



1. System Overview

The Varoflex system is a modular door entry platform designed for audio and video door communication using the QWIKBUS 2-wire system.

It is suitable for single-dwelling and multi-dwelling installations and allows flexible configuration both at initial installation and for future expansion.

The system is based around modular door station components, configurable indoor units, and a central door station control module.

1.1 System Architecture

Varoflex is a fully modular system, allowing the installer to configure door stations according to site requirements.

Key characteristics:

- » Modular door station construction
- » Audio or video configurations
- » Single-column or double-column layouts
- » Surface-mount or flush-mount installation
- » Shared system logic for audio and video installations

Modules can be added, removed, or replaced without redesigning the entire system.

1.2 QWIKBUS 2-Wire System

Varoflex operates on the QWIKBUS 2-wire bus, which carries both power and data on a single pair.

Key points for installers:

- » Two-wire bus for indoor units and door stations
- » Loop-in / loop-out or star wiring permitted
- » Indoor units connect directly to the QWIKBUS line
- » Addressing is performed at the indoor units, not at the door station

This simplifies cabling and allows flexible wiring topologies.

1.3 Audio and Video Systems

The Varoflex platform supports both audio and video door entry systems.

Important installer notes:

- » Audio and video systems share the same QWIKBUS structure
- » Call button programming and address allocation are identical for audio and video
- » Indoor units may be audio handsets or video monitors on the same bus
- » System behaviour and programming logic remain consistent across both types

This allows installers to move between audio and video installations without learning separate systems.

1.4 Door Station Control Module (BLM333)

Each Varoflex door station is controlled by a BLM333 control module.

The BLM333 is required for both audio and video door stations and performs the following functions:

- » Manages call button programming and storage
- » Assigns call button order to system addresses
- » Controls communication between door station and indoor units
- » Provides electric lock control outputs
- » Interfaces with the QWIKBUS line

One BLM333 is used per door station. Without the BLM333, call functionality and address allocation are not possible.

1.5 Addressing and Call Logic (Overview)

- » Call buttons are not manually addressed
- » Button addresses are assigned automatically based on the order in which buttons are pressed during programming
- » Indoor units are addressed locally using SH and SL rotary switches
- » The system maps call button order to indoor unit addresses automatically

Detailed programming steps are described later in this guide.

1.6 Installation Formats

Varoflex door stations are available in multiple physical configurations:

- » Surface-mounted or flush-mounted
- » Single-column or double-column module frames
- » Configurable for audio-only or audio/video use

Installers should confirm mounting format and module layout before installation to ensure correct back boxes and cut-outs are used.

1.7 Colours and Finishes

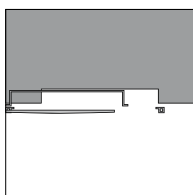
Varoflex door station modules are supplied in standard factory finishes as well as optional no standard colours.

- » Standard colours are supplied as standard production items
- » Additional colours are available on request
- » Non standard finishes are supplied as custom-painted modules and may incur additional lead time and cost

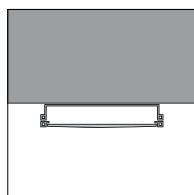
Colour selection does not affect system wiring, programming, or compatibility.

Product Features

Mounting Options



Flush-Mount Frame

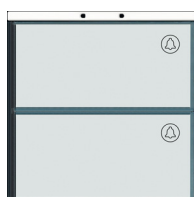


Surface-Mount Frame

Door entry and access control



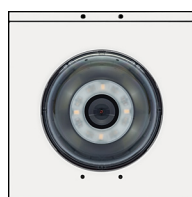
BLM333



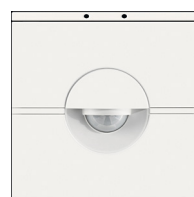
BRM2



KMBC-3F



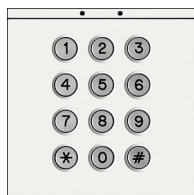
KMD-60



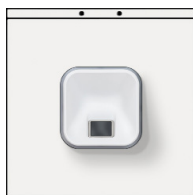
BMM



DBM40



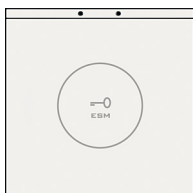
COM



FPM



SSM



ESM



BRM1



VFL-BM

Materials and finishes (colour-coated)



White



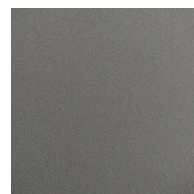
Silver



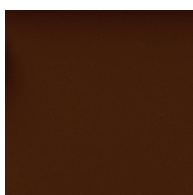
Titan



Charcoal Grey



Dark Grey Metallic



Brown



Non-standard colours

1. Main Audio and Control Module BLM333

The BLM333 is the core audio and control module used in STR Varoflex door panels. It provides:

- » Two-way audio communication via the integrated loudspeaker and microphone
- » The connection point for call button modules and camera modules
- » Control of the electric door release
- » The interface between the door panel and the 2-wire QWIKBUS system
- » The BLM333 distributes power and data between the door panel and all connected indoor stations.

