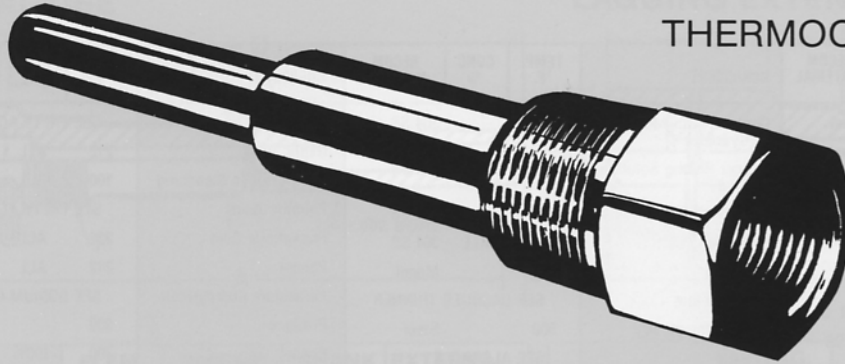


AEROGARD[®]

THERMOCOUPLE WELLS



FEATURING:

- Large Range of Standard Thermowells
- Precision machined
- Competitively Priced
- Fast Delivery

SPECIFICATIONS:

STANDARD MATERIAL:	A.I.S.I. 304 and 316 ST/ST
SPECIAL MATERIAL:	Brass (ASTM B-16), Carbon Steel (C-1018), Monel, Inconel 600, Hastelloy B, Hastelloy C, Nickel, others on special order.
DIMENSIONAL TOLERANCES:	Fraction $\pm 0.03''$

Pressure Rating psi at Temperature, °F

BORE INCH	MATERIAL	TEMPERATURE-°F						
		70°	200°	400°	600°	800°	1000°	1200°
0.260	AISI-304	7800	7050	6400	6150	6000	5190	1875
	AISI-316	7800	7800	7250	7100	6950	5800	2720
0.385	AISI-304	7000	6200	5600	5400	5200	4500	1650
	AISI-316	7000	7000	6400	6200	6100	5100	2500

