



4 Series Pulse Jet Valves

Innovative Environmental Solutions

tyco | Flow Control | **Environmental Systems**

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: 50-500ms

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.

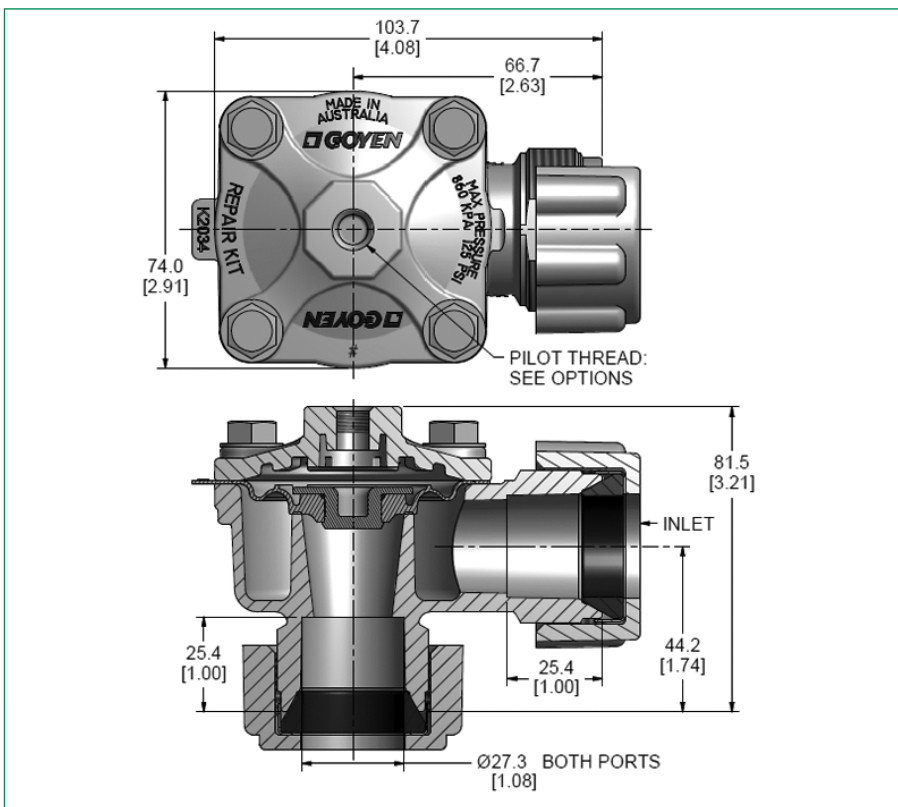
Schedule 40 Size	OD mm	OD Inches
3/4"	26.67	1.05

Weights

Valve	Kg (lbs)
RCAC20DD4	0.52kg (1.14lbs)

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) – 860(125)	-40(-40) – 82(179.6)	-29(-20.2) – 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 & 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:

50-500ms

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.

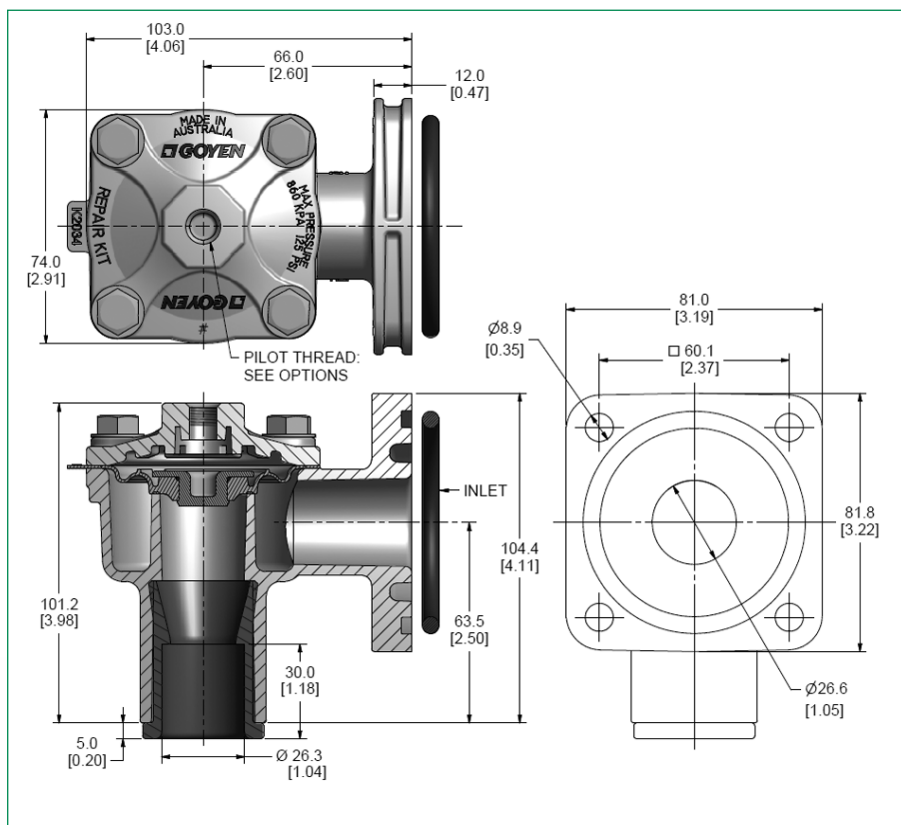
Schedule 40 Size	OD mm	OD Inches
3/4"	26.67	1.05

