Combination use of strain gauges and dedicated leadwires

Option -F of strain gauges and last code -F of lead wire are designed with Lead-free, affixing the code to each basic name of strain gauge and leadwire.

CE-marked strain gauges, GOBLET and leadwire with -F are designed to comply with CE marking.

LEADWIRE TYPE	0.08mm² Paralleled vinyl lead wire	0.08mm² 3-wire paralleled vinyl leadwire	0.08mm² Twisted vinyl leadwire	0.08mm² 3-wire twisted vinyl leadwire	0.11mm² paralleled vinyl leadwire	0.11mm² 3-wire paralleled vinyl leadwire	0.3mm² paralleled viny leadwire	0.3mm² 3-wire paralleled vinyl leadwire	0.5mm² paralleled vinyl leadwire	0.5mm² 3-wire paralleled vinyl leadwire	0.02mm² twisted vinyl leadwire	0.02mm² 3-wire twisted vinyl leadwire	0.08mm² twisted vinyl leadwire	3.2mm-dia. shielded vinyl leadwire	3mm-dia. shielded 3-wire vinyl leadwire
Suffix code	LJB	LJBT	LJA	LJAT	LJC	LJCT	LJD	LJDT	LJG	LJGT	LH	LHT	LJAY	LS	LTSA
Last code -F	-F	-F			-F	-F									
Core/ Dimensions	7/0.12	7/0.12	7/0.12	7/0.12	10/0.12	10/0.12	12/0.18	12/0.18	20/0.18	20/0.18	5/0.07	5/0.07	7/0.12	7/0.12	7/0.12
Cross section (mm²)	0.08	0.08	0.08	0.08	0.11	0.11	0.3	0.3	0.5	0.5	0.02	0.02	0.08	0.08	0.08
Operating temperature in deg. C	-20 ~ +80	-20 ~ +80	-20 ~ +80	-20 ~ +80	-20 ~ +80	-20 ~ +80	-20 ~ +80	-20 ~ +80	-20 ~ +80	-20 ~ +80	-20 ~ +80	-20 ~ +80	-20 ~ +80	-20 ~ +80	-20 ~ +80

Strain Gauge Series	Operating temperature in deg. C	Temperature compensation in deg. C	Figure shows maximum operating temperature with combination use of strain gauge and the dedicated leadwire.														
F	-196 ~+150	+10 ~+100	80	80	80	80	80	80	80	80	80	80	80	80	-	-	80
GOBLET CE	-196 ~+150	+10 ~+100	80	80	-	-	80	80	-	-	-	-	-	-	-	-	-
PF CE	-20 ~ +80	+10 ~+100	80	80	-	-	80	80	-	-	-	-	-	-	-	-	-
P CE	-20 ~ +80	+10 ~+100	80	80	-	-	80	80	-	-	-	-	-	-	-	-	-
FLM	-20 ~ +80	+10 ~+100	-	80	-	80	-	80	-	80	-	80	-	80	-	-	-
MF (Single)	-20 ~ +80	-	-	-	80	-	-	-	-	-	-	-	-	-	80	80	80
(Rosette)	-20 ~ +200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	-
YEF (-F)	-20 ~ +80	-	80	80	80	80	80	80	80	80	80	80	80	80	-	-	-
YF (-F)	-20 ~ +80	-	80	80	80	80	80	80	80	80	80	80	80	80	-	-	-
YHF (-F)	-20 ~ +80	-	80	80	80	80	80	80	80	80	80	80	80	80	-	-	-
LF	-20 ~ +80	+10 ~+80	80	80	80	80	80	80	80	80	80	80	80	80	-	-	80
PFLW	-20 ~ +80	+10 ~+80	80	80	80	80	80	80	80	80	80	80	80	80	-	-	80
PLW	-20 ~ +80	+10 ~+80	80	80	80	80	80	80	80	80	80	80	80	80	-	-	80
GF	-20 ~ +80	+10 ~+80	80	80	80	80	80	80	80	80	80	80	80	80	-	-	80
BF CE	-20 ~ +200	+10 ~+80	80	80	80	80	80	80	80	80	80	80	80	80	-	-	80
UBF (Static)	-30~+120	-	80	80	80	80	80	80	80	80	80	80	80	80	-	-	80
CE (Dynamic)	-30~+150	-															
DSF CE	-60 ~+200	-	80	80	80	80	80	80	80	80	80	80	80	80	-	-	80
CF CE	-269 ~ +80	-196 ~+80	80	80	80	80	80	80	80	80	80	80	80	80	-	-	80
CEF CE	-269 ~+200	-196 ~+80	80	80	80	80	80	80	80	80	80	80	80	80	-	-	80
QF CE	-20 ~+200	+10 ~+100	80	80	80	80	80	80	80	80	80	80	80	80	-	-	80
ZF CE	-20 ~+300	+10 ~+100	80	80	80	80	80	80	80	80	80	80	80	80	-	-	80
EF (Single)	-196 ~+300	+10 ~+150	80	80	80	80	80	80	80	80	80	80	80	80	-	-	80
CE (Rosette)	-196 ~+200	0 ~+150	80	80	80	80	80	80	80	80	80	80	80	80	-	-	80
BTM CE	-10 ~ +80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FAC CE	-30 ~ +80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

