



RCA3

# SOLENOID PILOT VALVES

# GOYEN - RCA3 SOLENOID PILOT VALVES

PRODUCT LEAFLET

## RCA3D - REMOTE SOLENOID PILOT VALVE TO CONTROL THE ACTUATION OF DUST COLLECTOR DIAPHRAGM VALVES



### INSTALLATION

Prepare pilot mounting hole in panel to  $\varnothing$  19.3/19.4 ( $\varnothing$  0.762"). Panel thickness must exceed 1.5 mm (0.062"). Ensure o-ring is in place before tightening locknut. Preferably, install pilot valves with solenoid on top. For reliable operation, ensure supply voltage is within -10% and +15% of rated solenoid voltage. Replace components within 1 million cycles (refer to Spare Parts).

### CONSTRUCTION

**Body:** Aluminium (diecast)  
**Ferrule:** 305 SS  
**Armature:** 430FR SS  
**Seals:** Nitrile or Viton  
**Locknut:** Mild steel zinc passivated  
**Screws:** 302 SS or 304 SS  
**Clip:** Mild steel (plated)

### DIMENSIONS AND WEIGHTS IN MM AND INCHES

SERIES	WEIGHT
RCA3D0, RCA3D1 (no solenoid)	0.174 kg/0.384 lb

### OPERATION

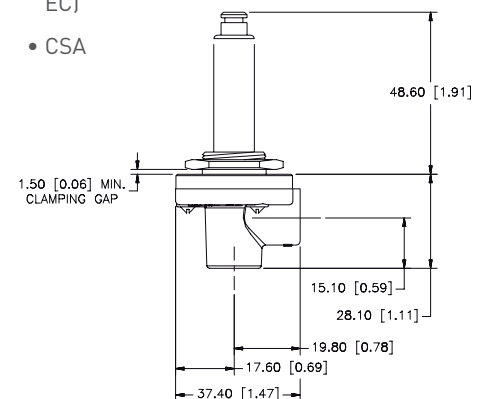
**Recommended on time range:** 50–500 ms  
**Recommended time between pulses:** 1 minute or greater

### OPTIONS

None

### APPROVALS

- C-Tick
- CE – EMC (2004/108/EC) and LV (2006/95/EC)
- CSA



### PRODUCT PERFORMANCE

FLOW	MAXIMUM WORKING PRESSURE	MINIMUM WORKING PRESSURE	TEMPERATURE MIN	TEMPERATURE MAX	FLUID MEDIA
0.32 Cv/ 0.27 Kv	860 kPa/ 125 psi	0 kPa/0 psi	-40°C/-40°F	82°C/180°F	Air or inert gas

### ORDER CODE\*

MODEL	THREAD TYPE	ORIFICE SIZE
RCA3D0-...	1/8" NPT	3.2 mm [0.126"]
RCA3D1-...	1/8" BSPP	3.2 mm [0.126"]

### SPARE PARTS

K0380	Nitrile replacement seal, armature, spring & ferrule kit.
K0384	As above in viton.

### SUITABLE FOR

All Goyen dust collector diaphragm valves.

\* Please refer to Q Series Solenoid product data sheet on page 3 for information on electrical characteristics and to complete the order code, e.g. 1 8" NPT pilot valve with 240 VAC solenoid = RCA3D0-300

