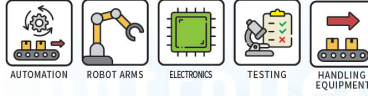


Buffer Function Deceleration

Applicable



CHELIC

QDS series

➤ Connection Port Diameter: Ø6, Ø8, Ø10

✓ Miniaturization and Volume Reduction

Suitable for situations where a buffer cannot be installed, better space-saving.

✓ Buffer Position Adjustability

The starting position of the buffer can be freely adjusted according to your needs.

✓ Quick Installation and User-Friendly

Easy to install between valves and cylinders, and can be swiftly integrated into existing equipments.



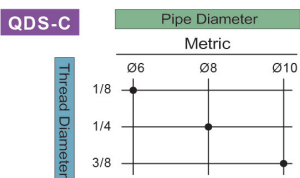
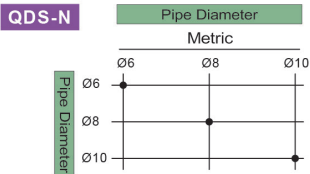
QDS - N



QDS - C

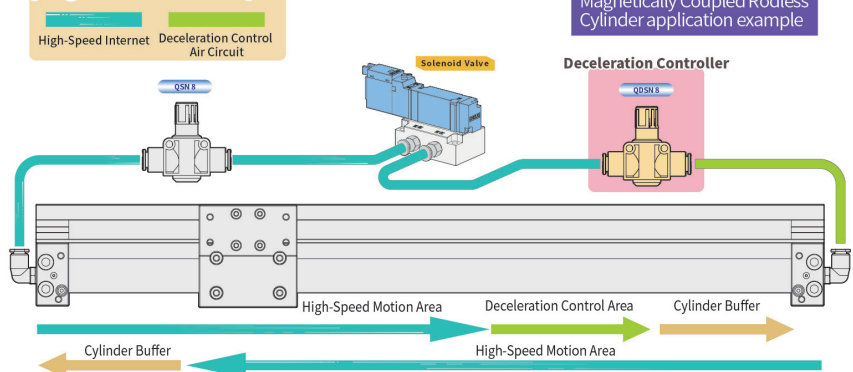
Usage After High-Speed Action Deceleration Control Valve

Specifications and Styles



Application examples

Piping direction description



This product series is designed for applications in industrial IoT systems.

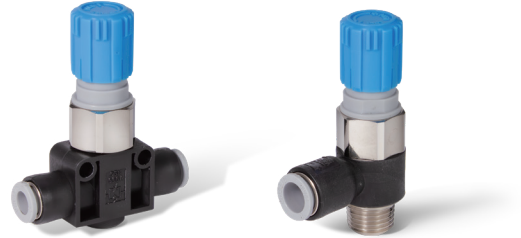
QDS series Buffer Function Deceleration Controller

Product features, Code of order

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Feature

- Controlled by air pressure, reducing direct impact on the cylinder and extending product life cycle.
- Compact and provides impact relaxation in cases where it is difficult to install a shock absorber.
- The shock absorber starting position can be freely adjusted according to requirements.
- Easy to install between valves and cylinders, quickly integrating with existing equipment.

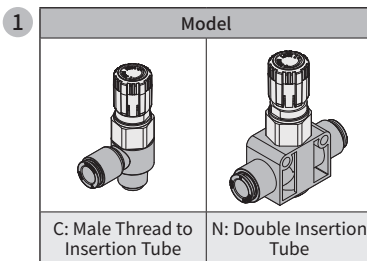


Specification

Item	Model	QDS-C	QDS-N
Bore size		Ø6, Ø8, Ø10	
Fluid		Air	
Pressure range	kgf / cm ² (kPa)	4 ~ 7 (400 ~ 700)	
Proof pressure	kgf / cm ² (kPa)	10 (1000)	
Ambient and fluid temperature	°C	5 ~ 60	
Number of needle rotation		6 round	
Material	Metal body	Brass (Nickel plating)	
	Plastic body	NYLON,POM	
Thread	Rc (PT)	1/8", 1/4", 3/8"	—
Seal on the threads		With sealant	—

