

D SERIES SUPPLY & EXTRACT

Wide range of multipurpose wall, window, ceiling and roof extract fans with optional integrated and remote controls







INTRODUCTION

MARKET-LEADING D SERIES SUPPLY & EXTRACT

From walls and windows to roofs and ceilings, the D SERIES fans' market-leading design suits all applications.

D SERIES fans demonstrate remarkably high performance, as the high efficiency impeller and external rotor motor outperform competitor fans, and at much lower noise levels (up to 530l/s or 1908m3/hr, from 31dBA). The fans also feature an economy speed setting, maximising performance at the lowest possible energy usage.

D SERIES fans also benefit from a robust construction. They are manufactured with flame retardant ABS polymer IP44, rated for long life, and can be fitted with a wide range of sensors including PIR, humidity and a run on timer. Sensors can be integral within the unit or mounted separately.



CONTENTS

- 03 ... Introduction
- 04 ... Basic fan selection
- 06 ... Window fans
- 08 ... Pitched roof fans
- 10 ... Flat roof fans
- **12** ... Wall fans
- 14 ... Ceiling fans
- **16** ... Fan ancillaries
- **18** ... Controls
- **19**... Wiring
- **20** ... Wiring multiple fans
- 21 ... Consultants spec



The DX-CON speed controller allows up to five fans (in one size) to be connected to one speed control. The control is infinitely variable, making the fan reversible for extract or for supply.

The D SERIES range offers both fan kits and individual parts to suit all application requirements; from new build, to refurbishment and replacement.



GUIDE

BASIC FAN SELECTION

Please see the following step by step guide on how to select a fan unit. The extract rates are given as an example only, and the suitability of the product to meet all noise and building regulations for the proposed application should be confirmed. This is a basic guide and does not include selections based on specific fan power requirements under Part L of the building regulations etc.



Code breakdown



1. D SERIES 2. Size indication 3. Application e.g. WW = Window model WL = Wall model PL = Ceiling model PR = Pitched Roof model FR = Flat Roof model

Required information: Room size | Application

Air change rate guide for various applications

Application	Air changes per hour	Application	Air changes per hour
Banks	4 to 6	Kitchens – commercial	15 to 30
Cafés / coffee bars	10 to 12	Laundries	10 to 15
Cellars	3 to 10	Libraries	3 to 4
Changing rooms	6 to 10	Offices	4 to 6
Cinemas / theatres	6 to 10	Public house bars	6 to 10
Conference rooms	8 to 10	Restaurants	10 to 15
Dance halls	10 to 12	School rooms	4 to 6
Dark rooms	10 to 15	Shops / supermarkets	8 to 10
Dental surgeries	12 to 15	Showers / bathrooms	15 to 20
Entrance halls	3 to 5	Stores / warehouses	3 to 6
Factories / workshops	8 to 10	Swimming baths	15 to 20
Garages	6 to 10	Toilets – public	6 to 8
Gymnasiums	6 to 8	Utility rooms	15 to 20
Hospital wards	6 to 8		1

How to calculate the required flowrate

What is the room volume m³?

Example – 10m long x 5m wide x 2.5m high = 125m³

What is the application?

Example – Wall mounted in an Office. 6 air changes necessary due to size (see table above)

What is the flowrate calculation?

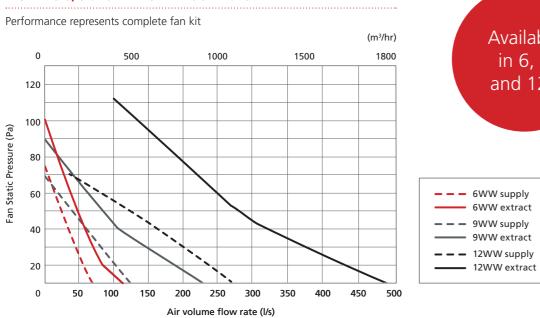
- Room Volume m³ x air change = 750m³/h
- ▶ To calculate the flow rate as m³/s divide your answer by 3600. Finally multiply the m³/s figure by 1000. This will leave you with your flow rate as I/s.
 - e.g. **125m³** x **6** = **750**m³/h 750 ÷ 3600 = 0.208m³/s **0.208**m³/s **x 1000 = 208**l/s



D SERIES WINDOW (WW) FANS

Available as kits or basic fan modules with adaptable ancillaries such as window spacers and weather terminals, our D SERIES Window fans can be part of a new install or refurbishment project.