Weights

Valve	Kg (lbs)
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) – 860(125)	-40(-40) – 82(179.6)	-29(-20.2) – 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 & 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:
50-500ms

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.

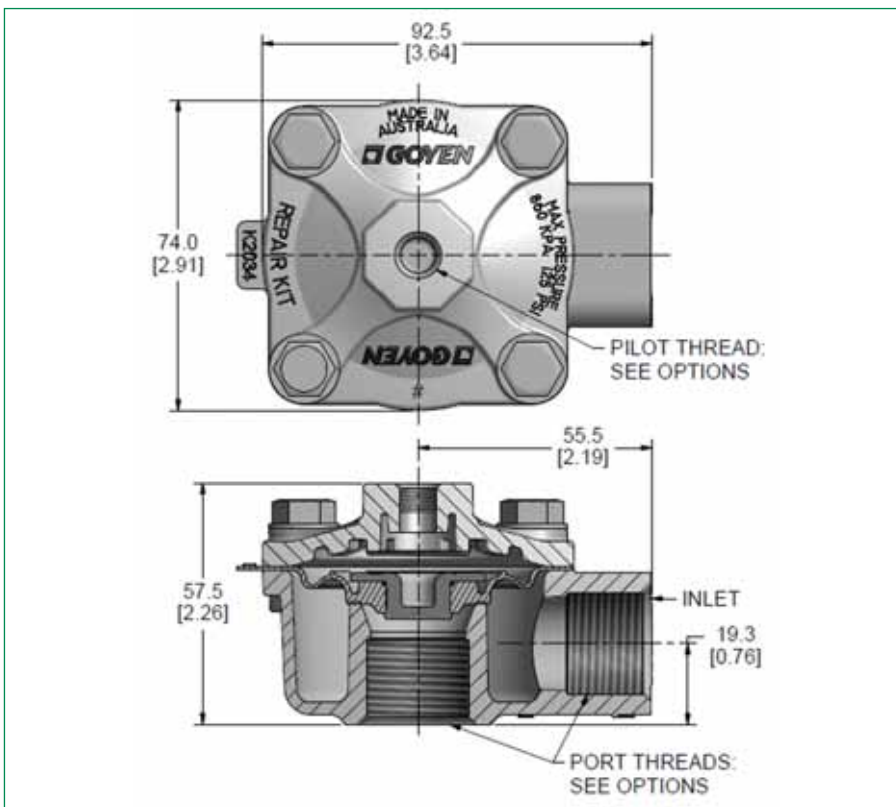
Schedule 40 Size	OD mm	OD Inches
3/4"	26.67	1.05

Weights

Valve	Kg (lbs)
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) – 860(125)	-40(-40) – 82(179.6)	-29(-20.2) – 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 & 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:
50-500ms

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.