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ARI Industries Inc

BULLETIN 6.1

August 1997

CORROSIVE SERVICE GUIDE TO MATERIALS

CORRODENT	TEMP. °F.	CONC. %	RECOM. MATERIAL	CORRODENT	TEMP. °F.	CONC. %	RECOM. MATERIAL	CORRODENT	TEMP. °F.	CONC. %	RECOM. MATERIAL
Acetic Acid	212	ALL	Monel	Copper Plating Solution (Cyanide)	180		304 SS	Oleic Acid			SEE FATTY ACIDS
Acetic Anhydride	300		Nickel	Copper Plating Solution (Acid)	75		304 SS	Oxalic Acid	212	ALL	Monel
Acetone	212	ALL	304 SS	Corn Oil	200		304 SS	Photographic Bleaching	100	ALL	304 SS
Acetylene	400		304 SS	Creosote	200	ALL	304 SS	Palmitic Acid			SEE FATTY ACIDS
Alcohols	212	ALL	304 SS	Crude Oil	300		Monel	Phosphoric Acid	212	ALL	316 SS
Alum. (Potassium or Sodium)	300	ALL	Hast. C	Ethyl Acetate			SEE LACQUER THINNER	Phenol	212	ALL	316 SS
Aluminum Chloride	212	ALL	Hast. B	Ethyl Chloride, Dry	500		Steel	Potassium Compounds			SEE SODIUM COMPOUNDS
Aluminum Sulfate	212	ALL	316 SS	Ethanol			SEE ALCOHOLS	Propane	300		Steel
Ammonia, Dry	212	ALL	304, 316 SS	Ethylene Glycol (Uninhibited)	212	ALL	304 SS	Rosin	700	100%	316 SS
Ammonium Hydroxide (Ammonia, Aqua)	212	ALL	304, 316 SS	Ethylene Oxide	75		Steel	Sea Water	75		Monel
Ammonium Chloride	300	50%	Monel	Fatty Acids	500	ALL	316 SS	Soap & Detergents	212	ALL	304 SS
Ammonium Nitrate	300	ALL	304 SS	Ferric Chloride	75	ALL	Hast. C	Sodium Bicarbonate	212	20%	316 SS
Ammonium Sulfate	212	ALL	316 SS	Ferric Sulfate	300	ALL	304 SS	Sodium Bisulphite	212	20%	304 SS
Amyl Acetate	300	ALL	304 SS	Formaldehyde	212	40%	316 SS	Sodium Bisulphate	212	20%	304 SS
Aniline	75		Monel	Formic Acid	300	ALL	316 SS	Sodium Carbinat	212	40%	316 SS
Asphalt	250		304 SS	Freon	300		Steel	Sodium Chloride	300	30%	Monel
Atmosphere, (Industrial and Marine)			304 SS	Fluorine, Anhydrous	100		304 SS	Sodium Chromate	212	ALL	316 SS
Barium Compounds			SEE CALCIUM	Furfural	450		316 SS	Salt or Brine			SEE SODIUM CHLORIDE
Beer	70		304 SS	Gasoline	300		Steel	Sodium Cyanide	212	ALL	304 SS
Benzene (Benzol)	212		Steel	Glucose	300		304 SS	Sodium Hydroxide	212	30%	316 SS
Benzoic Acid	212	ALL	316 SS	Glue ph 6-8	300	ALL	304 SS	Sodium Hypochlorite	75	10%	Hast. C
Bleaching Powder	70	15%	Monel	Glycerine	212	ALL	Brass	Sodium Nitrate	212	40%	304 SS
Borax	212	ALL	Brass	Hydrobromic Acid	212	ALL	Hast. C	Sodium Nitrite	75	20%	316 SS
Bordeaux Mixture	200		304 SS	Hydrochloric Acid (37-38%)	225	ALL	Hast. B	Sodium Phosphate	212	10%	Steel
Boric Acid	400	ALL	316 SS	Hydrogen Chloride, Dry	500		304 SS	Sodium Silicate	212	10%	Steel
Bromine	125	DRY	Monel	Hydrocyanic Acid	212	ALL	304 SS	Sodium Sulfate	212	30%	316 SS
Butane	400	ALL	Steel	Hydrofluoric Acid	212	60%	Monel	Sodium Sulfide	212	10%	316 SS
Butyl Alcohol			SEE ALCOHOLS	Hydrogen Fluoride, Dry	175		Steel	Sodium Sulfite	212	30%	304 SS
Butyric Acid	212		Hast. C	Hydrofluogilic Acid	212	40%	Monel	Sodium Thiosulfate	212	ALL	304 SS
Calcium Bisulphite	75	ALL	Hast. C	Hydrogen Peroxide	125	10-100%	304 SS	Steam			304 SS
Calcium Chloride	212	ALL	Hast. C	Kerosene	300	ALL	Steel	Stearic Acid			SEE FATTY ACIDS
Calcium Hydroxide	300	20%	Hast. C	Lacquers & Thinners	300	ALL	304 SS	Sugar Solutions			SEE GLUCOSE
Calcium Hypochlorite			SEE BLEACHING POWDER	Lactic Acid	300	ALL	316 SS	Sulfur	500		304 SS
Carbolic Acid			SEE PHENOL	Lime	212	ALL	316 SS	Sulfur Chloride	75	DRY	316 SS
Carbon Dioxide, Dry	800	ALL	Brass	Linseed Oil	75		Steel	Sulfur Dioxide	500	DRY	316 SS
Carbonated Water	212	ALL	304 SS	Magnesium Chloride	212	50%	Nickel	Sulfur Trioxide	500	DRY	316 SS
Carbonated Beverages	212		304 SS	Magnesium Hydroxide (or Oxide)	75	ALL	304 SS	Sulfuric Acid	212	10%	316 SS
Carbon Disulfide	200		304 SS	Magnesium Sulfate	212	40%	304 SS	Sulfuric Acid	212	10-90%	Hast. B
Carbon Tetrachloride	125	ALL	Monel	Mercuric Chloride	75	10%	Hast. C	Sulfuric Acid	212	90-100%	316 SS
Chlorine, Dry	100		Monel	Mercury	700	100%	Steel	Sulfuric Acid, Fuming	175		Hast. C
Chlorine, Moist	100	ALL	Monel	Methylene Chloride	212	ALL	304 SS	Sulfurous Acid	75	20%	316 SS
Chloroacetic Acid	212	ALL	Monel	Methyl Chloride, Dry	75		Steel	Titanium Tetrachloride	75	ALL	316 SS
Chloroform, Dry	212		Monel	Milk, fresh or sour	180		304 SS	Tannic Acid	75	40%	Hast. B
Chromic Acid	300	ALL	Hast. C	Molasses			SEE GLUCOSE	Toluene	75		Steel
Cider	300	ALL	304 SS	Natural Gas	70		304 SS	Trichloroacetic Acid	75	ALL	Hast. B
Citric Acid	212	ALL	Hast. C	Nitric Acid	75	ALL	304 SS	Trichlorethylene	300	DRY	Monel
Copper (10) Chloride	212	ALL	Hast. C	Nitric Acid	300	ALL	316 SS	Turpentine	75		316 SS
Copper (10) Nitrate	300	ALL	316 SS	Oxygen	75	ALL	Steel	Varnish	150		Steel
Copper (10) Sulfate	300	ALL	316 SS					Zinc Chloride	212	ALL	Hast. B
								Zinc Sulfate	212	ALL	316 SS