The following strain gauges are designed with the specified leadwires. The specifications are checked with this catalog.

Series WF	Operating temperature 0~+80°C	Leadwire : LDBB Paralleled vinyl / LDBTB 3-wire paralleled vinyl 7/0.12(0.08mm²)
Series WFLM	Operating temperature -20~+80°C	Leadwire : LJQTA 3-wire twisted cross-linked polyethylene 2m 7/0.127(0.09mm²)
Series PM	Operating temperaturte -20~+60°C	Leadwire : LJD Paralleled vinyl 2m LJDT 3-wire paralleled vinyl 2m 12/0.18(0.3mm²)
Series PMF	Operating temperature -20~+60°C	Leadwire : LJRTA 3-wire twisted cross-linked vinyl 2m 7/0.127(0.09mm²)
	Temperature-integrated PMF	Leadwire : TLJBT 3-wire paralleled vinyl 7/0.12 (0.08mm²)
Series PMFLS	Operating temperature -20~+60°C	Leadwire : LTSC 4-wire shielded Chloroprene 2m 6mm-diameter

5mm-dia. shielded 3-wire vinyl leadwire	0.08mm² polypropyrene 4-wire paralleled lead wire with modular plug	0.08mm² vinyl 4-wire paralleled leadwire	3-wir paralleled special vinyl leadwire	2-wire twisted cross-linked vinyl leadwire	3-wire twisted cross-linked vinyl leadwire	3-wire twisted cross-linked polyethylene leadwire	Temperature-integrated 3-wire paralleled vinyl leadwire	Temperature-integrated 4-wire paralleled vinyl leadwire	Temperature-integrated 3-wire twisted fluorinated resin (FEP) leadwire	0.14mm-dia. polyurethane leadwire 0.18mm-dia. polyurethane leadwire	0.14mm-dia. polyester leadwire 0.18mm-dia. polyester leadwire	0.14mm-dia. polyimide leadwire 0.18mm-dia. polyimide leadwire	3-wire twisted fluorinated resin (FEP) leadwire	3-wire twisted fluorinated resin (FEP) leadwire No Tetra-Etch required for surface	3-wire twisted fluorinated resin (FEP) leadwire	3-wire twisted fluorinated resin (FEP) leadwire	1.5mm-dia. 3-wire twisted fluorinated resin (FEP) leadwire with shield	3-wire twisted fluorinated resin (PTFE) leadwire	3-wire twisted fluorinated resin (PTFE) leadwire
LTSB	LQM	LBQM	LXT	LJRA	LJRTA	LJQTA	TLJBT	TLQ	6FB_TLT*	LP	LU	LE	6FA_LT*	6FAS_LT*	6FB_LT*	6FC_LT*	6FD_LTS*	4FA_LT*	4FB_LT*
	-F	-F	-F				-F			-F	-F	-F	-F	-F	-F	-F	-F	-F	-F
7/0.26	7/0.12	7/0.12	7/0.12	7/0.16	7/0.127	7/0.127	7/0.12	7/0.12	1/0.2	1/0.14 1/0.18	1/0.14 1/0.18	1/0.14 1/0.18	7/0.18	7/0.18	1/0.2	7/0.08	7/0.08	7/0.16	1/0.2
0.3	0.08	0.08	0.08	0.14	0.09	0.09	0.08	0.08					0.18	0.18		0.04	0.04	0.14	
-20 ~ +80	-20 ~ +100	-20 ~ +80	-20 ~ +150	-20 ~ +100	-20 ~ +100	-65 ~ +125	-20 ~ +80	-20 ~ +80	-269 ~ +200	-10 ~ +120	-196 ~ +200	-269 ~ +300	-269 ~ +200	-269 ~ +200	-269 ~ +200	-269 ~ +200	-269 ~ +200	-269 ~ +260	-269 ~ +200