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## SOLENOID PILOT VALVES

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### ORDER CODE AND ELECTRICAL CHARACTERISTICS

#### RCA3D0 Series = 1/8" NPT

MODEL	CONNECTION TYPE	PROTECTION CLASS	VOLTAGE	POWER
RCA3D0-300	DIN 43650A	IP65	200/240 V 50/60 Hz	17.4/22.6 V A
RCA3D0-301	DIN 43650A	IP65	100/120 V 50/60 Hz	15.2/19.7 V A
RCA3D0-302	DIN 43650A	IP65	24 V 50/60 Hz	23.1/17.2 V A
RCA3D0-303	DIN 43650A	IP65	110 V DC	24 W
RCA3D0-304	DIN 43650A	IP65	48 V DC	20 W
RCA3D0-305	DIN 43650A	IP65	24 V DC	20 W
RCA3D0-306	DIN 43650A	IP65	12 V DC	20 W
RCA3D0-310	Conduit (M20 × 1.5)	IP31	200/240 V 50/60 Hz	17.4/22.6 V A
RCA3D0-311	Conduit (M20 × 1.5)	IP31	100/120 V 50/60 Hz	15.2/19.7 V A
RCA3D0-312	Conduit (M20 × 1.5)	IP31	24 V 50/60 Hz	23.1/17.2 V A
RCA3D0-313	Conduit (M20 × 1.5)	IP31	24 V DC	20 W
RCA3D0-314	Conduit (M20 × 1.5)	IP31	12 V DC	20 W
RCA3D0-320	Conduit (1/2" NPSC)	IP31	200/240 V 50/60 Hz	17.4/22.6 V A
RCA3D0-321	Conduit (1/2" NPSC)	IP31	100/120 V 50/60 Hz	15.2/19.7 V A
RCA3D0-322	Conduit (1/2" NPSC)	IP31	24 V 50/60 Hz	23.1/17.2 V A
RCA3D0-323	Conduit (1/2" NPSC)	IP31	24 V DC	20 W
RCA3D0-324	Conduit (1/2" NPSC)	IP31	12 V DC	20 W
RCA3D0-330	Screw / spade	NA	200/240 V 50/60 Hz	17.4/22.6 V A
RCA3D0-331	Screw / spade	NA	100/120 V 50/60 Hz	15.2/19.7 V A
RCA3D0-332	Screw / spade	NA	24 V 50/60 Hz	23.1/17.2 V A
RCA3D0-333	Screw / spade	NA	240 V DC	24 W
RCA3D0-334	Screw / spade	NA	110 V DC	24 W
RCA3D0-335	Screw / spade	NA	48 V DC	20 W
RCA3D0-336	Screw / spade	NA	24 V DC	20 W
RCA3D0-337	Screw / spade	NA	12 V DC	20 W
RCA3D0-340	Flying Lead	IP64	200/240 V 50/60 Hz	17.4/22.6 V A
RCA3D0-341	Flying Lead	IP64	100/120 V 50/60 Hz	15.2/19.7 V A
RCA3D0-342	Flying Lead	IP64	24 V 50/60 Hz	23.1/17.2 V A
RCA3D0-343	Flying Lead	IP64	24 V DC	20 W
RCA3D0-344	Flying Lead	IP64	12 V DC	20 W

**Notes:** RCA3D0-305 is an RCA3D remote pilot with 1/8" NPT threads and a 24 V DC DIN43650A connection.

# GOYEN - RCA3

## SOLENOID PILOT VALVES

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### ORDER CODE AND ELECTRICAL CHARACTERISTICS

#### RCA3D1 Series = 1/8" BSPP

MODEL	CONNECTION TYPE	PROTECTION CLASS	VOLTAGE	POWER
RCA3D1-300	DIN 43650A	IP64	200/240 V 50/60 Hz	17.4/22.6 V A
RCA3D1-301	DIN 43650A	IP64	100/120 V 50/60 Hz	15.2/19.7 V A
RCA3D1-302	DIN 43650A	IP64	24 V 50/60 Hz	23.1/17.2 V A
RCA3D1-303	DIN 43650A	IP64	110 V DC	24 W
RCA3D1-304	DIN 43650A	IP64	48 V DC	20 W
RCA3D1-305	DIN 43650A	IP64	24 V DC	20 W
RCA3D1-306	DIN 43650A	IP64	12 V DC	20 W
RCA3D1-310	Conduit (M20 × 1.5)	IP31	200/240 V 50/60 Hz	17.4/22.6 V A
RCA3D1-311	Conduit (M20 × 1.5)	IP31	100/120 V 50/60 Hz	15.2/19.7 V A
RCA3D1-312	Conduit (M20 × 1.5)	IP31	24 V 50/60 Hz	23.1/17.2 V A
RCA3D1-313	Conduit (M20 × 1.5)	IP31	24 V DC	20 W
RCA3D1-314	Conduit (M20 × 1.5)	IP31	12 V DC	20 W
RCA3D1-320	Conduit (1/2" NPSC)	IP31	200/240 V 50/60 Hz	17.4/22.6 V A
RCA3D1-321	Conduit (1/2" NPSC)	IP31	100/120 V 50/60 Hz	15.2/19.7 V A
RCA3D1-322	Conduit (1/2" NPSC)	IP31	24 V 50/60 Hz	23.1/17.2 V A
RCA3D1-323	Conduit (1/2" NPSC)	IP31	24 V DC	20 W
RCA3D1-324	Conduit (1/2" NPSC)	IP31	12 V DC	20 W
RCA3D1-330	Screw / spade	NA	200/240 V 50/60 Hz	17.4/22.6 V A
RCA3D1-331	Screw / spade	NA	100/120 V 50/60 Hz	15.2/19.7 V A
RCA3D1-332	Screw / spade	NA	24 V 50/60 Hz	23.1/17.2 V A
RCA3D1-333	Screw / spade	NA	240 V DC	24 W
RCA3D1-334	Screw / spade	NA	110 V DC	24 W
RCA3D1-335	Screw / spade	NA	48 V DC	20 W
RCA3D1-336	Screw / spade	NA	24 V DC	20 W
RCA3D1-337	Screw / spade	NA	12 V DC	20 W
RCA3D1-340	Flying Lead	IP64	200/240 V 50/60 Hz	17.4/22.6 V A
RCA3D1-341	Flying Lead	IP64	100/120 V 50/60 Hz	15.2/19.7 V A
RCA3D1-342	Flying Lead	IP64	24 V 50/60 Hz	23.1/17.2 V A
RCA3D1-343	Flying Lead	IP64	24 V DC	20 W
RCA3D1-344	Flying Lead	IP64	12 V DC	20 W