D SERIES 6, 9 and 12 inch Window Fans



Electrical and sound

Noise/sound levels (dBA @ 3m)			Input pov	ver (watts)		
Code	Extract	Extract economy	Supply	Supply economy	Standard	Economy
DX6WW	42	31	43	32	38	20
DX9WW	41	30	43	32	50	37
DX12WW	47	36	48	37	100	70

Available

in 6, 9

and 12"

External Static Pressure (Pa)

DX6WW Extract	0	20	40	60
Air Flowrate (l/s)	121	79	52	34
Input Power (W)	42	43	46	48
SFP (W/l/s)	0.3	0.6	0.9	1.4

DX9WW Extract	0	20	40	60
Air Flowrate (I/s)	226	160	103	61
Input Power (W)	54	54	57	62
SFP (W/I/s)	0.2	0.3	0.6	1

DX12WW Extract	0	20	40	60
Air Flowrate (l/s)	498	413	317	250
Input Power (W)	110	110	113	117
SFP (W/l/s)	0.2	0.3	0.4	0.5

Dimensions

Front view

Rear view

Side view

6" Fan DX6WW



269mm

⊢134mm*-

- 269mm

*To centre of 'duct'

Required window aperture =

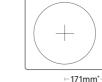
184mm dia

Cable entry

Cable entry

- 342mm -





337mm *To centre of 'duct' Required window aperture =

260mm dia



- 128mm

-130mm

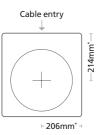


9" Fan DX9WW



12" Fan DX12WW





413mm *To centre of 'duct'

Required window aperture = 337mm dia



169mm

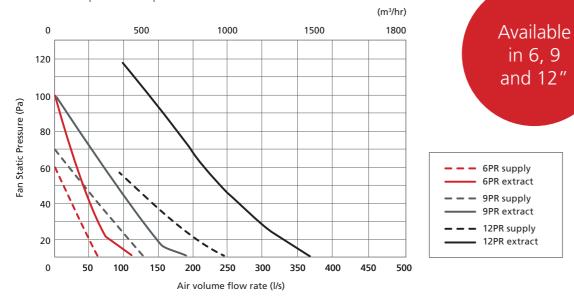


D SERIES PITCHED ROOF (PR) FANS

The low profile Pitched Roof kits are designed to be installed on angular roofs and suitable for all weather exposure.

D SERIES 6, 9 and 12 inch Pitched Roof Fans

Performance represents complete fan kit



Electrical and sound

	Noise/sound levels (dBA @ 3m)			Input pov	ver (watts)	
Code	Extract	Extract economy	Supply	Supply economy	Standard	Economy
DX6PR	42	31	45	34	38	38
DX9PR	41	30	43	32	50	37
DX12PR	49	38	48	37	100	70

External Static Pressure (Pa)

		40	60
112	74	51	36
42	43	46	48
0.4	0.6	0.9	1.3
	42	42 43	42 43 46

DX9PR Extract	0	20	40	60
Air Flowrate (l/s)	180	133	100	70
Input Power (W)	54	55	58	61
SFP (W/l/s)	0.3	0.4	0.6	0.9

