

Compact Cylinder with Air Cushion

- Built-in coil scraper for improved spatter resistance

RDQ*32/40/50-X1210

SMC CORPORATION

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URL: <http://www.smcworld.com>

Application: Holding the pallet table in position on an automobile assembly line (such as welding jig).

- This model (-X1210) prevents resonance using a cushion to improve noise reduction over Series CQ2 cylinder with coil scraper.

Feature 1: A coil scraper improves spatter resistance.

Feature 2: Improved allowable kinetic energy absorption.

Feature 3: Reduced impact noise at the stroke end.

Feature 4: Improved repeatability.

[Supplement] Refer to our Series RQ (Compact Cylinder with Air Cushion) catalog (CAT.ES20-152) regarding details on Feature 2, 3 and 4.

Comparison with Standard Product (Series RQ)

- Built-in coil scraper to prevent spatter from entering the cylinder.

Specifications

Cylinder specifications

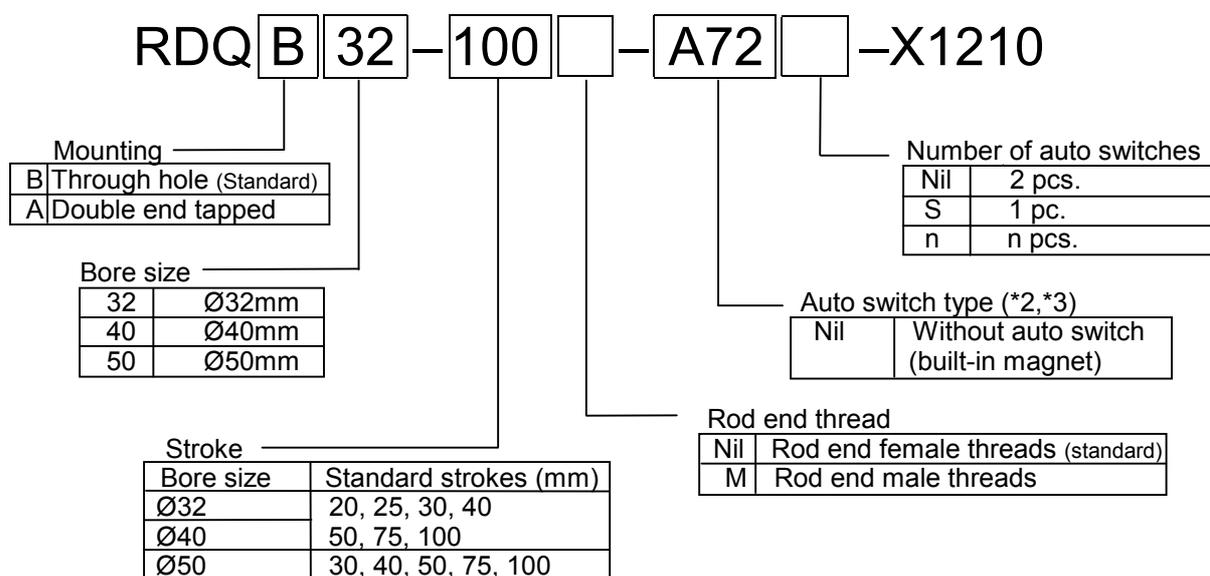
Type	Pneumatics (Non-lube) type
Fluid	Air
Proof pressure	1.5MPa
Maximum operating pressure	1.0MPa
Minimum operating pressure	0.05MPa
Bore size	Ø32, 40, 50mm
Standard stroke	Refer to the standard stroke table below.
Ambient and fluid temperature	Without auto switch: -10 to 70°C (No freezing)
	With auto switch: -10 to 60°C (No freezing)
Rod end thread	Rod end female threads (standard)
	Rod end male threads (optional)
Rod end thread tolerance	JIS class 2
Stroke length tolerance	$^{+1.0}$ 0 mm
Mounting	Through hole
Piston speed	50 to 500mm/s
Effective cushion length	Ø32: 6.6mm, Ø40: 6.6mm, Ø50: 7.1mm
Accessory	Rod end female threads type: Without accessory
	Rod end male threads type: 1 rod end nut.

Standard Strokes (RDQ*-X1210)

Bore size	Standard strokes: mm (*1)
Ø32mm	20, 25, 30, 40, 50, 75, 100
Ø40mm	
Ø50mm	30, 40, 50, 75, 100

*1) Consult with our sales representative for stroke lengths other than those mentioned above.

How to Order



*2) Applicable auto switches are the same as those for Series RQ Ø32, 40 and 50.