**Note:** RCA3D1-331 is an RCA3D remote pilot with 1/8" BSPP threads and 110/240 V AC spade screw coil.

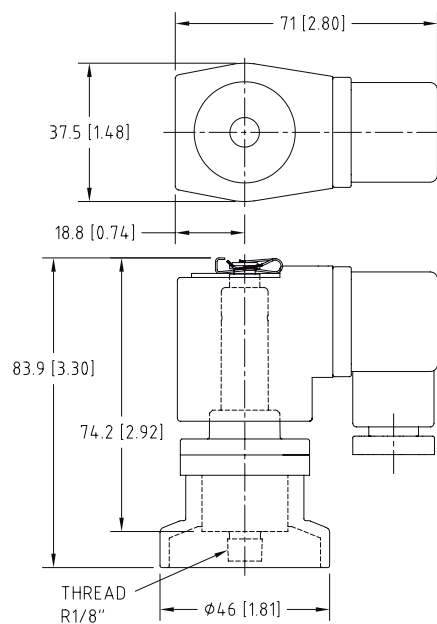
# GOYEN - RCA3 SOLENOID PILOT VALVES

PRODUCT LEAFLET

## RCA3DM - PILOT VALVE



### DIMENSIONS IN MM (AND INCHES)



### 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.

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

### COIL CONSTRUCTION

**Body:** Aluminium (diecast)  
**Encapsulation:** PA-66  
**C-Frame:** Mild steel, zinc passivated  
**Bobbin:** PA-66  
**Insulation class:** B/130°C  
**IP Rating:** IP65  
**Rating:** Non-continuous use only  
**Clip:** Mild steel (mechanically plated)

### OPERATION

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

### APPROVALS

- C-Tick
- EMC (89/336/CE)
- CE – EMC (2004/108/EC) and LV (2006/95/EC)
- CSA

### SPARE PARTS

K0380	Nitrile replacement seal, armature, spring & ferrule kit.
K0384	As above in viton.

Please refer to next page for replacement coil options.

# GOYEN - RCA3 SOLENOID PILOT VALVES

## PRODUCT LEAFLET

### RCA3DM - HOW TO ORDER

<b>RCA 3 DM - 301</b>	
<b>Valve type</b> RCA - Pilot valve - Remote-controlled air	<b>Coil series</b> 3 - Goyen 'Q' coil
<b>Pilot size</b> 3 - 1/8" Pipe thread	<b>Body style</b> DM - Male inlet, R 1/8" thread, suits all Series 4 RCAC valves

### PRODUCT PERFORMANCE

FLOW	MAXIMUM WORKING PRESSURE	MINIMUM WORKING PRESSURE	TEMPERATURE MIN		TEMPERATURE MAX		FLUID MEDIA
			NITRILE	VITON	NITRILE	VITON	
0.32 Cv/0.27 Kv	860 kPa/125 psi	0 kPa/0 psi	-40°C/-40°F	-29°C/-20°F	82°C/180°F	232°C/450°F	Air or inert gas

