



## *4 Series Pulse Jet Valves*

***Innovative Environmental Solutions***

## RCAC20DD4 Series Pulse Jet Valves



### Description

High-performance diaphragm valve with dresser nut ports. Equipped with 'Shockwave' springless diaphragm, the 4 series valves are available as remote pilot valves and may be converted to an integral pilot using either the RCA3DM or RCA3PV screw-in pilots. Outlet is at 90° to inlet.

### Suitable for

Dust collector applications, in particular for reverse pulse jet filter cleaning and its variations, including bag filters, cartridge filters and envelope filters.

### Construction

Body and Dresser  
Nuts: Aluminium (diecast)  
Screws: 302 Stainless steel  
Dresser Nut Seals: Nitrile or Viton  
Diaphragm: Proprietary high-performance engineering thermoplastic Elastomer

### Operation

Recommended on time range:  
50 to 500 ms  
Recommended time between pulses: 1 minute or greater

### Maintenance

Diaphragm and pilot inspection should be conducted annually.

### Approvals

The RCAC20DD4 meets the requirements of the European Electromagnetic Compatibility (EMC). Directive 2004/108/EC and Low Voltage Directive 2006/95/EC, when fitted with the RCA3PV pilot.

**Please Note:** Pipes must be to Schedule 40 outside diameter.

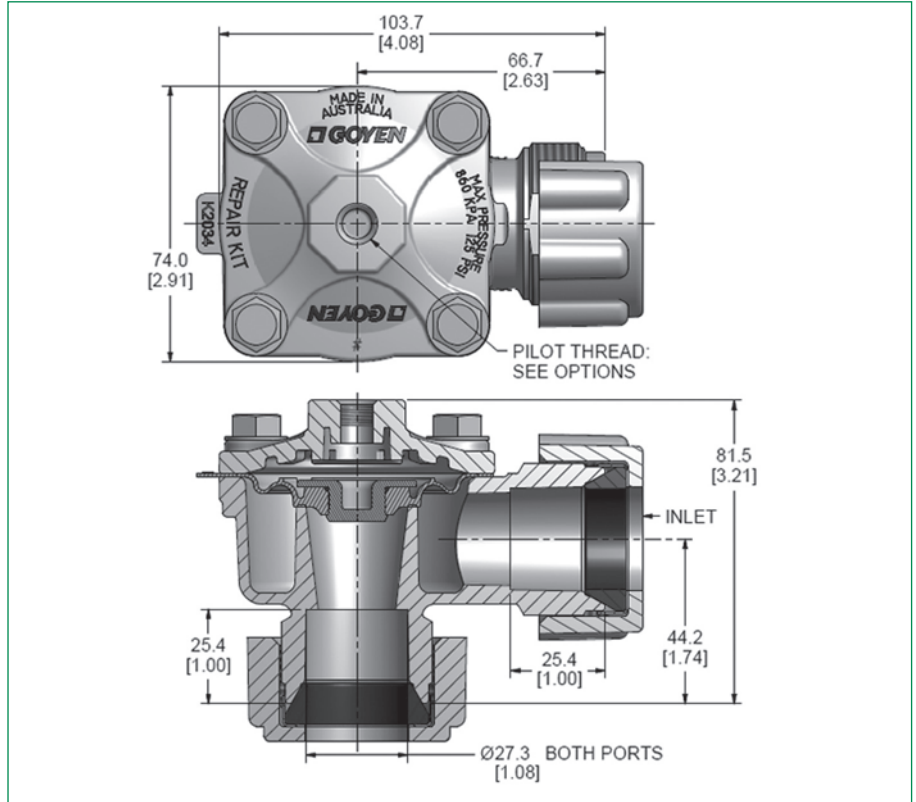
Schedule 40 Size	OD mm	OD Inches
3/4"	26.67	1.05

### Weights

Valve	Kg (Lb)
RCAC20DD4	0.52 (1.14)

### Dimensions

(Dimensions in mm and [inches])



### Maintenance Kits

Model	Nitrile	Shockwave	Viton
Diaphragm Kit RCAC20DD4	N/A	K2034	K2033
Dresser Seal Kit RCAC20DD4	K2008	N/A	K2009

### Product Characteristics and Performance

Port Size mm (in.)	No. of Diaph.	Flow Kv (Cv)	Pressure Range kPA (Psi)	Temperature Range °C (°F)	
				Shockwave	Viton Seals
20 (3/4)	1	14 (17)	30(5) to 860(125)	-40(-40) to 82(179.6)	-29(-20.2) to 232(449.6)

### Order Code

RCAC 20DD4	Diaphragm material	1=Viton 2=Shockwave
	Thread type	0=NPT, 1=RC, 2=G
	Pilot size	0=1/8", 1=1/4"

Examples: RCAC20DD4012  
3/4" dresser nut valve with 1/8" pilot, 3/4" RC port threads, Shockwave diaphragm.

Note:  
1/8 Pilot available in NPT and RC Thread.  
1/4 Pilot is only available in G Thread.

## RCAC20FS4 Series Pulse Jet Valves



### Description

High-performance diaphragm valve with a flanged inlet port and slide seal outlet port. Equipped with 'Shockwave' springless diaphragm, the 4 series valves are available as remote pilot valves and may be converted to integral pilot using either the RCA3DM or RCA3PV screw-in pilots. Outlet is at 90° to inlet. The FS valve range features a larger diameter inlet providing higher performance than the DD, T or ST body styles.

### Suitable for

Dust collector applications, in particular for reverse pulse jet filter cleaning and its variations including bag filters, cartridge filters and envelope filters.

### Construction

Body and Dresser  
Nuts: Aluminium (diecast)  
Screws: 302 Stainless steel  
Dresser Nut Seals: Nitrile or Viton  
Diaphragm: Proprietary high-performance engineering thermoplastic Elastomer

### Operation

Recommended on time range:  
50 to 500 ms  
Recommended time  
between pulses: 1 minute or greater

### Maintenance

Diaphragm and pilot unit inspection should be conducted annually.