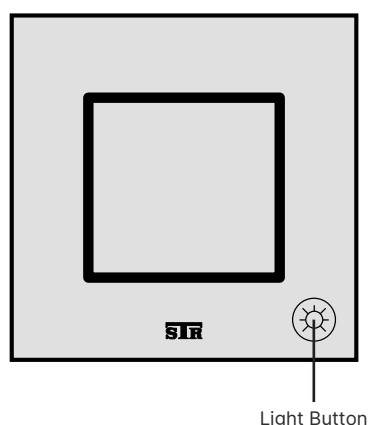


Fig. 1: BLM333 Module with Light Button

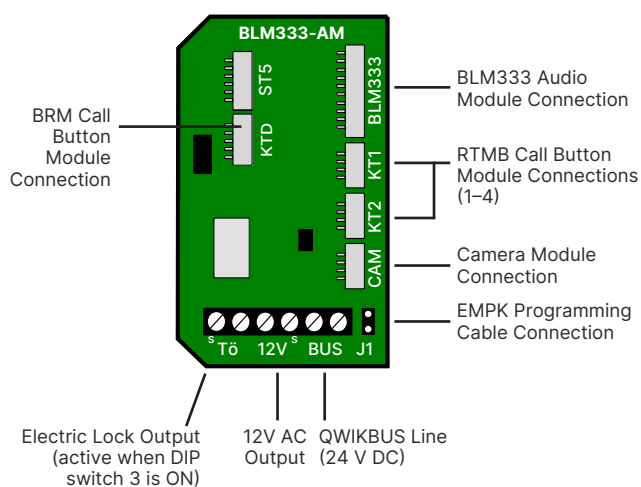


Fig. 2: BLM333 Connection Overview

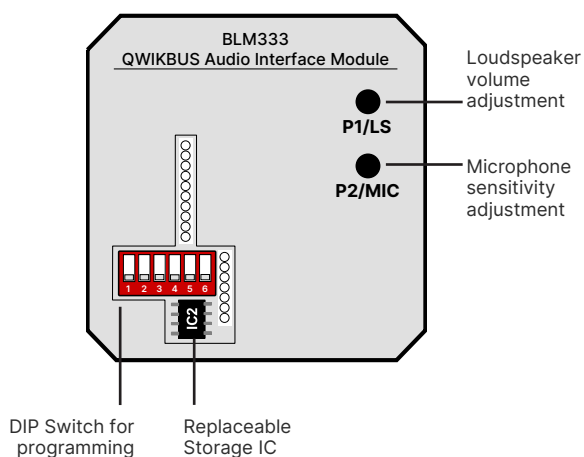


Fig. 3: BLM333 Rear View Audio Controls & DIP Switch

Switch	OFF	ON
DIP 1	Normal operation	Programming mode
DIP 2	Normal operation	Call button active / parallel programming (DIP 1 + 2 ON)
DIP 3	Electric lock controlled via BNG333 or SP333	Electric lock controlled directly by BLM333
DIP 4-6	Door station addressing (multiple door stations)	

Fig. 4: BLM333 DIP Switch Functions

2. Connection of Call Button Modules BRM / RTMB to the BLM333

Two connection methods are shown below, covering current BRM and previous-generation RTMB modules:

- » BRM modules – daisy-chained using IN / OUT
- » RTMB modules – connected in parallel for grouped layouts

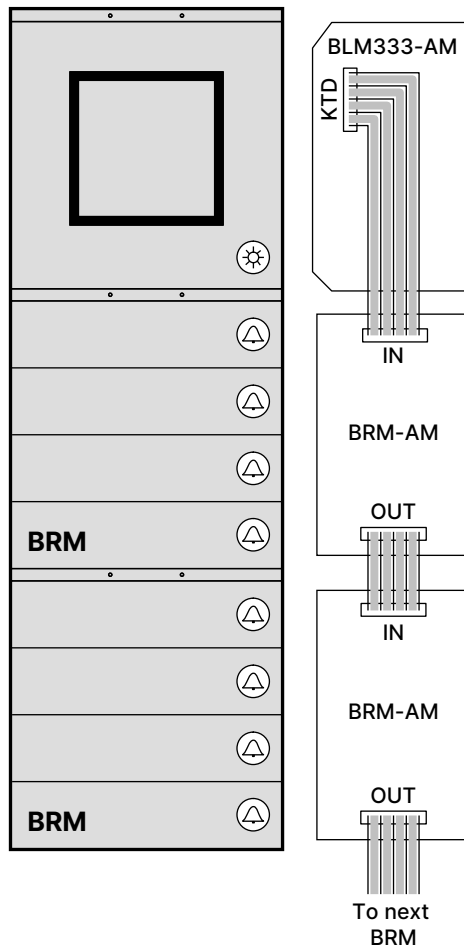


Fig. 5: Version 1 with BRM Call Button Modules

Use this method for standard vertical or linear call button layouts.

