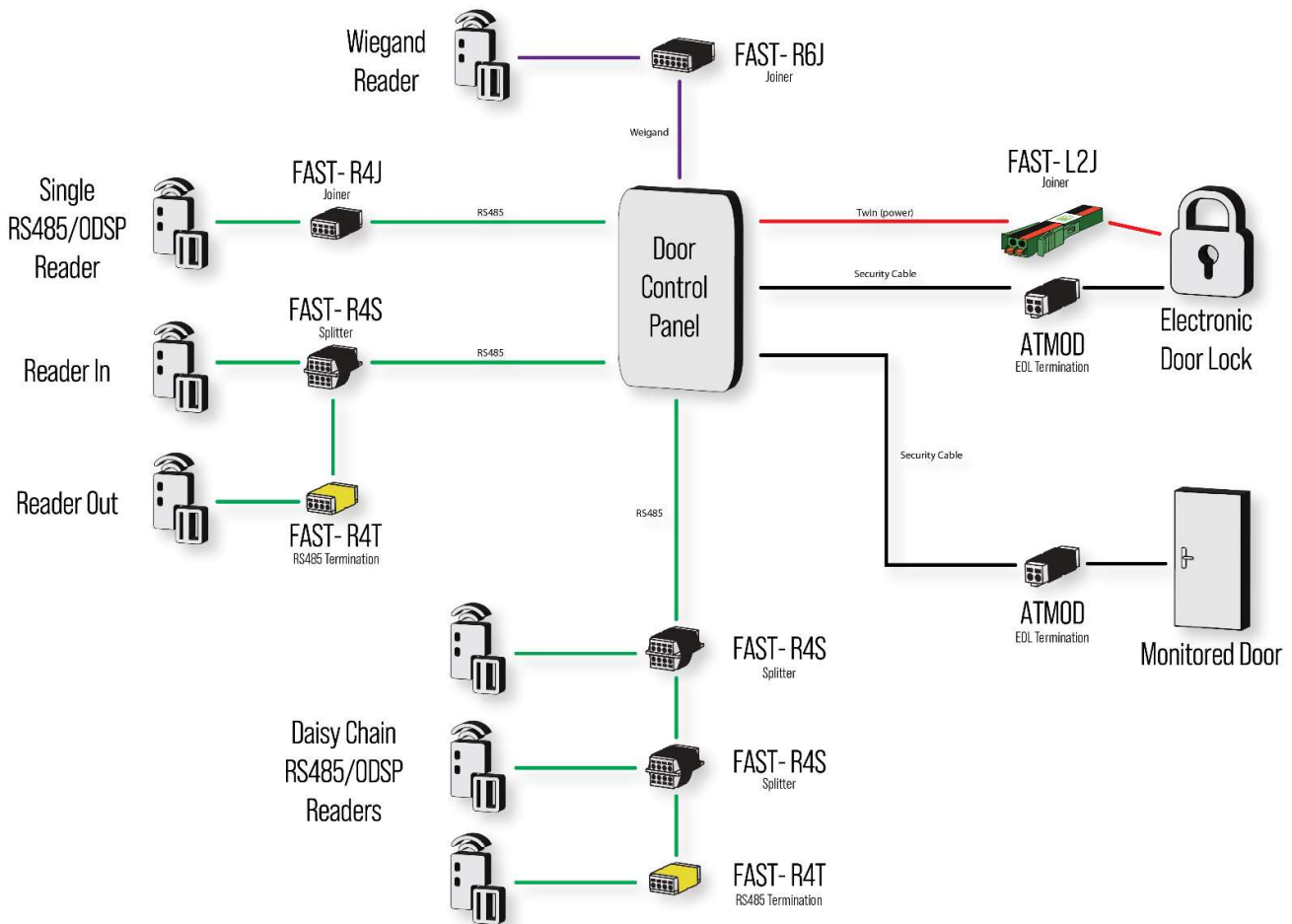## FAST – Security Connector System

Installation Note

FAST connectors for joining card readers and locks to security cable.

