

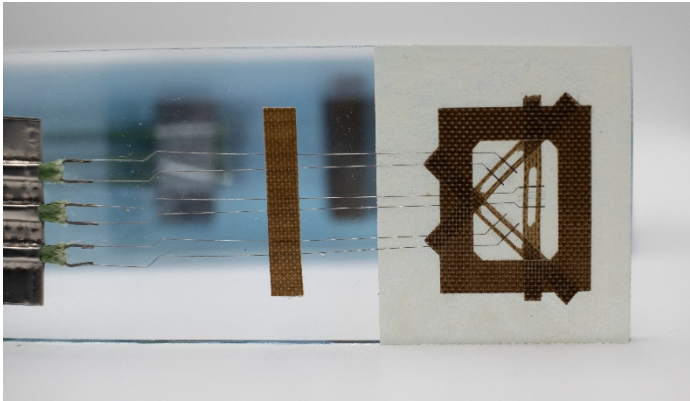
Rev. 1.1
 Dec-2025

STF120-3CA-B1150-F010-50A500

Wire strain gages

Product Datasheet

General information:

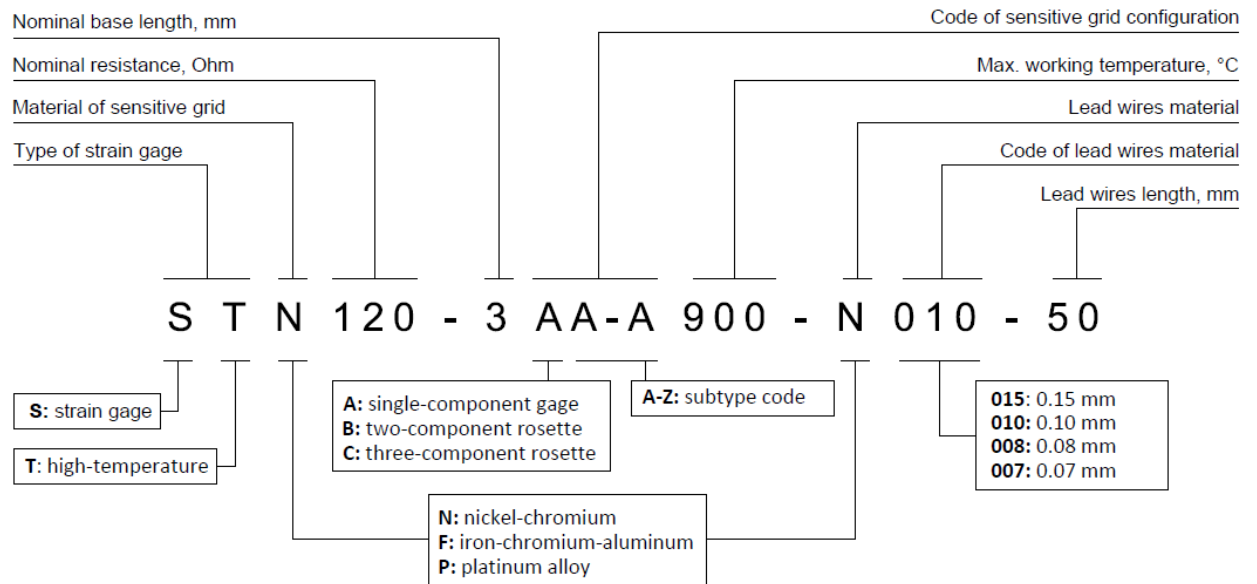


STF series bondable high temperature gages are intended for measurements of deformations in the components of machinery and equipment, including jet engines, under static and dynamic loads in -269...+1150°C temperature range. CA-B type rosettes of STP strain gage series consist of three independent sensitive grids, oriented at 0°, 45°, 90°, and are intended for the determination of complexly oriented deformations.

Gages are to be installed on the surface of the test object using ceramic cement adhesive or alumina flame spray method.