- » BRM modules connect to the BLM333 via the KTD interface
- » Modules are linked using the IN → OUT terminals
- » Each module feeds the next in sequence

Typical use:

Single-column or stacked call button panels

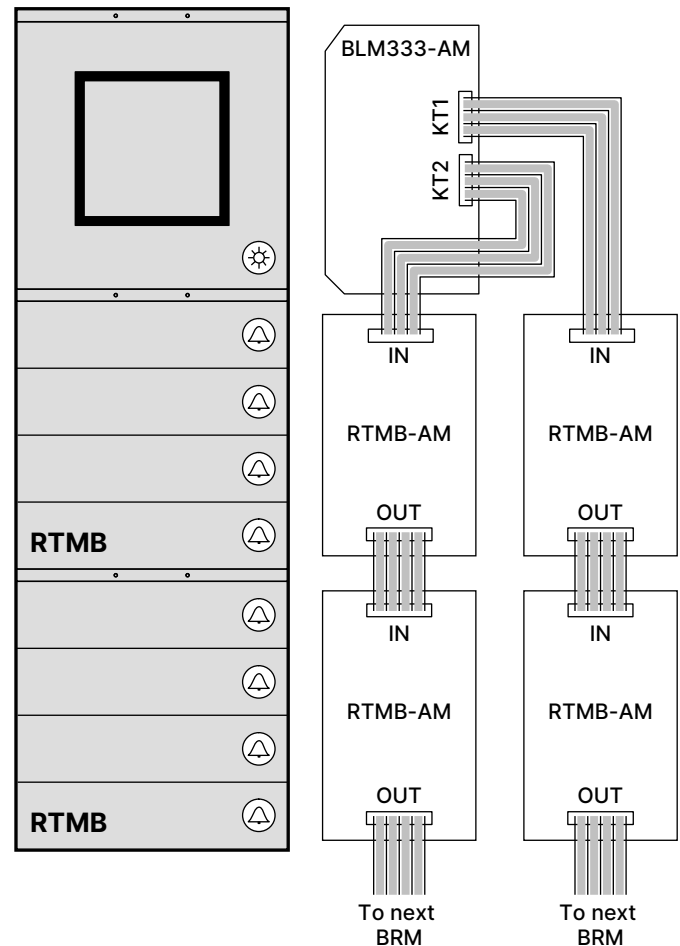


Fig. 6: Version 2 with RTMB Call Button Modules

Use this method for wider or grouped call button layouts where daisy-chaining is impractical.

- » RTMB modules connect to the BLM333 via the KTD interface
- » Multiple modules are connected in parallel
- » Inputs KT1 / KT2 are used for distribution

Typical use:

Multi-column or grouped call button panels

INSTALLER NOTE

BRM modules are recommended for all new installations.

RTMB modules are the previous generation and may still be found on existing Varoflex systems. RTMB modules use resistance-based pushbutton detection, whereas BRM modules use electronic pushbutton detection for improved reliability.

3. Controls and Settings on the BLM333

The BLM333 is configured using a 6-way DIP switch. These switches control programming mode, call button assignment, door station addressing and electric lock control.

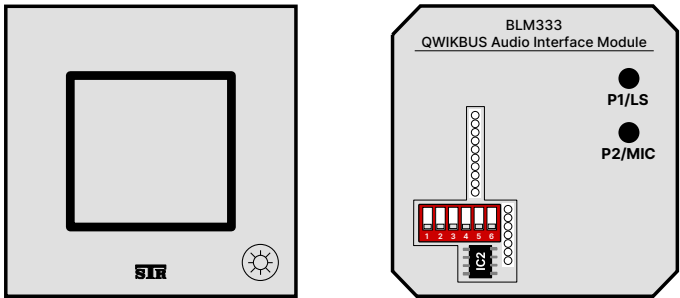


Fig. 7: BLM333 front and back

3.1 Factory Default Settings

From the factory, all DIP switches are set to OFF. This is the normal operating mode and should be used unless programming or configuration is required.



Fig. 8: Factory default DIP switch settings

3.2 DIP Switch Functions

Each DIP switch performs a specific function depending on whether it is set to ON or OFF.

