

IP DALI Buswire Six

product ref: IBDBW6

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Delmatic's IP DALI Buswire Six hub is a cutting-edge smart Ethernet to the Edge DALI router combining latest DALI-2 functionality with full BACnet and MQTT integration.

The powerful device manages and monitors up to six DALI universes comprising DALI-2 and DALI drivers as well as DALI-2 devices such as presence detectors, absence detectors, multisensors, switches and scene-set panels.

The IP DALI Buswire Six hub uses Ethernet as a network backbone to seamlessly communicate with other DALI Hubs and presents real-time DALI and network data in open protocol BACnet and MQTT formats for unrivalled management, monitoring and smart data sharing.



headline features

- individual addressing and monitoring of up to 384 (6 x 64) DALI-2 drivers (control gear) across 6 DALI universes
- individual monitoring of up to 64 DALI-2 control devices (sensors/switches) within each universe
- individual control of up to 6 x 16 software-configured DALI-2 groups across 6 DALI universes
- individual failure monitoring of each DALI-2 lamp and DALI-2 driver
- individual DALI-2 emergency light testing and monitoring via DALI-2 Emergency devices
- concurrent communication with latest DALI-2 drivers and legacy DALI drivers
- DALI-2 drivers, sensors, switches and emergency devices connect to shared DALI network
- TCP/IP via a 10Base-T/100Base-TX Ethernet Interface
- BACnet over IP communication
- MQTT communication and data sharing
- four individually addressed volt-free input points
- four individually addressed volt-free output points
- 24V power supply input
- Compact DIN rail design
- Certified DALI-2

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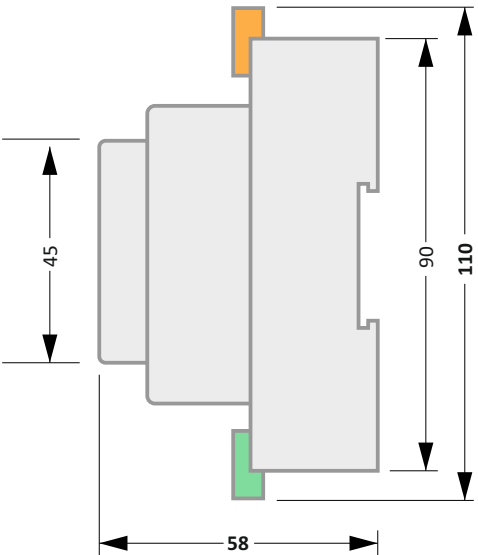
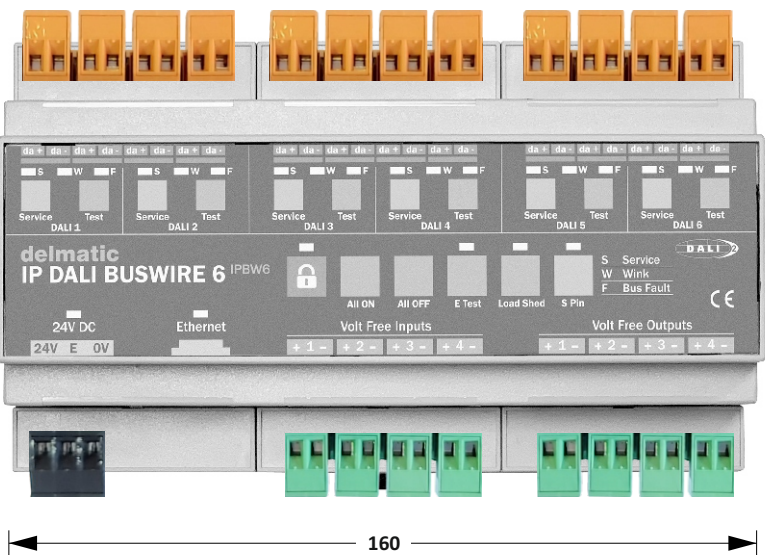
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mechanical and installation details



all dimensions in mm

mechanical details

Dimensions	110 (h) x 160 (w) x 58 (d) plus PSU
Weight	350 g (IPDBW6) plus 120 g (PSU)
Mounting	DIN rail
Orientation	Mount horizontal

installation notes

- Install in a restricted access location only.
- Install the unit horizontally to allow for heat dissipation.
- Ensure adequate cooling ventilation is provided.
- DALI cabling must be mains rated.
- Isolate mains supply to the PSU before installation.
- To minimum disturbance to the router, mount as far away as possible from power switching gear and cables carrying high current.
- Network performance will be impaired if the Ethernet cable is bent tightly or pressure is put on the RJ45 connector.
- Follow cable manufacturer guidelines on minimum bending radius and ensure freedom of movement of RJ45 connection at the router.
- Keep mains and DALI wiring separate from Ethernet cable.

