

GEN series 1-KAB2148-1.5

eAxle Connection cable G070
to GN31xB/GN61xB

Special features

- Specially designed for eAxle set-up
- Connects up to two G070A splitter boxes with a Genesis HighSpeed series mainframe
- Enables the use of up to four Timer/Counter channels per input card

eAxle Connection cable G070 to GN31xB/ GN61xB

The 1.5 m long, special eAxle connection cable makes it possible to connect two torque transducers (torque and speed) to a single GN310B/GN311B or GN610B/GN611B Input card.

By using 1-KAB2148 cable, you can connect up to 4 Timer/Counter channels (provided e.g. by one G070A Torque/RPM adapter) per acquisition slot of your Genesis HighSpeed series mainframe.

Thus, the Y-shape of 1-KAB2148 cable enables the connection of two G070A Torque/RPM adapters to their related acquisition slots. By this, two torque transducers can be assigned to one input board - an ideal setup for eAxle measurements.

NOTE: Using this cable disables the Event I/O loop through functionality on the G070A.

Application Example

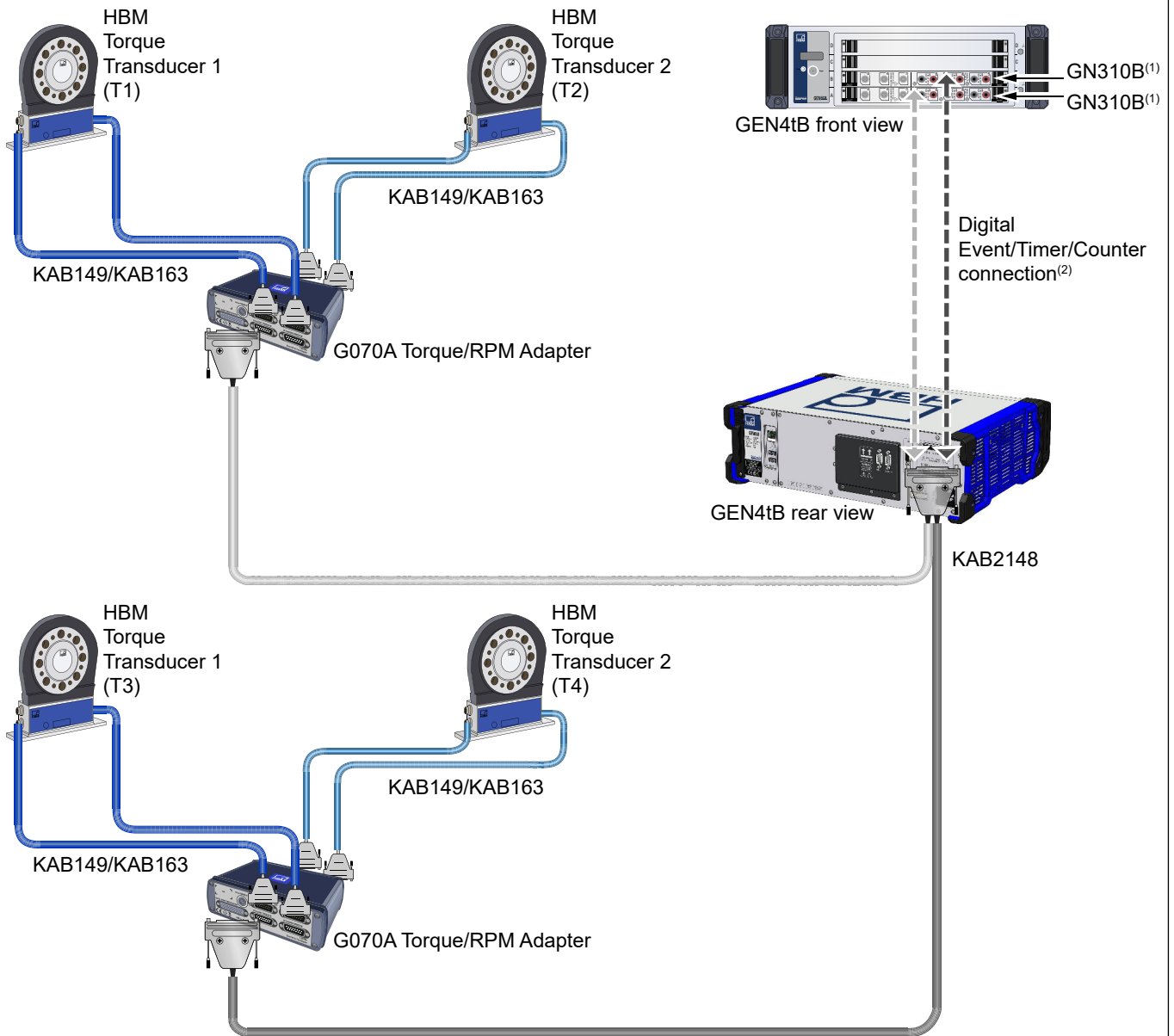
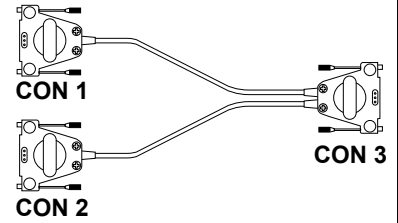
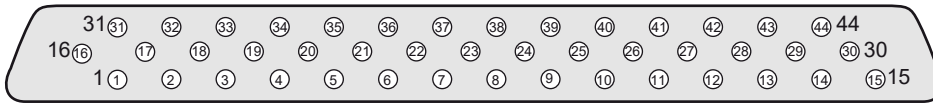


