

# Connection table of Scales and Displays Old and New

Ver. 1.1  
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MGS CS&S

Currently products are GB-ER, SR128, CE10-\*\*C, SJ700A, PL20C, LH70/71/72, LG20, LY71/72 and adaptor SZ series, cable CH01-LW\*\*C.

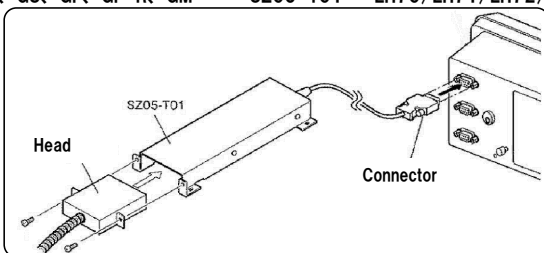
| Scales        |                  | Displays  |  | Standard combination |  | [LF100/10], LF110/120/20<br>LM10, LA10, LH10<br>[LU10 (A,B)], LH20, LH11/12<br>[NA30/31 (Digiruler)]<br>[ ] : NO REF. FUNCTION | LH30               | [LH31 (A) /32]<br>LH41/42<br>[ ] : NO REF. FUNCTION                    | LH51/52/54<br>LH61, [LG10]<br>LY51/52<br>[ ] : NO REF. FUNCTION        | LH71/72<br>LY71/72<br>LH70/ [LG20]<br>[ ] : NO REF. FUNCTION           |  |   |
|---------------|------------------|---|--|----------------------|--|--|--------------------|--|--|--|--|---|
| Set model     | Model            | Model of cable set or connection cable                | Connector shape of display side or Head amp type   | Incremental          | Ref. point (Ex.)   | Incremental  | Incremental        | Ref. point (Ex.)   | Incremental  | Ref. point (Ex.)   | Incremental  | Ref. point (Ex.)  |
| GP            | SR1711           | HK-**C  | HA13,15,23,25<br>Analog  | Direct Connection!   | Scales with built-in ref. point only:<br>SR1711R,<br>SR801R,<br>SR50-R | Not connectable  | SZ05               | Scales with built-in ref. point only:<br>SR1711R,<br>SR801R,<br>SR50-R | SZ05   | Scales with built-in ref. point only:<br>SR1711R,<br>SR801R,<br>SR50-R | SZ05-T01   | Scales with built-in ref. point and sigle direction use:<br>SR1711R,<br>SR801R,<br>SR50-R |
| GP-R          | SR1711R          | HK-**CR   | Note:<br>For SR1711/SR1711R,<br>If head amp used single side PCB,<br>connection not available. | Direct Connection!   | Scales with built-in ref. point only:<br>SR1711R,<br>SR801R,<br>SR50-R | Not connectable  | Not connectable    | Scales with built-in ref. point only:<br>SR1711R,<br>SR801R,<br>SR50-R | Scales with built-in ref. point only:<br>SR1711R,<br>SR801R,<br>SR50-R | Scales with built-in ref. point only:<br>SR1711R,<br>SR801R,<br>SR50-R | Scales with built-in ref. point only:<br>SR1711R,<br>SR801R,<br>SR50-R | Scales with built-in ref. point only:<br>SR1711R,<br>SR801R,<br>SR50-R                    |
| GL            | SR801            | HK-1**C   |  |                      |  |  |                    |  |  |  |  |   |
| GL-R          | SR801R           | HK-2**C   |  |                      |  |  |                    |  |  |  |  |   |
| MSS-101       | MSS-101          | HK-1**C   |  |                      |  |  |                    |  |  |  |  |   |
| GS            | SR10,<br>SR741   | HK-4**C   |  |                      |  |  |                    |  |  |  |  |   |
| GF            | SR50             | HK-4**C   |  |                      |  |  |                    |  |  |  |  |   |
| GF-R          | SR50-R           | HK6-**CR  |  |                      |  |  |                    |  |  |  |  |   |
| GM            | SR30             | HK-4**C   |  |                      |  |  |                    |  |  |  |  |   |
|               | SR801<br>MSS-101 | MK-6**<br>MK-7**C                                     | D-SUB 15P<br>Raw signal  | Not connectable      | Not connectable  | Not connectable  | Not connectable    | Not connectable  | Not connectable  | Not connectable  | MD20B  | *2: Single direction (Ref: PH100)   |
|               | SR801<br>MSS-101 | CE07-**C  | HA31<br>Analog   | SZ04                 | SZ04R (Ref: PH500)   | Not connectable  | Direct Connection! | Both directions<br>SZ10 (Ref: PH500)                                   | SZ51-MS01  | *1: Single direction<br>SZ10 (Ref: PH500)                              | SZ70-1<br>SZ51-MS01  | *3: Single direction<br>SZ10 (Ref: PH500)   |
