Strain gages
from HBM

Series Y strain gages

with 1 measuring grid

LY1x* — 0.3/120 0.6/120 1.5/120 3/120 6/120 10/120
1.5/350 3/350 6/350 10/350

LY2x* — 0.6/120 1.5/120 3/120 6/120

LY4x* — 0.6/120 1.5/120 3/120 6/120 10/120 20/120 50/120 100/120 150/120
1.5/350 3/350 6/350 10/350
3/700 6/700 10/700
3/1000 6/1000 10/1000

LY5x* — 3/120 6/120

LY6x* — 1.5/120 3/120 6/120 10/120
3/350 6/350 10/350

LY7x — 0.6/120 1.5/120 3/120 6/120
1.5/350 3/350 6/350

LY8x* — 0.6/120 1.5/120 3/120 6/120
1.5/350 3/350 6/350

with 2 measuring grids

DY1x* — 3/350 6/350
DY4x* — 1.5/350 3/350 6/350

XY1x* — 0.6/120 1.5/120 3/120 6/120
1.5/350 3/350

XY2x* — 0.6/120 1.5/120 3/120 6/120
1.5/350 3/350 6/350
3/700 6/700

XY3x* — 0.6/120 1.5/120 3/120 6/120
1.5/350 3/350 6/350

XY4x* — 0.6/120 1.5/120 3/120 6/120
1.5/350 3/350 6/350
3/700 6/700

XY7x* — 0.6/120 1.5/120 3/120 6/120
1.5/350 3/350 6/350

XY9x* — 1.5/120 3/120 6/120 10/120
1.5/350 3/350 6/350 10/350

XY10x* — 1.5/120 3/120 6/120
3/350 6/350

with 3 measuring grids

0°/45°/90° rosette
RY1x* — 3/120 6/120 10/120

0°/45°/90° rosette
RY3x* — 3/120 6/120 10/120

0°/60°/120° rosette
RY4x* — 3/120 6/120 10/120

0°/60°/120° rosette
RY7x* — 3/120 6/120 10/120

0°/45°/90° rosette
RY8x* — 0.6/120 1.5/120 3/120 6/120
1.5/350 3/350

0°/45°/90° rosette stacked
RY9x* — 1.5/120 3/120 6/120 10/120
1.5/350 3/350 6/350 10/350

0°/45°/90° rosette
RY10x* — 1.5/120 3/120 6/120
3/350 6/350

with 4 measuring grids

VY1x* — 3/120 6/120
VY4x* — 3/120 6/120
3/350 6/350

MY2x* — 6/120 15/350

Strain gage chains

10 measuring grids in parallel to the chain axis
KY1x* — 1/120 2/120 4/120

10 measuring grids (alternately, 5 in parallel, 5 perpendicular)
KY4x* — 2/120 4/120

10 measuring grids with common connection (alternately, 5 in parallel, 5 perpendicular)
KY7x* — 2/120

10 measuring grids perpendicular to the chain axis
KY2x* — 1/120 2/120

10 measuring grids with common connection in parallel to the chain axis
KY5x* — 1/120 2/120

10 measuring grids in parallel to the chain axis
KY8x* — 2/120

Rosette chain (5 rosettes each with 3 measuring grids 0°/60°/120°)
KY3x* — 4/120

10 measuring grids with common connection in parallel to the chain axis
KY6x* — 1/120 2/120