### Approvals

The RCAC20FS4 meets the requirements of the European Electromagnetic Compatibility (EMC). Directive 2004/108/EC and Low Voltage Directive 2006/95/EC, when fitted with the RCA3PV pilot.

**Please Note:** Pipes must be to Schedule 40 outside diameter.

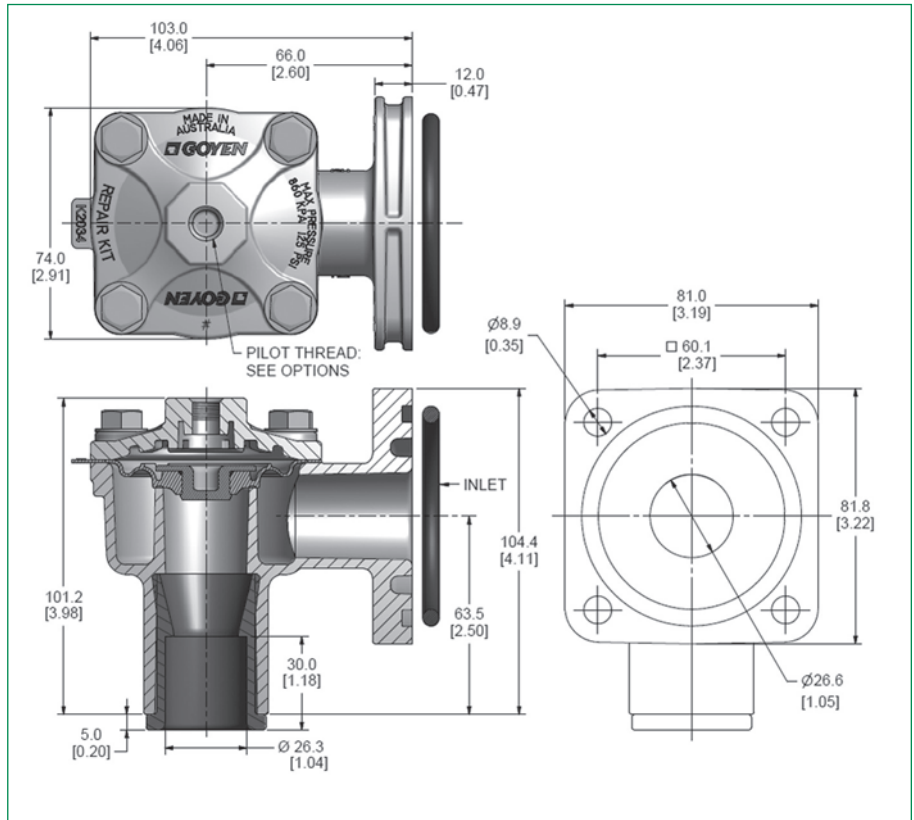
Schedule 40 Size	OD mm	OD Inches
3/4"	26.67	1.05

### Weights

Valve	Kg (Lb)
RCAC20FS4	0.51 (1.12)

### Dimensions

(Dimensions in mm and [inches])



### Maintenance Kits

Model	Nitrile	Shockwave	Viton
Diaphragm Kit			
RCAC20FS4	N/A	K2034	K2033
20FS4 Outlet Seal			
RCAC20FS4	G690338	N/A	G690338-2

### Product Characteristics and Performance

Port Size mm (in.)	No. of Diaph.	Flow Kv (Cv)	Pressure Range kPA (Psi)	Temperature Range °C (°F)	
				Shockwave	Viton Seals
20 (3/4)	1	19 (26)	30(5) to 860(125)	-40(-40) to 82(179.6)	-29(-20.2) to 232(449.6)

### Order Code

RCAC 20FS4		
Diaphragm material	1=Viton 2=Shockwave	
Thread type	0=NPT, 1=RC, 2=G	
Pilot size	0=1/8", 1=1/4"	

Examples: RCAC20FS4012

3/4" FS valve with 1/8" pilot, 1/8" RC pilot port threads, Shockwave diaphragm.

Note:

1/8 Pilot available in NPT and RC Thread.

1/4 Pilot is only available in G Thread.

## RCAC20T4 Series Pulse Jet Valves



### Description

High-performance diaphragm valve with threaded ports. Equipped with 'Shockwave' springless diaphragm, the 4 series valves are available as remote pilot valves and may be converted to an integral pilot using either the RCA3DM or RCA3PV screw-in pilots. Outlet is at 90° to inlet.

### Suitable for

Dust collector applications, in particular for reverse pulse jet filter cleaning and its variations including bag filters, cartridge filters and envelope filters.

### Construction

Body: Aluminium (diecast)  
Screws: 302 Stainless steel  
Seals: Nitrile or Viton  
Diaphragm: Proprietary high-performance engineering thermoplastic Elastomer

### Operation

Recommended on time range: 50 to 500 ms  
Recommended time between pulses: 1 minute or greater

### Maintenance

Diaphragm and pilot unit inspection should be conducted annually.

### Approvals

The RCAC20T4 meets the requirements of the European Electromagnetic Compatibility (EMC). Directive 2004/108/EC and Low Voltage Directive 2006/95/EC, when fitted with the RCA3PV pilot.