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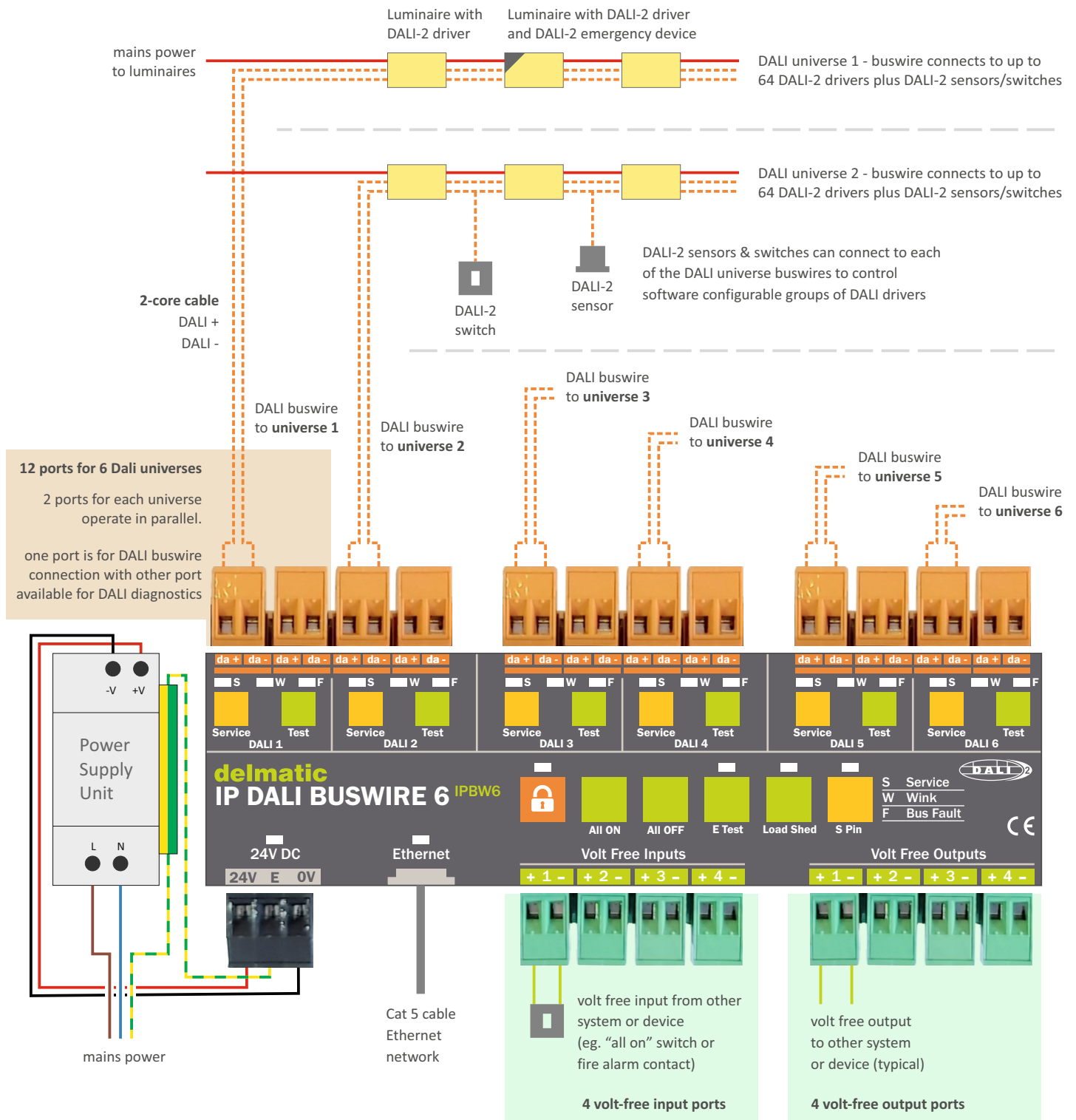
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wiring connections



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electrical and logical details

connections	type	description
power input	3 way screw terminal (black)	24V power input to unit - maximum 20W
Ethernet network port	1 x RJ45 10/100 Mbps	IP network (Lon, BACnet, MQTT comms)
		Cat 5E cable up to 100m (Auto MDI/MDI-X crossover)
DALI in / out	2 way screw terminal	DALI pair output plus additional loop through diagnostics port
buswire specification		2-wire mains rated, 0.5 mm ² – 2.5 mm ² Max. 300 m @ 1.5 mm ²
		Twisted pair Firefighter Belcom 4001P1444-14AWG
DALI out current		250 mA
USB port	USB 2 Type A	Port for future wireless dongle
volt free inputs (4)	2 way screw terminal	To receive triggers from other connected systems / devices
volt free outputs (4)	2 way screw terminal	To provide triggers to other connected systems / devices

logical data points

conformity	DALI-2 Application Controller (Multi Master) parts 101, 103
DALI-2 monitoring	Individual lamp/driver failure monitoring of up to 384 (6 x 64) DALI-2/DALI drivers/DALI-2 Em devices
DALI-2 devices	Module accepts up to 16 DALI-2 sensors and 16 DALI-2 switches per universe (subject to DALI power limits)

electrical details

power supply	Voltage: External 24V DIN PSU
over voltage category	IPBW6 - CAT I
PCB substrates	FR4 UL94-V0 rated
material safety	RoHS and WEEE Compliant, Lead free
EMC emission	EN 55032 Class B, EN 55015 FCC Pt 15 Class A
EMC immunity	EN 55035, EN 61547

environmental details

ambient temperature	0 °C to + 40 °C
storage temperature	-10 °C to + 50 °C
relative humidity	20% to 90% non condensing

keypad and status indication

