



HEIDENHAIN



Product Information

Output Cable for
ECI 1319
EBI 1335
EQI 1331
ECN 1325
EQN 1337

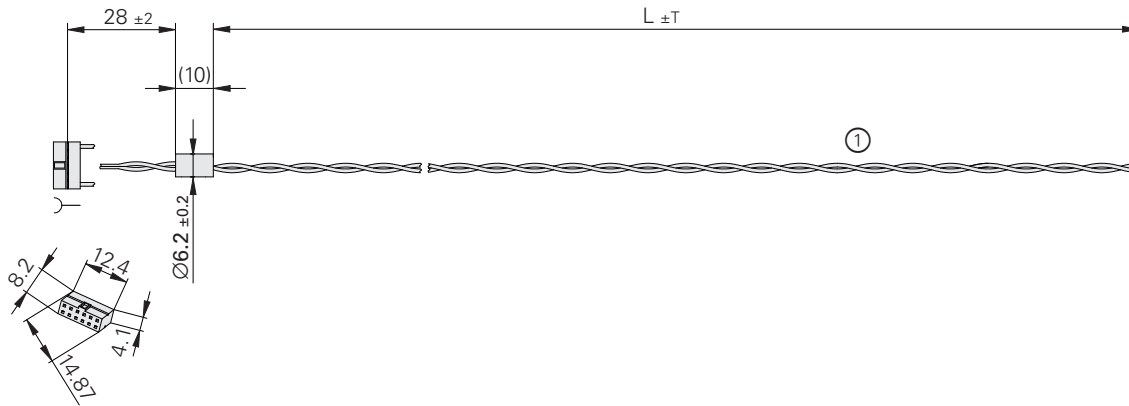
Assembled on one end for
data transmission

ID 1302701-xx

Output cable for ECI 1319, EBI 1335, EQI 1331, ECN 1325, and EQN 1337

- With M12 flange socket for HMC 2
- Temperature sensor wires with Datamate connecting element

Dimensions



- 1 = Signal wires
 Smallest non-recurring bend radius: 5 mm
 Smallest permanent bend radius: 17 mm
 Diameter: 1.8 mm
- L = For the maximum cable length, see the specifications of the encoder model.

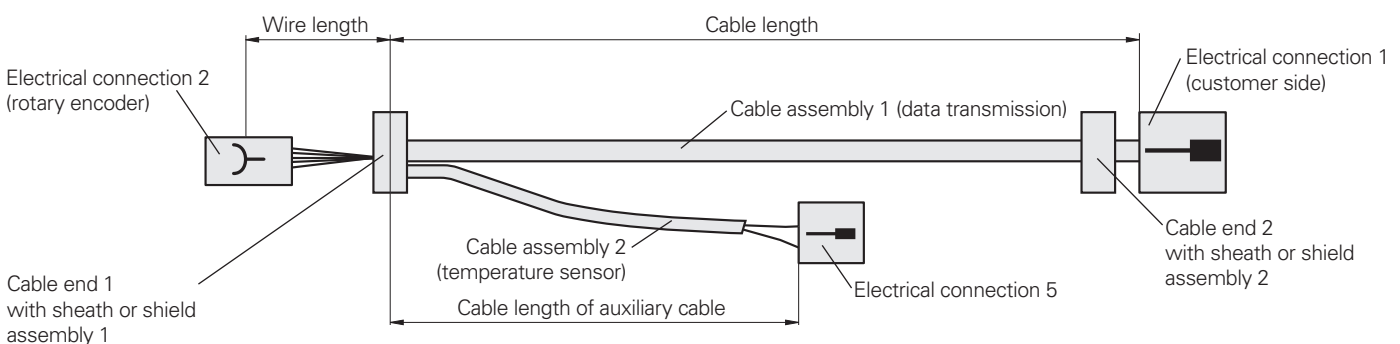
Tolerance table	
L	T
≤ 250 mm	± 5 mm
< 1000 mm	+ 10 mm

mm

 Tolerancing ISO 8L
 ISO 2768 - m H
 ≤ 6 mm: ±0.2 mm

Terminology diagram

The following terminology diagram serves as an overview of the cable components with their designations. Dimensions and other cable details must be taken from the *Dimensions* drawing.



