	60	38	M5	30	16	25	M6	5	18	35	4	1/4"	M6
63	306	377	138	90	82	10	75	75	42,5	110	30	70	56,5	M8	42	24	36	M8	8	27	45	5	3/8"	M8
80	343	428	170	105	96	12	95	95	51,5	135	36	82	72	M8	50	28	45	M10	8	31	45	6	3/8"	M10

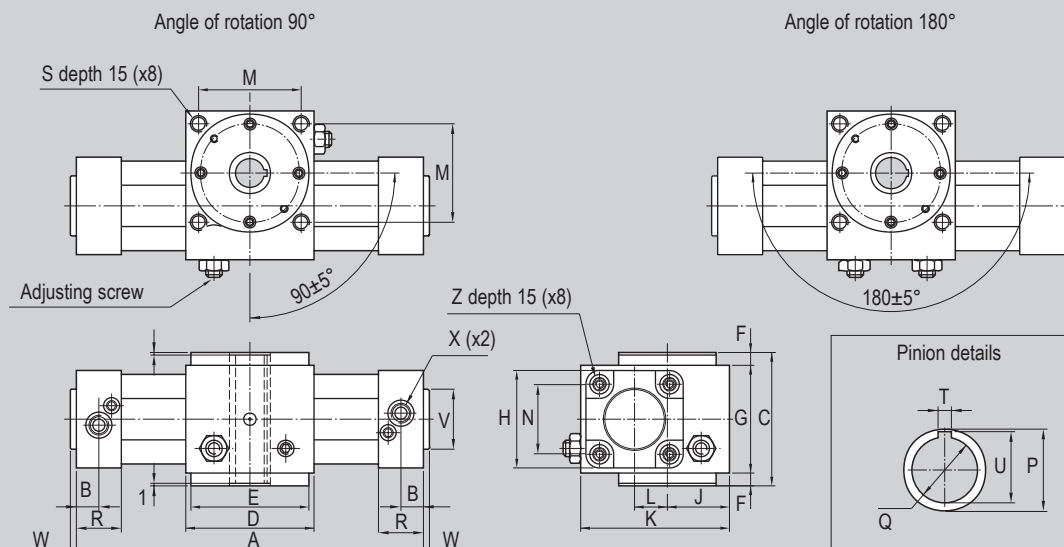
Type: **CRTHD**



Ø (mm)	A		C	D	ØE	F	G	□H	J	K	L	M	□N	B	P	ØQ _{h6}	R	S	T	U	ØV	W	X	Z
	90°	180°																						
40	263	326	143	75	72	8	65	53	37,5	93	27,5	60	38	M5	30	16	25	M6	5	18	35	4	1/4"	M6
63	306	377	181	90	82	10	75	75	42,5	110	30	70	56,5	M8	42	24	36	M8	8	27	45	5	3/8"	M8
80	343	428	221	105	96	12	95	95	51,5	135	36	82	72	M8	50	28	45	M10	8	31	45	6	3/8"	M10

Dimensions

Type: CRTF



Ø (mm)	A		C	D	ØE	F	G	□H	J	K	L	M	□N	B	ØP	ØQ _{h7}	R	S	T	U	ØV	W	X	Z
	90°	180°																						
40	263	326	81	75	72	8	65	53	37,5	93	27,5	60	38	15	25	14	30	M6	5	16,5	35	4	1/4"	M6
63	306	377	95	90	82	10	75	75	42,5	110	30	70	56,5	16	30	19	32	M8	6	22	45	5	3/8"	M8
80	343	428	119	105	96	12	95	95	51,5	135	36	82	72	19	35	24	38	M10	6	27,5	45	6	3/8"	M10

Magnetic reed switch T groove ASV..

	For cylinder Ø mm	Code	Item	Cylinder matching*
	40 ÷ 80	070946 	ASV1C525	CRT..
		071863	ASV1C550	
		071864	ASV1C51K	
		071189	ASV1C5M8	
		073639	ASV4D225	
		070246 	ASV4D2M8	
		074900	ASV7N225	
		070247	ASV7N2M8	
		070372	ASV7M2M8	
		072918	ASV1H525	

Bracket AS.. (for magnetic reed switches T groove)

	For cylinder Ø mm	Code	Item	Cylinder matching
	40	072908	AS101	CRT..
	63	072909	AS102	
	80	072910	AS103	

*With bracket type AS.. for magnetic reed switches T groove