**Please Note:** Pipes must be to Schedule 40 outside diameter.

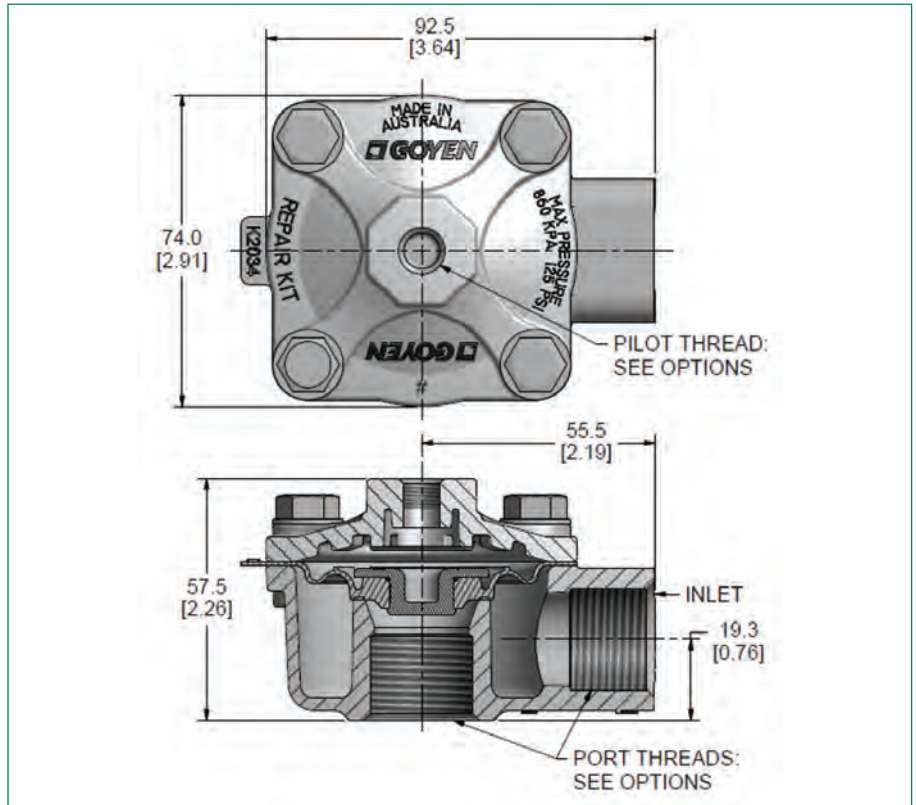
Schedule 40 Size	OD mm	OD Inches
3/4"	26.67	1.05

### Weights

Valve	Kg (Lb)
RCAC20T4	0.31 (0.68)

### Dimensions

(Dimensions in mm and [inches])



### Maintenance Kits

Model	Nitrile	Shockwave	Viton
Diaphragm Kit			
RCAC20T4	NA	K2034	K2033

### Product Characteristics and Performance

Port Size mm (in.)	No. of Diaph.	Flow Kv (Cv)	Pressure Range kPa (Psi)	Temperature Range °C (°F)	
				Shockwave	Viton Seals
20 (3/4)	1	14 (17)	30(5) to 860(125)	-40(-40) to 82(179.6)	-29(-20.2) to 232(449.6)

### Order Code

RCAC 20T4	Diaphragm material	1=Viton 2=Shockwave
	Thread type	0=NPT, 1=RC, 2=G
	Pilot size	0=1/8", 1=1/4"

Examples: RCAC20T4012

3/4" threaded valve with 1/8" pilot, 3/4" RC port threads, Shockwave diaphragm.

Note:

1/8 Pilot available in NPT and RC Thread.

1/4 Pilot is only available in G Thread.

## RCAC20ST4 Series Pulse Jet Valves



### Description

High-performance diaphragm valve with short threaded ports. Equipped with 'Shockwave' springless diaphragm, the 4 series valves are available as remote pilot valves and may be converted to an integral pilot using either the RCA3DM or RCA3PV screw-in pilots. Outlet is at 90° to inlet.

### Suitable for

Dust collector applications, in particular for reverse pulse jet filter cleaning and its variations including bag filters, cartridge filters and envelope filters.

### Construction

Body: Aluminium (diecast)  
Screws: 302 Stainless steel  
Seals: Nitrile or Viton  
Diaphragm: Proprietary high-performance engineering thermoplastic Elastomer

### Operation

Recommended on time range: 50 to 500 ms  
Recommended time between pulses: 1 minute or greater

### Maintenance

Diaphragm and pilot unit inspection should be conducted annually.

### Approvals

The RCAC20ST4 meet the requirements of the European Electromagnetic Compatibility (EMC). Directive 2004/108/EC and Low Voltage Directive 2006/95/EC, when fitted with the RCA3PV pilot.

**Please Note:** Pipes must be to Schedule 40 outside diameter.

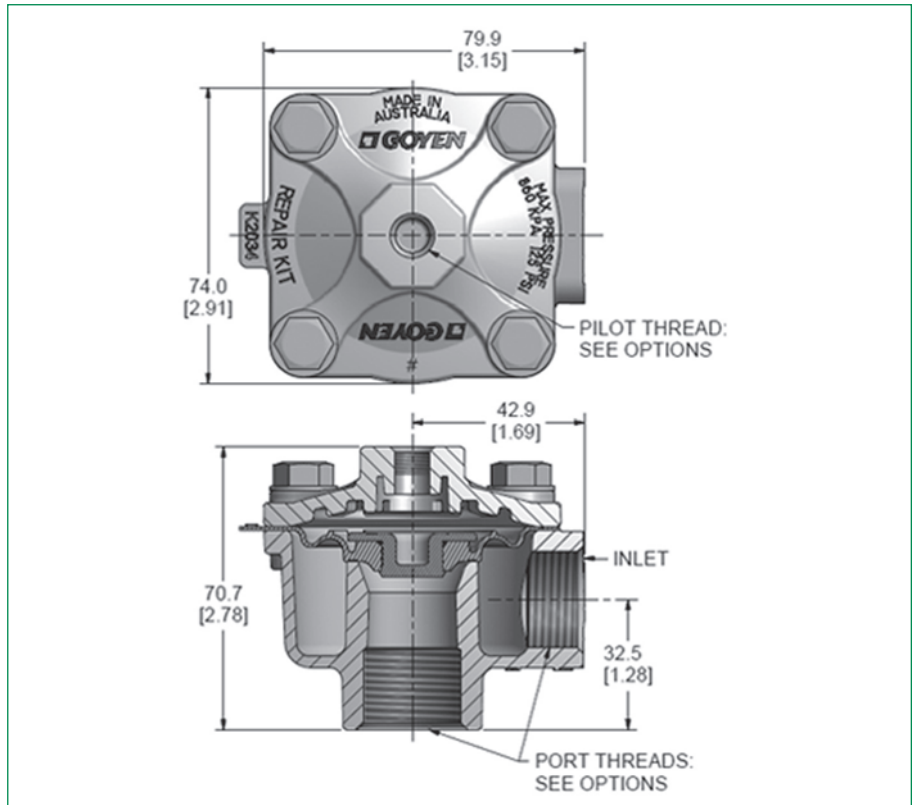
Schedule 40 Size	OD mm	OD Inches
3/4"	26.67	1.05