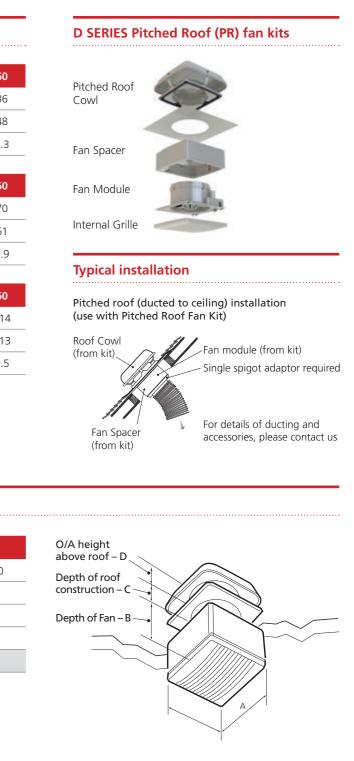
DX12PR Extract	0	20	40	60
Air Flowrate (l/s)	358	305	258	214
Input Power (W)	107	109	111	113
SFP (W/l/s)	0.3	0.4	0.4	0.5

Dimensions (mm)

D SERIES	6	9	12
AxA	272x272	342x342	420x420
В	161	158	172
С	150	150	150
D	170	180	185
kg	6.3	9.1	11.8

A = Opening size, B = Overall size

8



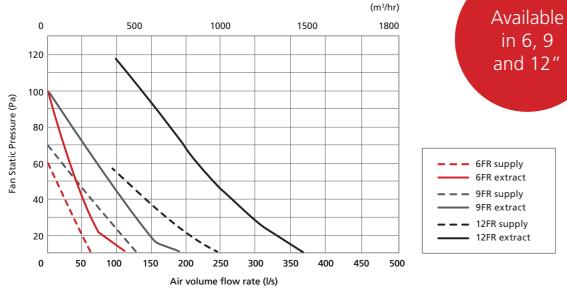


D SERIES FLAT ROOF (FR) FANS

Complimenting the Pitched Roof offering, these fan kits ensure the D SERIES portfolio is comprehensive and practical in application.







Electrical and sound

Noise/sound levels (dBA @ 3m)				Input pov	ver (watts)	
Code	Extract	Extract economy	Supply	Supply economy	Standard	Economy
DX6FR	42	31	45	34	38	38
DX9FR	41	30	43	32	50	37
DX12FR	49	38	48	37	100	70

External Static Pressure (Pa)

DX6FR Extract	0	20	40	60
Air Flowrate (l/s)	112	74	51	36
Input Power (W)	42	43	46	48
SFP (W/l/s)	0.4	0.6	0.9	1.3

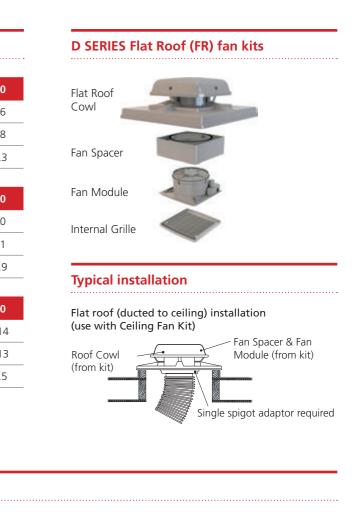
DX9FR Extract	0	20	40	60
Air Flowrate (l/s)	180	133	100	70
Input Power (W)	54	55	58	61
SFP (W/l/s)	0.3	0.4	0.6	0.9

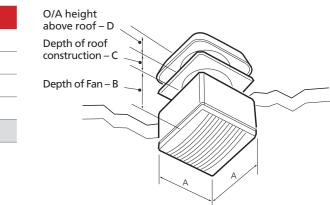
DX12FR Extract	0	20	40	60
Air Flowrate (l/s)	358	305	258	214
Input Power (W)	107	109	111	113
SFP (WV/I/s)	0.3	0.4	0.4	0.5

Dimensions (mm)

D SERIES	6	9	12
AxA	272x272	342x342	420x420
В	161	158	172
С	150	150	150
D	170	180	185
kg	6.3	9.1	11.8

A = Opening size, B = Overall size







D SERIES WALL (WL) FANS

An ultra quiet wax thermo actuator combines with highly innovative motor and impeller technology to produce one of the quietest wall fans available.