Switch	OFF	ON
DIP 1	Normal operation	Programming mode
DIP 2	Normal operation	Call button active / parallel programming (DIP 1 + 2 ON)
DIP 3	Electric lock controlled via BNG333 or SP333	Electric lock controlled directly by BLM333
DIP 4-6	Door station addressing (multiple door stations)	

Fig. 9: BLM333 DIP Switch Functions

3.3 Door Station Addressing

DIP switches 4 to 6 are used to assign a door station address to the BLM333.

An address is required when more than one door station is connected to the same QWIKBUS system.

Each door station must be set to a unique address.

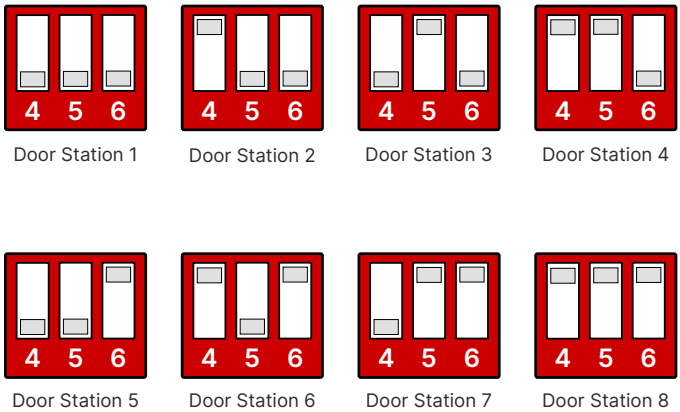
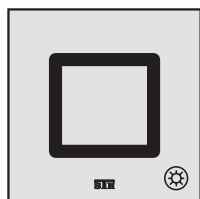


Fig. 10: BLM333 Door station addressing

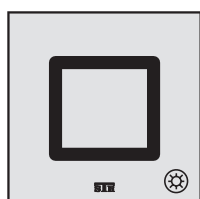
4. Programming the Call Buttons (BLM333)



BLM333 – Disconnect main power
Disconnect the mains supply before starting programming.



Set all DIP switches to ON
Prepare the BLM333 for memory reset.



Restore power to the BLM333
The unit will begin beeping to indicate reset mode.



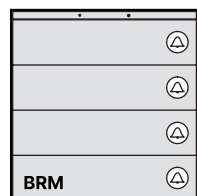
BLM333 audible confirmation
Beeping confirms the system is ready to clear stored button assignments.



Set all DIP switches to OFF except DIP 1
Starts the memory deletion process.



Continuous tone during memory deletion
A steady tone is heard while memory is being cleared.
Programming mode active
When the tone stops, fast programming mode is enabled.



Press call buttons in the required order
Each button is stored sequentially in memory.



Audible confirmation of button assignment
One long beep followed by four short beeps confirms successful programming.



Exit programming mode
Set DIP switch 1 to OFF to complete programming.

4.1. Quick steps

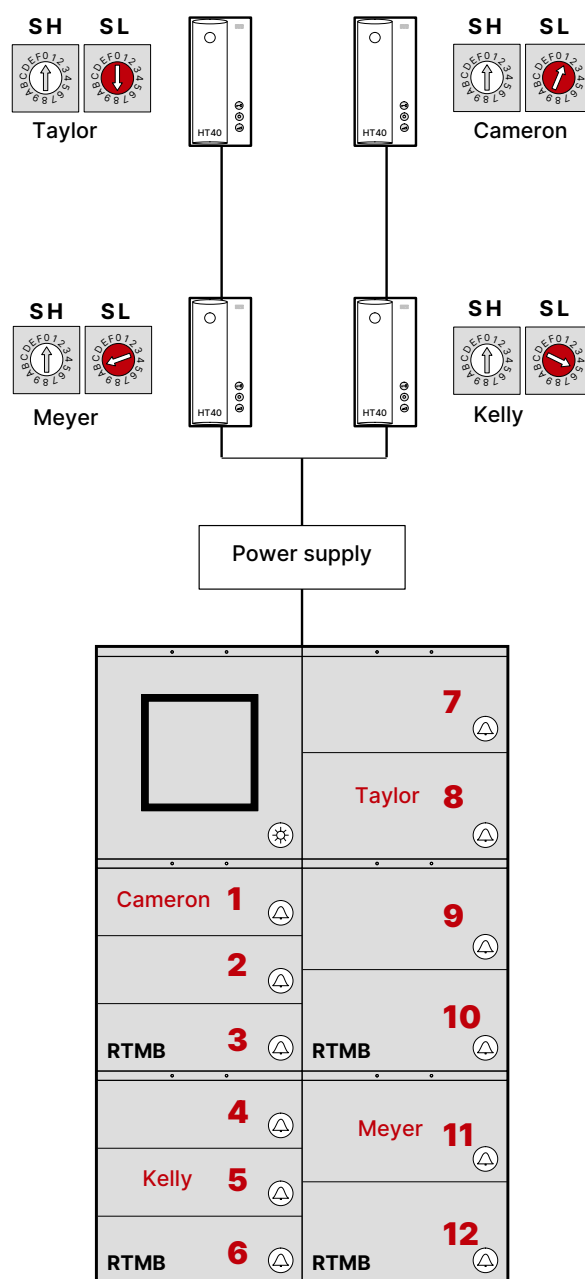
- » Switch off the main power to the system.
- » Set all DIP switches (1–6) to ON on the BLM333.
- » Restore power to the BLM333.
- » Set all DIP switches to OFF except DIP switch 1.
- » A continuous tone will be heard while memory deletion is in progress.
- » Press the door station call buttons in the required order
- » Successful button assignment is confirmed by one long beep followed by four short beeps.
- » Set DIP switch 1 to OFF to exit programming mode.