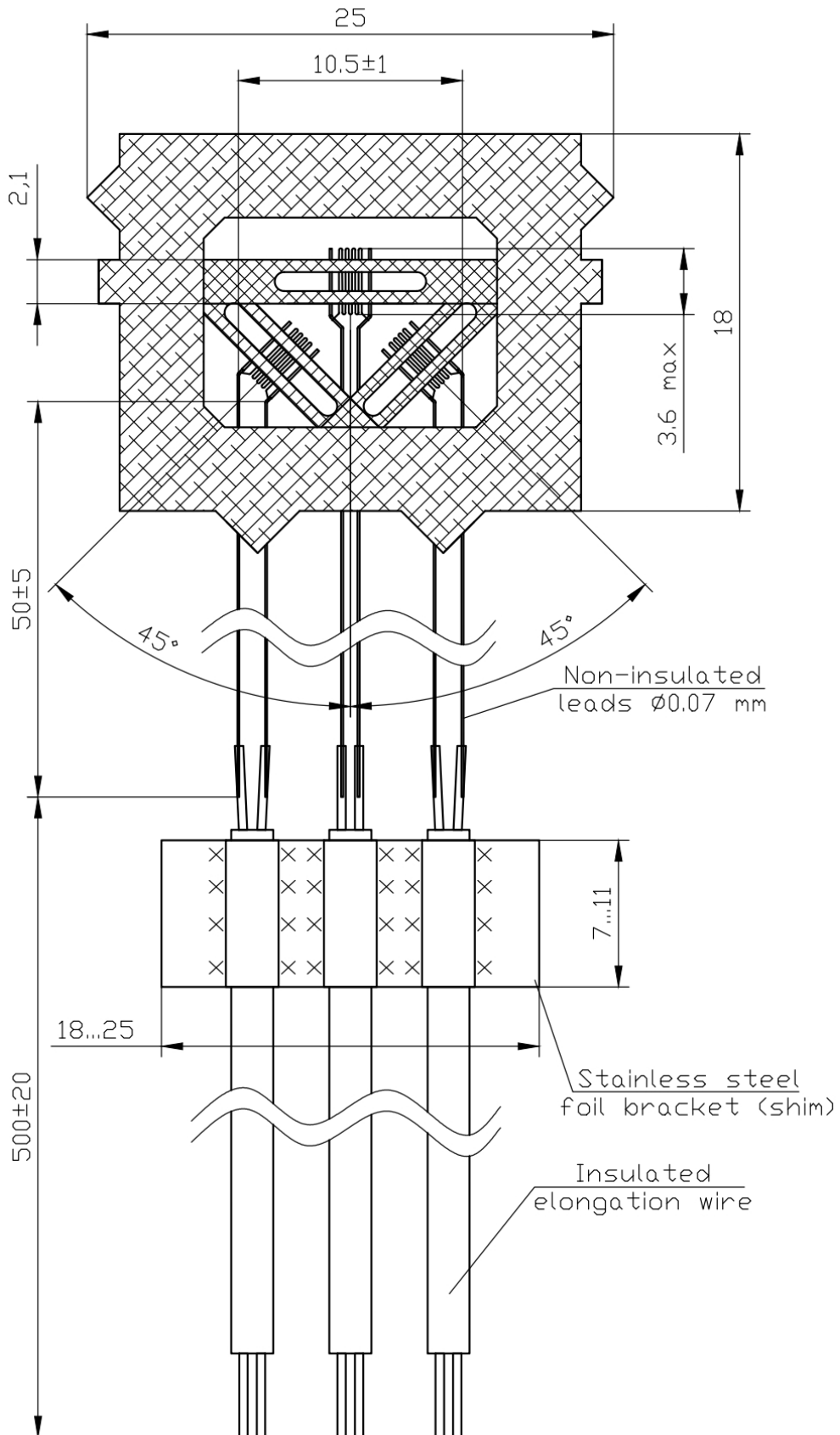
Gages are provided on the temporary fiberglass-reinforced PTFE carrier, which is subject to removal during installation of the strain gage.

