

Cable Types

PAVA Systems (Vigil 3)

Connection	Fire Rating ^{*1}	Cable Type
Fire Alarm Inputs	Enhanced	1.0 or 1.5mm 2 core per Zone for Evac or Alert (can be sounder circuits or input/output device). Input output device should be installed within VA rack enclosure
Fire Alarm Inputs	Enhanced	1.0 or 1.5mm 2 core for "RESET" (can be sounder circuits or input/output device). Input output device should be installed within VA rack enclosure
Fire Alarm Outputs	Enhanced	1.0 or 1.5mm 2 core for "General Fault" of the Voice Alarm
Fire Microphone ^{*2}	Enhanced	2 x 1.5mm 4 core
Touchscreen Microphone ^{*2}	Enhanced	Standard Configuration: 2x 1.5mm 4 core Refer to user manual if hard wired bypass required and for wall plate connection options
BDM Paging Microphone ^{*2}	N/A	2 x 1.5mm 4 core (screened)
Graphics Package (via BVRDTSM)	Enhanced	Standard Configuration: 2x 1.5mm 4 core Refer to user manual if hard wired bypass required and for wall plate connection options
Ambient Noise Sensor	N/A	1.5mm 4 core
Network	Enhanced	Copper Network: 4 Pair Draka FT Data (PN: 910245) or CAT5/6 equivalent (Fire Rated Enhanced) (64 Channels) – 100m <i>Note: Baldwin Boxall systems only require 2 pairs however BS5839-8:2013 27.3 mandates a minimum of 4 pairs</i> Fibre Network Multimode (64 Channels)) 2 cores required wired as a loop (SC Termination): (62.5/125) - 2km (50/125) - 2km Fibre Network Singlemode (64 Channels) 2 cores required wired as a loop (SC Termination): (9/125) – 4km
BGM inputs	N/A	Any screened 2 core cable
Analogue Volume Controls	N/A	Any screened 2 core cable
RPVS Digital Volume Controls	N/A	2 pair twisted cable or CAT5
RPAIV Music Select Panels	N/A	Any screened 4 core cable
Speaker lines	Standard	1.5mm 2 core Note: Screen continuity required for BEL1 monitoring
Monitor Speaker	N/A	1.5mm 2 core cable Note: if connected to live zone speaker output and physically separated from rack 2 core standard Fire Rated should be used.
Annunciator Panel ^{*2}	Enhanced	2 x 4 core 1.5mm

Cable Types

PAVA Systems (Vigil 2)

Connection	Fire Rating*1	Cable Type
Fire Alarm Inputs	Enhanced	1.0 or 1.5mm 2 core per Zone for Evac or Alert (can be sounder circuits or input/output device). Input output device should be installed within VA rack enclosure
Fire Alarm Inputs	Enhanced	1.0 or 1.5mm 2 core for "RESET" (can be sounder circuits or input/output device). Input output device should be installed within VA rack enclosure
Fire Alarm Outputs	Enhanced	1.0 or 1.5mm 2 core for "General Fault" of the Voice Alarm
Fire Microphone*2	Enhanced	2 x 1.5mm 4 core
BVRD Control Microphone*2	Enhanced	2 x 1.5mm 4 core
Touchscreen Microphone*2	Enhanced	Standard Configuration: 2x 1.5mm 4 core Refer to user manual if hard wired bypass required and for wall plate connection options
BDM Paging Microphone*2	N/A	2 x 1.5mm 4 core (screened) or 2 x 4 Core Fire Rated Enhanced Note: Where possible do not connect Paging microphones to the same physical RS485 port as Emergency Microphones. If unavoidable connect via Enhanced Fire Rated cable.
PC/Graphics Package Interface	Enhanced	3 x 1.5mm 4 core (Fire Rated Enhanced)
Ambient Noise Sensor	N/A	1.5mm 4 core
Network	Enhanced	Copper Network: 1.5mm 4 core (Fire Rated Enhanced) wired as a loop. Distance parameters for Copper: 300 meters 6 channel (slow). 200 meters 14 channel (fast) Fibre Network Multimode (6 or 14 channel) 2 cores required wired as a loop (ST Termination): OM1 (62.5/125) - 3km OM2 (50/125) - 2km OM3 (50/125) - 2km Fibre Network Singlemode (6 or 14 channel) 2 cores required wired as a loop (ST Termination): OS1 (9/125) – 4km OS2 (9/125) – 4km
BGM inputs	N/A	Any screened 2 core cable
Analogue Volume Controls	N/A	Any screened 2 core cable
RPVS Digital Volume Controls	N/A	2 pair twisted cable or CAT5 or 4 Core Fire Rated Enhanced Note: Where possible do not connect RPVS Volume Controls to the same physical RS485 port as Emergency Microphones. If unavoidable connect via Enhanced Fire Rated cable.