### ELECTRICAL CHARACTERISTICS

<b>DIN SOCKET CONNECTOR</b>	Pg9 connection (cable entry)
<b>DIN SOCKET SPECIFICATION</b>	EN175301 - 803 (previously DIN 43650A) / A/ISO 4400
<b>DIN SOCKET OPTIONAL</b>	94/9/CE ATEX II 3GD T6
<b>ISOLATION CLASS DIN SOCKET</b>	VDE 0110 - 1/89
<b>DIN SOCKET PROTECTION</b>	IP65 EN60529

MODEL	TYPE	CONNECTION TYPE	PROTECTION CLASS	VOLTAGE	POWER	COLOUR
300	QR	DIN 43650A	IP64	200/240 V 50/60 Hz	17.4/22.6 V A	Grey
301	QR	DIN 43650A	IP64	100/120 V 50/60 Hz	15.2/19.7 V A	Grey
302	QR	DIN 43650A	IP64	24 V 50/60 Hz	23.1/17.2 V A	Grey
303	QR	DIN 43650A	IP64	110 V DC	24 W	Grey
304	QR	DIN 43650A	IP64	48 V DC	20 W	Grey
305	QR	DIN 43650A	IP64	24 V DC	20 W	Grey
306	QR	DIN 43650A	IP64	12 V DC	20 W	Grey
310	QD	Conduit (M20 × 1.5)	IP31	200/240 V 50/60 Hz	17.4/22.6 V A	Green
311	QD	Conduit (M20 × 1.5)	IP31	100/120 V 50/60 Hz	15.2/19.7 V A	Green
312	QD	Conduit (M20 × 1.5)	IP31	24 V 50/60 Hz	23.1/17.2 V A	Green
313	QD	Conduit (M20 × 1.5)	IP31	24 V DC	20 W	Green
314	QD	Conduit (M20 × 1.5)	IP31	12 V DC	20 W	Green
320	QD	Conduit (1/2" NPSC)	IP31	200/240 V 50/60 Hz	17.4/22.6 V A	Green
321	QD	Conduit (1/2" NPSC)	IP31	100/120 V 50/60 Hz	15.2/19.7 V A	Green
322	QD	Conduit (1/2" NPSC)	IP31	24 V 50/60 Hz	23.1/17.2 V A	Green
323	QD	Conduit (1/2" NPSC)	IP31	24 V DC	20 W	Green
324	QD	Conduit (1/2" NPSC)	IP31	12 V DC	20 W	Green

# GOYEN - RCA3 SOLENOID PILOT VALVES

PRODUCT LEAFLET

## 3DS - PILOT VALVE WITH INTEGRAL SILENCER AND DUST SHROUD TO MOUNT DIRECTLY TO DUST COLLECTOR DIAPHRAGM VALVE



### CONSTRUCTION

**Body:** Al 2011-T3  
**Ferrule:** 302 SS  
**Armature:** 430FR SS  
**Encapsulation:** PA-6  
**Insulation:** Class B/130°C  
**Seals:** Nitrile  
**Shroud:** PA-6

### OPERATION

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

### OPTIONS

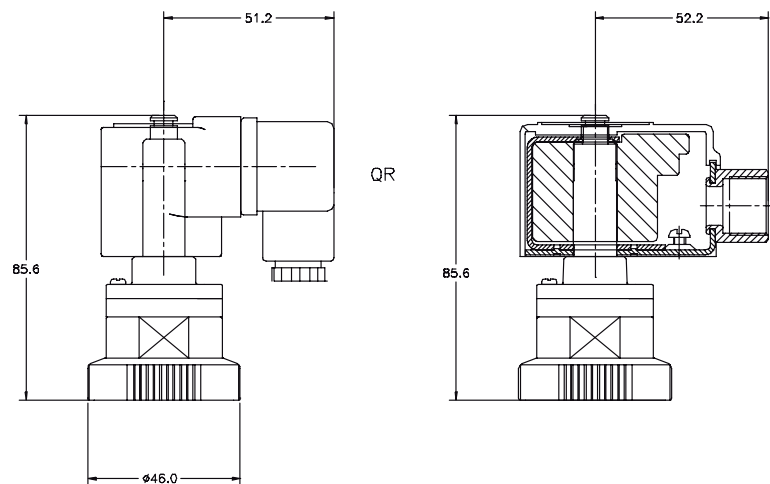
None

### APPROVALS

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

### DIMENSIONS AND WEIGHTS IN MM

SERIES	WEIGHT
3DS-0	0.096 kg/0.211 lb
3DS-300 to 3DS-306	0.246 kg/0.542 lb
3DS-310 to 3DS-324	0.266 kg/0.586 lb