10 measuring grids perpendicular to the chain axis
KY9x* — 2/120

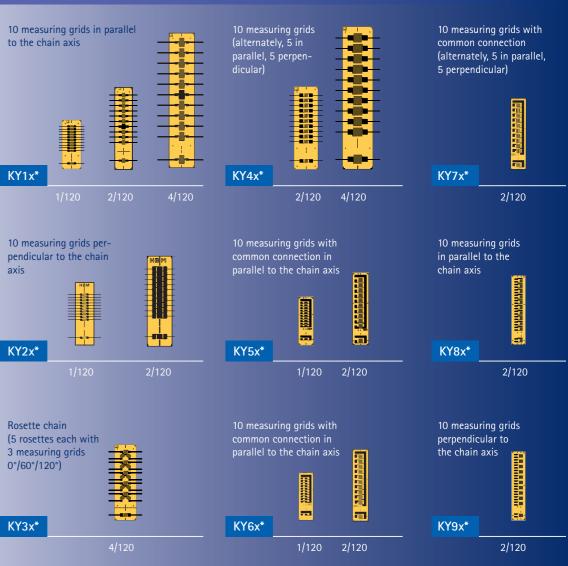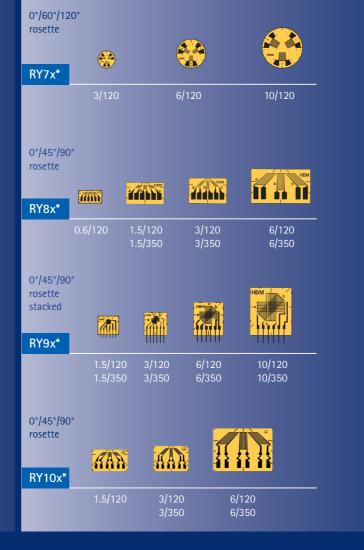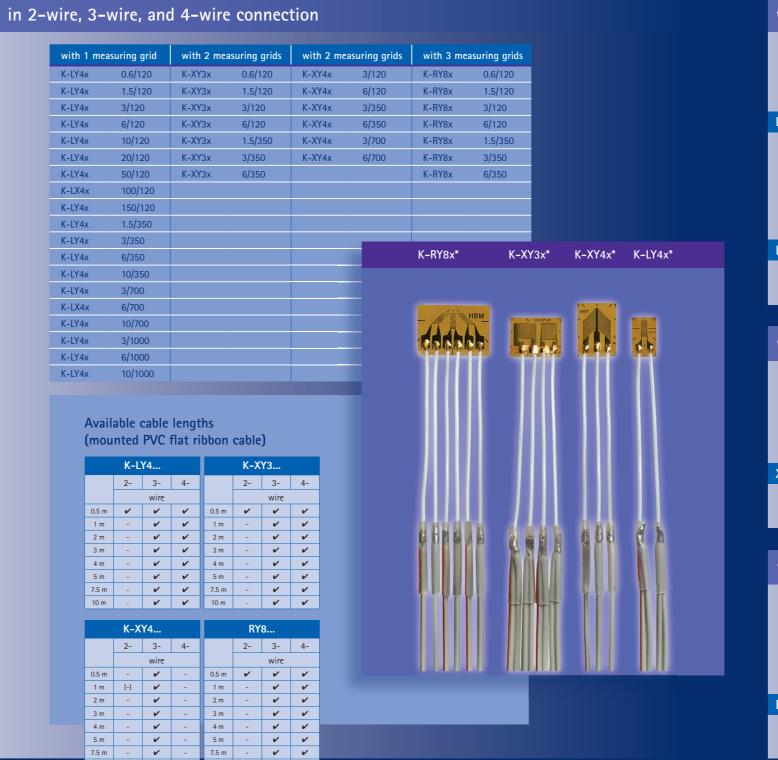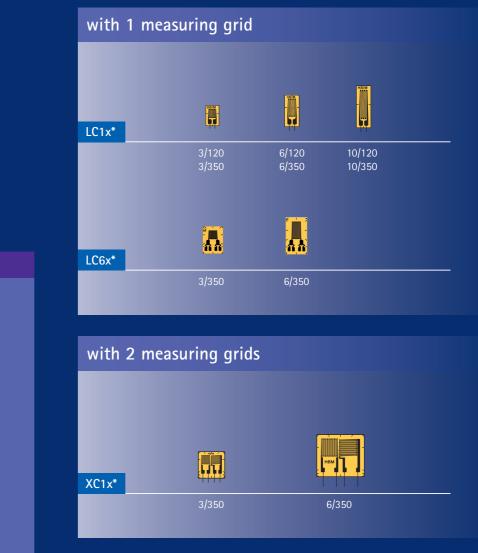## Strain gages for residual stress analysis

High-speed drilling

Rectangular hole-drilling rosette 0°/45°/90°
RY61K — for steel — 1.5/120

Hole-drilling rosette 0°/45°/90°
RY61R — for steel — 1.5/120

Hole-drilling rosette 0°/45°/90°
RY61S — for steel — 1.5/120

Hole-drilling rosette 0°/45°/90°
RY61-3.2/120S — for steel — 3.2/120

Hole-drilling rosette, symmetric 0°/45°/90°
RY61M — for steel — 1.5/120 1.5/350

Hole-drilling rosette 0°/45°/90°/135°
VY61S — for steel — 1.5/120

Hole drilling method according to the integral method

Rectangular hole-drilling rosette 0°/45°/90°
RY21 — for steel — 3/120

0°/45°/90° hole-drilling rosette for use with HBM drilling device 1-RY61
RY61 — for steel — 1.5/120