Options for Weigand, RS485 & OSDP readers.

Wiegand Reader — FAST- R6J Joiner

Weigand

Single RS485/ODSP Reader — FAST- R4J Joiner — RS485

FAST- L2J Joiner

Twin (power)

Single RS485/ODSP Reader

FAST- R4S Splitter — RS485

Reader In

Security Cable

Door Control Panel

ATMOD EOL Termination

Electronic Door Lock

Reader Out — FAST- R4T RS485 Termination

RS485

Security Cable

ATMOD EOL Termination

Monitored Door

Daisy Chain RS485/ODSP Readers — FAST- R4S Splitter

FAST- R4S Splitter

FAST- R4T RS485 Termination

FAST connector variants

FAST-R6J – Wiegand Reader Joiner

The FAST-R6J is designed for six core reader cable. It transfers power, data, LED and buzzer control.

FAST-R4J – RS485/OSDP Reader Joiner

The FAST-R4J suits four core reader connections such those using RS485/OSDP protocols. The FAST-R4J is used where RS485 line termination is not required, or the card reader has a built-in termination option.

FAST-R4S – RS485/OSDP Reader Splitter

The FAST-R4S allows one RS485 cable to be joined into two readers or other RS485 cables. This is useful for connecting entry and exit readers to one cable. It is also useful for RS485 daisy chaining. That is, linking multiple readers on a single cable run.

FAST-R4T – RS485/OSDP Reader Termination

The FAST-R4T includes an on-board RS485 termination resistor. A resistor typically must be used at the last RS485 device to terminate the transmission line and help ensure reliable data communication.

Two models are available to suit different RS485 terminations.

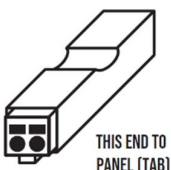FAST-R4T-120 (120Ω - Yellow) suits most RS485 card readers including HID and Gallagher.

FAST-R4T-330 (330Ω - Red) suits ICT (Protégé) card readers.