### Weights

Valve	Kg (Lb)
RCAC20ST4	0.30 (0.66)

### Dimensions

(Dimensions in mm and [inches])



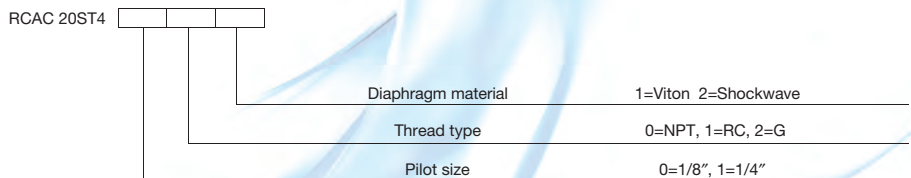
### Maintenance Kits

Model	Nitrile	Shockwave	Viton
Diaphragm Kit			
RCAC20ST4	NA	K2034	K2033

### Product Characteristics and Performance

Port Size mm (in.)	No. of Diaph.	Flow Kv (Cv)	Pressure Range kPA (Psi)	Temperature Range °C (°F) Shockwave	Viton Seals
20 (3/4)	1	14 (17)	30(5) to 860(125)	-40(-40) to 82(179.6)	-29(-20.2) to 232(449.6)

### Order Code



Examples: RCAC20ST4012  
3/4" threaded valve with 1/8" pilot, 3/4" RC port threads, Shockwave diaphragm.

Note:  
1/8 Pilot available in NPT and RC Thread.  
1/4 Pilot is only available in G Thread.

## RCAC25DD4 Series Pulse Jet Valves



### Description

High-performance diaphragm valve with dresser nut ports. Equipped with 'Shockwave' springless diaphragm, the 4 series valves are available as remote pilot valves and may be converted to integral pilot using either the RCA3DM or RCA3PV screw-in pilots. Outlet is at 90° to inlet.

### Suitable for

Dust collector applications, in particular for reverse pulse jet filter cleaning and its variations including bag filters, cartridge filters and envelope filters.

### Construction

Body and Dresser Nuts:  
Aluminium (diecast)

Screws: 302 Stainless steel

Dresser Nut Seals: Nitrile or Viton

Diaphragm: High-performance engineering thermoplastic Elastomer

### Operation

Recommended on time range:  
50 to 500 ms

Recommended time between pulses: 1 minute or greater

### Maintenance

Diaphragm and pilot inspection should be conducted annually.

### Approvals

The RCAC25DD4 meets the requirements of the European Electromagnetic Compatibility (EMC). Directive 2004/108/EC and Low Voltage Directive 2006/95/EC, when fitted with the RCA3PV pilot.

**Please Note:** Pipes must be to Schedule 40 outside diameter.

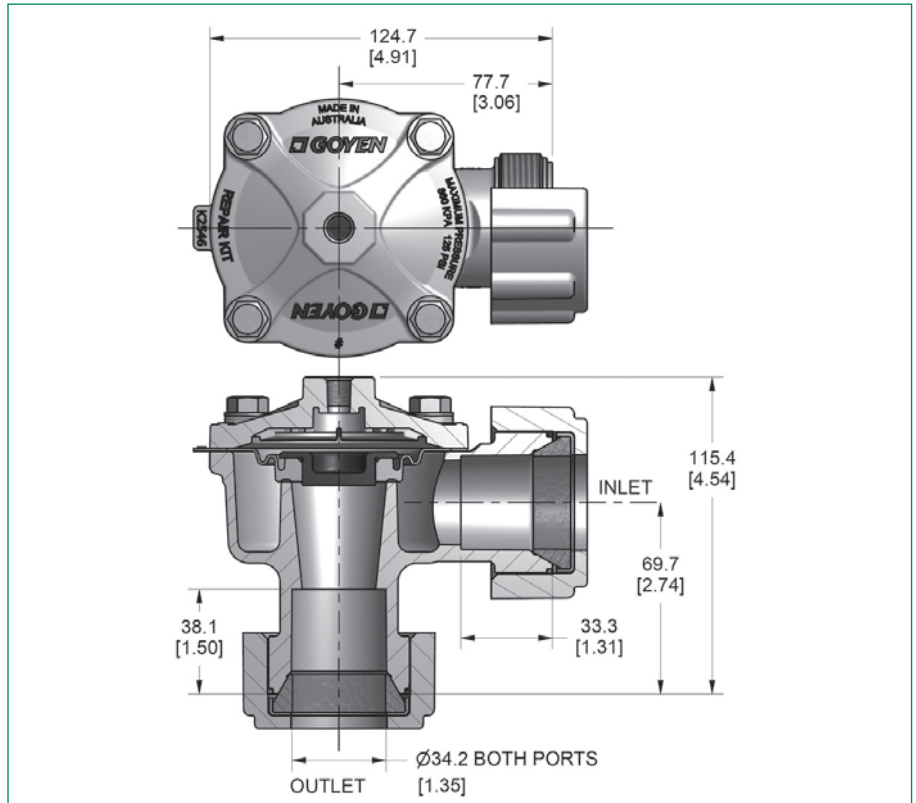
Schedule 40 Size	OD mm	OD Inches
1"	33.4	1.315

### Weights

Valve	Kg (Lb)
RCAC25DD4	0.96 (2.12)