Ring-core method

Ring-core rosette 0°/90°
XY51 — for steel — 5/350

Ring-core rosette 0°/45°/90°
RY51 — for steel — 5/350

Strain gages with connecting cables

in 2-wire, 3-wire, and 4-wire connection

with 1 measuring grid		with 2 measuring grids		with 2 measuring grids		with 3 measuring grids	
K-LY4x	0.6/120	K-XY3x	0.6/120	K-XY4x	3/120	K-RY8x	0.6/120
K-LY4x	1.5/120	K-XY3x	1.5/120	K-XY4x	6/120	K-RY8x	1.5/120
K-LY4x	3/120	K-XY3x	3/120	K-XY4x	3/350	K-RY8x	3/120
K-LY4x	6/120	K-XY3x	6/120	K-XY4x	6/350	K-RY8x	6/120
K-LY4x	10/120	K-XY3x	1.5/350	K-XY4x	3/700	K-RY8x	1.5/350
K-LY4x	20/120	K-XY3x	3/350	K-XY4x	6/700	K-RY8x	3/350
K-LY4x	50/120	K-XY3x	6/350			K-RY8x	6/350
K-LX4x	100/120						
K-LY4x	150/120						
K-LY4x	1.5/350						
K-LY4x	3/350						
K-LY4x	6/350						
K-LY4x	10/350						
K-LY4x	3/700						
K-LX4x	6/700						
K-LY4x	10/700						
K-LY4x	3/1000						
K-LY4x	6/1000						
K-LY4x	10/1000						

Available cable lengths (mounted PVC flat ribbon cable)

K-RY8x*   K-XY3x*   K-XY4x*   K-LY4x*

K-LY4...				K-XY3...			
	2-	3-	4-		2-	3-	4-
		wire				wire	
0.5 m	✓		✓	0.5 m		✓	✓
1 m		✓	✓	1 m		✓	✓
2 m		✓	✓	2 m		✓	✓
3 m		✓	✓	3 m		✓	✓
4 m		✓	✓	4 m		✓	✓
5 m		✓	✓	5 m		✓	✓
7.5 m		✓	✓	7.5 m		✓	✓
10 m		✓	✓	10 m		✓	✓

K-XY4...				RY8...			
	2-	3-	4-		2-	3-	4-
		wire				wire	
0.5 m			✓	0.5 m		✓	✓
1 m	(-)		✓	1 m		✓	✓
2 m			✓	2 m		✓	✓
3 m			✓	3 m		✓	✓
4 m			✓	4 m		✓	✓
5 m		-	✓	5 m		✓	✓
7.5 m			✓	7.5 m		✓	✓
10 m		✓	✓	10 m		✓	✓

C series strain gages

with 1 measuring grid

LC1x* — 3/120 6/120 10/120
3/350 6/350 10/350

LC6x* — 3/350 6/350

with 2 measuring grids

XC1x* — 3/350 6/350

with 3 measuring grids

RC1x* — 4/350 6/350

V series strain gages

Special strain gages

V series strain gages

with 3 m PVC-insulated stranded wire, for steel
LV41 — 3/120
XV91 — 3/120
RV91 — 3/120

Strain gages for high strain

LD20 — 6/120 10/120
6/350 10/350

Weldable strain gage

with 0.5 m stranded wire, dimensions of carrier sheet: 10 x 40 mm
LS31 — for steel — 6/350

Encapsulated strain gages

with 1 m teflon-insulated stranded wire
LE11 — for steel — 3/350Z (2-wire connection)
3/350V (4-wire connection)

* Instead of the x, please fill in the code for the desired temperature adaptation. Please refer to the notes in our strain gage catalog or in the strain gage price list.

1 for ferritic steel with α = 10.8 · 10⁻⁶ /K
3 for aluminum with α = 23 · 10⁻⁶ /K
5 for austenitic steel with α = 16 · 10⁻⁶ /K
6 for quartz with α = 0.5 · 10⁻⁶ /K
7 for titanium/gray cast iron with α = 9 · 10⁻⁶ /K
8 for plastic with α = 65 · 10⁻⁶ /K
9 for molybdenum with α = 5.4 · 10⁻⁶ /K

www.hbm.com/straingages

measure and predict with confidence