FAST-L2J – Lock Cable Joiner

The FAST-L2J is a two-part, quick connect terminal block that accepts large gauge power cable and is primarily used to quickly connect power cables to electric locks.
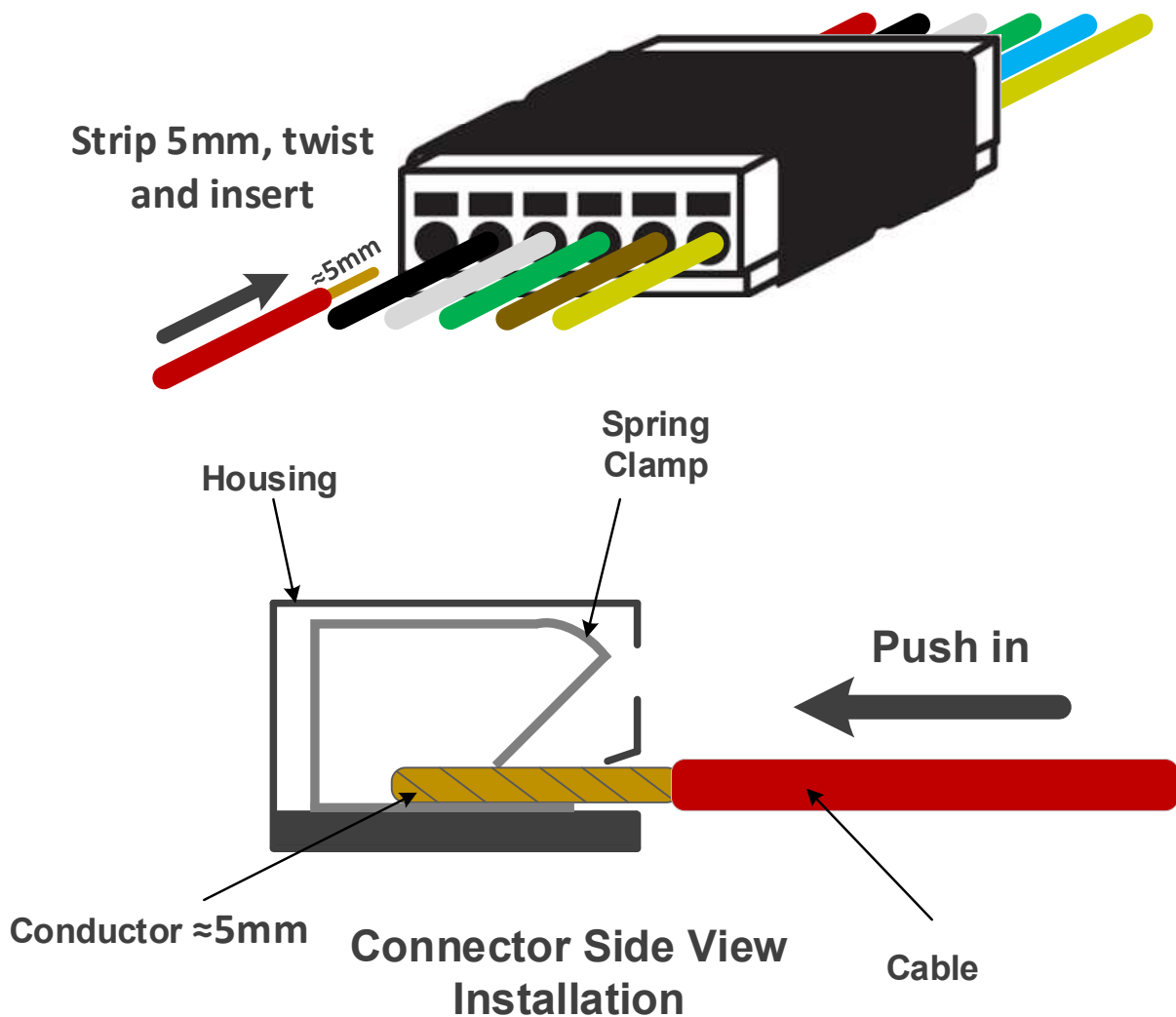
ATMOD – Quick Connect EOL Resistor Pack

The ATMOD compliments the FAST connector system and uses the same connectors to allow efficient installation of End of Line resistor networks for security applications such as reed switches, exit buttons and electronic lock monitoring.