In recommending the above materials, consideration has been given to providing good service life without undue cost. Where two or more materials are satisfactory, the least expensive is listed. Consult the factory for information on materials or services not given.

OTHER MATERIALS SUCH AS: NICKEL, HASTELLOY "B" OR "C" CAN BE PROVIDED. PLEASE CONSULT FACTORY FOR PRICE AND DELIVERY.

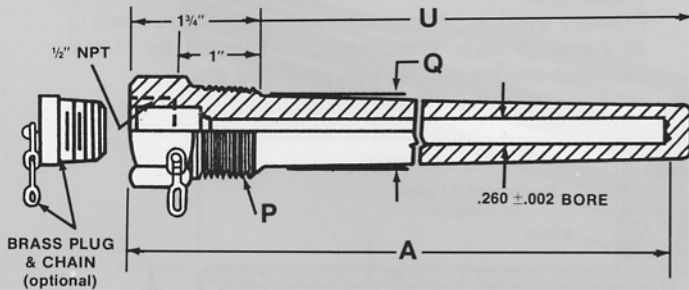
FOR 1/4" OD

AerOpak® Thermocouple

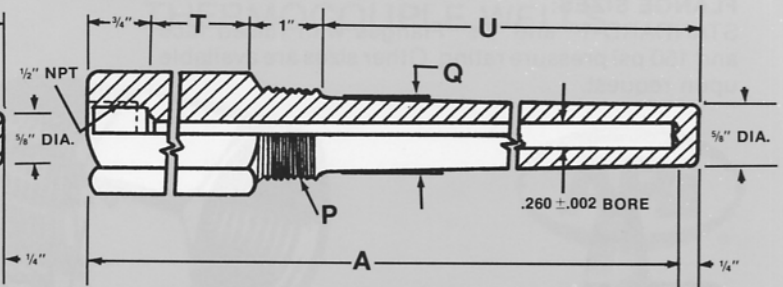
CAP & CHAIN: (At Added Cost)

Brass captive cap is available for keeping gard bore clean when not in use.

