

DATA SHEET

K-CAB-F

Connection cable for HBK force transducer

SPECIAL FEATURES

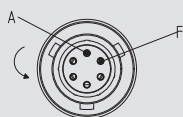
- Sensor cable for connecting HBK force transducers for various applications
- Various lengths available
- Optional plug mounting for direct connection to HBK amplifier
- Tried and tested quality that includes electric properties required for strain gage measurements (high symmetry and low capacitance)



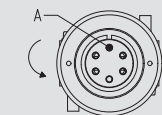
CABLE CONFIGURATION OPTIONS

Male connector on sensor-side

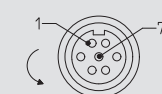
B, L = bayonet



G = thread

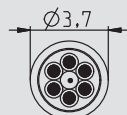


Z = 7-pin binder

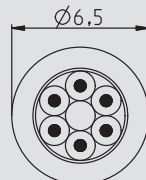


Cable types

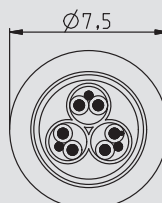
KAB-131



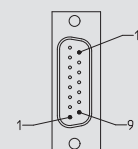
KAB-157



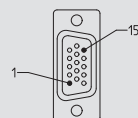
KAB-139B



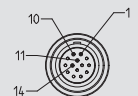
Connection variants for the amplifier



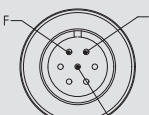
F = Sub-D



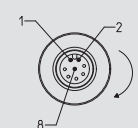
Q = Sub-HD



P = 14-pin ODU

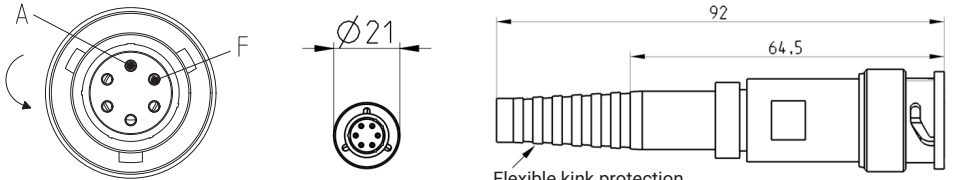
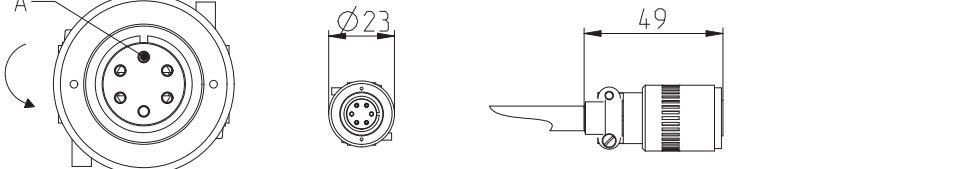
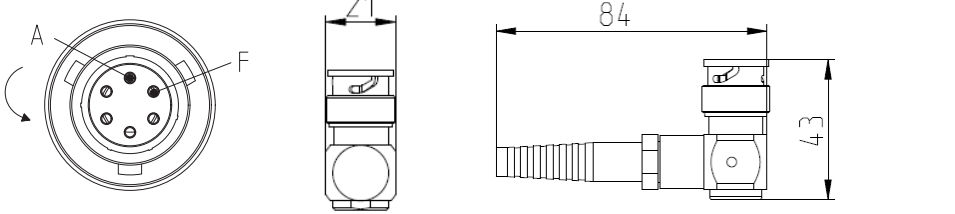
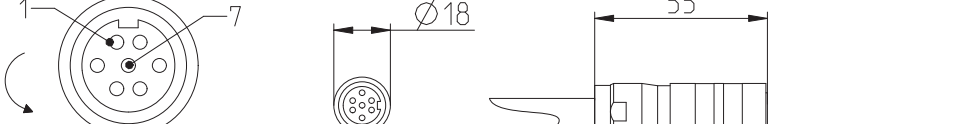


N = Greenline

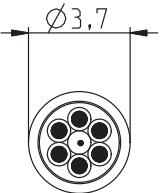
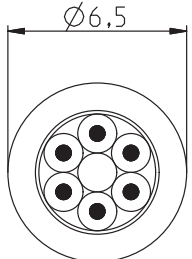
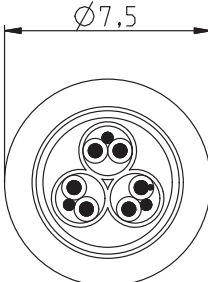