FAST Connector System Terminals

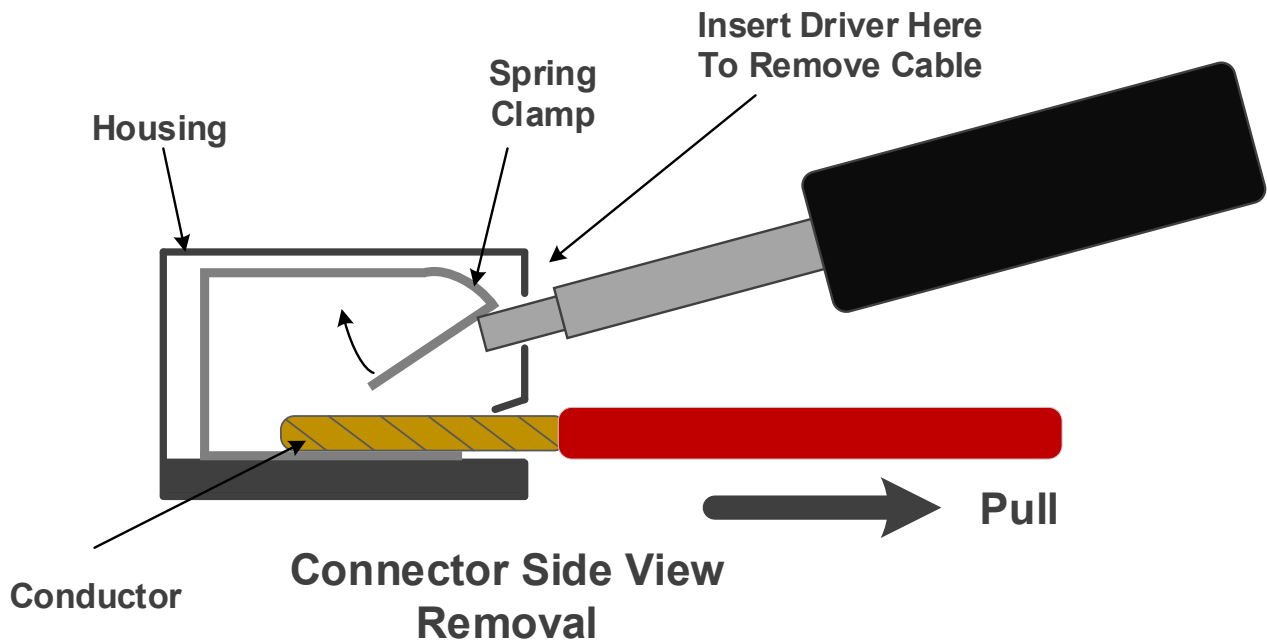## Reader Connectors - Installation

The FAST reader connectors use secure, quick connect spring clamp terminals. The individual connections are colour coded to help ensure correct termination. The colour coding also helps installers keep the orientation of the connector consistent.

Terminating security cable to the connectors is simple. Strip approximately 5mm of sheath from each conductor, twist stranded conductors tightly and insert into the appropriate terminal. No terminal driver is required for installation.

Strip 5mm, twist and insert

≈5mm

Housing

Spring Clamp

Push in

Conductor ≈5mm

Connector Side View Installation

Cable

Note: When terminated correctly the conductor should not be visible outside the connector.

Removal Insert a 2mm terminal driver into the slot above the conductor and gently pull the cable.

Housing

Spring Clamp

Insert Driver Here To Remove Cable

Pull

Conductor

Connector Side View Removal

The connectors are suitable for solid or stranded conductors and can be re-used several times.

Pre-termination

The FAST connectors can be fitted to the card reader cable ahead of time, thus making on-site installation more efficient and/or able to be completed by less skilled labour.

Lock Cable Joiner

The FAST-L2J connecter is suitable for larger twin cables such as those used for lock power. The connector is supplied with two parts that latch securely together.

Installation

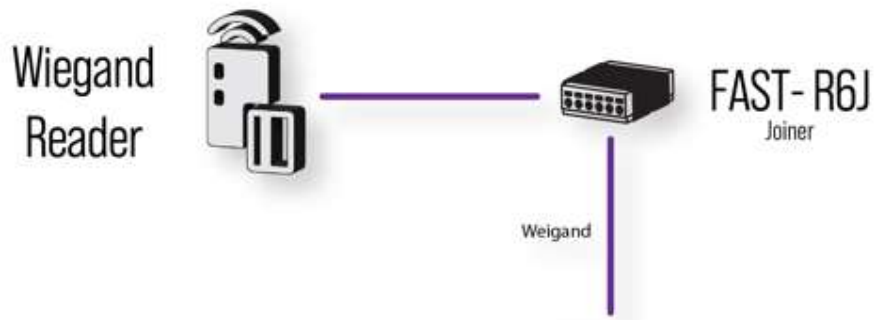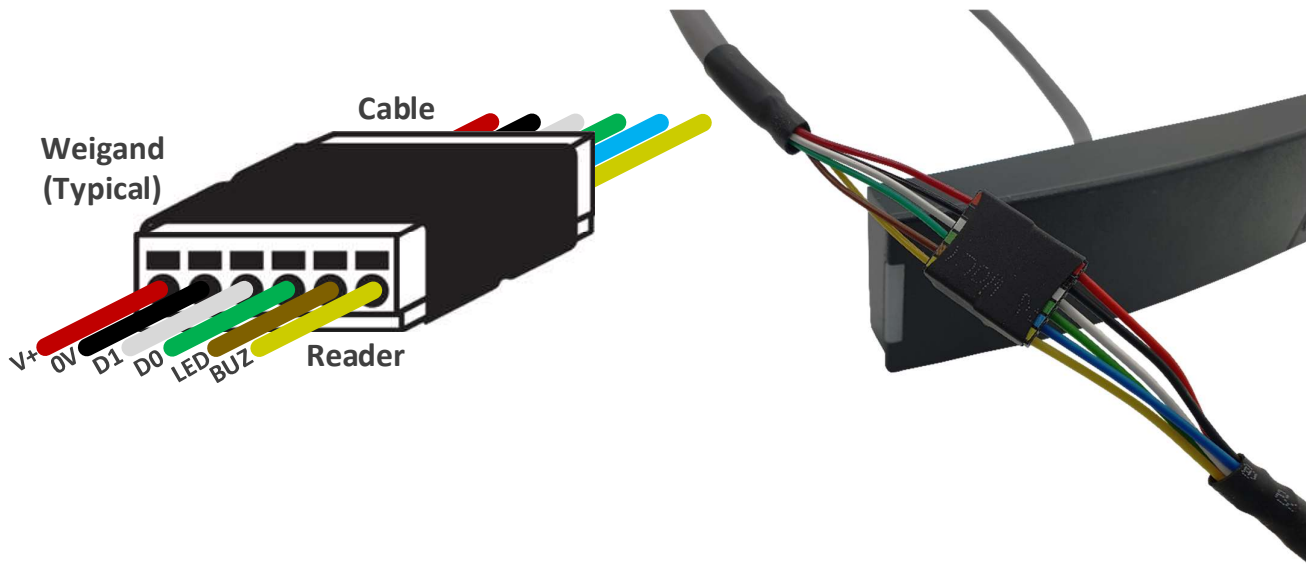Strip each conductor approximately 10mm and simply push into the spring clamp terminal.