### Dimensions

(Dimensions in mm and [inches])



### Maintenance Kits

Model	Nitrile	Shockwave	Viton
Diaphragm Kit RCAC25DD4	NA	K2546	K2551
Dresser Seal Kit CA/RCA25DD	K2508	NA	K2507

### Product Characteristics and Performance

Port Size mm (in.)	No. of Diaph.	Flow Kv (Cv)	Pressure Range kPA (Psi)	Temperature Range °C (°F) Shockwave	Viton Seals
25 (1)	1	22.5 (26.0)	30(5) to 860(125)	-40(-40) to 82(179.6)	-29(-20.2) to 232(449.6)

### Order Code

RCAC 25DD4		
Diaphragm material	1=Viton	2=Shockwave
Thread type	0=NPT, 1=RC, 2=G	
Pilot size	0=1/8"	1=1/4"

Examples: RCAC25DD4012

1" dresser nut valve with 1/8" pilot, 1" RC port threads, Shockwave diaphragm.

Note:

1/8 Pilot available in NPT and RC Thread.

1/4 Pilot is only available in G Thread.

## RCAC25FS4 Series Pulse Jet Valves



### Description

High-performance diaphragm valve with a flanged inlet port and slide seal outlet port. Equipped with 'Shockwave' springless diaphragm, the 4 series valves are available as remote pilot valves and may be converted to integral pilot using either the RCA3DM or RCA3PV screw-in pilots. Outlet is at 90° to inlet. The FS valve range features a larger diameter inlet providing higher performance than the DD or T body styles.

### Suitable for

Dust collector applications, in particular for reverse pulse jet filter cleaning and its variations including bag filters, cartridge filters and envelope filters.

### Construction

Body: Aluminium (diecast)  
Screws: 302 Stainless steel  
Seals: Nitrile or Viton  
Diaphragm: Proprietary high-performance engineering thermoplastic Elastomer

### Operation

Recommended on time range: 50 to 500ms  
Recommended time between pulses: 1 minute or greater

### Maintenance

Diaphragm and pilot unit inspection should be conducted annually.

### Approvals

The RCAC25FS4 meets the requirements of the European Electromagnetic Compatibility (EMC) Directive 2004/108/EC and Low Voltage Directive 2006/95/EC, when fitted with the RCA3PV pilot.

**Please Note:** Pipes must be to Schedule 40 outside diameter.

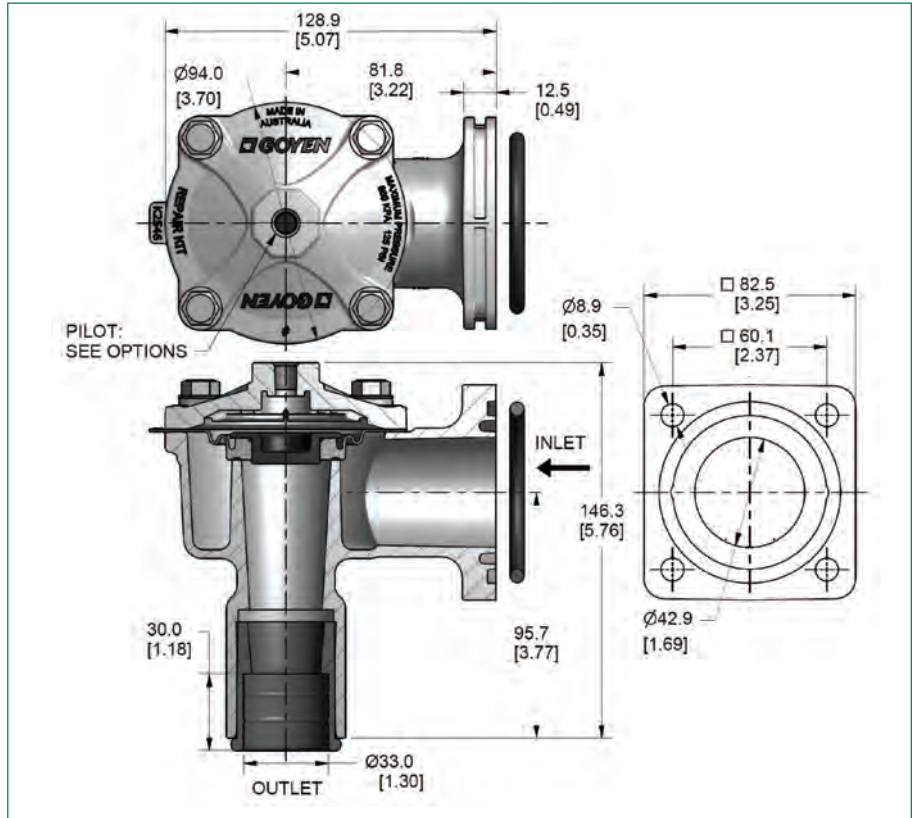
Schedule 40 Size	OD mm	OD Inches
1"	33.4	1.315

### Weights

Valve	Kg (Lb)
RCAC25FS4	0.85 (1.87)

### Dimensions

(Dimensions in mm and [inches])



### Maintenance Kits

Model	Nitrile	Shockwave	Viton
Diaphragm Kit RCAC25FS4	NA	K2546	K2551
FS Outlet Seal RCAC25FS4	G690763	N/A	G690763-2

### Product Characteristics and Performance

Port Size mm (in.)	No. of Diaph.	Flow Kv (Cv)	Pressure Range kPA (Psi)	Temperature Range °C (°F)	
				Shockwave	Viton Seals
25 (1)	1	34 (40)	30(5) to 860(125)	-40(-40) to 82(179.6)	-29(-20.2) to 232(449.6)

### Order Code

RCAC 25FS4				
	Diaphragm material	1=Viton 2=Shockwave		
	Thread type	0=NPT, 1=RC, 2=G		
	Pilot size	0=1/8", 1=1/4"		

Examples: RCAC25FS4012

1" FS valve with 1/8" pilot, 1/8" RC pilot port threads, Shockwave diaphragm.

