



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



SUITABLE FOR

All Goyen dust collector diaphragm valves.

INSTALLATION

Prepare pilot mounting hole in panel to Ø 19.3/19.4 (Ø 0.760"). 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

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")

OPERATION

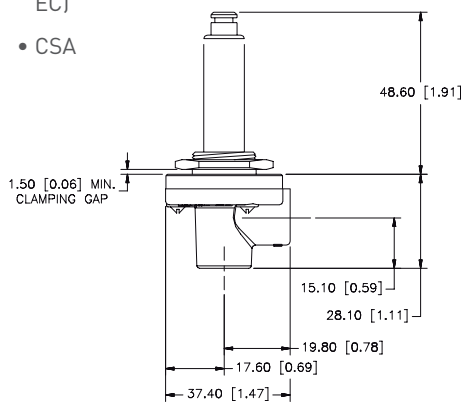
Recommended on time range: 50-500 ms
Recommended time between pulses: 1 minute or greater

OPTIONS

None

APPROVALS

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



SPARE PARTS

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

* 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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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.

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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.

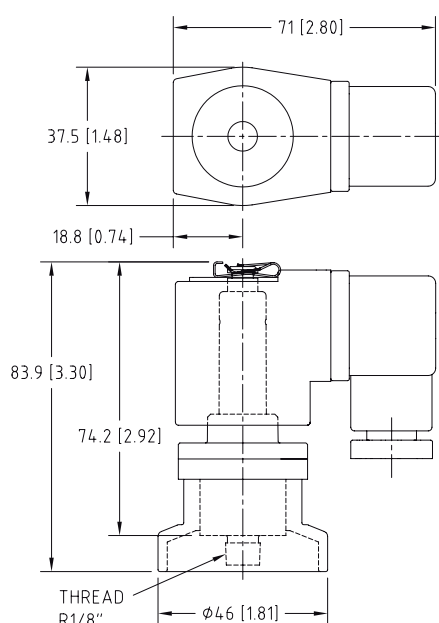
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PRODUCT LEAFLET

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.

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PRODUCT LEAFLET

RCA3DM - HOW TO ORDER

RCA 3 DM - 301			
Valve type		Coil series	
RCA - Pilot valve - Remote-controlled air		3 - Goyen 'Q' coil	
Pilot size		Body style	
3 - 1/8" Pipe thread		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

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
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

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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

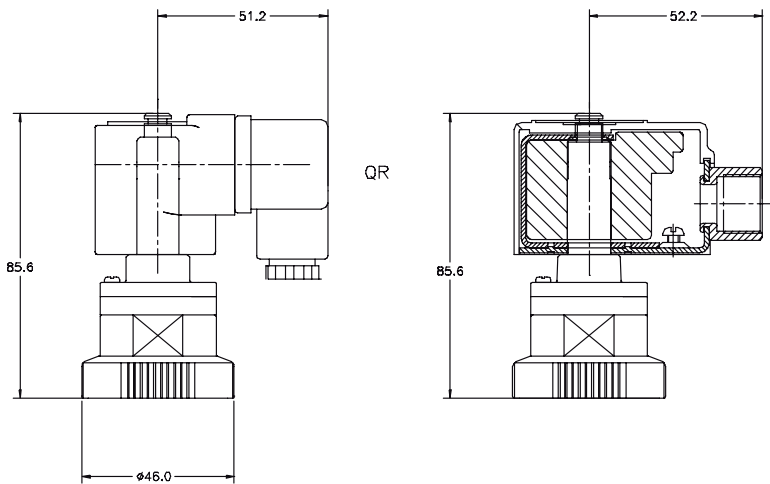
None

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.

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PRODUCT LEAFLET

ORDER CODE AND ELECTRICAL CHARACTERISTICS

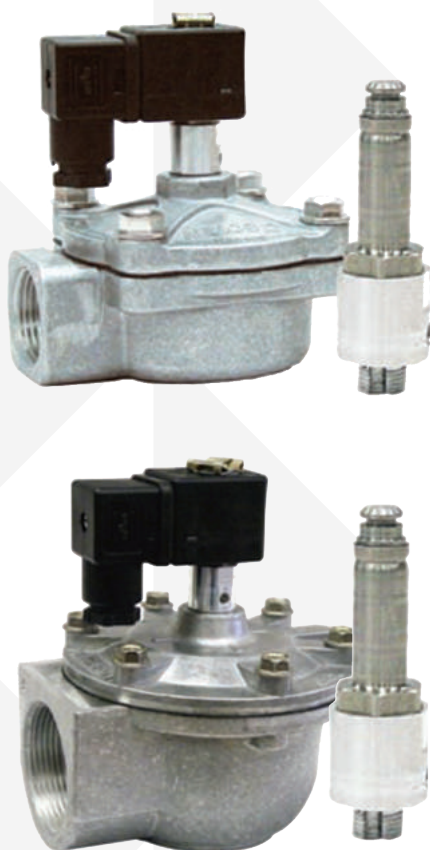
3DS

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 (½" NPSC)	IP31	200/240 V 50/60 Hz	23.1 V A
3DS-321	Conduit (½" NPSC)	IP31	100/120 V 50/60 Hz	19.8 V A
3DS-322	Conduit (½" NPSC)	IP31	24 V 50/60 Hz	23.1 V A
3DS-323	Conduit (½" NPSC)	IP31	24 V DC	20 W
3DS-324	Conduit (½" NPSC)	IP31	12 V DC	20 W

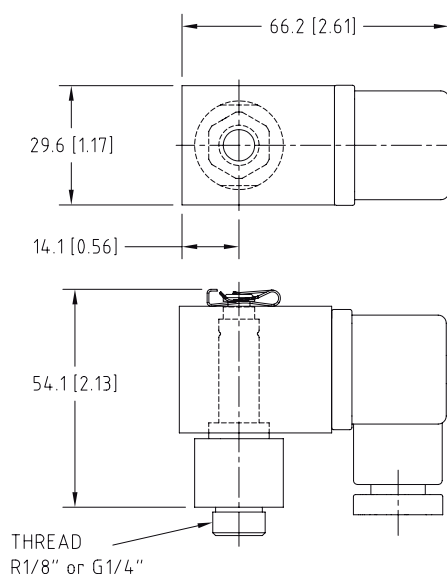
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PRODUCT LEAFLET

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.

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PRODUCT LEAFLET

RCA3PV/3PV2 - HOW TO ORDER

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

Valve type	Remote Pilot valve
Pilot size	Blank – 1/8" 2 – 1/4" thread
Coil series	Blank – Pilot only 203 204 205 206 } See table below for coil code.

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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