M = 8-pin,
M12 female connector

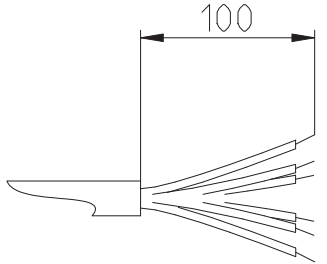
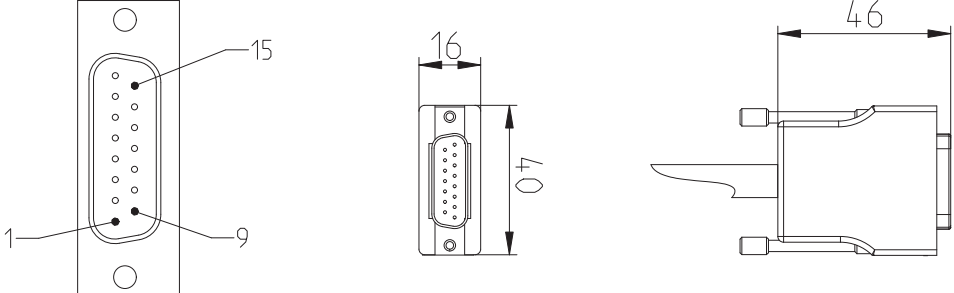
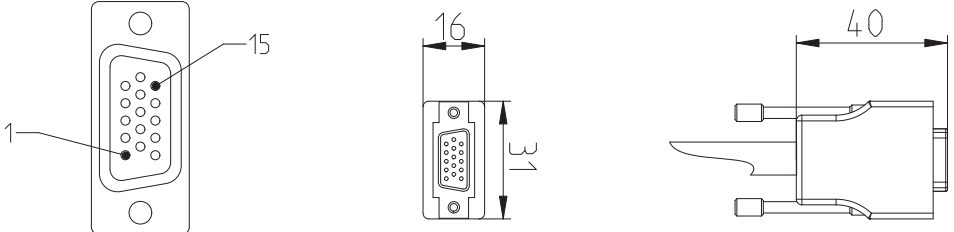
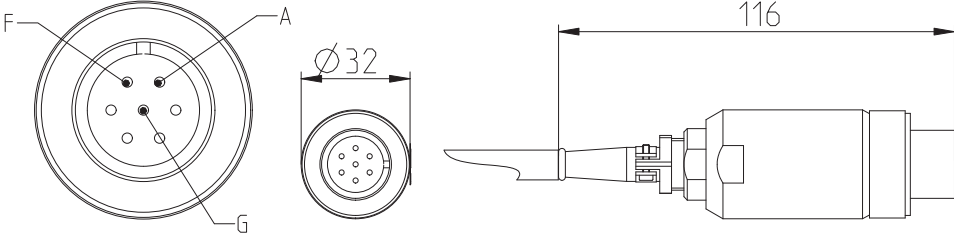
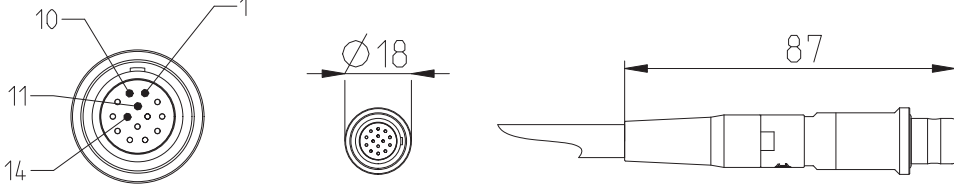
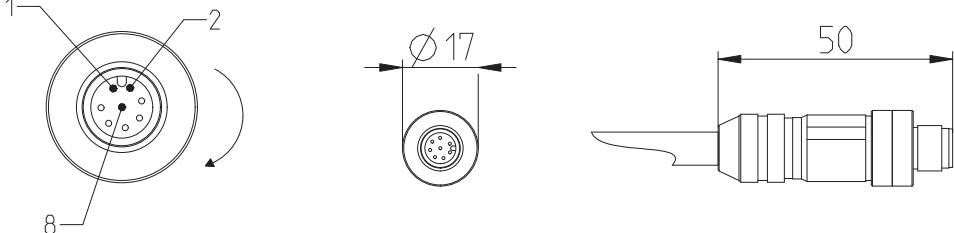
CONNECTOR TYPES ON SENSOR-SIDE