Note:

1/8 Pilot available in NPT and RC Thread.

1/4 Pilot is only available in G Thread.

## RCAC25T4 Series Pulse Jet Valves



### Description

High-performance diaphragm valve with threaded ports. Equipped with 'Shockwave' springless diaphragm, the 4 series valves are available as remote pilot valves and may be converted to integral pilot using either the RCA3DM or RCA3PV screw-in pilots. Outlet is at 90° to inlet.

### Suitable for

Dust collector applications, in particular for reverse pulse jet filter cleaning and its variations including bag filters, cartridge filters and envelope filters.

### Construction

Body: Aluminium (diecast)  
Screws: 302 Stainless steel  
Seals: Nitrile or Viton  
Diaphragm: Proprietary high-performance engineering thermoplastic Elastomer

### Operation

Recommended on time range: 50 to 500 ms  
Recommended time between pulses: 1 minute or greater

### Maintenance

Diaphragm and pilot unit inspection should be conducted annually.

### Approvals

The RCAC25T4 meets the requirements of the European Electromagnetic Compatibility (EMC). Directive 2004/108/EC and Low Voltage Directive 2006/95/EC, when fitted with the RCA3PV pilot.

**Please Note:** Pipes must be to Schedule 40 outside diameter.

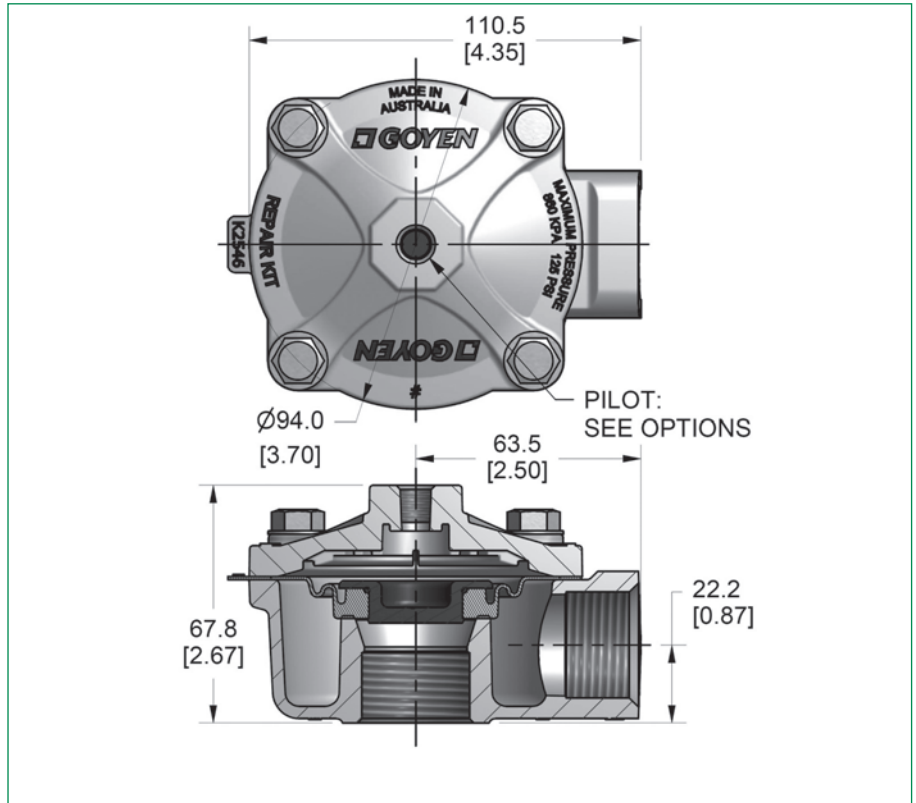
Schedule 40 Size	OD mm	OD Inches
1"	33.4	1.315

### Weights

Valve	Kg (Lb)
RCAC25T4	0.56 (1.23)

### Dimensions

(Dimensions in mm and [inches])



### Maintenance Kits

Model	Nitrile	Shockwave	Viton
Diaphragm Kit RCAC25T4	NA	K2546	K2551

### Product Characteristics and Performance

Port Size mm (in.)	No. of Diaph.	Flow Kv (Cv)	Pressure Range kPa(Psi)	Temperature Range °C (°F)	
				Shockwave	Viton Seals
25 (1)	1	24 (27)	30(5) to 860(125)	-40(-40) to 82(179.6)	-29(-20.2) to 232(449.6)

### Order Code

RCAC 25T4	Diaphragm material	1=Viton 2=Shockwave
	Thread type	0=NPT, 1=RC, 2=G
	Pilot size	0=1/8", 1=1/4"

Examples: RCAC25T4012

1" threaded port valve with 1/8" pilot, 1" RC port threads, Shockwave diaphragm.

Note:

1/8 Pilot available in NPT and RC Thread.

1/4 Pilot is only available in G Thread.

## Goyen Series 4 Pilot Valve Options for Integral Pilot (CA) Applications



### RCA3DM Pilot Valve

#### For Integral Pilot (CA) applications:

The RCA3DM is a pilot valve with an integral silencer and dust shroud which mounts directly (screw-in) to the 4 series valve cover. The Dimensional diagrams can be found on Page 11 of this brochure.

RCA3DM and RCA3PV are suitable piloting options for all 4 Series valves and the RCA35T diaphragm valve.

