

# Silavent HRXD Mechanical Ventilation with Heat Recovery (MVHR) Unit from Polypipe Ventilation

October 2016



## Efficient

- Low Specific Fan Power, down to 0.66W/(l/s)
- Bluebrain control optimises the unit's functionality and performance
- Heat exchange efficiency up to 86%
- Compact and extremely lightweight (11.5kg)
- Easily fits inside a kitchen cupboard or loft space
- Suitable for a floor area up to 150m<sup>2</sup>



Top view of the HRXD MVHR unit



### Ultimate performance

Whilst the Silavent HRXD is extremely light in weight (11.5kg), its energy efficient performance hasn't been compromised. Providing Specific Fan Powers as low as 0.66W/(l/s) and a heat exchange efficiency up to 86%, the unit will lower Dwelling Emission Rates for a higher SAP rating.

Offering control functions such as frost protection, temperature and humidity control, auto thermal bypass and independent fan speed control, the Bluebrain controller boasts a full complement of air quality and commissioning controls for improved air comfort.

### HRXD PRODUCT CHARACTERISTICS DATABASE (SAP 2012)

	Thermal Bypass	Air Flow (l/s)	Specific Fan Power W/(l/s)	Heat Exchange Efficiency (%)
Kitchen + 1 wetroom	✓	21	0.66	86
Kitchen + 2 wetrooms	✓	29	0.73	86
Kitchen + 3 wetrooms	✓	37	0.85	85
Kitchen + 4 wetrooms	✓	45	1.05	84
Kitchen + 5 wetrooms	✓	53	1.27	83

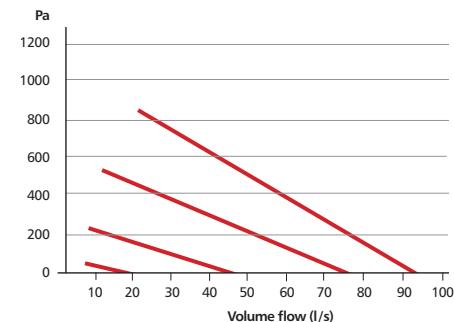
### HRXD PRODUCT CHARACTERISTICS DATABASE (SAP 2009)

	Thermal Bypass	Air Flow (l/s)	Specific Fan Power W/(l/s)	Heat Exchange Efficiency (%)
Kitchen + 1 wetroom	✓	15	0.69	88
Kitchen + 2 wetrooms	✓	21	0.65	86
Kitchen + 3 wetrooms	✓	27	0.70	86
Kitchen + 4 wetrooms	✓	33	0.81	86
Kitchen + 5 wetrooms	✓	39	0.89	85
Kitchen + 6 wetrooms	✓	45	1.05	84
Kitchen + 7 wetrooms	✓	51	1.23	84

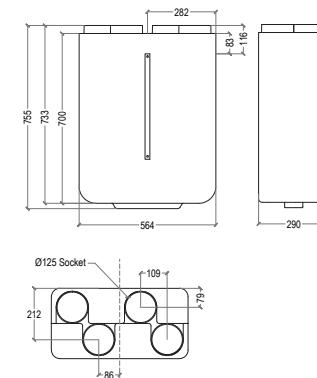


## Efficient

### Performance



## Dimensional drawing



## Sound

### BREAKOUT SOUND PERFORMANCE

Speed Setting	Sound Power Levels dB re 1pW							Sound Pressure (dB(A) @ 3m)
	125	250	500	1000	2000	4000	8000	
25%	33	34	35	34	31	26	29	18
50%	50	52	48	46	41	32	29	30
75%	50	64	58	56	51	43	36	40
100%	56	68	67	63	58	51	45	47

### INDUCT SUPPLY SOUND PERFORMANCE

Speed Setting	Sound Power Levels dB re 1pW						
	125	250	500	1000	2000	4000	8000
25%	54	44	38	34	24	20	26
50%	67	60	53	47	42	32	29
75%	70	79	63	57	54	45	38
100%	75	82	73	66	62	54	49

### INDUCT EXTRACT SOUND PERFORMANCE

Speed Setting	Sound Power Levels dB re 1pW						
	125	250	500	1000	2000	4000	8000
25%	47	38	29	21	18	19	25
50%	57	55	43	34	30	23	26
75%	63	71	52	45	40	34	30
100%	68	68	60	52	47	41	38

# Silavent Bluebrain Control from Polypipe Ventilation



## Advanced control

Through advanced AMIE technology (Air Management for Indoor Environments), the Bluebrain controller not only offers simple pre-programmed functions, such as night time cooling and intelligent thermal bypass, it also allows for straightforward commissioning.