Removal

No tools are required to remove the conductors. Simply push the small orange tab located above each conductor and pull to remove the cable.
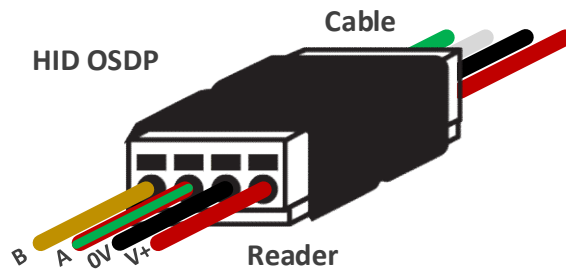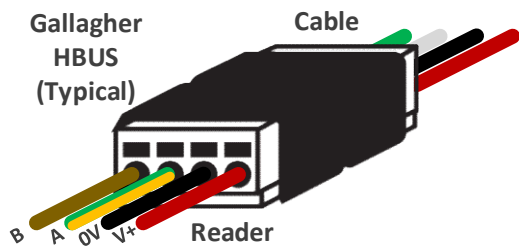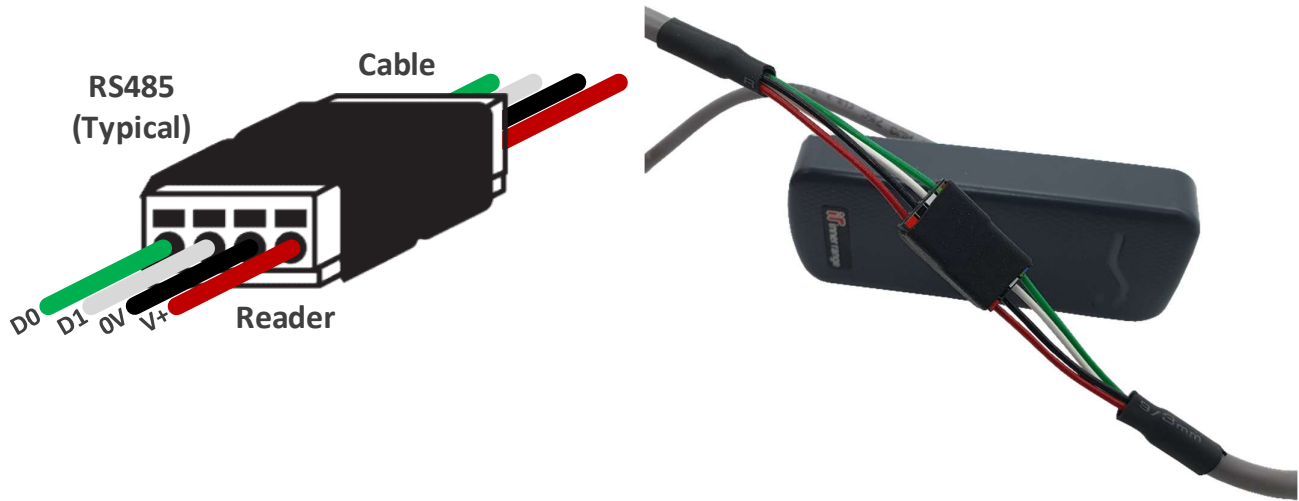
Typical Connections