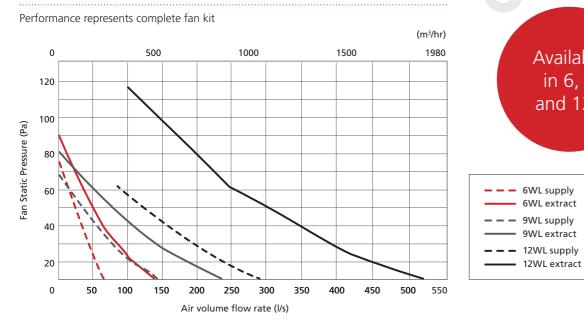
Available

in 6, 9

and 12"

6WL extract

D SERIES 6, 9 and 12 inch Wall Fans



Electrical and sound

	Noise/sound levels (dBA @ 3m)					ver (watts)
Code	Extract	Extract economy	Supply	Supply economy	Standard	Economy
DX6WL	42	31	45	34	38	20
DX9WL	45	34	45	34	50	37
DX12WL	47	36	47	36	100	70

External Static Pressure (Pa)

DX6WL Extract	0	20	40	60
Air Flowrate (l/s)	131	110	65	38
Input Power (W)	42	42	44	48
SFP (W/I/s)	0.3	0.4	0.7	1.3
	-			
DV0MU Entro et		20	40	60

DX9WL Extract	0	20	40	60
Air Flowrate (l/s)	236	180	105	60
Input Power (W)	54	54	57	62
SFP (W/I/s)	0.2	0.3	0.5	1

DX12WL Extract	0	20	40	60
Air Flowrate (l/s)	530	465	344	265
Input Power (W)	111	110	112	116
SFP (W/l/s)	0.2	0.2	0.3	0.4

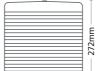
Dimensions

6" Fan DX6WL

Front view

Rear view

Side view



- 269mm Aperture required 260 mm x 260 mm sq

Cable entry

+

269mm

*To centre of 'duct'

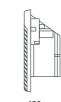
⊢134mm*–

330 mm x 330 mm sq Cable entry

- 342mm

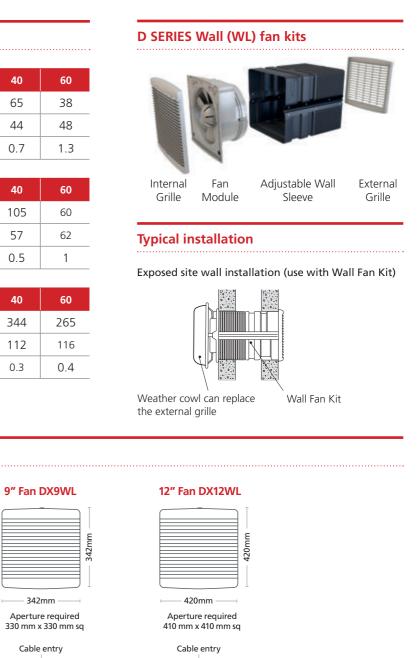
_

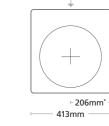
⊢171mm*-337mm -*To centre of 'duct'



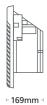
- 128mm

-130mm





*To centre of 'duct'

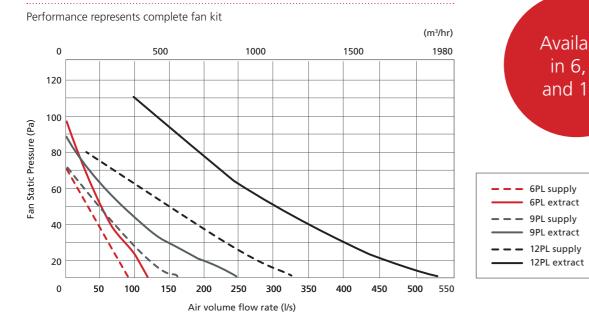




D SERIES **CEILING (PL) FANS**

A discreet design, suitable for solid or panel ceilings. These fans can be installed with our Roof or Weather Terminals, allowing optional exhaust points for flexible application.

