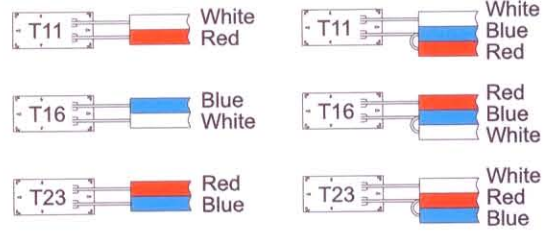


## Gage designation code

Carrier Material J : Polyimide F : Epoxy	Resistance ( $\Omega/10$ ) 2 3 4 5	Gage length (mm) 12 15 20 25	Temperature compensation T11 : Ordinary carbon steel T16 : Stainless steel T23 : Aluminum alloy
<b>J T - 2 A - 12 D5 T11 W5-3</b>			
Grid configuration - : Single element D : Arrow shape 2 : 2 elements 3 : 3 elements 4 : 4 elements 5 : 5 elements S4 : Diaphragm R : Rosette T : Transverse X : Stacked	Identifier mark Improvement mark Optin code Length of lead : 32 mm A : with cover B : with lead wire C : with cover & lead wire D : with tab & solder	Creep code 5	Length of vinyl wire W03 : 0.3 m W1 : 1 m W3 : 3 m W5 : 5 m W3-3 : 3 m & 3 wires W5-3 : 5 m & 3 wires

## Gage designation code




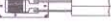

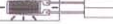


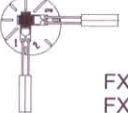
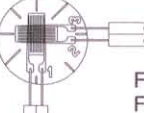
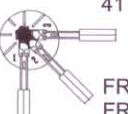
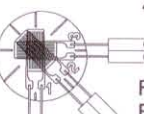




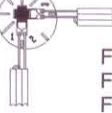


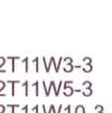
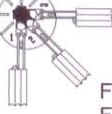
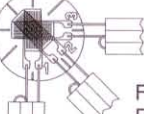
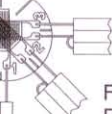

Strain gages of 2 and 3 elements shows the temperature compensation by the color of vinyl wires.