Note: The connections outlined below are a guide only. Reader and cable conductor colours may vary. Please refer to device installation instructions.
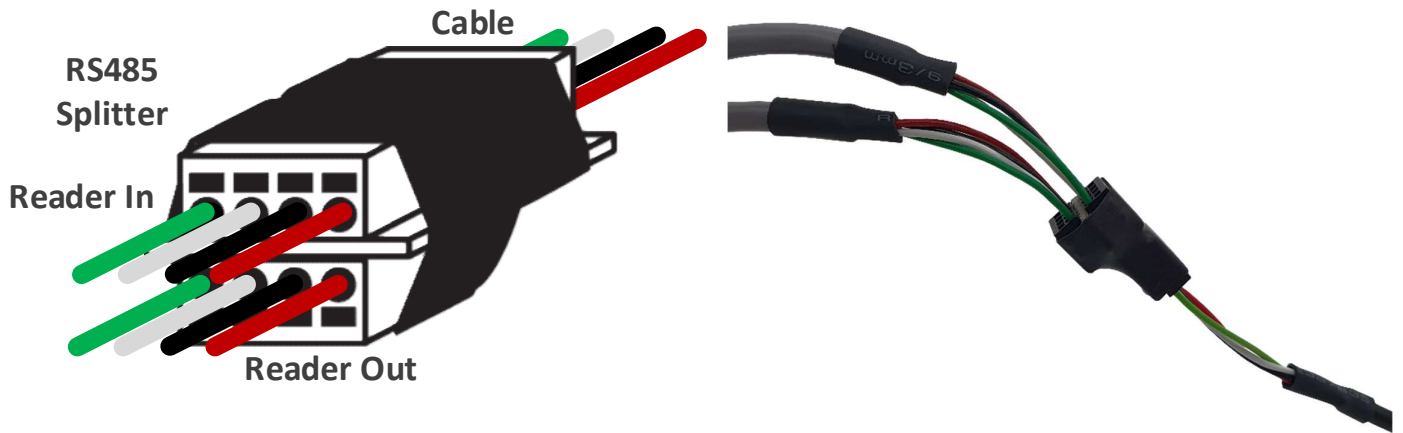
Wiegand Card Readers/Keypads