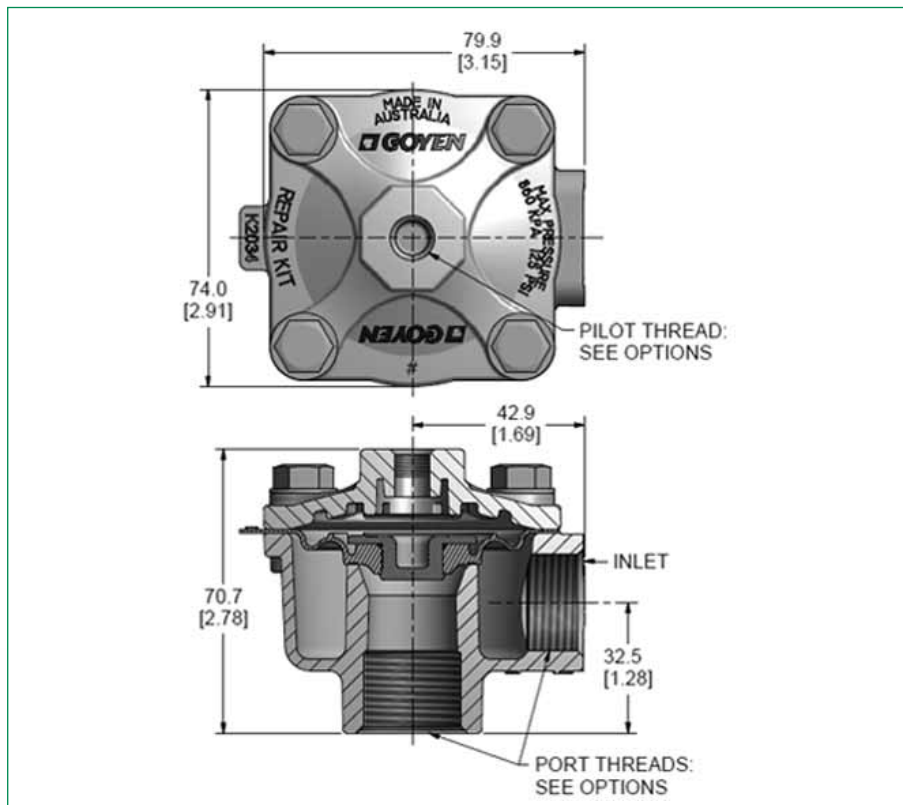
Schedule 40 Size	OD mm	OD Inches
3/4"	26.67	1.05

Weights

Valve	Kg (lbs)
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) – 860(125)	-40(-40) – 82(179.6)	-29(-20.2) – 232(449.6)

Order Code

RCAC 20ST4			
	Diaphragm material	1=Viton 2=Shockwave	
	Thread type	0=NPT, 1=RC, 2=G	
	Pilot size	0=1/8", 1=1/4"	

Examples: RCAC20ST4012

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

Note:

1/8 Pilot available in NPT & 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: 50-500ms

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.

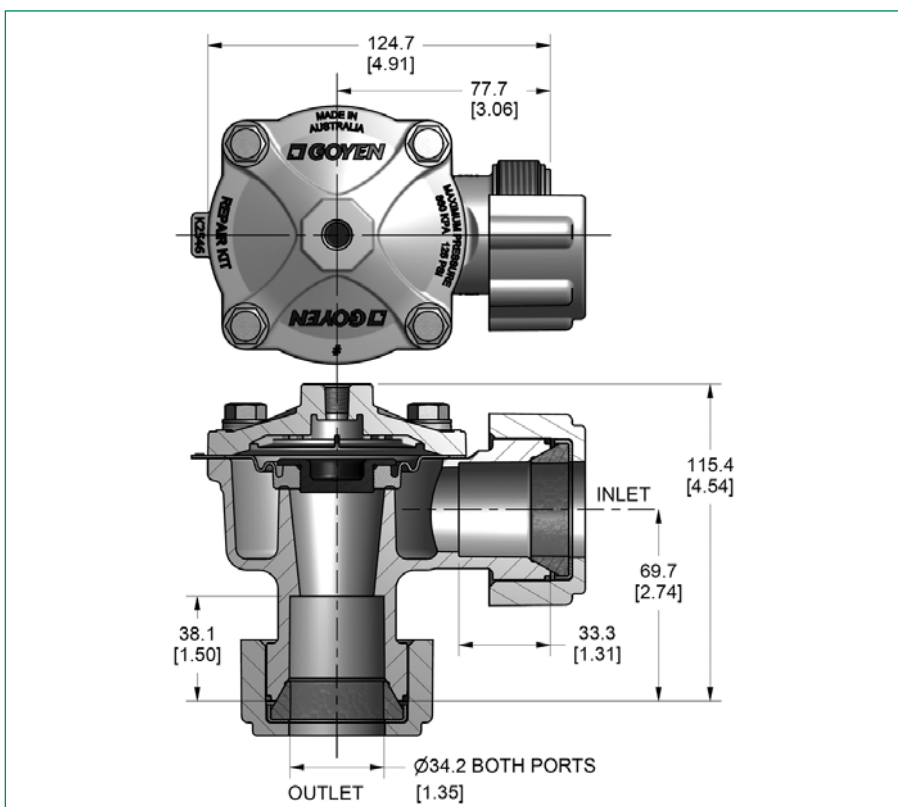
Schedule 40 Size	OD mm	OD Inches
1"	33.4	1.315

Weights

Valve	Kg (lbs)
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) – 860(125)	-40(-40) – 82(179.6)	-29(-20.2) – 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 & 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: 50-500ms

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.