## J-series Polyimide Foil Gage

Gage pattern	Patern No.	Parts No.	Length	Base size	Patern size
1 J-02-12C0Txx	1	J-02-12C0Txx*	0.2	2.5 x 2.0	1.3 x 1.0
2 J-05-12D0Txx	2	J-05-12D0Txx*	0.5	3.0 x 2.5	1.4 x 1.6
3 J-1-12F0Txx	3	J-1-12F0Txx*	1.0	4.1 x 2.5	2.2 x 1.6
4 J-2-12D0Txx	4	J-2-12D0Txx*	2.0	6.0 x 3.6	3.8 x 2.0
5 J-3-12D5Txx	5	J-3-12D5Txx*	3.0	6.9 x 4.7	5.2 x 3.0
6 J-4-12D0Txx	6	J-4-12D0Txx*	4.0	8.2 x 3.5	5.6 x 2.0
7 J-5-12D0Txx	7	J-5-12D0Txx*	5.0	10.0 x 3.0	7.5 x 1.8
8 J-8-12D0Txx	8	J-8-12D0Txx*	8.0	14.4 x 6.0	11.0 x 3.3
9 J-1-35F0Txx	9	J-1-35F0Txx*	0.8	3.1 x 2.5	2.1 x 1.6
10 J-2B35D0Txx	10	J-2B35D0Txx*	2.0	5.5 x 3.5	3.6 x 2.6
11 J-5-35F0Txx	11	J-5-35F0Txx*	5.0	10.0 x 3.5	6.9 x 2.4
12 JT-1-35G0Txx	12	JT-1-35G0Txx*	1.2+2.8	5.6 x 5.6	4.5 x 4.3
13 JT-3-35F0Txx	13	JT-3-35F0Txx*	3.2	7.0 x 10.0	5.5 x 8.6
14 JD-2-12D0Txx	14	JD-2-12D0Txx*	2.0	7.0 x 12.0	6.7 x 3.6
15 JD-4-12D0Txx	15	JD-4-12D0Txx*	4.0	9.5 x 12.5	6.6 x 9.5
16 J5-2-12D0Txx	16	J5-2-12D0Txx*	2.0	19.4 x 7.1	16.5 x 4.5
17 JS4-16-35D5Txx	17	JS4-16-35D5Txx*	-	20.4 x 20.4	$\phi 16$
18 JS4-9C35B5Txx	18	JS4-9C35B5Txx*	-	10.0 x 10.0	$\phi 9.3$
19 J-02-12TxxW03 J-02-12TxxW3	19	J-02-12TxxW03 J-02-12TxxW3	0.2	2.5 x 2.0	1.3 x 1.0
20 J-05-12TxxW03 J-05-12TxxW3	20	J-05-12TxxW03 J-05-12TxxW3	0.5	3.0 x 2.5	1.4 x 1.6
21 J-1-12TxxW03 J-1-12TxxW3	21	J-1-12TxxW03 J-1-12TxxW3	1.0	4.1 x 2.5	2.2 x 1.6
22 J-2-12TxxW03 J-2-12TxxW3 J-2-12TxxW5	22	J-2-12TxxW03 J-2-12TxxW3 J-2-12TxxW5	2.0	6.0 x 3.6	3.8 x 2.0
23 J-3-12TxxW03 J-3-12TxxW3	23	J-3-12TxxW03 J-3-12TxxW3	3.0	6.9 x 4.7	5.2 x 3.0
24 J-4-12TxxW03 J-4-12TxxW3	24	J-4-12TxxW03 J-4-12TxxW3	4.0	8.2 x 3.5	5.6 x 2.0
25 J-5-12TxxW03 J-5-12TxxW3	25	J-5-12TxxW03 J-5-12TxxW3	5.0	10.0 x 3.5	6.9 x 2.4
26 J-8-12TxxW03 J-8-12TxxW3	26	J-8-12TxxW03 J-8-12TxxW3	8.0	14.4 x 6.0	11.0 x 3.3
27 J-02-12TxxW3-3 J-02-12TxxW5-3 J-02-12TxxW10-3	27	J-02-12TxxW3-3 J-02-12TxxW5-3 J-02-12TxxW10-3	0.2	2.5 x 2.0	1.3 x 1.0
28 J-1-12TxxW3-3 J-1-12TxxW5-3 J-1-12TxxW10-3	28	J-1-12TxxW3-3 J-1-12TxxW5-3 J-1-12TxxW10-3	1.0	4.1 x 2.5	2.2 x 1.6
29 J-2-12TxxW3-3 J-2-12TxxW5-3 J-2-12TxxW10-3	29	J-2-12TxxW3-3 J-2-12TxxW5-3 J-2-12TxxW10-3	2.0	6.0 x 3.6	3.8 x 2.0
30 J-5-12TxxW3-3 J-5-12TxxW5-3 J-5-12TxxW10-3	30	J-5-12TxxW3-3 J-5-12TxxW5-3 J-5-12TxxW10-3	5.0	10.0 x 3.5	6.9 x 2.4