Figure shows maximum operating temperature with combination use of strain gauge and the dedicated leadwire.																			
80	100	80	150	100	100	100	80	80	150	120	150	150	150	150	150	150	-	150	150
-	100	80	150	-	-	-	80	-	-	120	150	150	-	-	-	-	-	-	-
-	80	80	80	-	-	-	80	-	-	80	80	80	-	-	-	-	-	-	-
-	80	80	80	-	-	-	-	-	-	80	80	80	-	-	-	-	-	-	-
80	-	-	80	-	80	80	80	80	80	80	80	80	80	80	80	80	-	80	80
-	-	-	-	-	-	-	-	-	-	80	80	80	-	-	-	-	80	-	-
-	-	-	-	-	-	-	-	-	-	120	200	200	-	-	-	-	200	-	-
	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	-	80	80
	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	-	80	80
	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	-	80	80
80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	-	80	80
80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	-	80	80
80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	-	80	80
80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	-	80	80
80	100	80	150	100	100	125	80	80	200	120	200	200	200	200	200	200	-	200	200
80	100	80	120 150	100	100	120 125	80	80	120 150	120	120 150	120 150	120 150	120 150	120 150	120 150	- -	120 150	120 150
80	100	80	150	100	100	125	80	80	200	120	200	200	200	200	200	200	-	200	200
80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	-	80	80
80	100	80	150	100	100	125	80	80	200	120	200	200	200	200	200	200	-	200	200
80	100	80	150	100	100	125	80	80	200	120	200	200	200	200	200	200	-	200	200
80	100	80	150	100	100	125	80	80	200	120	200	300	200	200	200	200	-	260	260
80	100	80	150	100	100	125	80	80	200	120	200	300	200	200	200	200	-	260	260
80	100	80	150	100	100	125	80	80	200	120	200	200	200	200	200	200	-	200	200
-	-	-	-	-	-	-	-	-	-	80	-	80	-	-	-	-	-	80	80
-	-	-	-	-	-	-	-	-	-	80	-	80	-	-	-	-	-	-	-

Standard length of these leadwire is 1m, 3m and 5m. Other lengths than the standard length may be available on request.
* : For fluorinated resin leadwires of FEP and PTFE, underline of suffix code is filled with the length of the leadwire required.

Designation of leadwire-integrated strain gauge exampled

FLT-05A -11 -F -3 LJCT -F

- FLT-05A — Strain Gauge F series (FLT: for shearing strain measurement)
- -11 — Self-temperature-compensated material (-11: Mild steel Thermal expansion 11ppm/°C)
- -F — Option F : LEAD-free soldering of strain gauge
- -3 — Length of leadwire LJCT 3: 3m
- LJCT — 3-wire paralleled vinyl leadwire
- -F — Option F : LEAD-free soldering of leadwire