D SERIES 6, 9 and 12 inch Ceiling Fans



Electrical and sound

	Noise/sound levels (dBA @ 3m)					ver (watts)
Code	Extract	Extract economy	Supply	Supply economy	Standard	Economy
DX6PL	42	31	45	35	38	20
DX9PL	41	30	43	32	50	37
DX12PL	49	38	48	37	100	70



Available

in 6, 9

and 12"

External Static Pressure (Pa)

DX6PL Extract	0	20	40	60
Air Flowrate (l/s)	119	76	50	32
Input Power (W)	42	43	46	49
SFP (W/I/s)	0.4	0.6	0.9	1.5

DX9PL Extract	0	20	40	60
Air Flowrate (l/s)	247	196	110	60
Input Power (W)	55	54	57	62
SFP (W/I/s)	0.2	0.3	0.5	1

DX12PL Extract	0	20	40	60
Air Flowrate (l/s)	544	472	329	260
Input Power (W)	111	110	113	116
SFP (W/I/s)	0.2	0.2	0.3	0.4

Dimensions

6" Fan DX6PL

Front view



269mm Required ceiling / panel aperture 270mm x 270mm square

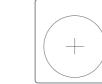
Cable entry

+

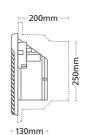
269mm

Cable entry

342mm



337mm -*To centre of 'duct'



Side view

Rear view

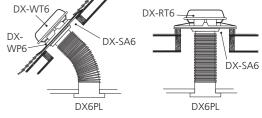


- 128mm

⊢134mm*-

14







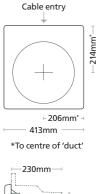
Required ceiling / panel aperture 340mm x 340mm square

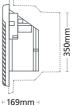


12" Fan DX12PL



420mm Required ceiling / panel aperture 430mm x 430mm squar







FAN ANCILLARIES

				Remote sensors	
Unit size	Speed control	PIR	Humidistat	Timer	Humidistat
Description	With Economy 50% setting, extract and supply on/off switch.	Passive InfraRed technology to detect movement. Complete with run-on timer 2-40 mins	Relative Humidity setting between 30-90%. Complete with run-on timer 2-40 mins.	Run-on timer 2-40 mins	Relative Humidity setting between 30-90%. Complete with run-on timer 2-40 mins.
Wall					
6	DX-CON	DX-PIR6	DX-H6	DX-T6	DX-RH
9	DX-CON	DX-PIR9	DX-H9	DX-T9	DX-RH
12	DX-CON	DX-PIR12	DX-H12	DX-T12	DX-RH
Window					
6	DX-CON	DX-PIR6	DX-H6	DX-T6	DX-RH
9	DX-CON	DX-PIR9	DX-H9	DX-T9	DX-RH
12	DX-CON	DX-PIR12	DX-H12	DX-T12	DX-RH
Ceiling					
6	DX-CON	DX-PIR6	DX-H6	DX-T6	DX-RH
9	DX-CON	DX-PIR9	DX-H9	DX-T9	DX-RH
12	DX-CON	DX-PIR12	DX-H12	DX-T12	DX-RH
Flat Roof					
6	DX-CON	DX-PIR6	DX-H6	DX-T6	DX-RH
9	DX-CON	DX-PIR9	DX-H9	DX-T9	DX-RH
12	DX-CON	DX-PIR12	DX-H12	DX-T12	DX-RH
Pitch Roof					
6	DX-CON	DX-PIR6	DX-H6	DX-T6	DX-RH
9	DX-CON	DX-PIR9	DX-H9	DX-T9	DX-RH
12	DX-CON	DX-PIR12	DX-H12	DX-T12	DX-RH