## F-series Epoxy Foil Gage

Gage pattern			Patern No.	Parts No.	Lengthy	Base size	Patern Size	
 <p>31</p> <p>F-02W-12T11W03 F-02W-12T11W3</p>	 <p>32</p> <p>F-05W-12T11W03 F-05W-12T11W3</p>	 <p>33</p> <p>F-1S-12MT11W03 F-1S-12MT11W1 F-1S-12MT11W3 F-1S-12MT11W5</p>	31	F-02W-12T11W03 F-02W-12T11W3	0.2	2.7 x 2.2	1.3 x 1.0	
			32	F-05W-12T11W03 F-05W-12T11W3	0.5	3.0 x 2.5	1.3 x 1.4	
 <p>34</p> <p>F-2-12T11W03 F-2-12T11W1 F-2-12T11W3 F-2-12T11W5</p>	 <p>35</p> <p>F-3N-12T11W03 F-3N-12T11W1 F-3N-12T11W3 F-3N-12T11W5</p>	 <p>36</p> <p>F-4-12T11W03 F-4-12T11W3</p>	33	F-1S-12MT11W03 F-1S-12MT11W1 F-1S-12MT11W3 F-1S-12MT11W5	1.0	5.2 x 2.5	2.6 x 1.4	
			34	F-2-12T11W03 F-2-12T11W1 F-2-12T11W3 F-2-12T11W5	2.0	6.7 x 3.0	4.3 x 1.9	
			35	F-3N-12T11W03 F-3N-12T11W1 F-3N-12T11W3 F-3N-12T11W5	3.0	9.0 x 3.5	6.0 x 1.8	
			36	F-4-12T11W03 F-4-12T11W3	4.0	8.2 x 3.5	5.6 x 2.0	
 <p>37</p> <p>F-5N-12T11W03 F-5N-12T11W3 F-5N-12T11W5</p>	 <p>38</p> <p>F-8-12T11W03 F-8-12T11W3</p>	 <p>39</p> <p>FX-2-12T11W03 FX-2-12T11W1 FX-2-12T11W3 FX-2-12T11W5</p>	37	F-5N-12T11W03 F-5N-12T11W3 F-5N-12T11W5	5.0	10.2 x 3.0	7.6 x 1.8	
			38	F-8-12T11W03 F-8-12T11W3	8.0	14.5 x 6.0	11.1 x 3.1	
 <p>40</p> <p>FX-5-12T11W03 FX-5-12T11W1 FX-5-12T11W3 FX-5-12T11W5</p>	 <p>41</p> <p>FR-2-12T11W03 FR-2-12T11W1 FR-2-12T11W3 FR-2-12T11W5</p>	 <p>42</p> <p>FR-5-12T11W03 FR-5-12T11W1 FR-5-12T11W3 FR-5-12T11W5</p>	39	FX-2-12T11W03 FX-2-12T11W1 FX-2-12T11W3 FX-2-12T11W5	2.0	φ8.0	4.1 x 1.4	
			40	FX-5-12T11W03 FX-5-12T11W1 FX-5-12T11W3 FX-5-12T11W5	5.0	φ12.0	8.0 x 2.5	
			41	FR-2-12T11W03 FR-2-12T11W1 FR-2-12T11W3 FR-2-12T11W5	2.0	φ8.0	4.1 x 1.4	
			42	FR-5-12T11W03 FR-5-12T11W1 FR-5-12T11W3 FR-5-12T11W5	5.0	φ12.0	8.0 x 2.5	
 <p>43</p> <p>F-02W-12T11W3-3 F-02W-12T11W5-3 F-02W-12T11W10-3</p>	 <p>44</p> <p>F-1S-12T11W3-3 F-1S-12T11W5-3 F-1S-12T11W10-3</p>	 <p>45</p> <p>F-2-12T11W3-3 F-2-12T11W5-3 F-2-12T11W10-3</p>	 <p>46</p> <p>F-5N-12T11W3-3 F-5N-12T11W5-3 F-5N-12T11W10-3</p>	43	F-02W-12T11W3-3 F-02W-12T11W5-3 F-02W-12T11W10-3	0.2	2.7 x 2.2	1.3 x 1.0
				44	F-1S-12T11W3-3 F-1S-12T11W5-3 F-1S-12T11W10-3	1.0	3.6 x 2.7	2.2 x 1.0
				45	F-2-12T11W3-3 F-2-12T11W5-3 F-2-12T11W10-3	2.0	6.7 x 3.0	4.3 x 1.9
 <p>46</p> <p>FX-2-12T11W3-3 FX-2-12T11W5-3 FX-2-12T11W10-3</p>	 <p>47</p> <p>FX-5-12T11W3-3 FX-5-12T11W5-3 FX-5-12T11W10-3</p>	 <p>48</p> <p>FR-2-12T11W3-3 FR-2-12T11W5-3 FR-2-12T11W10-3</p>	 <p>49</p> <p>FR-5-12T11W3-3 FR-5-12T11W5-3 FR-5-12T11W10-3</p>	46	F-5N-12T11W3-3 F-5N-12T11W5-3 F-5N-12T11W10-3	5.0	10.2 x 3.0	7.6 x 1.8
				47	FX-2-12T11W3-3 FX-2-12T11W5-3 FX-2-12T11W10-3	2.0	φ8.0	4.1 x 1.4
				48	FX-5-12T11W3-3 FX-5-12T11W5-3 FX-5-12T11W10-3	5.0	φ12.0	8.0 x 2.5
 <p>49</p> <p>FR-2-12T11W3-3 FR-2-12T11W5-3 FR-2-12T11W10-3</p>	 <p>50</p> <p>FR-5-12T11W3-3 FR-5-12T11W5-3 FR-5-12T11W10-3</p>	 <p>50</p> <p>FR-5-12T11W3-3 FR-5-12T11W5-3 FR-5-12T11W10-3</p>	 <p>50</p> <p>FR-5-12T11W3-3 FR-5-12T11W5-3 FR-5-12T11W10-3</p>	49	FR-2-12T11W3-3 FR-2-12T11W5-3 FR-2-12T11W10-3	2.0	φ8.0	4.1 x 1.4
				50	FR-5-12T11W3-3 FR-5-12T11W5-3 FR-5-12T11W10-3	5.0	φ12.0	8.0 x 2.5

