

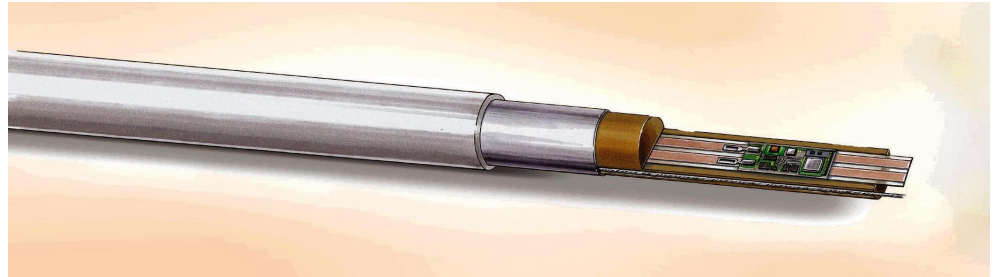
SEC 15

δ -LIST Sensor Cable

GmbH

LISTEC[®]

Linear Sensor Technik



The hermetically sealed sensor cable contains temperature sensors which, depending on the application, are placed at selectable intervals. The sensors are electrically connected by a flat flexible cable.

The flat flexible cable and temperature sensors are surrounded by a filling material, which in turn is covered by an aluminium shield protecting against EMI. A flame retarding, halogen free cable sheath completes the sealed structure of the sensor cable.

The cable can measure temperatures from -40°C to $+85^{\circ}\text{C}$ (for short periods $+120^{\circ}\text{C}$) with a resolution of $0,1^{\circ}$.

On account of its maintenance- and adjustment-free operation, the sensor cable can be used in areas which are not or only partly accessible during normal operation.

Due to the constant interrogation of the temperature sensors by the control unit SCU 800, a functional check of all temperature sensors is always given.

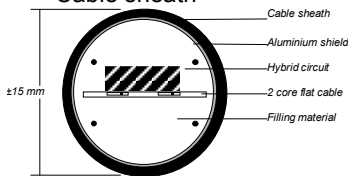
As a rule, self-locking clamps are used to mount the cable. The relative stiffness of the cable allows a spacing of one meter between clamps.

Damaged cable sections can easily be repaired by cutting out the damaged section and connecting a new piece in its place with the aid of sleeve joints.

DATA SHEET

Cable construction

- Temperature sensors mounted on a 2 core flat flexible cable
- Filling material with strain relief
- Aluminium shield
- Cable sheath



Sensor spacing

Freely selectable; min. 0,25 m
Standard spacing: 1, 2, 3, 4, 5 m.

Sensor marking

A 3-digit consecutive number on the cable sheath marks the position of each sensor in the cable.

Cable specifications

Diameter: approx. 15 mm
Min. bending radius: 0,25 m
Max. continuous length: 2.000 m
Cable sheath: halogen free, flame retarding, acc. to DIN VDE 0207, part 24
Sheath colour: grey
Operating temperature range: -40°C ... +85°C short period +120°C
Mounting temperature: \geq +10°C

Measuring point specifications

Measuring range: -40°C ... +100°C
Resolution: 0,1°

Delivery

The sensor cable is delivered on rented, wooden, cable drums belonging to the Kabeltrommelgesellschaft (KTG). The delivery takes place according KTG terms.

As a rule, the following drums are used for sensor cable deliveries:

up to 1.000 m:

Ø1000 mm, W=685 mm, wt=71 kg

up to 2.000 m:

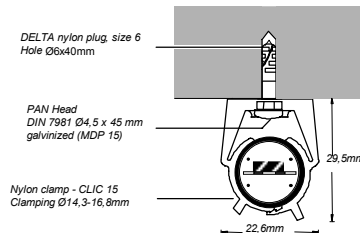
Ø1200 mm, W=870 mm, wt=144 kg

Sensor cable weight: 0,35 kg/m

Accessories

Cable mounting

Self-locking nylon clamps are available as a mounting device. Stainless steel clamps are available on request. The clamps are fixed to the ceiling using nylon plugs and screws. For nylon clamps 15, 25, 35, 45, 65 and 85 mm spacers are available. Suggestions for the mounting on U-profiles, cable trays, metal beams etc. are available on request.



Connection

Up to two separate sensor cables can be connected directly to a Sensor Control Unit SCU800. The connection takes place by crimping connectors directly onto the flat cable with a LIST crimping tool (see accessories). Should the sensor cable not be connected directly to the SCU800, a connection cable (2x0.8), no longer than 50m, can be used to connect the cable to the SCU. This takes place via a connection module CCM, which contains over-voltage protection. The CCM is placed in a connection box CBO.

CBO 15 type connection boxes are used in buildings where the risk of mechanical damage is low.

CBO 25 type connection boxes are used outdoors, in tunnels and areas where the risk of mechanical damage is high (e.g. belt conveyors).

Ordering information

Sensor cable SEC 15

Operating range: -40°C ... +85°C (+120°C short period)

Resolution: 0,1°

Sheath: FRNC, halogen free

SEC 15/01 sensor spacing 1 m
SEC 15/02 sensor spacing 2 m
SEC 15/03 sensor spacing 3 m
SEC 15/04 sensor spacing 4 m
SEC 15/05 sensor spacing 5 m
SEC 15/x custom sensor spacing

Mounting devices MDP 15

Self-locking nylon clamp, with galvanised screw and size 6 nylon plug.

Packaging: 100 pieces.

CBO 15

Material: ABS, thermoplastic
Protection: IP 65

L x W x H: 160 x 160 x 90 mm (without cable-glands)

Colour: light grey

CBO 15/0 connection box
CBO 15/1 for one sensor cable
CBO 15/2 for two sensor cables
EBO 15 end box

CBO 25

Material: glass fibre reinforced polyester

Protection: IP 65
L x W x H: 160 x 160 x 95 mm (without cable-glands)

Colour: grey

CBO 25/0 connection box
CBO 25/1 for one sensor cable
CBO 25/2 for two sensor cables
EBO 25 end box

END 25

Heat-shrink cap to seal the end of the sensor cable