Cable Types

RPAIV Music Select Panels	N/A	Any screened 4 core cable
Speaker lines	Standard	1.5mm 2 core Note: Screen continuity required for BEL1 monitoring
Monitor Speaker	N/A	1.5mm 2 core cable Note: if connected to live zone speaker output and physically separated from rack 2 core standard Fire Rated should be used.
Annunciator Panel ^{*2}	Enhanced	4 x 1.5mm 4 core Note: 2 x (2 x 1.5mm 4 Core) wired via diverse routes

PA Systems

Connection	Fire Rating ^{*1}	Cable Type
Speaker Cables	N/A	2 core flex (suitably sized for speaker load) Note: Screen or 3 rd core required for BEL1 monitoring
BDM or BVRD Microphone ^{*2}	N/A	Cat 5 or 2 x 4 core screened cables
Touchscreen Mic ^{*2*3}	N/A	2 x 1.5mm 4 core screened cables
Fire alarm mute	Standard	2 core (Fire Rated)
Audio inputs for BGM, CD Players or MP3	N/A	Any 2-core screened cable.
Analogue Volume Controls	N/A	Any screened 2 core cable
RPVS Digital Volume Controls	N/A	2 pair twisted cable or CAT5 or 4 Core Screened
RPAIV Music Select Panels	N/A	Any screened 4 core cable
BT5 & BT8 Telephone Interfaces	N/A	Audio: Any screened 2 core cable Zone Access & Busy: Any single / multi core flex

Note^{*1}: Baldwin Boxall recommends that Enhanced Fire Rated cable should be used where possible for system reliability however please see BS5839-8 Clause 27 for more information regarding Standard or Enhanced Fire Rated Cabling.

Note^{*2}: Audio and RS485 Data should not be run in the same cable.

Note^{*3} Voltage drop should be considered for long runs to touchscreen microphone via CAT5 cable.

Cable Types

EVC Systems.

Omnicare (standard)	Fire Rating*⁴	Cable Type
Omnicare Loop (DRS, BVOCRIF, BVFREPEM)	Standard	4 core FP run as a loop – (Size dependant on cable length, see manual) Note: Max 200m between nodes
Omnicare Loop (containing Fire Telephones)	Enhanced	4 core FP run as a loop – (Size dependant on cable length, see manual) Note: Max 200m between nodes
Annunciator Panel	Enhanced	3 x 1.5mm 4 Core Note: Install no more than 20m from Omnicare Console, connect audio signals in separate cable.
PC/Graphics Package Interface	Enhanced	3 x 1.5mm 4 Core Note: Install no more than 20m from Omnicare Console, connect audio signals in separate cable.
Fire Panel Link	Standard	2 Core Volt Free Contact or 2 Core Sounder Circuit Note: not available with Annunciator or Graphics Package
BVOCRIF to DTAKIT	N/A	2 Core 1.5mm screened or Fire Rated e.g. FP200 Max Distance: 500m or 40R (Total resistance) – Single DTA Kit Max Distance: 250m or 20R (Total resistance) – Dual DTA Kits
Omnicare Plus	Fire Rating*⁴	Cable Type
Control Panels & Hub Network	Enhanced	Copper Network: 1.5mm 4 core (Fire Rated Enhanced) wired as a loop. Fibre Network Multimode 2 cores required wired as a loop (ST Termination): Fibre Network Multimode 2 cores required wired as a loop: OM1 (62.5/125) - 3km OM2 (50/125) - 2km OM3 (50/125) - 2km Fibre Network Singlemode 2 cores required wired as a loop: OS1 (9/125) – 4km OS2 (9/125) – 4km
Omnicare Loop (DRS, BVOCRIF, BVFREPEM)	Standard	4 core FP run as a loop – (Size dependant on cable length, see Omnicare manual) Note: Max 200m between nodes
Omnicare Loop (containing Fire Telephones)	Enhanced	4 core FP run as a loop – (Size dependant on cable length, see Omnicare manual) Note: Max 200m between nodes
PC/Graphics Package Interface	Enhanced	2 x CAT5/6 Fire Rated Note: Install no more than 20m from Network Hub, ensure audio and data connected in separate cables.
BVOCRIF to DTAKIT	N/A	2 Core 1.5mm screened or Fire Rated e.g. FP200 Max Distance: 500m or 40R (Total resistance) – Single DTA Kit Max Distance: 250m or 20R (Total resistance) – Dual DTA Kits



Cable Types

Care 2	Fire Rating ^{*4}	Cable Type
Care 2 Network between Panels or NEPs	Enhanced	2 x 2 core Fire Rated Enhanced configured as a loop Note: Max distance from any outstation to Master Console: 5km Note: Max connection length between consoles: 500m
Care 2 DRS	Standard	2 core 1.5mm Max Distance: 500m or 40R (Total resistance)
Care 2 DTAKit	N/A	2 core 1.5mm screened or Fire Rated e.g. FP200 Max Distance: 500m or 40R (Total resistance) – Single DTA Kit Max Distance: 250m or 20R (Total resistance) – Dual DTA Kits
Care 2 Fire Telephone and Jack Socket	Enhanced	2 core 1.5mm Max Distance to furthest Jack Socket: 500m Max Distance to Fire Telephone: 500m
Fire Panel Link	Standard	2 Core Volt Free Contact or 2 Core Sounder Circuit
Remote Beacon	N/A	Any 2 core cable

Note^{*4}: Baldwin Boxall recommends that Enhanced Fire Rated cable should be used where possible for system reliability however please see BS5839-9 Clause 14 for more information regarding Standard or Enhanced Fire Rated Cabling.

Cable Types Key

Cable Type	Notes
N/A	Does not require a Fire Rated Cable as this is classed as non-critical. As such a PVC type Flex cable would be adequate
Standard	Fire Rated "Standard" Cable
Enhanced	Fire rated "Enhanced" cable