# Strain Gages for Concrete

# KFG

- Gage factor Approx. 2.1
- Applicable linear expansion coefficient 11
- Self-temperature compensation range 10 to 100°C

### Applicable Adhesives and Operating Temperature Ranges

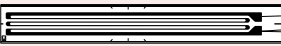
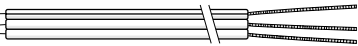



- PC-12: -10 to 80°C
- CC-35: -10 to 80°C

## ■ General-purpose Foil Strain Gages





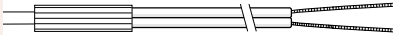
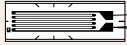
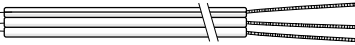



Listed here are leadwire-equipped gages selected from KFG gages applicable to strain measurement for concrete.

Note: For the types and lengths of the leadwires, refer to page 32.

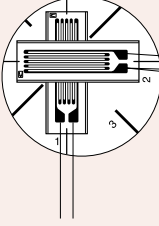
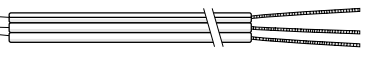
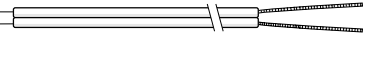
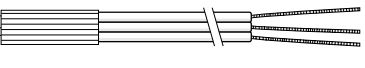
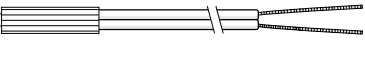
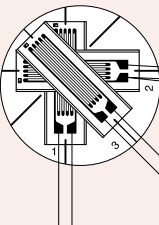
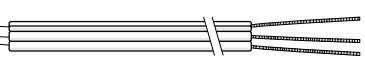
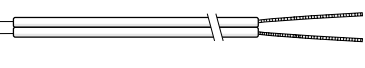
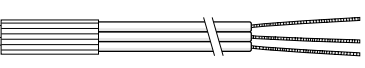
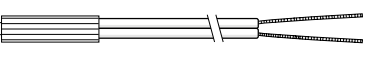
## KFG Gages ● Uniaxial 120Ω