### SUITABLE FOR

RCAC20T3, RCAC20ST3, RCAC20DD3,  
 RCAC20FS3, RCAC25T3, RCAC25DD3,  
 RCAC25FS3 dust collector valves only.

### INSTALLATION

Ensure o-ring is in place on diaphragm valve cover. Gripping the shroud, hand tighten 3DS pilot valve onto cover of diaphragm valve. For reliable operation, ensure supply voltage is within –10% and +15% of rated solenoid voltage. Solenoid is free to rotate on pilot valve. 3DS thread will suit 1/8 BSP T, 1/8 BSP P and 1 8 NPT ports. Replace pilot components within 1 million cycles (refer to Spare Parts).

### PRODUCT PERFORMANCE

FLOW	MAXIMUM WORKING PRESSURE	MINIMUM WORKING PRESSURE	TEMPERATURE MIN	TEMPERATURE MAX	FLUID MEDIA
0.32 Cv/ 0.27 Kv	860 kPa/ 125 psi	0 kPa/0 psi	–40°C/–40°F	82°C/180°F	Air or inert gas

### SPARE PARTS

K0380 Nitrile replacement seal, armature, spring & ferrule kit.  
 K0384 As above in viton.

# GOYEN - RCA3

## SOLENOID PILOT VALVES

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### ORDER CODE AND ELECTRICAL CHARACTERISTICS

#### 3DS

MODEL	CONNECTION TYPE	PROTECTION CLASS	VOLTAGE	POWER
3DS-300	DIN 43650A	IP64	200/240 V 50/60 Hz	23.1 V A
3DS-301	DIN 43650A	IP64	100/120 V 50/60 Hz	19.8 V A
3DS-302	DIN 43650A	IP64	24 V 50/60 Hz	23.1 V A
3DS-303	DIN 43650A	IP64	110 V DC	24 W
3DS-304	DIN 43650A	IP64	48 V DC	20 W
3DS-305	DIN 43650A	IP64	24 V DC	20 W
3DS-306	DIN 43650A	IP64	12 V DC	20 W
3DS-310	Conduit (M20 × 1.5)	IP31	200/240 V 50/60 Hz	23.1 V A
3DS-311	Conduit (M20 × 1.5)	IP31	100/120 V 50/60 Hz	19.8 V A
3DS-312	Conduit (M20 × 1.5)	IP31	24 V 50/60 Hz	23.1 V A
3DS-313	Conduit (M20 × 1.5)	IP31	24 V DC	20 W
3DS-314	Conduit (M20 × 1.5)	IP31	12 V DC	20 W
3DS-320	Conduit (1/2" NPSC)	IP31	200/240 V 50/60 Hz	23.1 V A
3DS-321	Conduit (1/2" NPSC)	IP31	100/120 V 50/60 Hz	19.8 V A
3DS-322	Conduit (1/2" NPSC)	IP31	24 V 50/60 Hz	23.1 V A
3DS-323	Conduit (1/2" NPSC)	IP31	24 V DC	20 W
3DS-324	Conduit (1/2" NPSC)	IP31	12 V DC	20 W



