VITREOUS SILICA INSULATED
TYPE W-HG/HG (THERMOCOUPLE GRADE)

FIBERGLASS INSULATION
Individual conductors are insulated with a high temperature vitreous silica yarn. Conductors are laid parallel and covered with an overall high temperature vitreous silica yarn. A tracer is braided into the insulation for polarity and calibration identification. Not recommended for applications where insulation is subject to abrasion unless protected with a metalic overbraid.

PERFORMANCE FEATURES
Designed for continuous use to 1800° F (980° C), intermittent to 2000° F (1095° C).
Asbestos replacement

APPLICATIONS
Ovens and Furnaces
Steel Industry
Furnace Temperature Surveys

CALIBRATION: ANSI Type J

ORDERING CODE		CONDUCTOR SIZE (AWG)	NOMINAL LOOP RESISTANCE (2)
STANDARD	SPECIAL (1)		
W-HG/HG-20F-J	W-HG/HG-20F-JJ	20 STRANDED	0.335
W-HG/HG-20-J	W-HG/HG-20-JJ	20 SOLID	0.367
W-HG/HG-18-J	W-HG/HG-18-JJ	18 SOLID	0.234
W-HG/HG-16-J	W-HG/HG-16-JJ	16 SOLID	0.145
W-HG/HG-14-J	W-HG/HG-14-JJ	14 SOLID	0.091

CALIBRATION: ANSI Type K

ORDERING CODE		CONDUCTOR SIZE (AWG)	NOMINAL LOOP RESISTANCE (2)
STANDARD	SPECIAL (1)		
W-HG/HG-20F-K	W-HG/HG-29F-KK	20 STRANDED	0.538
W-HG/HG-20-K	W-HG/HG-20-KK	20 SOLID	0.589
W-HG/HG-18-K	W-HG/HG-18-KK	18 SOLID	0.376
W-HG/HG-16-K	W-HG/HG-16-KK	16 SOLID	0.233
W-HG/HG-14-K	W-HG/HG-14-KK	14 SOLID	0.147

CALIBRATION: ANSI Type E

ORDERING CODE		CONDUCTOR SIZE (AWG)	NOMINAL LOOP RESISTANCE (2)
STANDARD	SPECIAL (1)		
W-HG/HG-20F-E	W-HG/HG-20F-EE	20 STRANDED	0.648
W-HG/HG-20-E	W-HG/HG-20-EE	20 SOLID	0.709
W-HG/HG-18-E	W-HG/HG-18-EE	18 SOLID	0.453
W-HG/HG-16-E	W-HG/HG-16-EE	16 SOLID	0.281
W-HG/HG-14-E	W-HG/HG-14-EE	14 SOLID	0.177

CALIBRATION: ANSI Type N

ORDERING CODE		CONDUCTOR SIZE (AWG)	NOMINAL LOOP RESISTANCE (2)
STANDARD	SPECIAL (1)		
W-HG/HG-20F-N	W-HG/HG-20F-NN	20 STRANDED	0.715
W-HG/HG-20-N	W-HG/HG-20-NN	20 SOLID	0.783
W-HG/HG-18-N	W-HG/HG-18-NN	18 SOLID	0.500
W-HG/HG-16-N	W-HG/HG-16-NN	16 SOLID	0.310
W-HG/HG-14-N	W-HG/HG-14-NN	14 SOLID	0.195

CALIBRATION	COLOR CODE (ANSI)			COLOR CODE (IEC)*		
	POSITIVE	NEGATIVE	OVERALL	POSITIVE	NEGATIVE	OVERALL
TYPE J	WHITE	RED	WHITE	BLACK	WHITE	WHITE
TYPE K	YELLOW	RED	WHITE	GREEN	WHITE	WHITE
TYPE E	PURPLE	RED	WHITE	PURPLE	WHITE	WHITE
TYPE N	ORANGE	RED	WHITE	PINK	WHITE	PINK

* Add (-IEC) to the end of the ordering code for IEC color coded insulation and jacketed wire.
Example: W-HG/HG-20-J-IEC

INITIAL CALIBRATION TOLERANCES Per ANSI MC96.1 and ASTM E230 (°F)				
TEMPERATURE RANGE	STANDARD		SPECIAL	
	CALIBRATION	TOLERANCE	CALIBRATION	TOLERANCE
32 to 1400°F	TYPE J	±4.0°F or ±.75%*	TYPE JJ	±2.0°F or ±.4%*
32 to 2300°F	TYPE K	±4.0°F or ±.75%*	TYPE KK	±2.0°F or ±.4%*
32 to 1600°F	TYPE E	±3.0°F or ±.50%*	TYPE EE	±1.8°F or ±.5%*
32 to 2300°F	TYPE N	±4.0°F or ±.75%*	TYPE NN	±2.0°F or ±.4%*

*Whichever is greater.

CONDUCTOR SIZE (AWG)	INSULATION THICKNESS	JACKET THICKNESS	NOMINAL DIMENSIONS	APPROX. SHIPPING WT. lbs/1000 Ft. (Kg)
20 STRANDED	.016	.016	.102/.172	14 lbs (6.4 Kg)
20 SOLID	.016	.016	.096/.160	13 lbs (5.9 Kg)
18 SOLID	.016	.016	.104/.176	18 lbs (8.2 Kg)
16 SOLID	.016	.016	.115/.198	25 lbs (11.3 Kg)
14 SOLID	.016	.016	.128/.224	34 lbs (15.4 Kg)

Notes:
(1) Meets or exceeds Special Initial Calibration Tolerances per ANSI MC96.1-1982 and ASTM E230-1993.
(2) Nominal resistance in OHMS per double feet at 68°F (20°C).