### Intelligently manages air conditions

#### Digital humidity control aiding homeowner comfort

Through advanced AMIE technology, unlike typical humidity sensors, the Bluebrain HRXD controller will enable occupants to have direct control over managing the humidity levels in their home - to suit personal comfort levels.

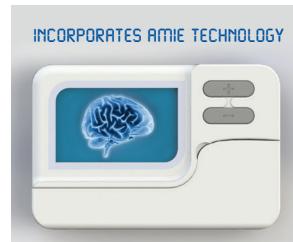
By accurately measuring air humidity, the HRXD's extract speed automatically changes from background to boost as the level of humidity increases,

thereby providing optimal ventilation performance.

#### Advanced thermal bypass control

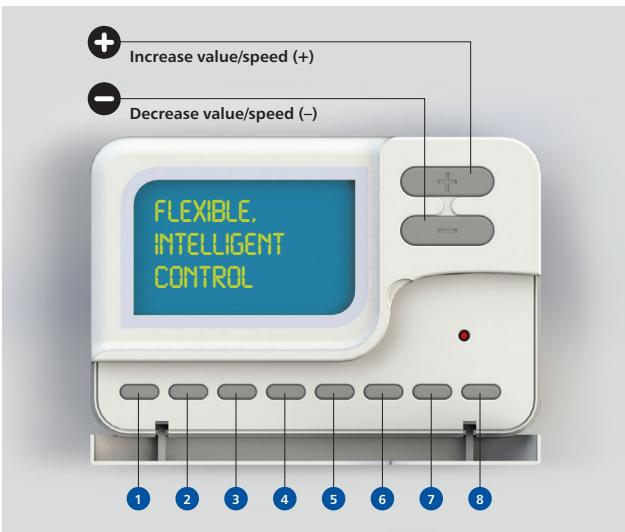
Perfect for night time cooling or during warmer periods, the HRXD controller detects when the air temperature reaches a pre-set level and intelligently activates the thermal bypass mechanism to maximise the effect of maintaining fresh and filtered air.

The thermal bypass is also programmable by time, for additional convenience and comfort.



### Control functions

- 1 Increase value/speed (+)
- 2 Decrease value/speed (-)
- 3 Set temperature activation point
- 4 Set date and time
- 5 Set humidity trigger point
- 6 Adjust thermal (summer) bypass
- 7 Copy program
- 8 Select and edit program
- 9 Escape function
- 10 Save function



## Advanced control



### Commissioning made easier

Engineered to include independent speed control, the Bluebrain control allows quick and accurate commissioning through simple speed adjustment buttons.



### BMS capabilities

#### Building Management Systems (BMS)

The HRXD controller incorporates volt free contacts for fault and filter cleaning indication, to work with a Building Management System.

### Dirty filter indicator

#### Automated filter maintenance and replacement reminders

Ease of maintenance and filter replacement is an important consideration when choosing MVHR – not only to ensure performance of the unit is maximised and air quality maintained, but also for peace of mind.

The HRXD Bluebrain control removes this concern by providing helpful maintenance reminders for cleaning its filters.

### Summary of control features

- Includes advanced AMIE technology (Air Management for Indoor Environments)
- Power indicator
- Status indicator (frost protection, thermal bypass, etc.)
- Fault indicator with diagnostics
- Independent fan speed control
- Switched live inputs (signal triggers):
  - Mains level x 2
  - Volt free to boost x 2
  - Volt free to max x 1
- 3 variable speeds
- Clean filter indicator
- Frost protection
- Built in humidistat
- Run on boost timer
- Delay 'on' boost
- Pre commissioning filter protection
- Discreet run monitor
- Lockable commissioning mode
- BMS features:
  - Pre heater activation output
  - Remote shutdown
  - System healthy monitor and fault signals
- Time and date display
- Real time air temperature display
- Real time extract air humidity level display
- Easy to read, contemporary digital display