- (Example) Input symbol of A-72 in case of D-A72.

Refer to the Series RQ catalog [CAT.ES20-152] on page 1 regarding the selection and detailed specifications.

*3) For cylinders with auto switches, auto switches will be packaged together for shipment.

(They are not mounted on the cylinder at the time of shipment.)

Caution

When using this product during a welding process, a use of magnetic field resistant auto switch is recommended to prevent malfunction caused by welding magnetic field. (Cylinders with bore sizes Ø40 and 50 are the only sizes available for magnetic field resistant auto switch. Auto switches must be ordered separately for a Ø32 cylinder. Please consult with our sales representative.)

Take a use of spatter-resistant cable into consideration when spatter can possibly cause cable damage (broken cable).

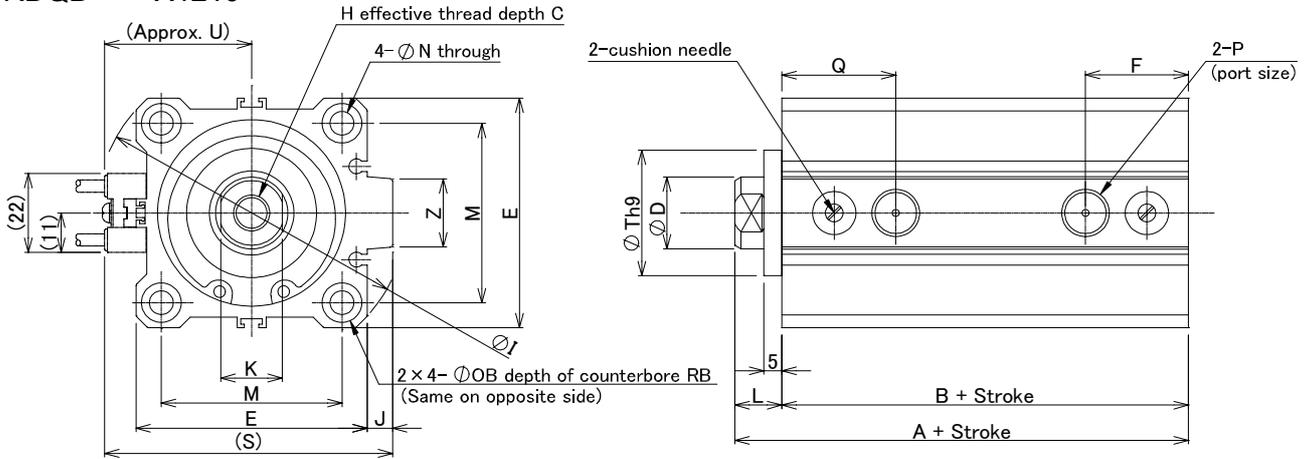
Strong Magnetic Field Resistant Solid State Switch

Symbol	Type of auto switch	Model No.
P5DWL	Strong magnetic field resistant 2-color display type solid state switch (Lead wire length: 3m)	D-P5DWL
P5DWSC	Strong magnetic field resistant 2-color display type solid state switch (Spatter proof type, Lead wire length: 3m)	D-P5DWSC

 Caution: Magnetic field resistant solid state auto switches are intended for use with single-phase AC welders. They are not compatible with DC inverter welders (including rectifying type welders), arc welders, or condenser type welders.