5. Call Button Order & Address Allocation (BLM333)

During programming, call buttons are stored sequentially in memory based on the order in which they are pressed.

The first button pressed is assigned Address 1, the second Address 2, and so on.

These addresses are then automatically mapped to the indoor stations connected on the QWIKBUS line.



Push Button	SH	SL
1	0	1
2	0	2
3	0	3
4	0	4
5	0	5
6	0	6
7	0	7
8	0	8
...	...	...
11	0	B
...	...	...
18	1	2
19	1	3
20	1	4

Fig. 10: Example of call button order mapped to indoor unit addresses (BLM333)

INSTALLER NOTE

Address selection is carried out at the indoor units using the SH and SL rotary switches, not at the door station.

Call button addresses are assigned automatically based on the order in which the buttons are pressed during programming.

6. QWIKBUS Audio Wiring – Single Door Station

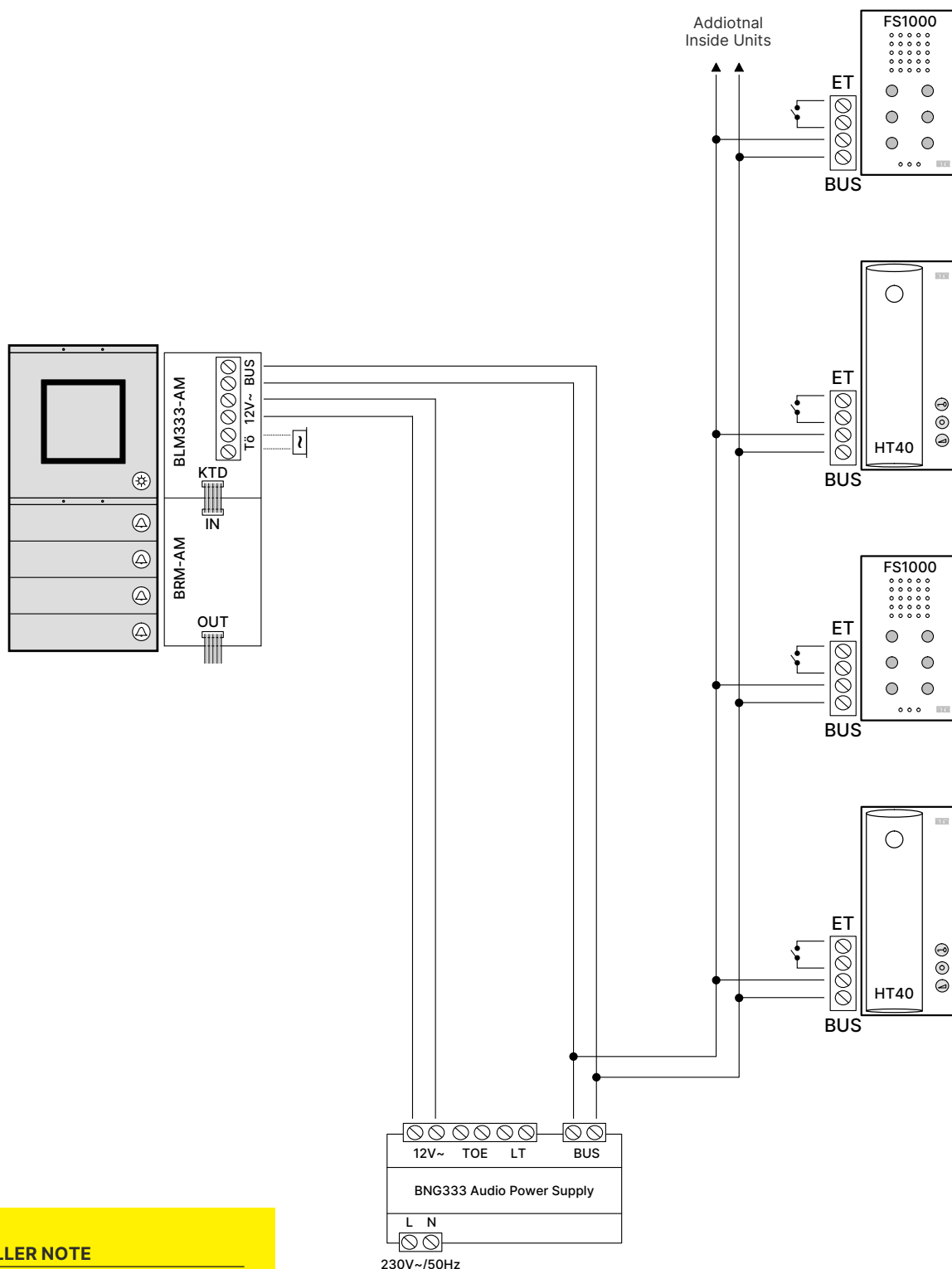


Fig. 12: Single door station, audio - wiring diagram

INSTALLER NOTE

TÖ - Electric lock output (BLM333):

Switched 12V AC output for direct connection of an electric lock. 12V AC supply required.

TOE - Volt-free electric lock relay:

Dry contact output (no voltage supplied).