|               | SR118            | CE05-**C<br>CH02-**<br>(without armor)                | UP/DOWN (TTL)  | Not connectable      | Not connectable  | Not connectable  | Not connectable    | Not connectable  | DZ51   | Not connectable  | SZ70-1<br>DZ51   | Not connectable   |
| GB            | SR108<br>SR107   | integrated cable (3m)<br>CE04-**<br>(extension cable) | HA31<br>Analog   | SZ04                 | SZ04R (Ref: PH500)   | Not connectable  | Direct Connection! | Both directions<br>SZ10 (Ref: PH500)                                   | SZ51-MS01  | *1: Single direction<br>SZ10 (Ref: PH500)                              | SZ70-1<br>SZ51-MS01  | *3: Single direction<br>SZ10 (Ref: PH500)   |
| GB-A          | SR128            | CH01-**C<br>CE10-**C<br>(extension cable)             | MS_UNIT<br>UP/DOWN   | Not connectable      | Not connectable  | Not connectable  | Not connectable    | Not connectable  | Direct Connection!   | Not connectable  | SZ70-1   | Not connectable   |
|               | SR128<br>SR127   | CH01-LW**C<br>CE10-**C<br>(extension cable)           | HA31<br>Analog   | SZ04                 | SZ04R (Ref: PH500)   | Not connectable  | Direct Connection! | Both directions<br>SZ10 (Ref: PH500)                                   | SZ51-MS01  | *1: Single direction<br>SZ10 (Ref: PH500)                              | SZ70-1<br>SZ51-MS01  | *3: Single direction<br>SZ10 (Ref: PH500)   |
| GB-ER         | SR138R           | CH04-03C<br>CE10-**C<br>(extension cable)             | D-SUB 9P<br>A/B quadrature differential line driver  | Not connectable      | Not connectable  | Not connectable  | Not connectable    | Not connectable  | CE30<br>SZ51-AB01  | AVAILABLE with built-in ref. point                                     | Direct Connection!   | Direct Connection!<br>with built-in ref. point  |
|               | SJ300            | CH33-**CPD/-**CED                                     | D-SUB 9P<br>A/B quadrature differential line driver  | Not connectable      | Not connectable  | Not connectable  | Not connectable    | Not connectable  | CE30<br>SZ51-AB01  | Not connectable  | Direct Connection!   | Not connectable   |
|               | SJ700            | Scale with cable                                      | SJ_UNIT<br>UP/DOWN (TTL)   | Not connectable      | Not connectable  | Not connectable  | Not connectable    | Not connectable  | Direct Connection!   | Not connectable  | SZ70-1   | Not connectable   |
|               | SJ700A           | Scale with cable                                      | D-SUB 9P<br>A/B quadrature differential line driver  | Not connectable      | Not connectable  | Not connectable  | Not connectable    | Not connectable  | CE30<br>SZ51-AB01  | Not connectable  | Direct Connection!   | Not connectable   |
| SET-A02<br>GA | SL410            | PL40  | D-SUB 9P<br>Analog   | Not connectable      | Not connectable  | Direct Connection!   | Not connectable    | Not connectable  | Not connectable  | Not connectable  | Not connectable  | Not connectable   |
|               | SL110<br>SL130   | PL20  | Analog   | Direct Connection!   | Not connectable  | Not connectable  | SZ09               | Not connectable  | SZ09   | Not connectable  | Not connectable  | Not connectable   |
|               |                  | PL20A   | analog   | SZ06                 | Not connectable  | Not connectable  | Direct Connection! | Not connectable  | SZ51-DR01  | Not connectable  | SZ70-1<br>SZ51-DR01  | Not connectable   |
|               |                  | PL20B   | DR_UNIT<br>UP/DOWN (TTL)   | Not connectable      | Not connectable  | Not connectable  | Not connectable    | Not connectable  | Direct Connection!   | Not connectable  | SZ70-1   | Not connectable   |
|               |                  | PL20C   | D-SUB 9P<br>A/B quadrature differential line driver  | Not connectable      | Not connectable  | Not connectable  | Not connectable    | Not connectable  | CE30<br>SZ51-AB01  | Not connectable  | Direct Connection!   | Not connectable   |