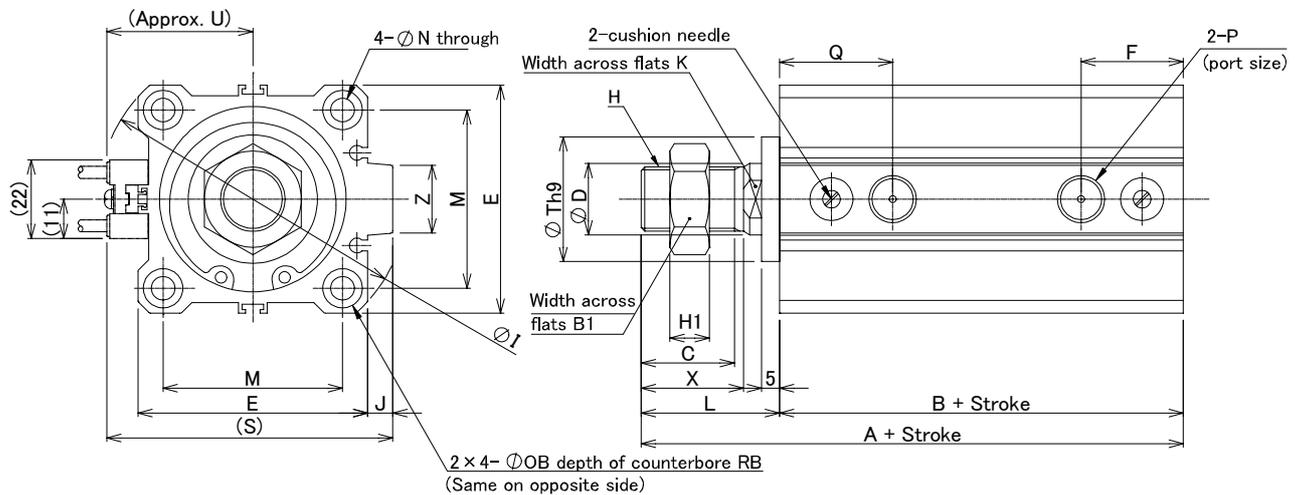
Dimensions: mm

RDQB**-*-X1210



Bore size	A	B	C	D	E	F	H	I	J	K	L
Ø32	49	37	13	16	45	18.5	M8 × 1.25	60	4.5	14	12
Ø40	56	44	13	16	52	20	M8 × 1.25	69	5	14	12
Ø50	62.5	49.5	15	20	64	28.5	M10 × 1.5	86	7	17	13
Bore size	M	N	OB	P	Q	RB	S	Th9	U	Z	
Ø32	34	5.5	9	Rc1/8	23	7	58.5	23 ⁰ _{-0.052}	31.5	14	
Ø40	40	5.5	9	Rc1/8	28	7	66	28 ⁰ _{-0.052}	35	14	
Ø50	50	6.6	11	Rc1/4	31.5	8	80	35 ⁰ _{-0.062}	41	19	

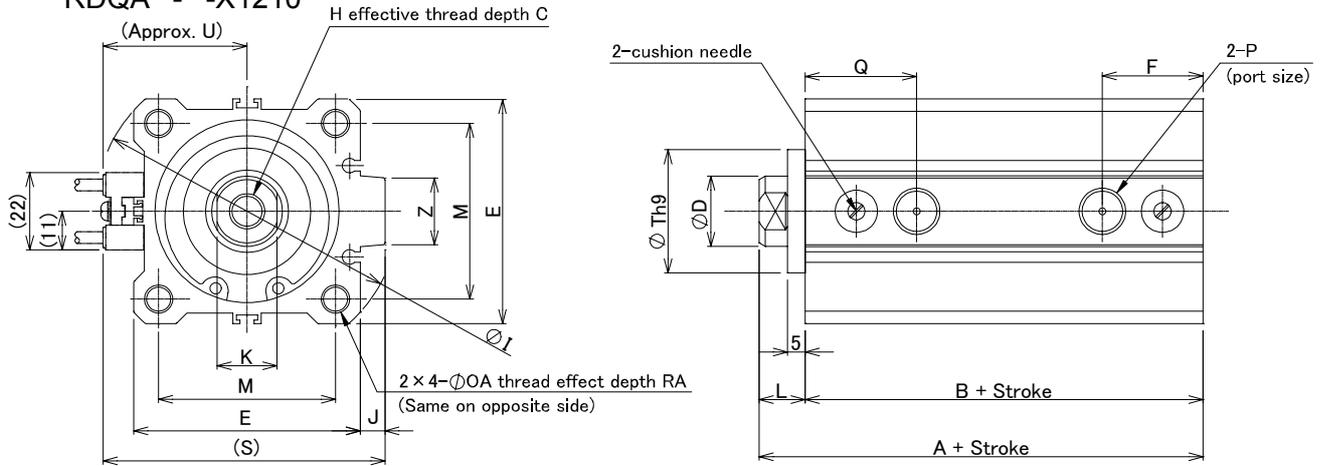
RDQB**-*-M-X1210



Bore size	A	B	B1	C	D	E	F	H	H1	I	J	K
Ø32	70.5	37	22	20.5	16	45	18.5	M14 × 1.5	8	60	4.5	14
Ø40	77.5	44	22	20.5	16	52	20	M14 × 1.5	8	69	5	14
Ø50	88	49.5	27	26	20	64	28.5	M18 × 1.5	11	86	7	17
Bore size	L	M	N	OB	P	Q	RB	S	Th9	U	X	Z
Ø32	33.5	34	5.5	9	Rc1/8	23	7	58.5	23 ⁰ _{-0.052}	31.5	23.5	14
Ø40	33.5	40	5.5	9	Rc1/8	28	7	66	28 ⁰ _{-0.052}	35	23.5	14
Ø50	38.5	50	6.6	11	Rc1/4	31.5	8	80	35 ⁰ _{-0.062}	41	28.5	19