Code of order **QDS - C - 6 - 01 -**

1 — 2 — 3 — 4



Mark	Bore size (mm)
6	Ø6
8	Ø8
10	Ø10

Mark	Thread	Corresponding Diameter(mm)
None	For QDSN	
01	PT 1/8"	Ø6
02	PT 1/4"	Ø8
03	PT 3/8"	Ø10

Mark	Buffer Speed
F	High Speed
L	Low Speed

- If buffering starts at 50%-20% of stroke, select "F" for high speed; if at 20% or below, select "L" for low speed. Recommendation are only for references actual setting please refer to the actual circumstance.
- For flow rate characteristics, Please refer to P.288 diagram.

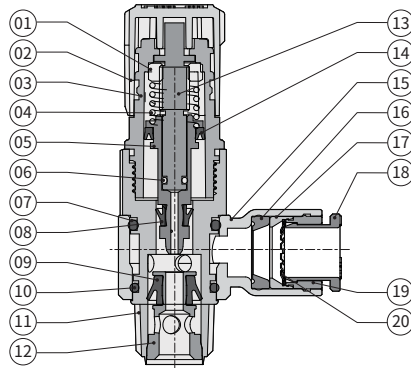
QDS series Buffer Function Deceleration Controller

Product features

CHELIC

Internal structure

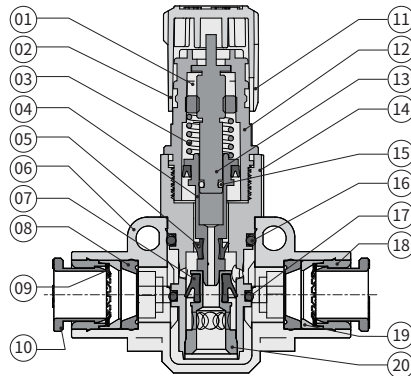
► QDS - C



Components and material list

No.	Item	Material	No.	Item	Material
01	Needle nut	Brass (Nickel plating)	11	Body (Seal on the threads)	Brass (Nickel plating)
02	Pressure adjusting knob	POM	12	Adjustment set	POM
03	Toothholder	POM	13	Screw	Brass (Nickel plating)
04	Regulating spring	Stainless steel	14	Packing	Rubber
05	Main pressure slider	Brass (Nickel plating)	15	Plastic body	POM
06	O-ring	Rubber	16	Packing	Rubber
07	O-ring	Rubber	17	Chuck base	Brass
08	Packing	Rubber	18	Release button	POM
09	Flow control packing	Rubber	19	Mid-button base	Brass (Nickel plating)
10	O-ring	Rubber	20	Chuck	Stainless steel

► QDS - N



Components and material list

No.	Item	Material	No.	Item	Material
01	Needle nut	Brass (Nickel plating)	11	Needle nut	Brass (Nickel plating)
02	Pressure adjusting knob	POM	12	Toothholder	POM
03	Regulating spring	Stainless steel	13	Screw	Brass (Nickel plating)
04	Main pressure slider	Brass (Nickel plating)	14	Metal body	Brass (Nickel plating)
05	Packing	Rubber	15	O-ring	Rubber
06	Plastic body	POM	16	O-ring	Rubber
07	Packing	Rubber	17	O-ring	Rubber
08	Packing	Rubber	18	Mid-button base	Brass (Nickel plating)
09	Chuck	Stainless steel	19	Chuck base	Brass
10	Release button	POM	20	Adjustment set	POM

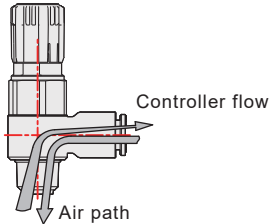
QDS series Buffer Function Deceleration Controller