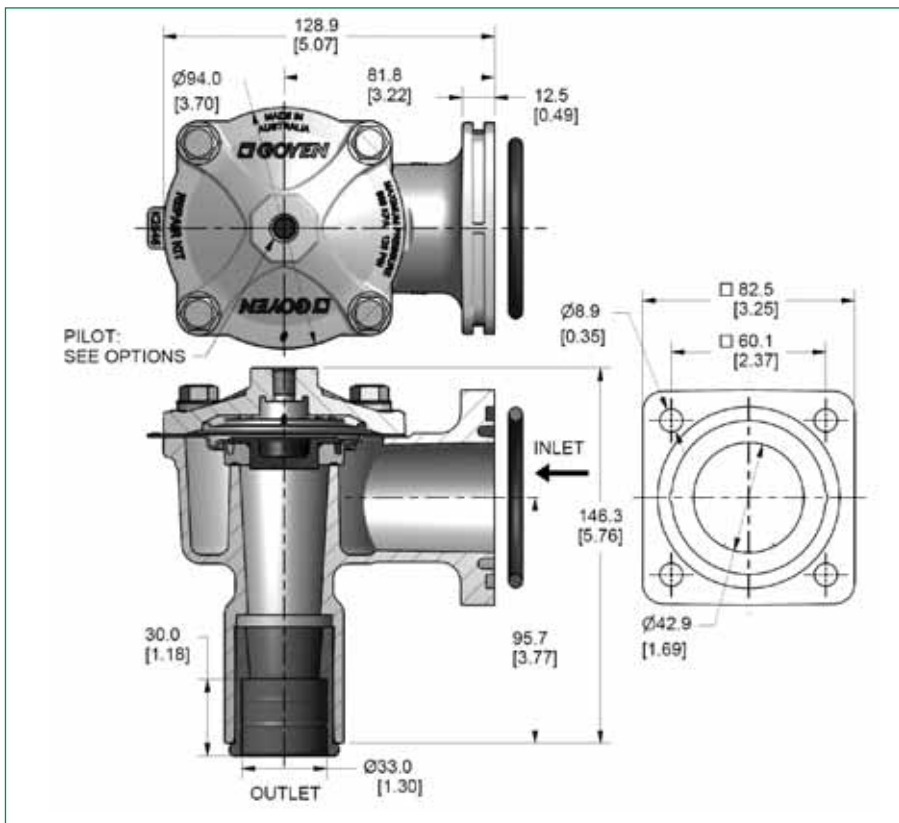
Schedule 40 Size	OD mm	OD Inches
1"	33.4	1.315

Weights

Valve	Kg (lbs)
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) – 860(125)	-40(-40) – 82(179.6)	-29(-20.2) – 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 & 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: 50-500ms

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.