#### Construction

- Encapsulation: PA-6
- C-Frame: Mild steel, zinc passivated
- Bobbin: PA-6
- Insulation class: B/130°C
- IP Rating: IP64
- Rating: Non-continuous use only
- Clip: Mild steel (mechanically plated)

#### Operation

- Recommended on time range: 50 to 500 ms
- Recommended time between pulses: 1 minute or greater

#### Certification and Conformities

- C-Tick
- EMC (89/336/CE)
- LV
- CSA

#### Spare Parts:

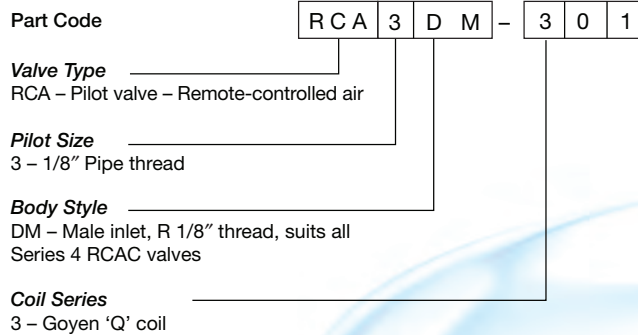
K0380 – Kit includes Nitrile replacement seal, armature, spring and ferrule.

K0384 – Kit includes Viton replacement seal, armature, spring and ferrule.

#### Product Performance

Flow	Maximum Working Pressure	Minimum Working Pressure	Temperature Min.	Temperature Max.	Fluid Media
0.32 Cv	860 kPa	0 kPa	-40°C	82°C	Air or inert gas
0.27 Kv	125 psi	0 psi	-40°F	180°F	

#### How to Order

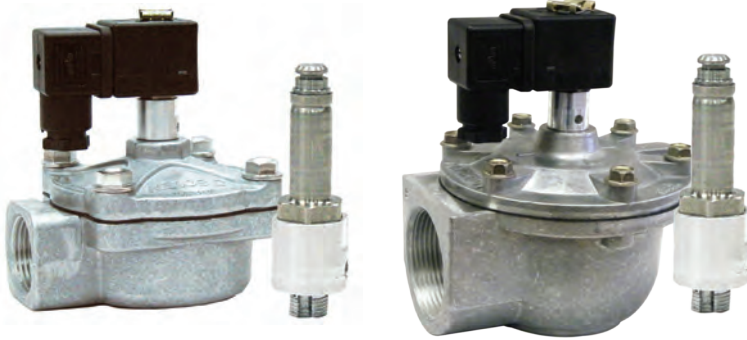


#### Order Code and Electrical Characteristics

Model	Connection Type	Protection Class	Voltage	Power
300	DIN 43650A	IP64	200/240 V 50/60 Hz	23.1 VA
301	DIN 43650A	IP64	100/120 V 50/60 Hz	19.8 VA
302	DIN 43650A	IP64	24 V 50/60 Hz	23.1 VA
303	DIN 43650A	IP64	110 V DC	24 W
304	DIN 43650A	IP64	48 V DC	20 W
305	DIN 43650A	IP64	24 V DC	20 W
306	DIN 43650A	IP64	12 V DC	20 W
310	Conduit (M20x1.5)	IP31	200/240 V 50/60 Hz	23.1 VA
311	Conduit (M20x1.5)	IP31	100/120 V 50/60 Hz	19.8 VA
312	Conduit (M20x1.5)	IP31	24 V 50/60 Hz	23.1 VA
313	Conduit (M20x1.5)	IP31	24 V DC	20 W
314	Conduit (M20x1.5)	IP31	12 V DC	20 W
320	Conduit (1/2" NPSC)	IP31	200/240 V 50/60 Hz	23.1 VA
321	Conduit (1/2" NPSC)	IP31	100/120 V 50/60 Hz	19.8 VA
322	Conduit (1/2" NPSC)	IP31	24 V 50/60 Hz	23.1 VA
323	Conduit (1/2" NPSC)	IP31	24 V DC	20 W
324	Conduit (1/2" NPSC)	IP31	12 V DC	20 W

Please refer to page 3 of the Pilot Valves and Nema 4 Enclosures catalogue for replacement coil options.

## Goyen Series 4 Pilot Valve Options for Integral Pilot (CA) Applications



### RCA3PV Pilot Valve

#### For Integral Pilot (CA) applications:

The RCA3PV pilot is another option for integral pilot (CA) applications. The RCA3PV pilot is a screw-in pilot available in 1/8" and 1/4" port sizing. The Dimensional diagrams can be found on Page 11 of this brochure.

RCA3DM and RCA3PV are suitable piloting options for all 4 Series valves and the RCA35T diaphragm valve.

#### Construction

- Encapsulation: PA-6
- C-Frame: Mild steel, zinc nickel plated
- Bobbin: PA-6
- Insulation class: F/155°C
- IP Rating: IP65
- Rating: Non-continuous use only
- Clip: Mild steel (mechanically plated)

#### Operation

- Recommended on time range: 50 to 500 ms
- Recommended time between pulses: 1 minute or greater

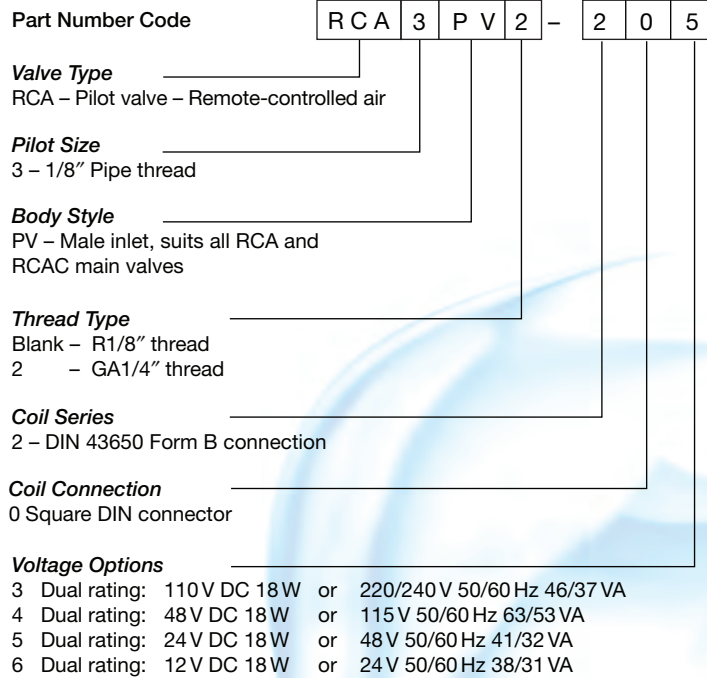
#### Certification and Conformities

- EMC (89/336/CE)
- LV

#### Product Performance

Flow	Maximum Working Pressure	Minimum Working Pressure	Temperature Min.	Temperature Max.	Fluid Media
0.28 Cv	860 kPa	0 kPa	-40°C	82°C	Air or inert gas
0.24 Kv	125 psi	0 psi	-40°F	180°F	