Characteristics graph, Dimensions

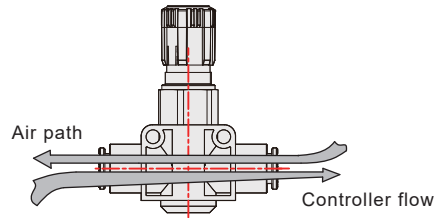
CHELIC

Control direction for speed controller

QDS-C Controller - Standard

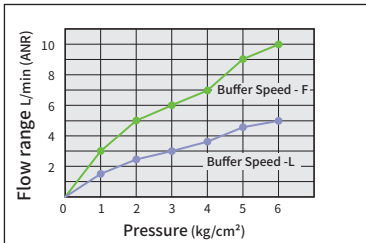


QDS-N Controller - Standard

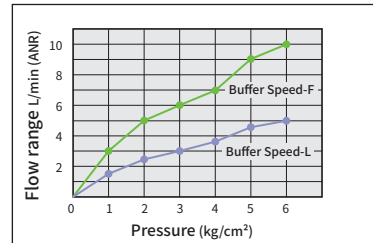


Flow characteristic chart

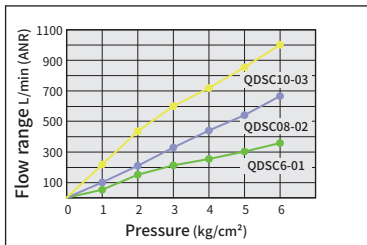
QDS-C Controlled flow rate



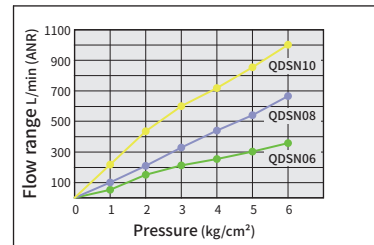
QDS-N Controlled flow rate



QDS-C Free flow rate

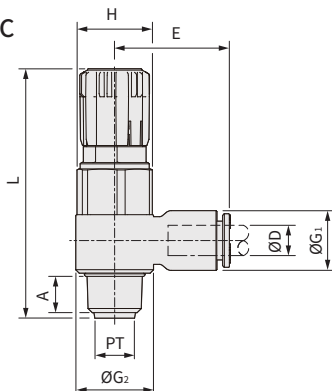


QDS-N Free flow rate



Dimensions

QDS-C



Unit: mm

Port size ØD	Thread size (PT)	Model	A	E	L	ØG ₁	ØG ₂	Across flats H	Weight (g)
Ø6	1/8"	QDSC 6-01	6.5	23.7	57.7	12.4	14.2	17	38
Ø8	1/4"	QDSC 8-02	8.7	27.7	58.5	14.3	18.6	17	44
Ø10	3/8"	QDSC 10-03	11	31.7	71.4	17.8	23	21	88

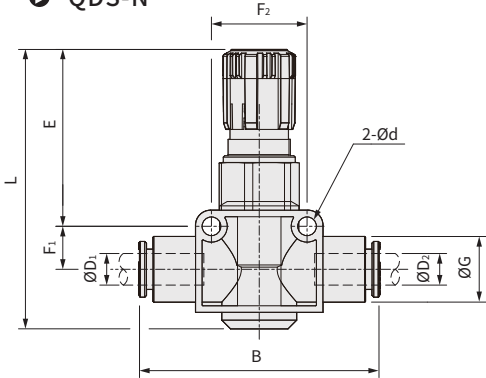
QDS series buffer function deceleration controller