Designation system:

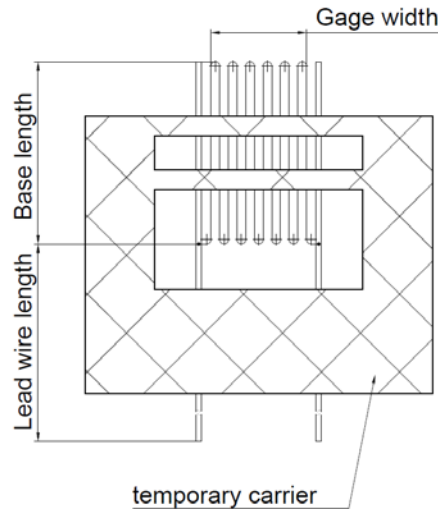


Schematic drawings:

Schematic drawing of CA-B rosette



General schematic drawing of strain gage components



Specifications:

Nominal parameters	Value
Sensitive grid material	Iron-Chromium-Aluminum
Number of sensitive elements	3
Base length, mm	3
Gage width, mm	1.3
Resistance, Ohm	120
Resistance deviation in batch, not more than	±5%
Lead wire material	Iron-Chromium-Aluminum
Lead wire diameter, mm	0.1
Lead wire length, mm	50
Nominal resistance of lead wires pair, Ohm	16
Temporary carrier	Fiberglass-reinforced PTFE
Fatigue life at ±650 microstrain at 20°C	1·10 ⁶

Packaging:

Individual strain gages are supplied on plastic carriers, covered with protective plastic foil. Each strain gage is labelled with the actual electric resistance values.

Groups of strain gages are packed in plastic boxes in max. amount of 10. Each group packing has a label with the main parameters of the gages, including resistance range of the gages group, gage factor, production date, etc.

Batches of strain gages are packed in plastic containers with auxiliary installation tools. Each batch container has a label with all main parameters of the gages, general description, batch number and production date.