7. QWIKBUS Audio Wiring – Multiple Door Stations

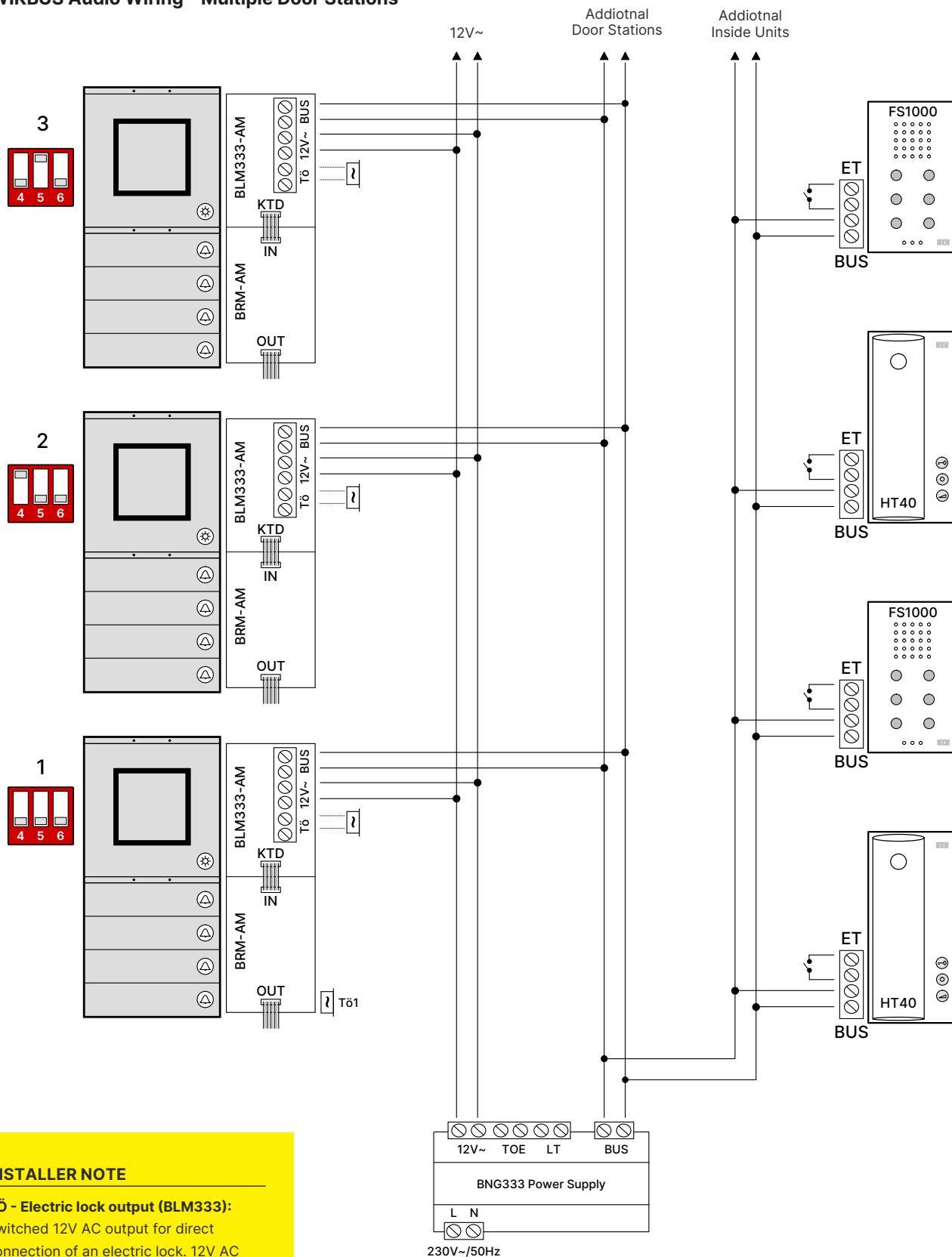


Fig. 13: Multi door stations, audio - wiring diagram

INSTALLER NOTE

TÖ - Electric lock output (BLM333):

Switched 12V AC output for direct connection of an electric lock. 12V AC supply required.

TOE - Volt-free electric lock relay:

Dry contact output (no voltage supplied).

8. QWIKBUS Video Wiring – Single Door Station

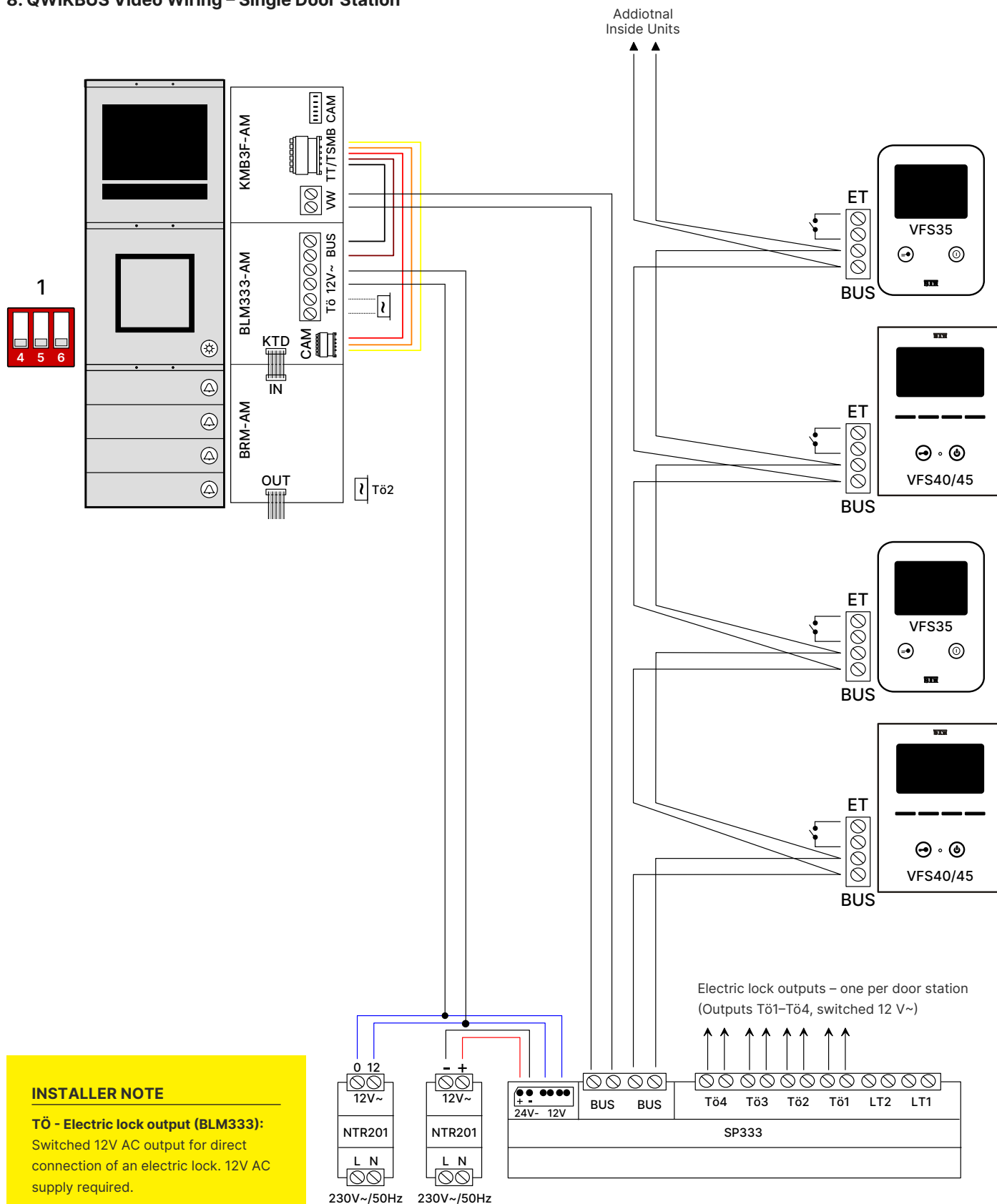


Fig. 14: Single door station, video - wiring diagram

INSTALLER NOTE

TÖ - Electric lock output (BLM333):

Switched 12V AC output for direct connection of an electric lock. 12V AC supply required.

