
ES4630.1

Breakout Panel High Current

User's Guide

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Contents

1	Introduction	5
1.1	Features	5
1.2	Applications	7
1.3	Block Diagram	8
2	Hardware	9
2.1	Pin Assignment	9
2.2	Technical Data	9
2.3	Accessories	10
	Index	11

1 Introduction

This section contains information about the basic features and applications of the ES4630.1 Breakout Panel High Current. A block diagram is also included to illustrate the schematic layout.

note

The components, connectors, and printed lines of the ES4630.1 may carry dangerous high voltages. Make sure that the ES4630.1 is protected against contact during operation. Disconnect all connections to the ES4630.1 before removing the board.

1.1 Features

Breakout boxes are used to open signals between the ECU and LabCar. This means the user can simulate a cable break by pulling out a jumper. As the jumpers have a center tap, it is possible to access the individual ECU signals externally.

The ES4630.1 Breakout Panel High Current is a breakout box for currents of up to 20 A. All plug-in connections of the ES4630.1 are print versions. Standardized connectors were selected to ensure compatibility to other products within the ES46xx series and the interface boards of the ES4500 component rack.

Other features of the ES4630.1 Breakout Panel High Current are:

- 17 ECU channels to 20 A which can be opened individually
- touch-guard connectors (up to 1000 V) for the opening jacks
- different connectors for connecting the ECU and load to the ES4630.1
- the project-specific front panel means the individual signal channels can be labeled to correspond to customer requirements
- as it is designed as a 19" panel, it is possible to use it both as a stand-alone in its own case and in the rack within a LabCar system.

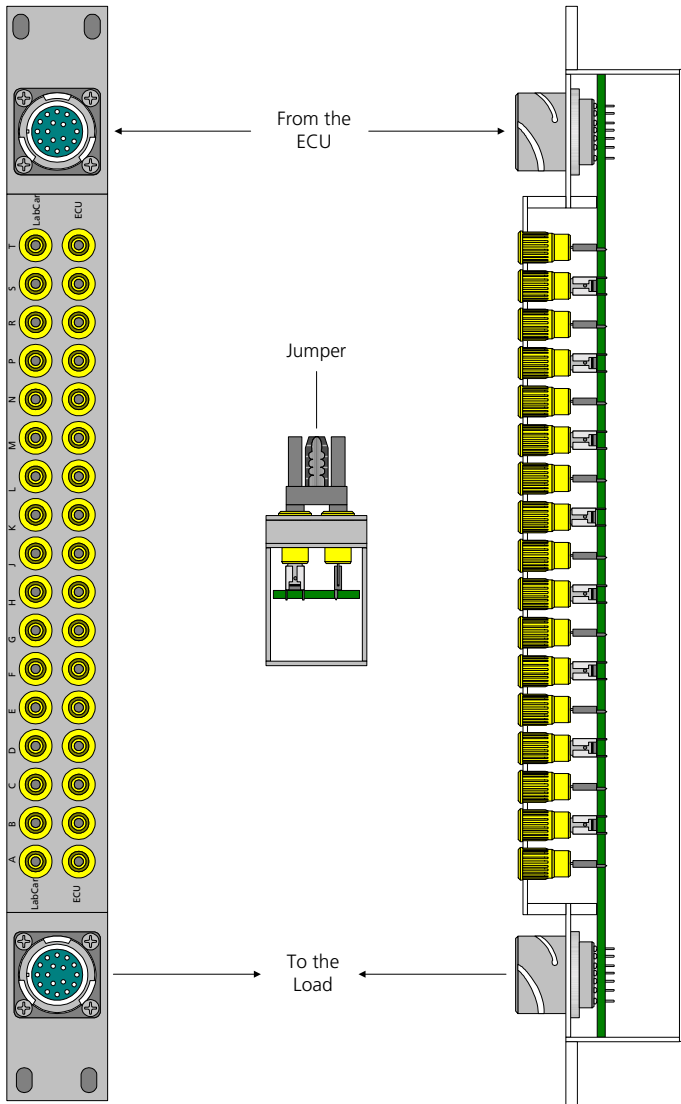


Fig. 1-1 Views of the ES4630.1 Breakout Panel High Current

1.2 Applications

Fig. 1-2 shows the applications of the ES4630.1.