Pattern	Leadwire Cable - Type and Shape	Operating Temp. Range	Leadwire Length	Model	
 <p><b>KFG-30-120-C1-11</b></p> <p><b>Uniaxial</b></p> <ul style="list-style-type: none"> <li>● Base Size <span style="float: right;">37 x 5.2 mm</span></li> <li>● Gage Length <span style="float: right;">30 mm</span></li> <li>● Gage Resistance <span style="float: right;">120Ω</span></li> <li>● Pieces per Pack <span style="float: right;">10</span></li> </ul>	Vinyl-coated flat 3-wire cable L-7 (L-10 for 6m or longer)	-10 to 80°C	1m	KFG-30-120-C1-11 <b>L1M3R</b>	
				3m	KFG-30-120-C1-11 <b>L3M3R</b>
				5m	KFG-30-120-C1-11 <b>L5M3R</b>
		Vinyl-coated flat 2-wire cable L-6 (L-9 for 6m or longer)	-10 to 80°C	1m	KFG-30-120-C1-11 <b>L1M2R</b>
				3m	KFG-30-120-C1-11 <b>L3M2R</b>
				5m	KFG-30-120-C1-11 <b>L5M2R</b>
		Middle-temperature 3-wire cable L-12	-100 to 150°C	1m	KFG-30-120-C1-11 <b>R1M3</b>
				3m	KFG-30-120-C1-11 <b>R3M3</b>
				5m	KFG-30-120-C1-11 <b>R5M3</b>
		Middle-temperature 2-wire cable L-11	-100 to 150°C	1m	KFG-30-120-C1-11 <b>R1M2</b>
				3m	KFG-30-120-C1-11 <b>R3M2</b>
				5m	KFG-30-120-C1-11 <b>R5M2</b>

# KFG Gages ● Uniaxial 120Ω

Pattern	Leadwire Cable – Type and Shape	Operating Temp. Range	Leadwire Length	Model			
 <p><b>KFG-20-120-C1-11</b></p> <p><b>Uniaxial</b></p> <ul style="list-style-type: none"> <li>● Base Size 28 x 8 mm</li> <li>● Gage Length 20 mm</li> <li>● Gage Resistance 120Ω</li> <li>● Pieces per Pack 10</li> </ul>	Vinyl-coated flat 3-wire cable L-7 (L-10 for 6m or longer)	-10 to 80°C	1m	KFG-20-120-C1-11 L1M3R			
				3m	KFG-20-120-C1-11 L3M3R		
				5m	KFG-20-120-C1-11 L5M3R		
		Vinyl-coated flat 2-wire cable L-6 (L-9 for 6m or longer)		-10 to 80°C	1m	KFG-20-120-C1-11 L1M2R	
			3m		KFG-20-120-C1-11 L3M2R		
			5m		KFG-20-120-C1-11 L5M2R		
	<p><b>Uniaxial</b></p> <ul style="list-style-type: none"> <li>● Base Size 28 x 8 mm</li> <li>● Gage Length 20 mm</li> <li>● Gage Resistance 120Ω</li> <li>● Pieces per Pack 10</li> </ul>	Middle-temperature 3-wire cable L-12	-100 to 150°C	1m	KFG-20-120-C1-11 R1M3		
					3m	KFG-20-120-C1-11 R3M3	
					5m	KFG-20-120-C1-11 R5M3	
		<p><b>Uniaxial</b></p> <ul style="list-style-type: none"> <li>● Base Size 28 x 8 mm</li> <li>● Gage Length 20 mm</li> <li>● Gage Resistance 120Ω</li> <li>● Pieces per Pack 10</li> </ul>	Middle-temperature 2-wire cable L-11	-100 to 150°C	1m	KFG-20-120-C1-11 R1M2	
						3m	KFG-20-120-C1-11 R3M2
						5m	KFG-20-120-C1-11 R5M2
 <p><b>KFG-10-120-C1-11</b></p> <p><b>Uniaxial</b></p> <ul style="list-style-type: none"> <li>● Base Size 16 x 5.2 mm</li> <li>● Gage Length 10 mm</li> <li>● Gage Resistance 120Ω</li> <li>● Pieces per Pack 10</li> </ul>			Vinyl-coated flat 3-wire cable L-7 (L-10 for 6m or longer)	-10 to 80°C	1m	KFG-10-120-C1-11 L1M3R	
						3m	KFG-10-120-C1-11 L3M3R
						5m	KFG-10-120-C1-11 L5M3R
	Vinyl-coated flat 2-wire cable L-6 (L-9 for 6m or longer)	-10 to 80°C		1m		KFG-10-120-C1-11 L1M2R	
				3m	KFG-10-120-C1-11 L3M2R		
				5m	KFG-10-120-C1-11 L5M2R		
	<p><b>Uniaxial</b></p> <ul style="list-style-type: none"> <li>● Base Size 16 x 5.2 mm</li> <li>● Gage Length 10 mm</li> <li>● Gage Resistance 120Ω</li> <li>● Pieces per Pack 10</li> </ul>	Middle-temperature 3-wire cable L-12	-100 to 150°C	1m	KFG-10-120-C1-11 R1M3		
					3m	KFG-10-120-C1-11 R3M3	
					5m	KFG-10-120-C1-11 R5M3	
		<p><b>Uniaxial</b></p> <ul style="list-style-type: none"> <li>● Base Size 16 x 5.2 mm</li> <li>● Gage Length 10 mm</li> <li>● Gage Resistance 120Ω</li> <li>● Pieces per Pack 10</li> </ul>	Middle-temperature 2-wire cable L-11	-100 to 150°C	1m	KFG-10-120-C1-11 R1M2	
						3m	KFG-10-120-C1-11 R3M2
						5m	KFG-10-120-C1-11 R5M2