Working principle, Precautions

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Dimensions

QDS-N

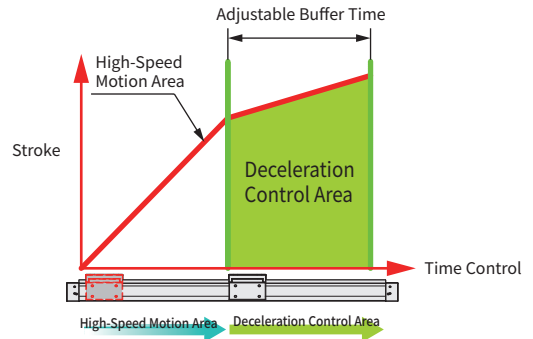


Unit: mm

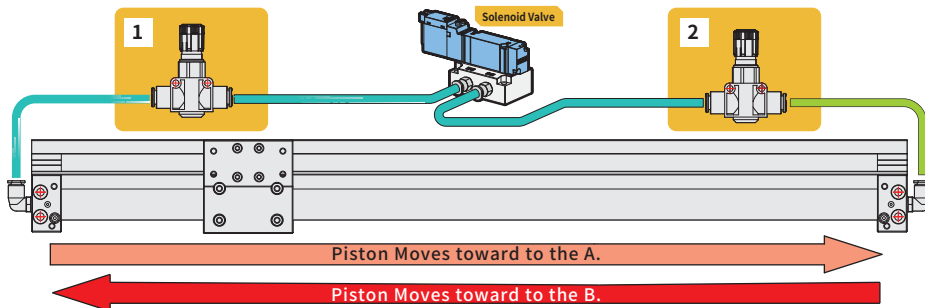
Port size		Model	B	Ød	E	F ₁	F ₂	L	ØG	Weight (g)
ØD ₁	ØD ₂									
Ø6	Ø6	QDSN 6	49.2	4.3	41.6	8.6	18	61.2	12.8	41
Ø8	Ø8	QDSN 8	55.1	4.3	40.7	9.9	22	64.3	15.1	53
Ø10	Ø10	QDSN 10	62.9	4.3	48.9	11.6	26	72.4	17.8	102

Working principle

- shorten the cylinder movement period by controlling exhaust position. It can reduce the impact and protect the cylinder.



Specific Product Precautions



1. To avoid fluctuations, please confirm circuit air pressure differential before installation. Air pressure should be within $\pm 0.3 \text{ kgf/cm}^2$; instability & deceleration position may occurred if air pressure is out of the tolerance.
2. Initially, tighten the knob fully, install on the cylinder, and adjust by gradually loosening it after starting.
3. When adjusting the knob: If the piston moves in direction A, adjust Deceleration Control Valve #2. If moving in direction B, adjust Control Valve #1.
4. It is recommended not to use with a speed control valve. If necessary but unable to achieve the right position, please contact sales with cylinder details to confirm the suitable model.
5. If deceleration controller valves installed, ensure to mount them completely in both ends to avoid buffer position misalignment owing to the back pressure.

QDS series buffer function deceleration controller

Recommendations

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Recommendations

Cylinder type	Model	Bore size	Stroke (mm)		
			50~200	200~500	500~1000
Rodless cylinder - Mechanical type	PRE, PREP, PRET, PRF2, PRU2, PRUT2	16	06, 08	08	08, 10
		20	06, 08	08	08, 10
		25	06, 08	08	08, 10
		32	08	08, 10	10
		40	08	08, 10	10
		50	08	08, 10	10
Rodless cylinder - magnetic type	MRB, MRBT, MRD, MRH, MRU, MRX, MRY	20	06, 08	08	08, 10
		25	06, 08	08	08, 10
		32	08	08, 10	10
		40	08	08, 10	10
Compact cylinder Standard cylinder	JD, JG, JQ, DMB2, DN, NB, ND, NQ, NU, JCB, JCF, JTD, JTF, STB, STC, STD, STDL, STF, DBF2, DBS2, SBA, SDA, SDX, DBT, FDA	6	06	06, 08	08, 10
		10	06	06, 08	08, 10
		12	06	06, 08	08, 10
		16	06, 08	08	08, 10
		20	06, 08	08	08, 10
		25	06, 08	08	08, 10
		32	08	08, 10	10
		40	08	08, 10	10
		50	10	08, 10	10
		63	08, 10	10	10
		80	08, 10	10	10
		100	10	10	10
		125	10	10	10
Slide table cylinder	FMR(L), MDQ2, MDX, MDXL, MGX, MQX, MSL2, MSR2	10	06	06, 08	08, 10
		16	06, 08	08	08, 10
		20	06, 08	08	08, 10
		25	06, 08	08	08, 10
		32	08	08, 10	10
Slide table cylinder	TD, TDX, TDXU	6	06	06, 08	08, 10
		10	06, 08	08	08, 10
		16	08	08, 10	10
		20	08	08, 10	10
		25	08	08, 10	10
		32	08	08, 10	10
40	08	08, 10	10		

Note: Please contact sales team member if your cylinders model is not listed in above table and provide details to confirm the suitable model.