RS485/OSDP Readers/Keypads

**RS485
(Typical)**

Cable

D0 D1 0V V+

Reader

**Gallagher
HBUS
(Typical)**

Cable

B A 0V V+

Reader

HID OSDP

Cable

B A 0V V+

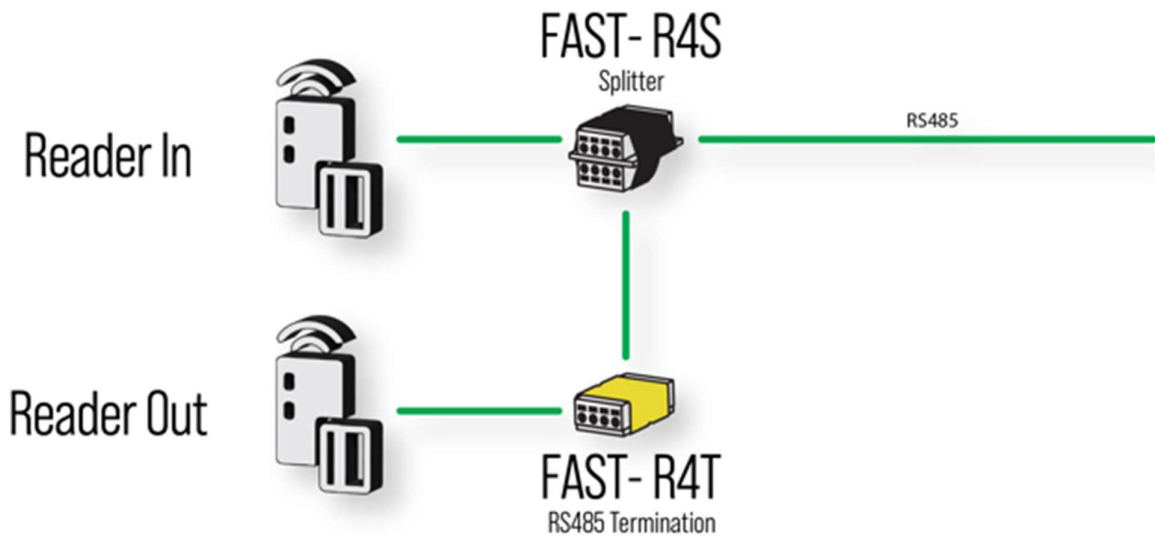**Reader**

Single
RS485/OSDP
Reader

FAST- R4J
Joiner

RS485

Note: Gallagher HBUS readers have a built-in termination resistor. When required this can be used by terminating both the orange and green wires to the same terminal. (Twist the conductors together.)
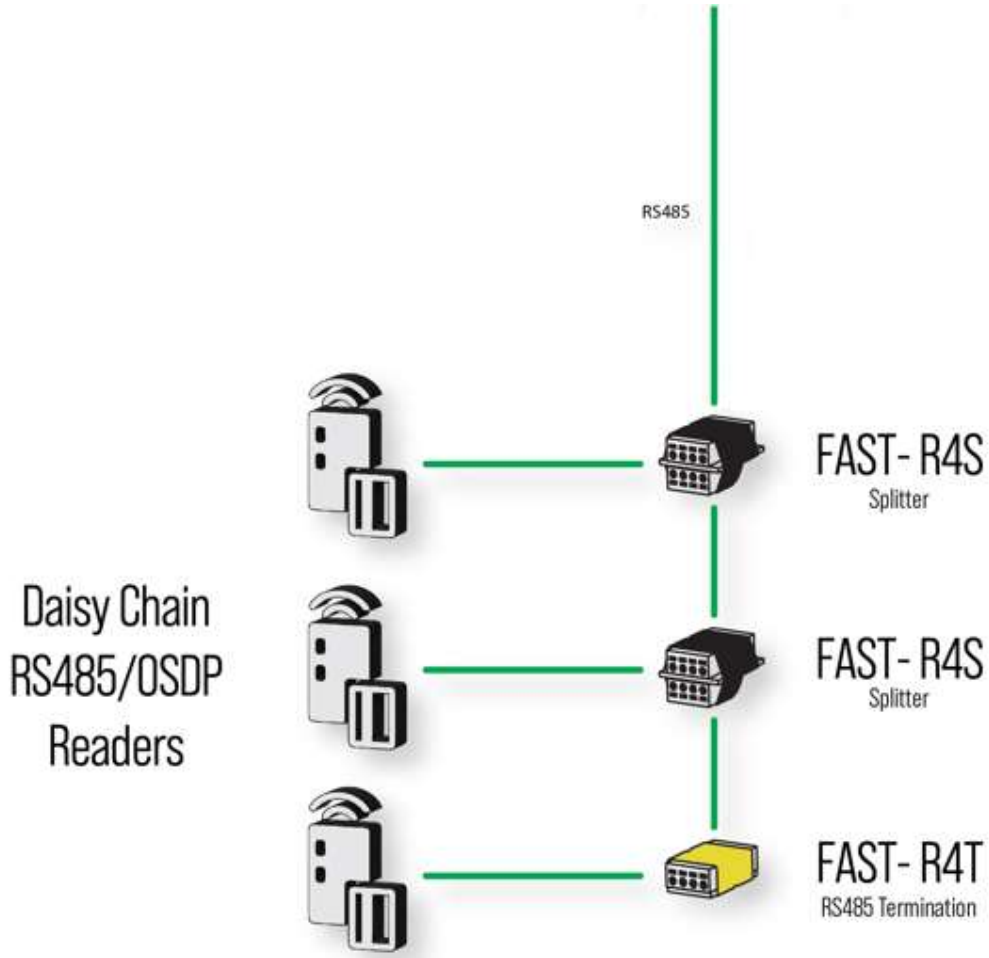
RS485/OSDP – Splitter/Daisy Chain

