ASSET DATA DICTIONARY DEFINITION DOCUMENT (AD4)
L75146 – VAV CONTROLLER (Mixing Box / Valve)

Document Number: **CRL1-XRL-Z3-ADDSD-CR001-50543**

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1.0	17-Oct-2014	[redacted]	[redacted]	[redacted]	First Issue
2.0	27-Aug-2015	[redacted]	[redacted]	[redacted]	Labelling Section Updated

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1 Introduction

Not Applicable

1.1 Asset Details

Class Code:	L75146
Class Name:	VAV Controller (Mixing Box / Valve)
Class Lineage:	Construction Products>Services>Climate Control Plant and Equipment (HVAC)>Complete Climate Control Systems>Complete Air Conditioning Systems>VAV Controller

1.2 Description

A Variable Air Volume (VAV) terminal unit often called a VAV box, is a zone-level flow control device used in heating, ventilation and/or air-conditioning systems. It consists of a calibrated air damper or air valve with an automatic actuator. The VAV terminal unit is connected to either a local or a central control system.

In the cooling mode of operation, as the temperature in the space is satisfied, a VAV box closes to limit the flow of cool air into the space. As the temperature increases in the space, the box opens to bring the temperature back down. The fan maintains a constant static pressure in the discharge duct regardless of the position of the VAV box. Therefore, as the boxes close, the fan slows down or restricts the amount of air going into the supply duct. As the boxes open, the fan speeds up and allows more air flow into the duct, maintaining a constant static pressure.

1.3 Related Functions

All information on the configuration of asset classes (L-Class) to functions is contained within the latest revision of the Asset Data Dictionary Master Configuration document (eB ref: CRL1-XRL-Z3-ADDSD-CR001-50186)

2 Asset Tag Identification Rules

Assets will be identified as required by the Asset Identification Standard (CRL1-XRL-O6-STD-CR001-00031), in the following format:

<LCS Code>-<Function Code>-<Incremental number to ensure uniqueness>

e.g. C125-TSP-12345

Information and guidance on the standard naming convention for all asset classes is contained within the latest revision of the Asset Naming Convention Document (eB ref: CRL1-XR1-Z3-ADDSD-CR001-50413)

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2.1 Example Images

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3 Attributes

3.1 Generic Attributes

All Classes of assets will have a set of Generic Attributes for which data is collected without exception. Full details relating to these assets can be found at:

AD4 – Generic Attributes CRL1-XRL-Z3-ADDSD-CR001-50069

3.2 Class Specific Attributes

Below is a table of the further specific attributes which are associated with this asset class.

Attribute Name	**Base Unit or Formula**	**Value Type** (See Below)	**Decimal Places** (nu Only)	**Defined Values List** (pd only)	**Description**
VAV Actuator type		PD		Pneumatic Electric	Type of Actuator
Controller Protocol		CH			Programming Language of Controller
Flow Rate (L/s)	L /s	NU	0		Maximum Air flow through the device
Pressure Drop (Pa)	Pa	NU	0		Maximum pressure drop through the device

pd = Predefined List (Listed Values Only)
nu = Numeric (dp and number format can be stipulated)
ch = Free text (Max 255 Characters)
da = Date (dd-mm-yyyy)
me = Memo (Free text 1GB Limit)

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4 Performance Data

This section is to be used to specify the performance data to be gathered from this Class of asset when in operation. To be populated once the performance measures have been agreed with the Infrastructure Managers.

5 Labelling

Information and guidance on the standard labelling convention for all asset classes is contained within the latest revision of the Asset Naming and Labelling Convention Document (eB ref: CRL1-XR1-Z3-ADDSD-CR001-50413).

6 Other Information

Not Applicable

7 Reference Material

- Asset Data Dictionary Master Configuration document - CRL1-XRL-Z3-ADDSD-CR001-50186
- Asset Identification Standard - CRL1-XRL-O6-STD-CR001-00031
- AD4 – Generic Attributes - CRL1-XRL-Z3-ADDSD-CR001-50069
- <ADD OTHER REFERENCE DOCUMENTS HERE>

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8 Crossrail Technical Approvals

Name	Role	Date
[redacted]	Lead Mechanical & Electrical Plant (MEP) Engineer	17-Oct-2014

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