#### How to Order



**For Remote Pilot (RCA) Applications:**  
Please refer to the Pilot Valves and Nema 4 Enclosures catalogue.

#### Spare Parts:

No pilot valve overhaul kits are available for the RCA3PV pilot; however, coil kits are available as listed below:

K0203 – Dual rating: 110 V DC 18 W or 220/240 V 50/60 Hz – kit includes coil, stabilus clip and washer.

K0204 – Dual rating: 48 V DC 18 W or 115 V 50/60 Hz – kit includes coil, stabilus clip and washer.

K0205 – Dual rating: 24 V DC 18 W or 48 V 50/60 Hz – kit includes coil, stabilus clip and washer.

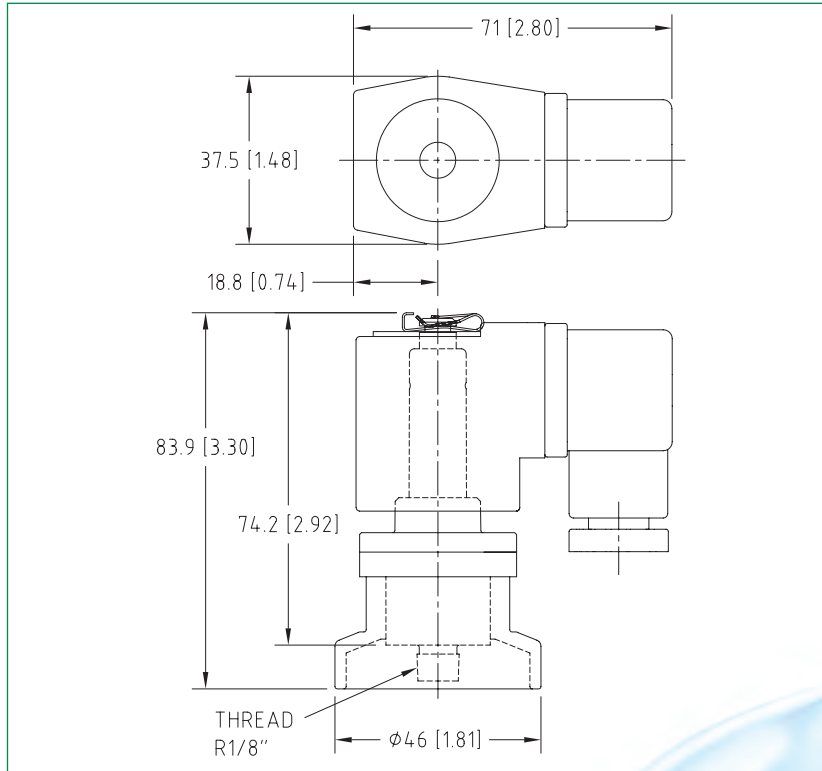
K0206 – Dual rating: 12 V DC 18 W or 24 V 50/60 Hz – kit includes coil, stabilus clip and washer.

## RCA3DM and RCA3PV/3PV2 Pilot Valves

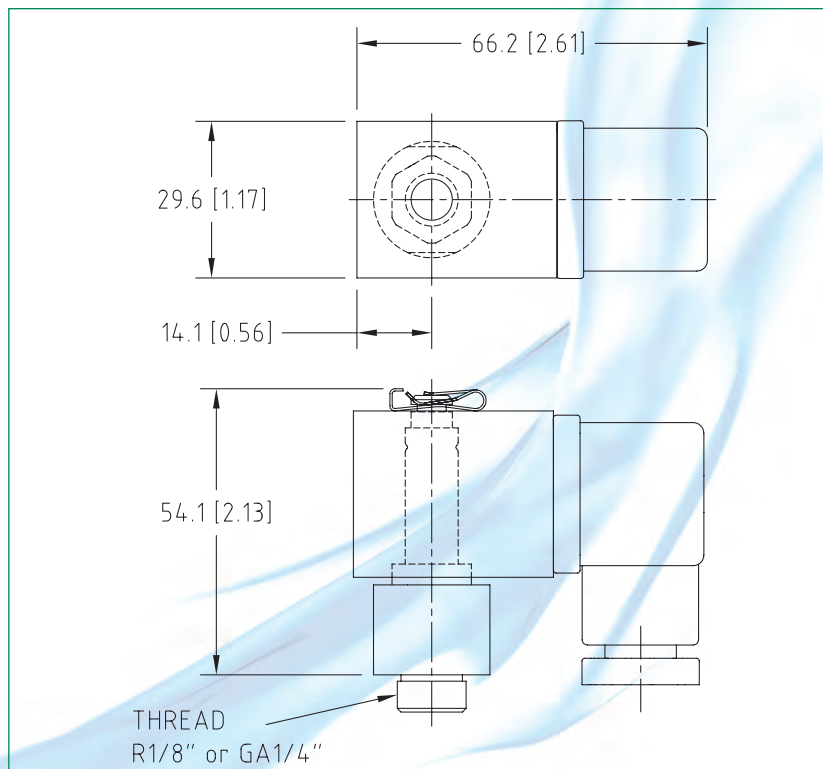
### Dimensions

(Dimensions in mm and [inches])

#### RCA3DM Pilot Valve



#### RCA3PV (1/8") and RCA3PV2 (1/4")





#### **Australia**

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