TOE - Volt-free electric lock relay:

Dry contact output (no voltage supplied).

9. QWIKBUS Video Wiring – Multiple Door Stations

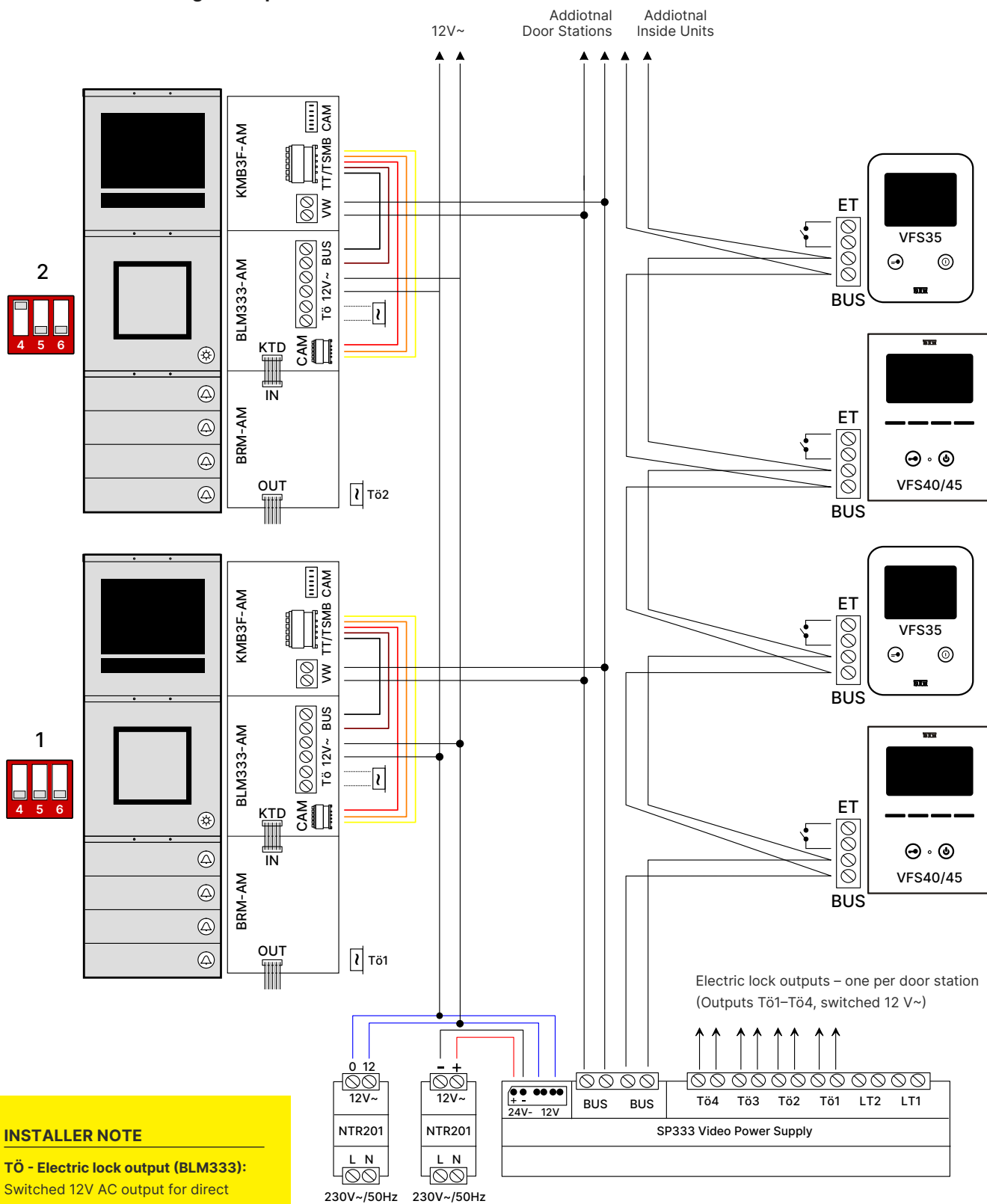


Fig. 15: Multi door stations, video - wiring diagram

INSTALLER NOTE

TÖ - Electric lock output (BLM333):

Switched 12V AC output for direct connection of an electric lock. 12V AC supply required.

TOE - Volt-free electric lock relay:

Dry contact output (no voltage supplied).