

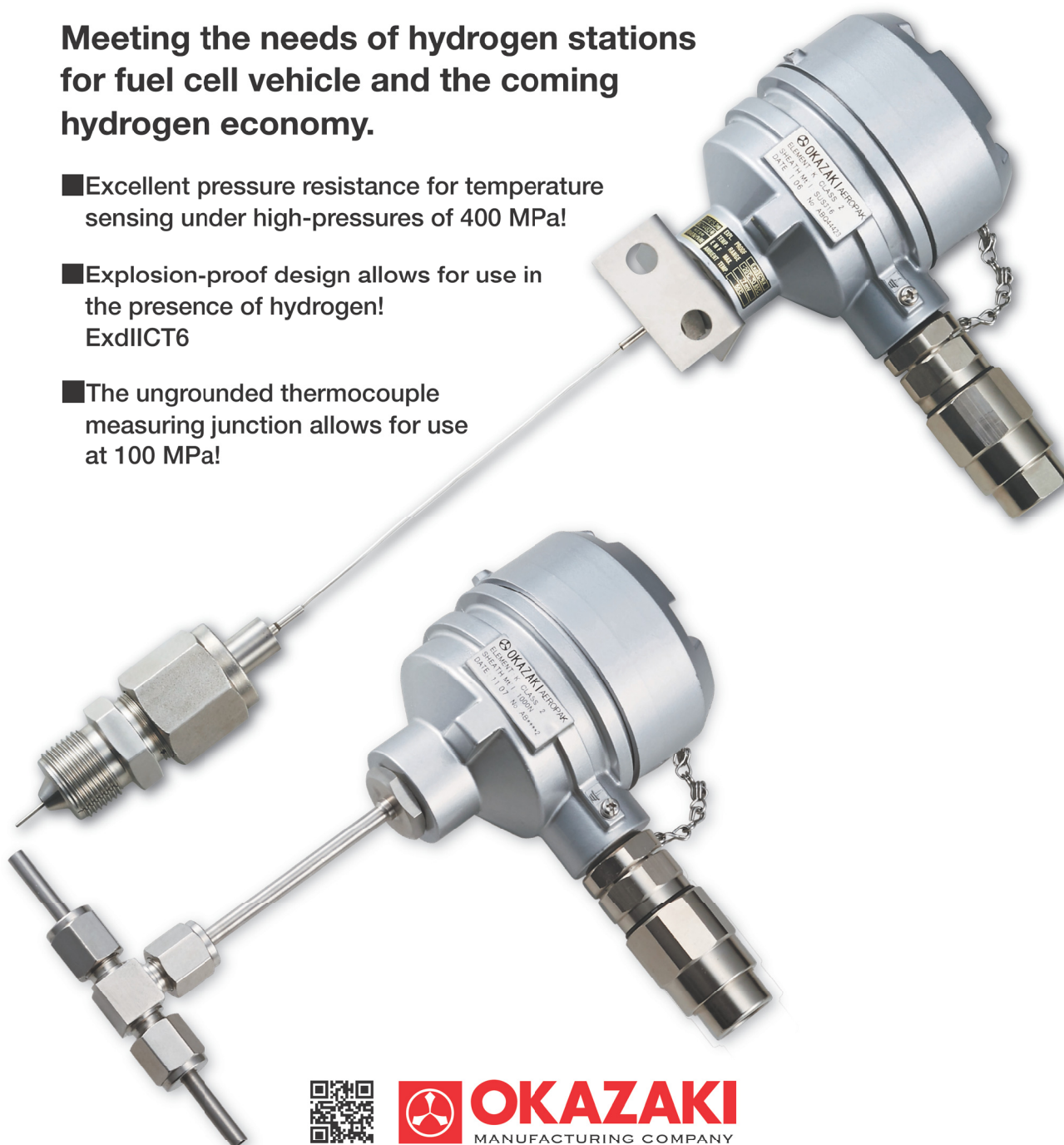
## FLAME PROOF TYPE MINERAL INSULATED THERMOCOUPLE FOR HIGH PRESSURE HYDROGEN TEMPERATURE

# Explosion/Flame Proof Sheathed Thermocouple for High-pressure Hydrogen Temperature Sensing



Meeting the needs of hydrogen stations  
for fuel cell vehicle and the coming  
hydrogen economy.

- Excellent pressure resistance for temperature sensing under high-pressures of 400 MPa!
- Explosion-proof design allows for use in the presence of hydrogen!  
ExdIICT6
- The ungrounded thermocouple measuring junction allows for use at 100 MPa!



**OKAZAKI**  
MANUFACTURING COMPANY

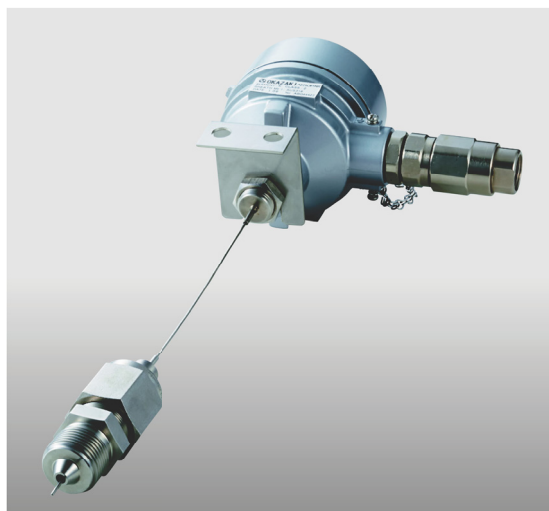
Explosion/Flame Proof Sheathed Thermocouple for High-pressure Hydrogen Temperature Sensing

# FLAME PROOF TYPE MINERAL INSULATED THERMOCOUPLE FOR HIGH PRESSURE HYDROGEN TEMPERATURE

## Sheathed Thermocouple With Excellent Pressure Resistance and Explosion/Flame Proof Design

The high-pressure tanks with which fuel cell vehicles are equipped are filled with hydrogen, the fuel for these vehicles. Today's fuel cell vehicles require high pressures of 35 MPa - 70 MPa, so hydrogen stations are equipped with the piping and tanks to supply hydrogen at these pressures. Safe management of the hydrogen requires high-pressure hydrogen temperature sensors, so we have begun providing products that respond to these needs.

The structure of the sheathed part allows for extremely good pressure resistance, and thus temperature sensing at high-pressure locations of up to 400 MPa at high-pressure plants. Hydrogen stations handle combustible hydrogen gas, however, so these require the use of explosion-proof electrical equipment and our temperature sensors must also be explosion and flame proof. Therefore, the ungrounded thermocouple measuring junction is designed for use at up to 100 MPa to comply with the laws and regulations of Japan.



### [Specifications]

Model: T99

Explosion/Flame Proof Class: ExdIICT6

Thermocouple Type: K, T

Sheath Material: SUS 316

Sheath Diameter:  $\phi 1.6$

Measuring Junction: ungrounded

Maximum Operational Pressure: 100 MPa

High-pressure Seal: Sno-Trik (photo) or BuTech Pressure System

Special sheath for high-pressure

### [Option]

When requested, we offer designs using SUS 316 with a nickel equivalent exceeding 28.5 for the gas contact part.

Please contact the nearest sales office in advance.

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Information in this catalog is subject to change without notice.