Figure 1.1: Example set-up of KAB2148 with two Input Cards and four Torque Transducers

Example: With KAB2148 it is possible to connect in total four torque transducers to two input cards: Torque transducers **(T1)** and **(T2)** are connected to a G070A, torque transducers **(T3)** and **(T4)** to an additional G070A. Both G070A are then connected to the mainframe by using the KAB2148 cable. In this example, the torque transducers **(T1)** and **(T2)** are assigned to the input card in the mainframe's slot A; the torque transducers **(T3)** and **(T4)** to the input card in the mainframe's slot B respectively. It is possible to connect less torque transducers and to leave one end of the KAB2148 open.

- (1) GN310B can be replaced with GN311B/GN610B/GN611B cards.
- (2) For more information on Digital Event/Timer/Counter connections, please refer to the GEN series mainframe manuals to chapter "Digital Event/Timer/Counter".

Digital Event/Timer/Counter Connector 1; 2 and 3 Pin Assignment



Connector 1

- PIN 1 - Event Input Timer/Counter A2-A
- PIN 2 - Event Input Timer/Counter A2-B
- PIN 3 - Event Input Timer/Counter A2-C
- PIN 4 - Not connected
- PIN 5 - Not connected
- PIN 6 - Not connected
- PIN 7 - Not connected
- PIN 8 - Not connected
- PIN 9 - Not connected
- PIN 10 - Event Input Timer/Counter A1-A
- PIN 11 - Event Input Timer/Counter A1-B
- PIN 12 - Event Input Timer/Counter A1-C
- PIN 13 - Event Input Timer/Counter A4-A
- PIN 14 - Event Input Timer/Counter A4-B
- PIN 15 - Event Input Timer/Counter A4-C
- PIN 16 - Not connected
- PIN 17 - Not connected
- PIN 18 - Not connected
- PIN 19 - Not connected
- PIN 20 - Not connected
- PIN 21 - Not connected
- PIN 22 - Event Input Timer/Counter A3-A
- PIN 23 - Event Input Timer/Counter A3-B
- PIN 24 - Event Input Timer/Counter A3-C
- PIN 25 - Not connected
- PIN 26 - Not connected
- PIN 27 - Ground & Shield
- PIN 28 - Ground
- PIN 29 - Ground
- PIN 30 - Ground
- PIN 31 - Not connected
- PIN 32 - Not connected
- PIN 33 - Not connected
- PIN 34 - Not connected
- PIN 35 - Not connected
- PIN 36 - Not connected
- PIN 37 - Not connected
- PIN 38 - Shunt Box 1B
- PIN 39 - Not connected
- PIN 40 - Shunt Box 1A
- PIN 41 - Not connected
- PIN 42 - Not connected
- PIN 43 - +5 V Power
- PIN 44 - +5 V Power