Specifications	Output cable (AGK) for ECI 1319, EBI 1335, EQI 1331, ECN 1325, EQN 1337
General design	
Optimized for interface*	EnDat 3 E30-R2 for HMC 2
Operating temperature	<i>Stationary cable:</i> -40 °C to 120 °C
CE	Printed on packaging label
NRTL	–
Brand	HEIDENHAIN
Cable assembly 1 (data transmission)	2 x 0.15 mm ² , twisted
Electrical design	Working voltage < 250 V (AC/DC)
Jacket characteristics	ETFE wires are highly resistant to oils, greases, acids bases, and solvents, and do not contain PVC or silicone. <i>Wire colors:</i> yellow/violet
Wire jacket / insulation	ETFE (special elastomer) Ø 0.8 mm Test voltage: 3.4 kV peak AC / DC (as per MIL-W-22759/18); test duration: 1 s
Shielding	None
Electrical connection 2 (to rotary encoder, see <i>Terminology diagram</i>)	12-pin, 2-row PCB connector; protection rating: IP00
Cable end 1 (see <i>Terminology diagram</i>)	Wire protecting sleeve Ø _O = 6.2 mm
Cable length (see L in <i>Dimensions</i>)	<i>Max. cable length:</i> 0.3 m
Electrical connection 1 (for customer side, see <i>Terminology diagram</i>)	Without connecting element
Cable assembly 2 (temperature sensor)	Note: separate AGK, see ID 1302763-xx

* For more information, see the *Interfaces of HEIDENHAIN Encoders* brochure

Mounting accessories

Mounting and initial setup must be performed with appropriate ESD protection. Do not engage or disengage the connecting element when it is under power.

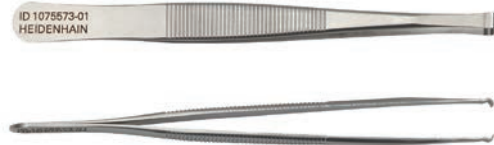


Mounting aid

To avoid damage to the cable, use the mounting aid to connect and disconnect the cable assembly. The pulling force must be applied solely to the connector and not to the wires.

ID 1075573-01

For further mounting information and mounting aids, please refer to the relevant mounting instructions and the *Encoders for Servo Drives* brochure.


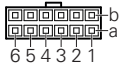
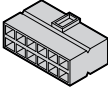




Mounting aid for PCB connector

Electrical connection

Pin layout

Output cable inside motor housing for ECI 1319/EBI 1335/EQI 1331/ECN 1325, and EQN 1337, for temperature sensor

12-pin connector (female)		
 12		
Encoder		
Power supply / Serial data transmission		
 12	2b	5a
	P_SD+¹⁾	P_SD-¹⁾
	Violet	Yellow

¹⁾ Power supply and data: P_SD+ contains U_P (power supply); P_SD- contains 0 V

Conformity with the EMC Directive must be ensured in the complete system.

Proper insulation must be ensured in the complete system.

Vacant pins or wires must not be used!

HEIDENHAIN

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This Product Information document supersedes all previous editions, which thereby become invalid. The basis for ordering from HEIDENHAIN is always the Product Information document edition valid when the order is placed.



Further information:

Comply with the requirements described in the following documents to ensure correct and intended operation:

- Brochure: *Cables and Connectors* 1206103-xx
- Brochure: *Encoders for Servo Drives* 208922-xx
- Brochure: *Interfaces of HEIDENHAIN Encoders* 1078628-xx
- Product Information document: *HMC 2* 1305512-xx

For more information on EnDat 3, visit: www.endat.de

For brochures and Product Information documents, visit: www.heidenhain.de