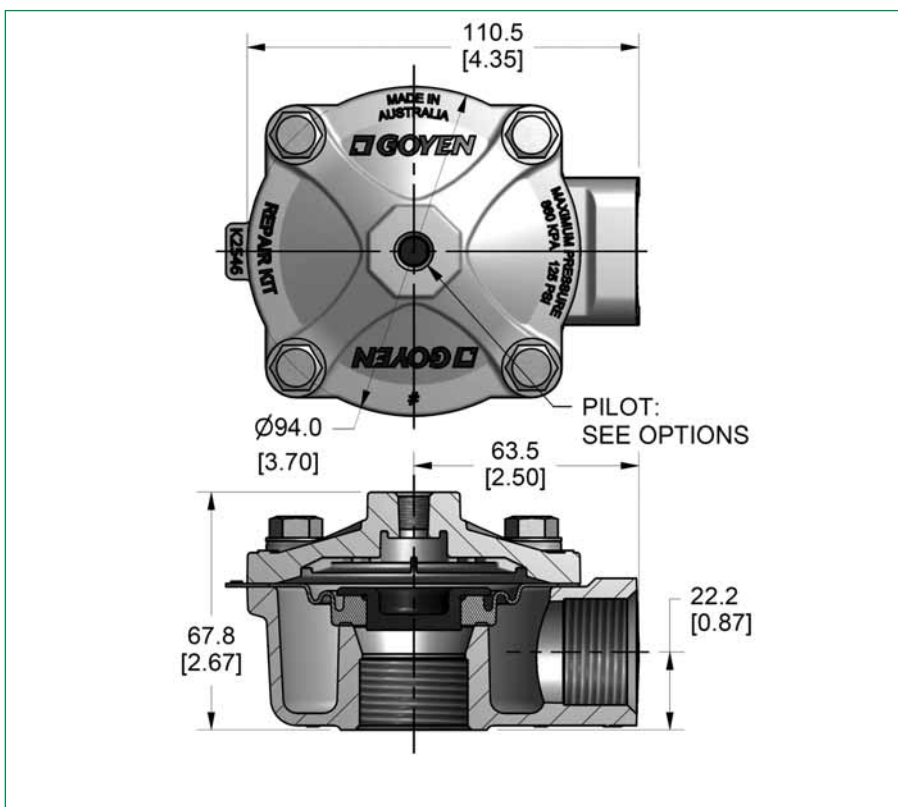
Schedule 40 Size	OD mm	OD Inches
1"	33.4	1.315

Weights

Valve	Kg (lbs)
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) – 860(125)	-40(-40) – 82(179.6)	-29(-20.2) – 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 & 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

Description

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.

Construction

Encapsulation: PA-6

C-Frame: Mild steel zinc nickel plated

Bobbin: PA-6

IP Rating: IP64

Insulation class: B/130°C

Rating: Non-continuous use only

Clip: Mild steel (mechanically plated)

Operation

Recommended on time range: 50-500ms

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.

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

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
0.27 Kv	125 psi	0 psi	-40°F	180°F	inert gas

How to Order

Part Code

R C A 3 D M - 3 0 1

Valve Type

RCA - Pilot valve - Remote controlled air

Pilot Size

3 - 1/8" Pipe Thread

Body Style

DM - Male inlet, R 1/8" thread, suits all Series 4 RCAC valves

Coil Series

3 - Goyen 'Q' coil

Order Code and Electrical Characteristics

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

For Remote Pilot (RCA) Applications,

Please refer to the Pilot Valves and Nema 4 Enclosures brochure.

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



RCA3PV and RCA3PV2 Pilot Valves

Description

The RCA3PV pilot is another option for integral pilot (CA) applications. The RCA3PV pilot is a screw in pilot available in 1/8" (RCA3PV) and 1/4" (RCA3PV2) port sizing. The Dimensional diagrams can be found on Page 11 of this brochure.

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: 50-500ms

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
0.24 Kv	125 psi	0 psi	-40°F	180°F	inert gas

How to Order

Part Number Code	R	C	A	3	P	V	2	-	2	0	5
Valve Type	RCA - Pilot valve - Remote controlled air										
Pilot Size	3 - 1/8" Pipe Thread										
Body Style	PV - Male inlet, suits all RCA & RCAC main valves										
Thread Type	Blank - R1/8" thread 2 - GA1/4" thread										
Coil Series	3 - Mecair 'SB3' coil										
Coil Connection	0 Square DIN connector										
Voltage Options	3 Dual rating: 110v DC 18W or 220/240v 50/60Hz 46/37VA 4 Dual rating: 48v DC 18W or 115v 50/60Hz 63/53VA 5 Dual rating: 24v DC 18W or 48v 50/60Hz 41/32VA 6 Dual rating: 12v DC 18W or 24v 50/60Hz 38/31VA										

For Remote Pilot (RCA) Applications,

Please refer to the Pilot Valves and Nema 4 Enclosures brochure.

Spare Parts:

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

K0203 - Dual rating: 110v DC 18W or 220/240v 50/60Hz. Kit includes coil, stabilus clip and washer.

K0204 - Dual rating: 48VDC 18W or 115v 50/60Hz. Kit includes coil, stabilus clip and washer.

K0205 - Dual rating: 24v DC 18W or 48v 50/60Hz. Kit includes coil, stabilus clip and washer.