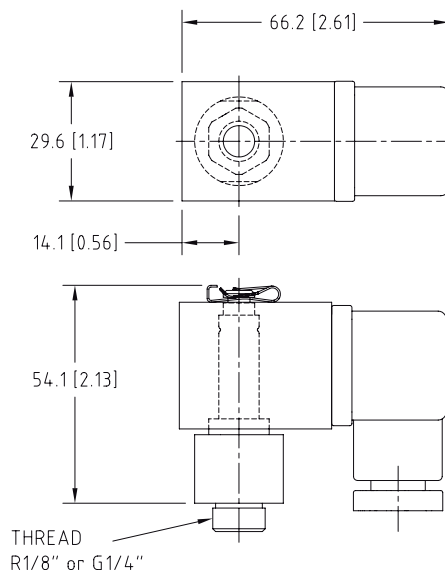
# GOYEN - RCA3 SOLENOID PILOT VALVES

PRODUCT LEAFLET

## RCA3PV/3PV2 - PILOT VALVE



### DIMENSIONS IN MM (AND INCHES)



### 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.

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

### COIL CONSTRUCTION

**Encapsulation:** Nylon  
**Insulation class:** H /180°C  
**IP Rating:** IP65  
**Rating:** Non-continuous use only  
**Clip:** Mild steel (mechanically plated))

### OPERATION

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

### APPROVALS

- CE - LV (2006/95/EC) - ROHS (2002/95/CE)

### 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.

# GOYEN - RCA3 SOLENOID PILOT VALVES

PRODUCT LEAFLET

## RCA3PV/3PV2 - HOW TO ORDER

**RCA 3 PV 2 - 2 0 5**

<p><b>Valve type</b> RCA - Pilot valve - Remote-controlled air</p> <p><b>Pilot size</b> 3 - 1/8" Pipe thread</p> <p><b>Body style</b> PV - Male inlet, suits all RCA and RCAC main valves</p> <p><b>Thread type</b> Blank - R1/8" thread 2 - G1/4" thread</p>	<p><b>Voltage options</b></p> <p>3 Dual rating: 110V DC 18 W or 220/240 V 50/60 Hz 46/37 VA</p> <p>4 Dual rating: 48 V DC 18 W or 115 V 50/60 Hz 63/53 VA</p> <p>5 Dual rating: 24 V DC 18 W or 48 V 50/60 Hz 41/32 VA</p> <p>6 Dual rating: 12 V DC 18 W or 24 V 50/60 Hz 38/31 VA</p> <p><b>Coil connection</b> 0 - Square DIN connector</p> <p><b>Coil series</b> 2 - DIN 43650 Form B connection</p>
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**RCA3PV 2 - 203**

<p><b>Valve type</b> Remote Pilot valve</p> <p><b>Pilot size</b> Blank - 1/8" 2 - 1/4" thread</p>	<p><b>Coil series</b></p> <p>Blank - Pilot only 203 204 205 206 } See table below for coil code.</p>
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## PRODUCT PERFORMANCE

FLOW	MAXIMUM WORKING PRESSURE	MINIMUM WORKING PRESSURE	TEMPERATURE MIN.	TEMPERATURE MAX.	FLUID MEDIA
0.28 Cv/0.24 Kv	860 kPa/125 psi	0 kPa/0 psi	-40°C/-40°F	82°C/180°F	Air or inert gas

## ELECTRICAL CHARACTERISTICS

DIN SOCKET CONNECTOR	Pg9 connection (cable entry)
DIN SOCKET SPECIFICATION	EN175301 - 803 (previously DIN 43650A) / A/ISO 4400
DIN SOCKET OPTIONAL	94/9/CE ATEX II 3GD T6
ISOLATION CLASS DIN SOCKET	VDE 0110 - 1/89
DIN SOCKET PROTECTION	IP65 EN60529

MODEL	TYPE	CONNECTION TYPE	PROTECTION CLASS	VOLTAGE	POWER	COLOUR
206	SB4	DIN 43650A	IP65	12 V DC (max. +10% supply)	18 W	Black
205	SB4	DIN 43650A	IP65	24 V DC (max. +10% supply)	18 W	Black
204	SB4	DIN 43650A	IP65	48 V DC (max. +10% supply)	18 W	Black
203	SB4	DIN 43650A	IP65	110 V DC (max. +10% supply)	18 W	Black
206	SB4	DIN 43650A	IP65	24 V 50/60 Hz (max. +10% supply)	38/31 VA	Black
205	SB4	DIN 43650A	IP65	48 V 50/60 Hz (max. +10% supply)	41/32 VA	Black
204	SB4	DIN 43650A	IP65	110/127 V 50/60 Hz (max. +10% supply)	63/53 VA	Black
203	SB4	DIN 43650A	IP65	220/240 V 50/60 Hz (max. +10% supply)	46/37 VA	Black



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