GENERAL USE



LAGGING EXTENSION TYPE



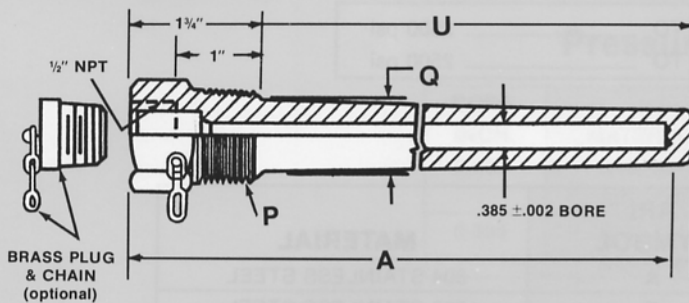
PART NUMBER	ELEM. LGTH.	INSERT. LGTH.	SHANK DIA.	EXTERNAL THREAD
	A	U	Q	P
36139	4	2 1/2	7/8	3/4" NPT
36140	6	4 1/2	7/8	
36141	9	7 1/2	7/8	
36142	12	10 1/2	7/8	
36143	15	13 1/2	7/8	
36144	18	16 1/2	7/8	
36145	24	22 1/2	7/8	
36146	4	2 1/2	1-1/16	1" NPT
36147	6	4 1/2	1-1/16	
36148	9	7 1/2	1-1/16	
36149	12	10 1/2	1-1/16	
36150	15	13 1/2	1-1/16	
36151	18	16 1/2	1-1/16	
36152	24	22 1/2	1-1/16	

PART NUMBER	LAG. EXT.	ELEM. LGTH.	INSERT. LGTH.	SHANK DIA.	EXTERNAL THREAD
	T	A	U	Q	P
36153	2	6	2 1/2	7/8	3/4" NPT
36154	3	9	4 1/2	7/8	
36155	3	12	7 1/2	7/8	
36156	3	15	10 1/2	7/8	
36157	3	18	13 1/2	7/8	
36158	3	24	19 1/2	7/8	
36159	2	6	2 1/2	1-1/16	
36160	3	9	4 1/2	1-1/16	
36161	3	12	7 1/2	1-1/16	
36162	3	15	10 1/2	1-1/16	
36163	3	18	13 1/2	1-1/16	
36164	3	24	19 1/2	1-1/16	

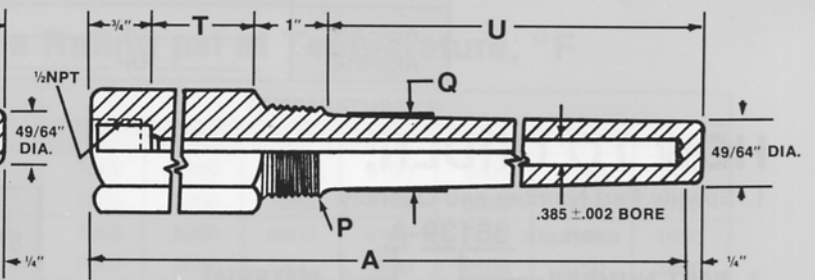
FOR 3/8" OD

AerOpak® Thermocouple

GENERAL USE



LAGGING EXTENSION TYPE



PART NUMBER	ELEM. LGTH.	INSERT. LGTH.	SHANK DIA.	EXTERNAL THREAD
	A	U	Q	P
36191	4	2 1/2	1-1/16	1" NPT
36192	6	4 1/2	1-1/16	
36193	9	7 1/2	1-1/16	
36194	12	10 1/2	1-1/16	
36195	15	13 1/2	1-1/16	
36196	18	16 1/2	1-1/16	
36197	24	22 1/2	1-1/16	