	Q			-				
Basic fan unit	Window spacer	Single spigot adaptor	Weather terminal	Roof terminal	Wall fixing plate	Picture frame adaptor	Wall Duct Liner	Louvered Grille
Fan module, internal grille	Used for exposed site installation 1 spacer. Use with weather terminals.	For ducted systems. To be mounted onto front of DX-WS.	For exposed window installations. Use with DX-WS.	Suitable for flat roof only. No fan included	Used for timber and thin walls, pitched roof and above ceiling. One fixing plate. Used with window kits spacers &/or weather terminals.	For panel, ceiling or retro installations where uneven walls need to be fixed.	Wall duct liner	Fixed blade external louvred grille
Wall cont.								
DX6	DX-WS6	DX-SA6	DX-WT6	N/A	N/A	DX-PF6	DX-WD6	DX-LG6
DX9	DX-WS9	DX-SA9	DX-WT9	N/A	N/A	DX-PF9	DX-WD9	DX-LG9
DX12	DX-WS12	DX-SA12	DX-WT12	N/A	N/A	DX-PF12	DX-WD12	DX-LG12
Window cont.								
DX6	DX-WS6	DX-SA6	DX-WT6	N/A	DX-WP6	N/A	N/A	DX-LG6
DX9	DX-WS9	DX-SA9	DX-WT9	N/A	DX-WP9	N/A	N/A	DX-LG9
DX12	DX-WS12	DX-SA12	DX-WT12	N/A	DX-WP12	N/A	N/A	DX-LG12
Ceiling cont.								
DX6	N/A	DX-SA6	DX-WT6	DX-RT6	DX-WP6	DX-PF6	N/A	N/A
DX9	N/A	DX-SA9	DX-WT9	DX-RT9	DX-WP9	DX-PF9	N/A	N/A
DX12	N/A	DX-SA12	DX-WT12	DX-RT12	DX-WP12	DX-PF12	N/A	N/A
Flat Roof cont.								
DX6	N/A	DX-SA6	N/A	DX-RT6	DX-WP6	DX-PF6	N/A	N/A
DX9	N/A	DX-SA9	N/A	DX-RT9	DX-WP9	DX-PF9	N/A	N/A
DX12	N/A	DX-SA12	N/A	DX-RT12	DX-WP12	DX-PF12	N/A	N/A
Pitch Roof cont.								
DX6	N/A	DX-SA6	DX-WT6	N/A	DX-WP6	DX-PF6	N/A	N/A
DX9	N/A	DX-SA9	DX-WT9	N/A	DX-WP9	DX-PF9	N/A	N/A
DX12	N/A	DX-SA12	DX-WT12	N/A	DX-WP12	DX-PF12	N/A	N/A

Note:

▶ Up to 5 fans (size 6"/9") can be controlled by one DX-CON. Up to 2 fans (size 12") can be controlled by one DX-CON.

Do not mix different fans sizes on the same controller.







Multi-fan control

Fitting Remote Controller DX-CON or Remote Sensors (optional)

The DX-CON Multi Fan Control provides supply or extract, variable speed and automatic or manual switching of several fans if desired.

The DX-CON should be positioned at least 1.5m above the floor and away from direct heat sources e.g. radiators.

NOTE:

▶ Up to 5 fans (size 6"/9") can be controlled by one DX-CON.

Up to 2 fans (size 12") can be controlled by one DX-CON.

Do not mix different fans sizes on the same controller.

Code	Description	Length (mm)	Depth (mm)	Height (mm)
DX-CON	Multi Fan Remote Control	153	60	87

Speed Control - with "Economy" (50%) setting, extract and supply, on/off switches.



Typical code: DX-CON

NOTE:

If 2 x 12 inch fans or 5 x 6 or 9 inch fans are used in the same operating mode in the same room they should all be controlled from the same DX-CON speed control. This avoids the possibility of one fan (if speed controlled at a lower flow rate) being stalled by the other fan(s). Adequate make-up air provision sufficient to provide ventilation in accordance with building regulations is required in all rooms. This should be checked during commissioning with all fans in the same room running together in all possible configurations.

The automatic shutters, motor bearings should be frequently inspected and maintained to ensure they open fully/operate satisfactorily.

Use of an RCD and fused spur with 1A, Bussmann TDC180, BS1362, fuse (Farnell order no: 1123029) for 1 fan or 2A, Bussmann TDC180, BS1362 fuse (Farnell order no: 1123032) for 2 or 3 fans is recommended. Always confirm airflow direction before commissioning.