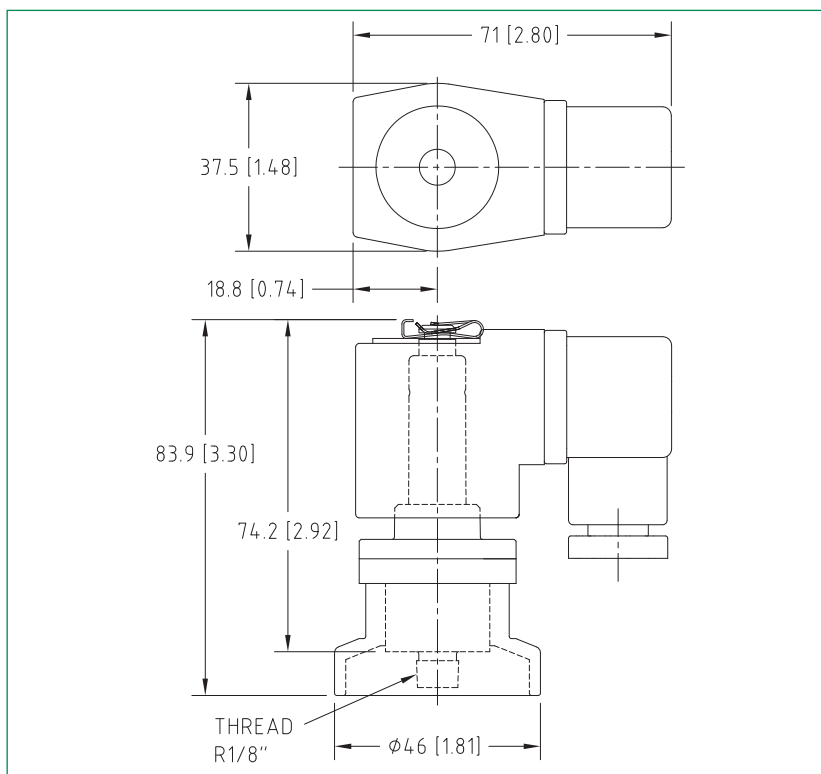
K0206 - Dual rating: 12v DC 18W or 24v 50/60Hz. Kit includes coil, stabilus clip and washer.

RCA3DM and RCA3PV/3PV2 Pilot Valves

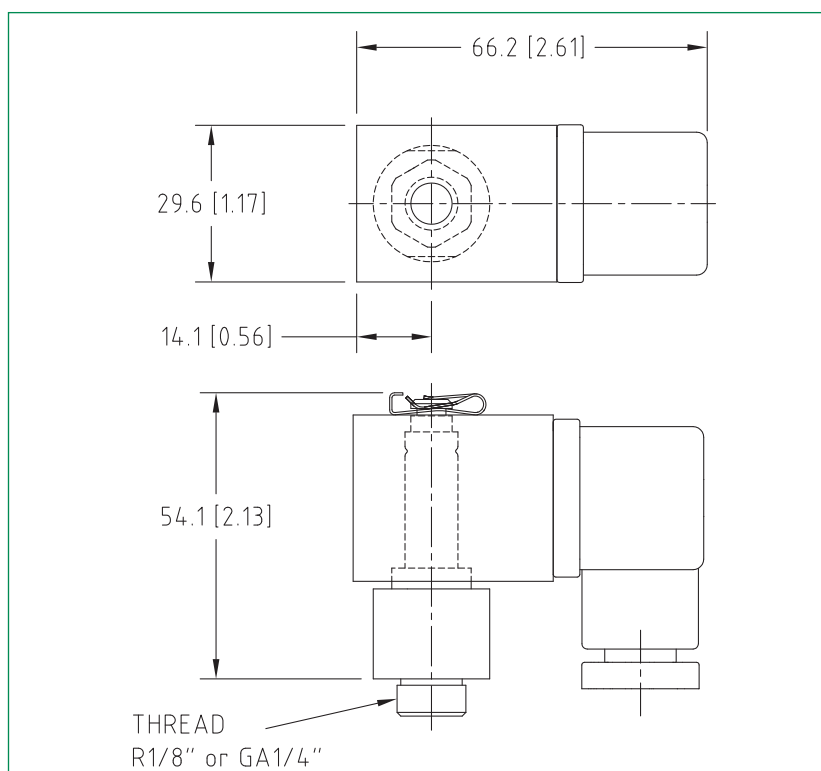
Dimensions

(Dimensions in mm and [inches])

RCA3DM Pilot Valve



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





Australia

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