Connector 2

- PIN 1 - Event Input Timer/Counter B2-A
- PIN 2 - Event Input Timer/Counter B2-B
- PIN 3 - Event Input Timer/Counter B2-C
- PIN 4 - Not connected
- PIN 5 - Not connected
- PIN 6 - Not connected
- PIN 7 - Not connected
- PIN 8 - Not connected
- PIN 9 - Not connected
- PIN 10 - Event Input Timer/Counter B1-A
- PIN 11 - Event Input Timer/Counter B1-B
- PIN 12 - Event Input Timer/Counter B1-C
- PIN 13 - Event Input Timer/Counter B4-A
- PIN 14 - Event Input Timer/Counter B4-B
- PIN 15 - Event Input Timer/Counter B4-C
- PIN 16 - Not connected
- PIN 17 - Not connected
- PIN 18 - Not connected
- PIN 19 - Not connected
- PIN 20 - Not connected
- PIN 21 - Not connected
- PIN 22 - Event Input Timer/Counter B3-A
- PIN 23 - Event Input Timer/Counter B3-B
- PIN 24 - Event Input Timer/Counter B3-C
- PIN 25 - Not connected
- PIN 26 - Not connected
- PIN 27 - Ground & Shield
- PIN 28 - Ground
- PIN 29 - Ground
- PIN 30 - Ground
- PIN 31 - Not connected
- PIN 32 - Not connected
- PIN 33 - Not connected
- PIN 34 - Not connected
- PIN 35 - Not connected
- PIN 36 - Not connected
- PIN 37 - Not connected
- PIN 38 - Shunt Box 2B
- PIN 39 - Not connected
- PIN 40 - Shunt Box 2A
- PIN 41 - Not connected
- PIN 42 - Not connected
- PIN 43 - +5 V Power
- PIN 44 - +5 V Power

Connector 3

- PIN 1 - Event Input Timer/Counter A2-A
- PIN 2 - Event Input Timer/Counter A2-B
- PIN 3 - Event Input Timer/Counter A2-C
- PIN 4 - Event Input Timer/Counter A4-A
- PIN 5 - Event Input Timer/Counter A4-B
- PIN 6 - Event Input Timer/Counter A4-C
- PIN 7 - Event Input Timer/Counter A3-A
- PIN 8 - Event Input Timer/Counter A3-B
- PIN 9 - Event Input Timer/Counter A3-C
- PIN 10 - Event Input Timer/Counter A1-A
- PIN 11 - Event Input Timer/Counter A1-B
- PIN 12 - Event Input Timer/Counter A1-C
- PIN 13 - Event Input Timer/Counter B2-A
- PIN 14 - Event Input Timer/Counter B2-B
- PIN 15 - Event Input Timer/Counter B2-C
- PIN 16 - Event Input Timer/Counter B4-A
- PIN 17 - Event Input Timer/Counter B4-B
- PIN 18 - Event Input Timer/Counter B4-C
- PIN 19 - Event Input Timer/Counter B3-A
- PIN 20 - Event Input Timer/Counter B3-B
- PIN 21 - Event Input Timer/Counter B3-C
- PIN 22 - Event Input Timer/Counter B1-A
- PIN 23 - Event Input Timer/Counter B1-B
- PIN 24 - Event Input Timer/Counter B1-C
- PIN 25 - Not connected
- PIN 26 - Not connected
- PIN 27 - Ground & Shield
- PIN 28 - Ground
- PIN 29 - Ground
- PIN 30 - Ground
- PIN 31 - Not connected
- PIN 32 - Not connected
- PIN 33 - Not connected
- PIN 34 - Not connected
- PIN 35 - Not connected
- PIN 36 - Not connected
- PIN 37 - Shunt Box 2B
- PIN 38 - Shunt Box 2A
- PIN 39 - Shunt Box 1B
- PIN 40 - Shunt Box 1A
- PIN 41 - Not connected
- PIN 42 - Not connected
- PIN 43 - +5 V Power
- PIN 44 - +5 V Power

