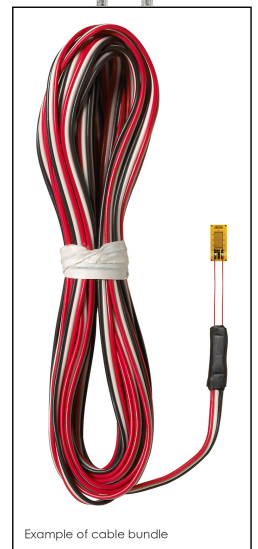
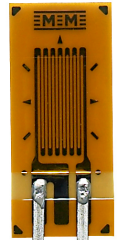


## Customer Requirements

- Temperature range:  $>-60^{\circ}\text{F}$  to  $+180^{\circ}\text{F}$  ( $-50^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$ )
- Uniaxial strain pattern with a 0.125 inch active grid length and fully encapsulated
- Temperature compensated for Concrete, Steel, Stainless (17-4 and 17-7)
- Resistance:  $350\ \Omega$
- Leadwire: 10 ft of 326-DFV, preattached
- Elongation:  $\pm 3\%$  ( $30,000\ \mu\epsilon$ ) one time elongation;  $\pm 1500\ \mu\epsilon$  for  $10^6$  cycles
- Pre-attached vinyl insulated cables makes installation fast and much easier



## Applications

- Automotive
- Oilfield
- Composites testing
- Rail
- Crane
- Other applications on steel alloys

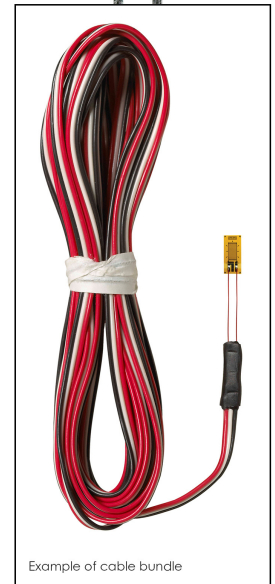
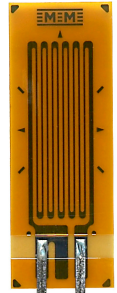
Datasheet:

<http://www.vishaypg.com/doc?11200>



## Customer Requirements

- Temperature range:  $>-60^{\circ}\text{F}$  to  $+180^{\circ}\text{F}$  ( $-50^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$ )
- Uniaxial strain pattern with a 0.250 inch active grid length and fully encapsulated
- Temperature compensated for Concrete, Steel, Stainless (17-4 and 17-7)
- Resistance: 350  $\Omega$
- Leadwire: 10 ft of 326-DFV, preattached
- Elongation:  $\pm 3\%$  (30,000  $\mu\epsilon$ ) one time elongation;  $\pm 1500 \mu\epsilon$  for  $10^6$  cycles
- Pre-attached vinyl insulated cables makes installation fast and much easier



## Applications

- Automotive
- Oilfield
- Composites testing
- Rail
- Crane
- Other applications on steel alloys

Datasheet:

<http://www.vishaypg.com/doc?11297>



## Customer Requirements

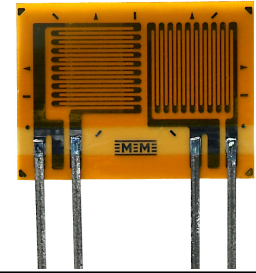
- Temperature range:  $>-60^{\circ}\text{F}$  to  $+180^{\circ}\text{F}$  ( $-50^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$ )
- Biaxial strain pattern (T-rosette) with a 0.125 inch active grid length and fully encapsulated
- Temperature compensated for Concrete, Steel, Stainless (17-4 and 17-7)
- Resistance:  $350\ \Omega$
- Leadwire: 10 ft of 326-DFV, preattached
- Elongation:  $\pm 3\%$  ( $30,000\ \mu\epsilon$ ) one time elongation;  $\pm 1500\ \mu\epsilon$  for  $10^6$  cycles
- Pre-attached vinyl insulated cables makes installation fast and much easier

## Applications

- Automotive
- Oilfield
- Composites testing
- Rail
- Crane
- Other applications on steel alloys including structural health monitoring (SHM), pressure vessel and tank applications where maximum and minimum, or longitudinal and hoop, strain measurements are required

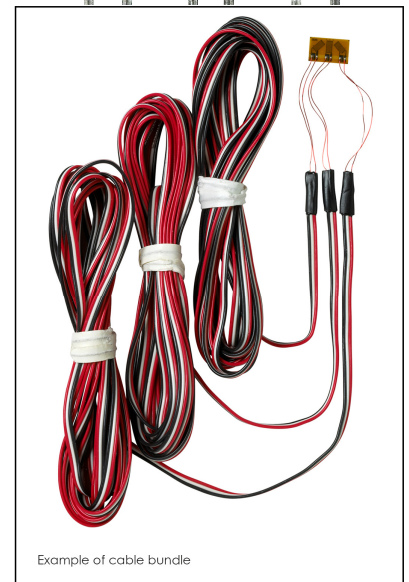
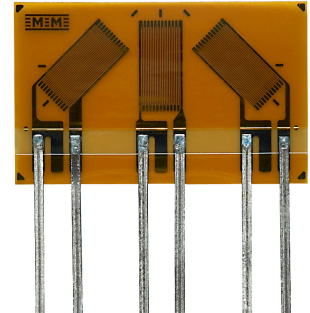
Datasheet:

<http://www.vishaypg.com/doc?11199>



## Customer Requirements

- Temperature range:  $>-100^{\circ}\text{F}$  to  $+350^{\circ}\text{F}$  ( $-75^{\circ}\text{C}$  to  $+175^{\circ}\text{C}$ )
- Three-element rectangular rosette pattern with a 0.125 inch active grid length and fully encapsulated
- Temperature compensated for Concrete, Steel, Stainless (17-4 and 17-7)
- Resistance: 350  $\Omega$
- Large copper tabs allow for direct lead attachment
- Elongation:  $\pm 3\%$  (30,000  $\mu\epsilon$ ) one time elongation;  $\pm 1500$   $\mu\epsilon$  for  $10^6$  cycles
- Ideal for stress states where the magnitude and direction need to be determined
- Pre-attached vinyl insulated cables makes installation fast and much easier
- Three discrete measurements allow for calculation of maximum and minimum principal strains, direction, shear strains as well as tension/compression measurements



## Applications

- Automotive
- Oilfield
- Composites testing
- Rail
- Crane
- Other applications on steel alloys including structural health monitoring (SHM)

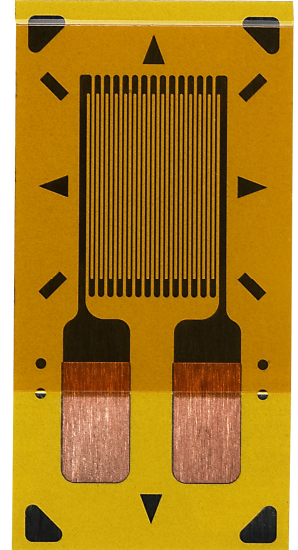
Datasheet:

<http://www.vishaypg.com/doc?11198>



### Customer Requirements

- Temperature range:  $>-100^{\circ}\text{F}$  to  $+350^{\circ}\text{F}$  ( $-75^{\circ}\text{C}$  to  $+175^{\circ}\text{C}$ )
- Uniaxial strain pattern with a 0.125 inch active grid length and fully encapsulated
- Temperature compensated for Concrete, Steel, Stainless (17-4 and 17-7)
- Resistance:  $350\ \Omega$
- Large copper tabs allow for direct lead attachment
- Elongation:  $\pm 3\%$  ( $30,000\ \mu\epsilon$ ) one time elongation;  $\pm 1500\ \mu\epsilon$  for  $10^6$  cycles



### Applications

- Automotive
- Oilfield
- Composites testing
- Rail
- Crane
- Other applications on steel alloys

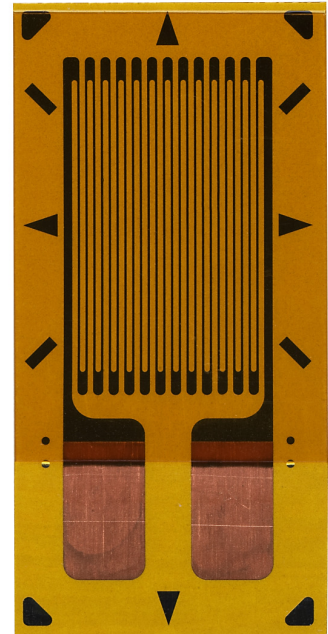
Datasheet:

<http://www.vishaypg.com/doc?11224>



## Customer Requirements

- Temperature range:  $>-100^{\circ}\text{F}$  to  $+350^{\circ}\text{F}$  ( $-75^{\circ}\text{C}$  to  $+175^{\circ}\text{C}$ )
- Uniaxial strain pattern with a 0.250 inch active grid length and fully encapsulated
- Temperature compensated for Concrete, Steel, Stainless (17-4 and 17-7)
- Resistance:  $350\ \Omega$
- Large copper tabs allow for direct lead attachment
- Elongation:  $\pm 3\%$  ( $30,000\ \mu\epsilon$ ) one time elongation;  $\pm 1500\ \mu\epsilon$  for  $10^6$  cycles



## Applications

- Automotive
- Oilfield
- Composites testing
- Rail
- Crane
- Other applications on steel alloy