The FAST-R4S is used to split the RS485 signal from one cable into two. This is useful for doors that have readers for entry and exit.
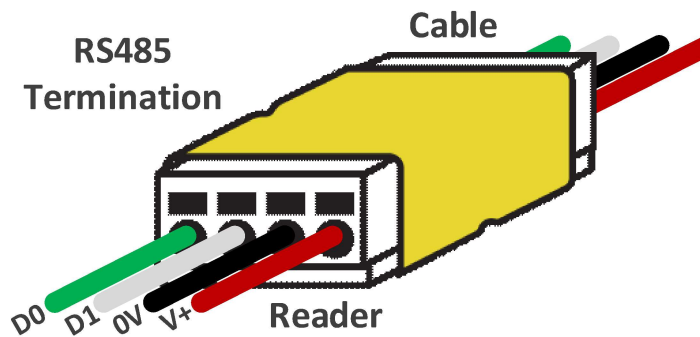
The FAST-R4S splitter can also be used to daisy chain a RS485 signal to multiple readers along a single cable run.

RS485/OSDP – Termination

As shown in the RS485 splitter examples above, the last device in an RS485 cable run should be terminated using an appropriate resistor. The FAST-R4T provides a termination resistor built into the connector in parallel with the D0 and D1 conductors.

Technical Data

R4(J/T/S) & R6J Conductor size	.2 - .5mm² (24-20AWG)
R4(J/T/S) & R6J Max current	2A (red and black trace only)
L2J Conductor Size	.08 - 1.5mm² (28-16AWG)
L2J Max current	6A
Suitable for stranded conductors	Yes
Suitable for solid conductors	Yes
Dimensions	**LXWXH (mm)**
R6J	20.5 X 17 X 8
R4J	20.5 X 12 X 8
R4S	22.5 X 17.5 X 13
R4T	22 X 12.5 X 8
L2J	40 X 18 X 8
RoHS	Compliant
AUS/NZ (RMC-EMC) 61000.6.3	Compliant
Primary materials	Polyamide 46, fiberglass, polyolefin
Country of origin	China

Ordering Code

FAST-R6J	6-way quick connect **joiner** for Wiegand/6 core card readers
FAST-R4J	4-way quick connect **joiner** for RS485/OSDP/4 core card readers
FAST-R4S	4-way quick connect **splitter** for RS485/OSDP/4 core card readers
FAST-R4T-120	4-way quick connect **terminator** for RS485/OSDP - 120Ω
FAST-R4T-330	4-way quick connect **terminator** for RS485/OSDP - 330Ω
FAST-L2J	2-Way pluggable quick connect **joiner** for power cable
ATMODXXX	See ATMOD data sheet for more details
ADI	Automatic Door/Gate Interface Module

Note: All FAST connectors are supplied in a pack of 10.

Learning

Become a **Jack Fuse Product and Power Certified Technician**. Free training available online.

More Information: For complete installation notes, data sheets and technical support please visit www.jackfuse.com