# KFG Gages ● Biaxial 120Ω/Triaxial 120Ω

Pattern	Leadwire Cable – Type and Shape	Operating Temp. Range	Leadwire Length	Model	
 <p><b>KFG-10-120-D16-11</b></p> <p><b>Biaxial, 0°/90° stacked rosette</b></p> <ul style="list-style-type: none"> <li>● Base Size 21 mmφ</li> <li>● Gage Length 10 mm</li> <li>● Gage Resistance 120Ω</li> <li>● Pieces per Pack 10</li> </ul>	<p>Vinyl-coated flat 3-wire cable L-7 (L-10 for 6m or longer)</p> 	-10 to 80°C	1m	KFG-10-120-D16-11 L1M3S	
				3m	KFG-10-120-D16-11 L3M3S
				5m	KFG-10-120-D16-11 L5M3S
		<p>Vinyl-coated flat 2-wire cable L-6 (L-9 for 6m or longer)</p> 	-10 to 80°C	1m	KFG-10-120-D16-11 L1M2S
				3m	KFG-10-120-D16-11 L3M2S
				5m	KFG-10-120-D16-11 L5M2S
		<p>Middle-temperature 3-wire cable L-12</p> 	-100 to 150°C	1m	KFG-10-120-D16-11 R1M3
				3m	KFG-10-120-D16-11 R3M3
				5m	KFG-10-120-D16-11 R5M3
		<p>Middle-temperature 2-wire cable L-11</p> 	-100 to 150°C	1m	KFG-10-120-D16-11 R1M2
				3m	KFG-10-120-D16-11 R3M2
				5m	KFG-10-120-D16-11 R5M2
 <p><b>KFG-10-120-D17-11</b></p> <p><b>Triaxial, 0°/90°/45° stacked rosette for stress analysis</b></p> <ul style="list-style-type: none"> <li>● Base Size 21 mmφ</li> <li>● Gage Length 10 mm</li> <li>● Gage Resistance 120Ω</li> <li>● Pieces per Pack 10</li> </ul>	<p>Vinyl-coated flat 3-wire cable L-7 (L-10 for 6m or longer)</p> 	-10 to 80°C	1m	KFG-10-120-D17-11 L1M3S	
				3m	KFG-10-120-D17-11 L3M3S
				5m	KFG-10-120-D17-11 L5M3S
		<p>Vinyl-coated flat 2-wire cable L-6 (L-9 for 6m or longer)</p> 	-10 to 80°C	1m	KFG-10-120-D17-11 L1M2S
				3m	KFG-10-120-D17-11 L3M2S
				5m	KFG-10-120-D17-11 L5M2S
		<p>Middle-temperature 3-wire cable L-12</p> 	-100 to 150°C	1m	KFG-10-120-D17-11 R1M3
				3m	KFG-10-120-D17-11 R3M3
				5m	KFG-10-120-D17-11 R5M3
		<p>Middle-temperature 2-wire cable L-11</p> 	-100 to 150°C	1m	KFG-10-120-D17-11 R1M2
				3m	KFG-10-120-D17-11 R3M2
				5m	KFG-10-120-D17-11 R5M2