Integral sensors

Fan size	PIR	Humidistat	Timer
6	DX-PIR6	DX-H6	DX-T6
9	DX-PIR9	DX-H9	DX-T9
12	DX-PIR12	DX-H12	DX-T12



Remote sensors

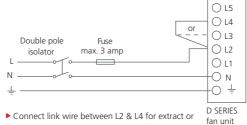
Fan size	Humidistat	Tł se
6	DX-RH	at
9	DX-RH	an so
12	DX-RH	

e DX-RH remote humidity nsor should be positioned least 1.5m above the floor nd away from direct heat urces e.g. radiators.



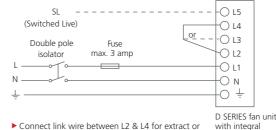
WIRING

Fan operated by On/Off switch



Connect link wire between L2 & L3 for supply.

Fan operated by Integral Sensor

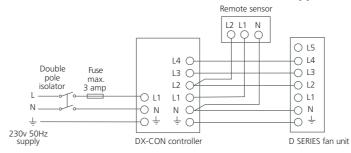


Connect link wire between L2 & L4 for extract or

Connect link wire between L2 & L3 for supply

Connect switched live signal to L5 for integral timer, module.

Supply / extract fan operated via Remote DX-CON Control & Remote Sensor(s)

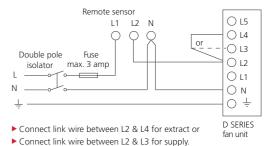


Remote switch may be set: On / Off, Extract / Supply, Economy / Std. (variable speed), Auto / Manual, One or more Remote Sensors may be wired in parallel to one DX-CON Control.

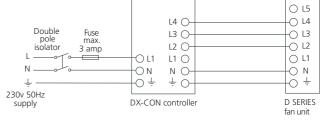
Up to 5 fans (size 6" / 9") can be controlled by one DX-CON. Up to 2 fans (size 12") can be controlled by one DX-CON. Do not mix different fan sizes on the same controller

Note: Multi-fan options





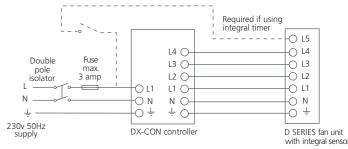
Supply / extract fan operated via Remote DX-CON Control



Remote switch may be set: On / Off, Extract / Supply,

Economy / Std. (variable speed), Auto / Manual

Supply / extract fan operated via Remote DX-CON Control and Integral Sensor

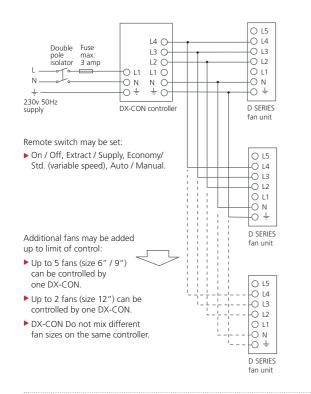


- Remote switch may be set: On / Off, Extract / Supply, Economy / Std. (variable speed), Auto / Manual, Maximum one Integral Sensor per
- Passive Infra Red Sensor: DX-PIR6/9/12. Run on Timer: DX-T6/9/12
- A single sensor will switch all fans if more than one fan is being operated by a single DX-CON controller
- fan 6/9/12 denotes unit size identity. Humidity Sensor: DX-H6/9/12,

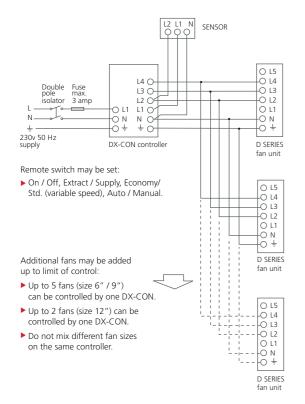


WIRING – MULTIPLE FANS

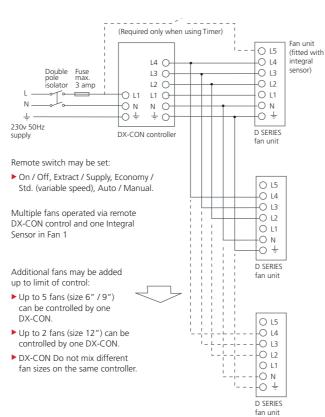
Multiple fans operated via remote DX-CON control