## Examples

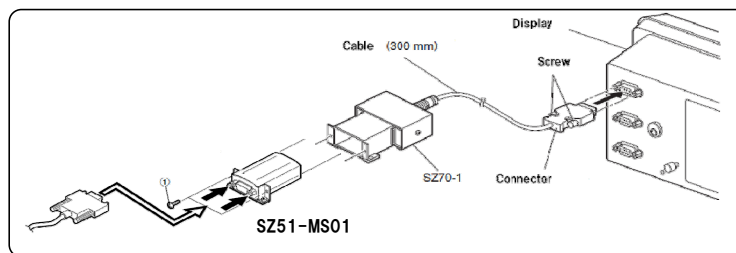
GP, GS, GF, GF-R, GM → SZ05-T01 → LH70/LH71/LH72/LG20

GB → SZ51-MS01 → SZ70-1 → LH70/LH71/LH72/LG20

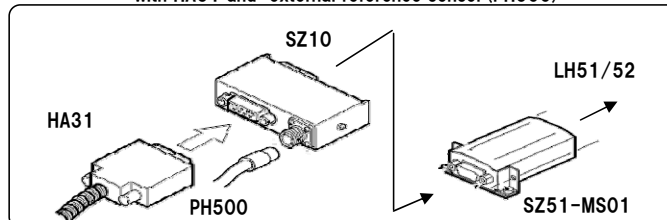
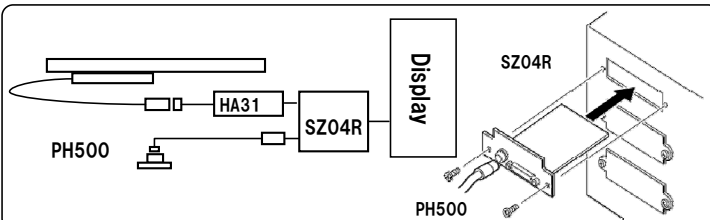
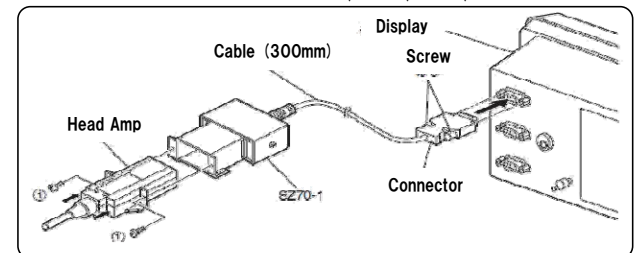
GB-A → SZ70-1 → LH70/LH71/LH72/LG20



Connection of head amp type input with external reference sensor (PH500)



In case of connect to counter model LH51/LH52 with HA31 and external reference sensor (PH500)



[On the Reference point]  
\*1: Single direction (PH500)  
Use for single direction due to it has possibility one λ slips off from an opposite direction approach.  
\*2: Single direction (PH100)  
Use for single direction due to it has approx. 8mm slips off.  
\*3: Single direction (PH500) **<Out of official recommendation>**  
Use for single direction. There is a possibility few μm slip off when an opposite direction approach, because incremental is out of sync.  
Please make a slow move to reference in order to stable accuracy (80mm/s<)