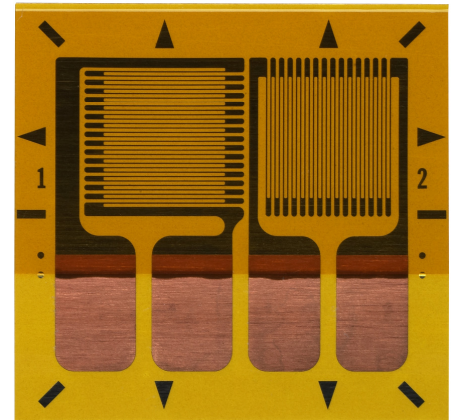
Datasheet:

<http://www.vishaypg.com/doc?11312>



## Customer Requirements

- Temperature range:  $>-100^{\circ}\text{F}$  to  $+350^{\circ}\text{F}$  ( $-75^{\circ}\text{C}$  to  $+175^{\circ}\text{C}$ )
- Biaxial strain pattern (T-rosette) with a 0.125 inch active grid length and fully encapsulated
- Temperature compensated for Concrete, Steel, Stainless (17-4 and 17-7)
- Resistance:  $350\ \Omega$
- Large copper tabs allow for direct lead attachment
- Elongation:  $\pm 3\%$  ( $30,000\ \mu\epsilon$ ) one time elongation;  $\pm 1500\ \mu\epsilon$  for  $10^6$  cycles
- Ideal for biaxial stress states where direction is known



## Applications

- Automotive
- Oilfield
- Composites testing
- Rail
- Crane
- Other applications on steel alloys

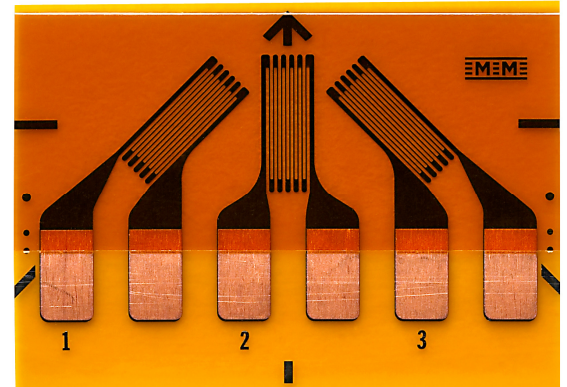
Datasheet:

<http://www.vishayvpg.com/doc?11230>



## Customer Requirements

- Temperature range:  $>-100^{\circ}\text{F}$  to  $+350^{\circ}\text{F}$  ( $-75^{\circ}\text{C}$  to  $+175^{\circ}\text{C}$ )
- Three-element rectangular rosette pattern with a 0.125 inch active grid length and fully encapsulated
- Temperature compensated for Concrete, Steel, Stainless (17-4 and 17-7)
- Resistance: 350  $\Omega$
- Large copper tabs allow for direct lead attachment
- Elongation:  $\pm 3\%$  (30,000  $\mu\epsilon$ ) one time elongation;  $\pm 1500 \mu\epsilon$  for  $10^6$  cycles
- The three discrete measurements allow for calculation of maximum and minimum principal strains, direction, shear strains as well as tension/compression measurements



## Applications

- Automotive
- Oilfield
- Composites testing
- Rail
- Crane
- Other applications on steel alloys

Datasheet:

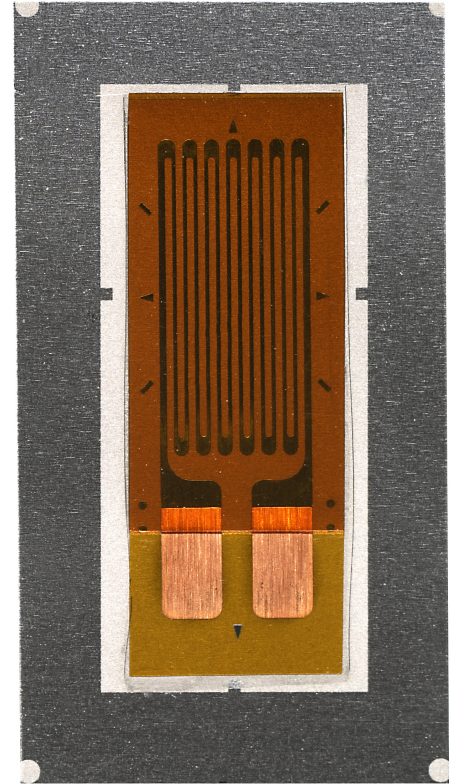
<http://www.vishaypg.com/doc?11225>





## Customer Requirements

- Weldable strain gage
- Temperature range:  $>-100^{\circ}\text{F}$  to  $+200^{\circ}\text{F}$
- Linear
- Temperature compensated for Steel, Stainless (17-4)
- Resistance:  $3500\ \Omega$
- Elongation:  $\pm 0.5\%$  ( $5,000\ \mu\epsilon$ ) one time elongation
- Ideal when bonding condition due not allow adhesives to be used to bond the gage



## Applications

- Civil engineering
- Rebar
- Bridges
- Structural health monitoring
- Other applications on steel alloys



Datasheet:

<http://www.vishaypg.com/doc?11519>