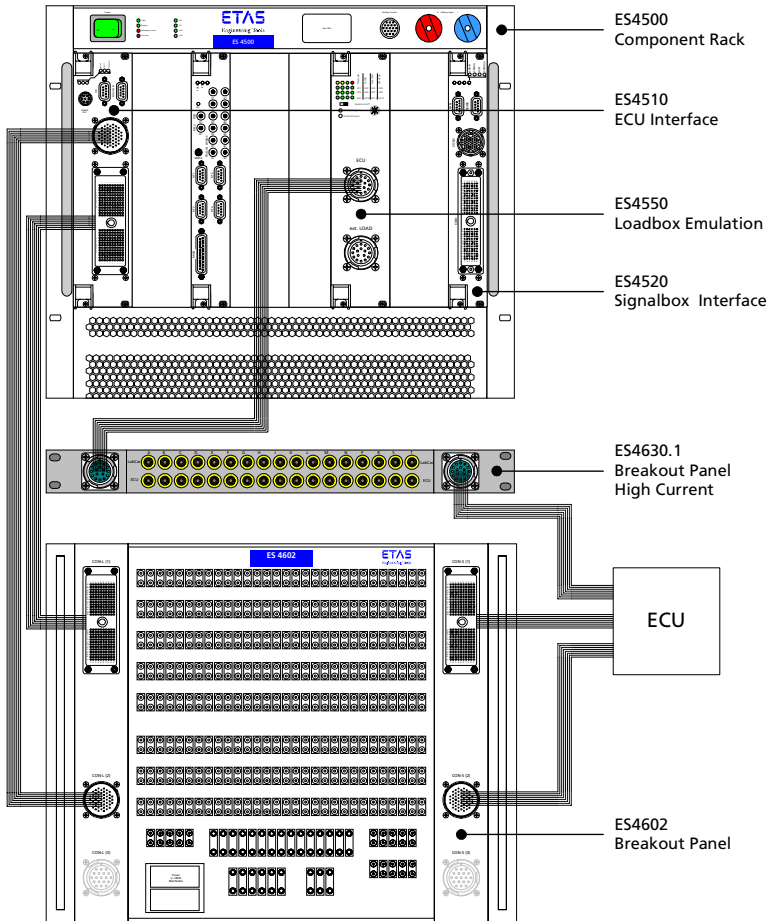


Fig. 1-2 Using the ES4630.1 in the LabCar Environment

Signals up to 5 A are routed (via the ES4602 Breakout Panel and ES4510 ECU Interface) to the backplane of the ES4500 Load Box. High-current signals are routed to the ES4550 Loadbox Emulation Board (and possibly on to external loads) via the ES4630.1 Breakout Panel High Current. Only the measured signals of the loads connected to the ECU are made available (via the ES4630.1 and the ES4550.1) on the backplane of the ES4500.

1.3 Block Diagram

Fig. 1-3 shows a block diagram of the ES4630.1 Breakout Panel High Current. For more details on pin assignment, please refer to section 2.1 on page 9.

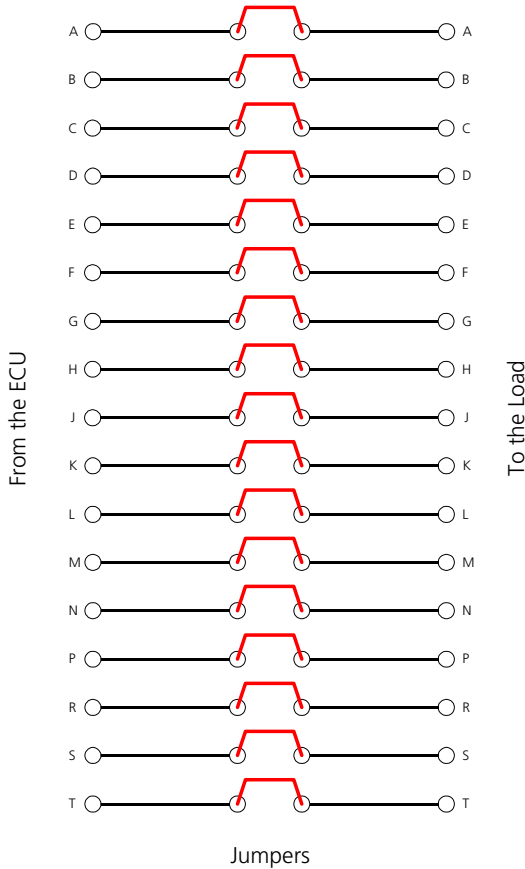


Fig. 1-3 Block Diagram of the ES4630.1

2 Hardware

This chapter contains descriptions of the hardware of the ES4630.1 Breakout Panel High Current. It consists of the following sections:

- Pin Assignment
- Technical Data
- Accessories

2.1 Pin Assignment

The following figure shows the pin assignment of a connector. For more details on the individual pins please refer to Fig. 1-3 on page 8.

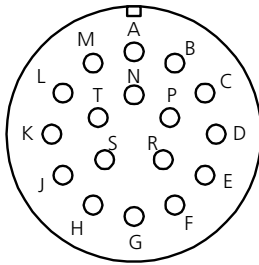


Fig. 2-1 Pin Assignment

2.2 Technical Data

Contact Rating of the Connecting Elements

Connecting Element	Max. Current Rating [A]
ITT Cannon CA20COM-L20-29-X-B (X=S: jack, X=P: connector)	22 A
Lab jack system 4mm	32 A

Environmental Conditions

Ambient temperature during operation	0 °C to +70 °C
Storage temperature	-55 °C to +85 °C
Relative humidity	5 to 95%, no condensation

Physical Dimensions

Front panel	Height: 1 U Width: 19 ''
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2.3 Accessories

Connecting cable from the ES4630.1 to the ES4550

Connecting cable from the ES4630.1 to the ECU

Jumpers 4 mm (touch-guards)

Customer-specific front panel

English User's Guide:

ES4630.1 Breakout Panel High Current User's Guide
(TTN: F 00K 102 654)

German User's Guide:

ES4630.1 Breakout Panel High Current Benutzerhandbuch
(TTN: F 00K 102 653)

Index

A

Accessories 10

Applications 7

B

Block diagram 8

C

Contact rating 9

F

Features 5

I

Introduction 5

P

Pin assignment 9

T

Technical data 9