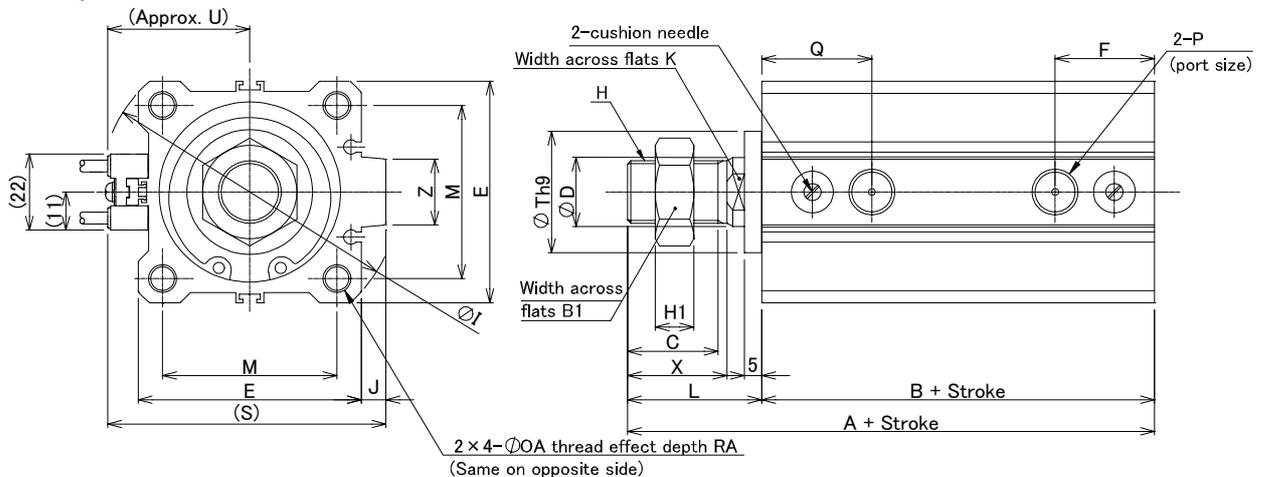
Dimensions: mm

RDQA**-**-X1210



Bore size	A	B	C	D	E	F	H	I	J	K	L
∅32	49	37	13	16	45	18.5	M8 × 1.25	60	4.5	14	12
∅40	56	44	13	16	52	20	M8 × 1.25	69	5	14	12
∅50	62.5	49.5	15	20	64	28.5	M10 × 1.5	86	7	17	13
Bore size	M	N	OA	P	Q	RA	S	Th9	U	Z	
∅32	34	5.5	M6 × 1.0	Rc1/8	23	10	58.5	23 ⁰ _{-0.052}	31.5	14	
∅40	40	5.5	M6 × 1.0	Rc1/8	28	10	66	28 ⁰ _{-0.052}	35	14	
∅50	50	6.6	M8 × 1.25	Rc1/4	31.5	14	80	35 ⁰ _{-0.062}	41	19	

RDQA**-**M-X1210



Bore size	A	B	B1	C	D	E	F	H	H1	I	J	K
∅32	70.5	37	22	20.5	16	45	18.5	M14 × 1.5	8	60	4.5	14
∅40	77.5	44	22	20.5	16	52	20	M14 × 1.5	8	69	5	14
∅50	88	49.5	27	26	20	64	28.5	M18 × 1.5	11	86	7	17
Bore size	L	M	N	OA	P	Q	RA	S	Th9	U	X	Z
∅32	33.5	34	5.5	M6 × 1.0	Rc1/8	23	10	58.5	23 ⁰ _{-0.052}	31.5	23.5	14
∅40	33.5	40	5.5	M6 × 1.0	Rc1/8	28	10	66	28 ⁰ _{-0.052}	35	23.5	14
∅50	38.5	50	6.6	M8 × 1.25	Rc1/4	31.5	14	80	35 ⁰ _{-0.062}	41	28.5	19

Note: The dimensions indicated inside () are for those when auto switches D-A73 and -A80 type are mounted.

⚠ Caution

To ensure the safest possible operation of this product, please be sure to read thoroughly the "Safety Instructions" in our "Series RQ (Compact Cylinder with Air Cushion)" catalog (CAT.ES20-152) before use.