Diagram 1. Gage factor dependence on the temperature

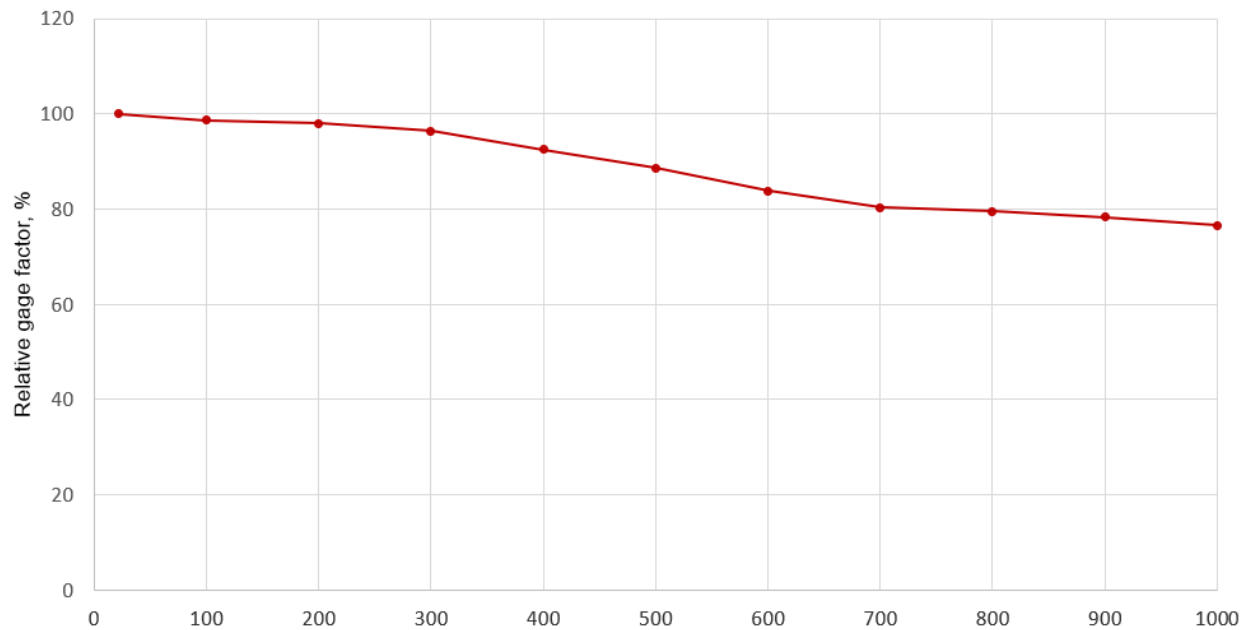
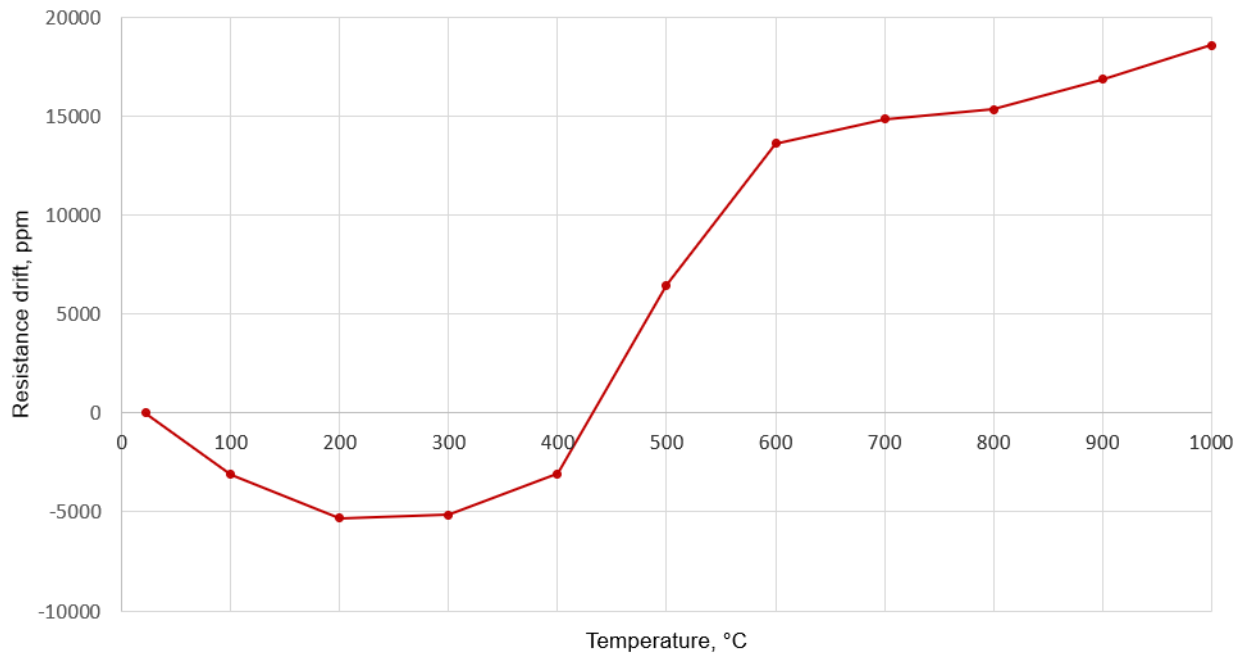


Diagram 2. Resistance drift due to temperature



* Test is performed using single-component STF120-3AA-A1150-F010-100 Batch No F123-24103 gages installed on CrNi55MoWCoAl alloy beam with HPM CC-2 ceramic cement. Test performed with HTDR-1001 tool.

** Illustrative data, real parameters may differ from adhesive type and test beam material.