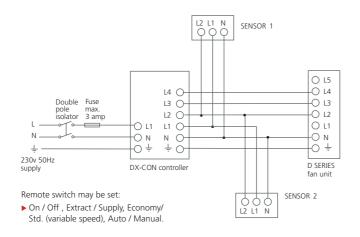
Multiple fans operated via remote DX-CON control and a Remote Sensor



Multiple fans operated via remote DX-CON control and one Integral Sensor in Fan 1



Fan operated using remote DX-CON control and a Multiple Remote Sensor



CONSULTANT SPECIFICATION

Fan description

Fans shall be located in the positions indicated on the drawings and in accordance with the relevant fan schedule.

The fan shall be of the D SERIES type and shall be supplied complete with integrated low loss radial backdraught shutter, silent operation via a thermo actuator, room side grille, connection kit and external louvre/roof cowl to suit the particular application.

The high efficiency, low noise axial flow impeller shall be directly driven by an external rotor motor featuring enclosure protection to IP 44, class B winding insulation and maintenance free ball bearings.

All models shall be suitable for air over motor temperatures of up to 60°C and 95% R.H (non-condensing). The motor and impeller shall be dynamically balanced as an assembly.

Fan casing, impeller and shutter shall be manufactured from UV stabilised ABS polymer. All models shall include an economy/ high efficiency setting facility and are dove grey in colour.

The fan shall be provided complete with integrated or remote controls as detailed in the schedule and as described below.

Where indicated the fans shall be interlinked and controlled from 1No. DX-CON (up to 5 fans in sizes 6 & 9, up to 2 fans size 12).

Fans shall be reversible via reversing switch on DX-CON fan controller.

Fan to have a manufacturers 2 year warranty.

Fan to be of the D SERIES type as manufactured by Domus Ventilation.

Fan control option

The fan shall be provided with either an integrated sensor to activate the fan or, one of the remote options.

Integrated control options:

- ► DX-T(size) Run-on timer, adjustable between 2-40 minutes
- DX-H(size) Humidity sensor (30-90%). Includes run-on timer 2-40 minutes
- ▶ DX-PIR(size) PIR sensor, includes run-on timer 2-40 minutes.

Remote control options:

- DX-RH Humidity sensor 30-90%. Includes run-on timer 2-40 minutes
- Anti-tamper security strap
- DX-CON controller incorporating economy switch, reversing switch and rotary speed control.

Where indicated the fans shall be interlinked and controlled from 1No. DX-CON (up to 5 fans in sizes 6 & 9, up to 2 fans size 12).

Do not mix different fan sizes with same controller.

Fan, integrated controls or associated sensors/controllers shall be as manufactured by Domus Ventilation all with a 2 year warranty.

The manufacturer's recommendations should be observed at all times.



DEDICATED **TO PROVIDING:**

- Trade support
- ► Free design service
- Online support
- Nationwide availability

• Gravita • Branch Million • Gravita	2 6 0 6 1 9 0 0 0	

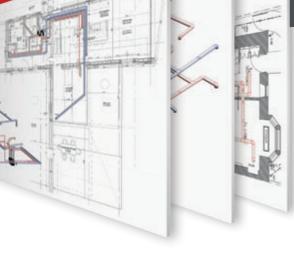
Demus

FREE OF CHARGE DESIGN SERVICE

Contact Domus Ventilation for more information

Tel: 03443 715 523 Email: vent.projects@domusventilation.co.uk

www.domusventilation.co.uk





in Domus Ventilation

©2018 Domus Ventilation

All product images are the copyright of Domus Ventilation and are not for reproduction without permission.

E & OE - we reserve the right to alter product specification without prior notice.

Domus Ventilation

Block C, Van Court Caerphilly CF83 3ED United Kingdom Email: vent.info@domusventilation.co.uk Tel: 03443 715 523

www.domusventilation.co.uk