Connector type B Female bayonet connector (compatible with MIL-C-26482 series 1) female connector suitable for U10M, U10S, U10F, U15, C5, C10, C15, C6b, KDB	
Connector type G Threaded female connector (compatible with MIL-C-26482 series 1) female connector suitable for U10M, U10S, U15, C10, C15, C6b	
Connector type L Angled female bayonet connector (compatible with MIL-C-26482 series 1) female connector suitable for U10M, U10S, U10F, U15, C5, C10, C15, C6b,	
Connector type Z Binder female connector series 423-7S, 7-pin suitable for Z30A and U5	

CABLE TYPES

Type	KAB131	KAB157	KAB139B
			
Description and design			
Fields of application	Highly flexible measuring lead with minimal outside diameter, suitable for mobile use with low force shunt, e.g. drag chains. Lightweight. Highly resistant to many oils and chemicals. Suitable for use outdoors. Only suitable for certain high-precision measurements and only recommended if very low forces are to be measured at stable temperatures and low carrier frequencies. We recommend consulting HBK.	Robust measuring cable that is temperature and chemical resistant and has excellent metrological properties. Large temperature range, suitable for use outdoors.	Double shielded measuring lead for highly accurate measurements. Excellent capacitive symmetry. Suitable for large distances. Wires shielded in pairs. Additional copper braid for overall shielding. Recommended in combination with reference force transducers; not suitable for drag chains and applications where the cable is moved continuously. Cannot be combined with ODU MINI-SNAP (plug option P) or female connector M12 (option M)
Cable construction	Six wires stranded around a filler; spiral shield with copper braided wire	Six wires stranded around a filler; braided shield with copper braided wire	Three twisted pairs of wires fitted with foil shield and drain wire; braided shield with copper braided wire.
Number of wires and cross-section	6 x 0.08 mm ²	6 x 0.25 mm ²	3 x 2 x 0.14 mm ²
Outside diameter	3.8 ± 0.2 mm	6.5 ± 0.2 mm	7.5 ± 0.3 mm
Material/color of outer sheath	PUR/black	TPE/gray	PVC/gray
Characteristic mechanical values			
Bending radius, static	22 mm	37 mm	75 mm
Bending radius, moveable	50 mm	75 mm	Not suitable for continuous movement
Temperature range			
moving	-50 ... +80 °C	-50 ... +85 °C	-5 ... +50 °C
stationary	-50 ... +80 °C	-50 ... +85 °C	-30 ... +70 °C
Rated electrical output			
Cable resistance per wire	280 Ω/km	78 Ω/km	140 Ω/km
General information			
Halogen-free	no	yes	no
Flame-retardant as per IEC 60322-2-2	no	yes	yes
UV resistance	yes	yes	no
Resistance	A lot of machine oils, oil emulsions, saline water, seawater, diluted lye, ozone	A lot of machine oils, oil emulsions, seawater, diluted lye, ozone	A lot of lyes and acids. Salt water

CONNECTION VARIANTS FOR THE AMPLIFIER

Option Y Line with free ends for ClipX, PMX and some Quantum models (MX 1615 and MX 1616)	
Option F Sub-D connector, 15-pin e.g. for PME, MGC with AP01	
Option Q HD Sub-D connector, 15-pin for Quantum X	
Option N Connector MS3106A16S-1P for DMP41 and older amplifiers, e.g. DK38	
Option P ODU MINI-SNAP AX2B0C-P14MFG0, 14-pin for devices from the Somat XR range	
Option M M12 plug, suitable for measuring amplifiers digiBOX and DSE	

ORDER OVERVIEW AND ORDERING NUMBERS

Male connector on sensor-side	Cable length	Cable type	Amplifier connection
Female bayonet connector, straight design B	Cable length 3 m 03M0	Highly flexible measuring lead with small outside diameter 0131	Free ends Y
Threaded female connector G	Cable length 6 m 06M0	Standard cable with increased temperature range 0157	15-pin D-SUB connector F
Binder bayonet female connector, angled design L	Cable length 10 m 10M0	Double shielded line for high-precision measurements 139B	15-pin HD-SUB connector Q
Binder female connector Z	Cable length 20 m 20M0		Male connector MS3106A16S-1P N
			ODU-Mini Snap connector P
			M12 connector M

Ordering example

K-CAB-F-	B-	03M0-	0157-	F
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The example in the order is a cable with a straight bayonet connector, 3 m long, robust standard measuring lead and soldered D-Sub connector, 15-pin, 2-rows