Figure 1.2: Pin diagram for Digital Event/Timer/Counter connector 1; 2 and 3

Specifications

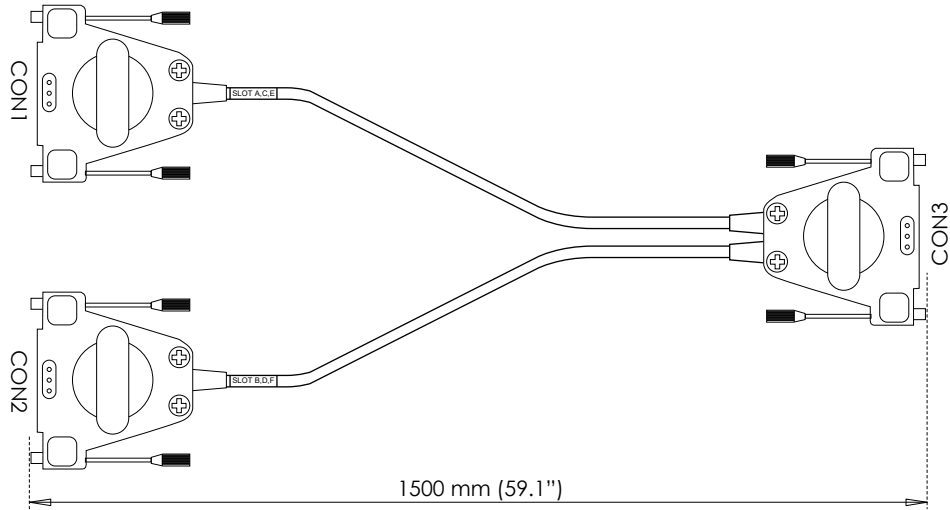


Figure 1.3: 1-KAB2148 dimensions


| | |
|--|-----------------------------|
| Cable length | 1.5 m |
| Signal wire | Braided copper wire |
| Shield wire | Tinned braided copper wire |
| Cable outside | PVC, RAL7032 (grey) |
| Outside cable diameter | 10.4 mm |
| Weight | 700 g |
| Minimum bend radius | 160 mm |
| Connector backshell | Zinc diecast, nickel plated |
| Operating temperature (In fixed installations) | -40 °C to +80 °C |
| Flame retardant | According IEC 60332-1-2 |

Standards for CE and UKCA Compliance

Low Voltage Directive (LVD): 2014/35/EU

Electromagnetic Compatibility Directive (EMC): 2014/30/EU

| | |
|-------------------|---|
| CE Confirmation | For information about the CE Declaration of conformity, please refer to www.hbm.com/fileadmin/mediapool/hbmdoc/technical/ce356.pdf |
| UKCA Confirmation | This product complies with the essential requirements of applicable and relevant regulations of the United Kingdom (UK). Address of Manufacturer, importer and/or representative: Hottinger Brüel & Kjaer GmbH Im Tiefen See 45 64293 Darmstadt Germany |

| Ordering Information | | |
|---|---|---------------|
| Article | Description | Order No. |
| eAxle Connection cable G070 to GN31xB/ GN61xB |  <p>Y-type connection cable between one or two G070A Torque/RPM adapter and a GEN series HighSpeed mainframe.</p> <p>Use cases:</p> <ul style="list-style-type: none"> • Four torque transducers; Two G070A Torque/RPM adapters; Two B-type⁽¹⁾ input cards: standard use case of Y-type cable. • Two torque transducers; One G070A Torque/RPM adapter; One B-type⁽¹⁾ input card: One end of the Y-type cable will remain unused. • One torque transducer; One G070A Torque/RPM adapter; One B-type⁽¹⁾ input card: One end of the Y-type cable will remain unused. <p>Cable replaces standard connection cable delivered with the G070A Torque/RPM adapter.</p> <p>Note: For two torque / speed transducers, two G070A Torque/RPM adapter (splitter boxes) are needed.</p> | 1-KAB2148-1.5 |

(1) GN310B/GN311B or GN610B/GN611B card.

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