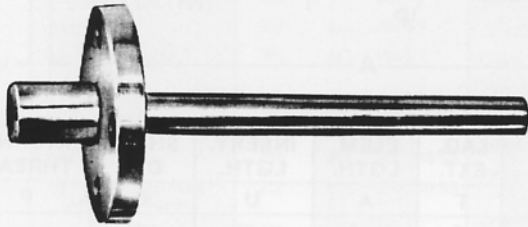
PART NUMBER	LAG. EXT.	ELEM. LGTH.	INSERT. LGTH.	SHANK DIA.	EXTERNAL THREAD
	T	A	U	Q	P
36198	2	6	2 1/2	1-1/16	1" NPT
36199	3	9	4 1/2	1-1/16	
36200	3	12	7 1/2	1-1/16	
36201	3	15	10 1/2	1-1/16	
36202	3	18	13 1/2	1-1/16	
36203	3	24	19 1/2	1-1/16	

FLANGED

For 1/4" and 3/8" OD AerOpak® Thermocouple

FLANGE SIZES:

STANDARD-1" and 1 1/2" Flanges with raised face and 150 psi pressure rating. Other sizes are available upon request.



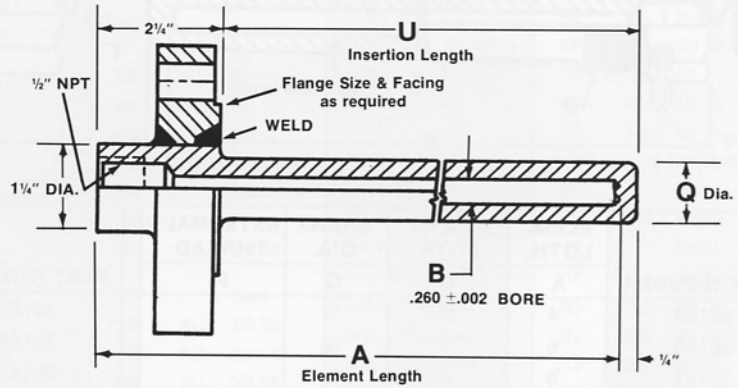
CAP & CHAIN:

(At Added Cost)

Brass captive cap is available for keeping gard bore clean when not in use.

WELDING:

Primary gard is "J" groove type, secondary weld is 45 bevel groove. Welding is performed by NAVY certified welders using gas shielded arc.



FOR 1/4" OD

AerOpak® Thermocouple

FOR 3/8" OD

AerOpak® Thermocouple

PART NUMBER	ELEM. LGTH.	INSERT. LGTH.	SHANK DIA.	BORE DIA.
	A	U	Q	B
36204	4	2	3/4	.260
36205	6	4	3/4	
36206	9	7	3/4	
36207	12	10	3/4	
36208	15	13	3/4	
36209	18	16	3/4	
36210	24	22	3/4	

PART NUMBER	ELEM. LGTH.	INSERT. LGTH.	SHANK DIA.	BORE DIA.
	A	U	Q	B
36211	4	2	7/8	.385
36212	6	4	7/8	
36213	9	7	7/8	
36214	12	10	7/8	
36215	15	13	7/8	
36216	18	16	7/8	
36217	24	22	7/8	

Maximum Flange Pressure Temperature Rating Lbs. Per Sq. Inch

MATERIAL	TEMPERATURE -°F						
	0°	200°	400°	600°	800°	1000°	1125°
AISI-304	_____ UP _____ TO _____						2500 psi
AISI-316	_____ UP _____ TO _____						2500 psi

HOW TO ORDER:

1. Specify Part Number and Quantity.

example: **36139-A**

1. **PART NUMBER** _____ (as listed in Tables)
2. **MATERIAL** _____ (use ARi Symbol)

ARi SYMBOL	MATERIAL
A	304 STAINLESS STEEL
C	316 STAINLESS STEEL

ARi Industries Inc

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 Telefax: 630-953-0590

Contact your local ARi Representative

TOLL FREE 1-800-AEROPAK (1-800-237-6725)

In the UK: Contact ARi Industries, (UK) Ltd.
 Unit 2F, Albany Park, Frimley Road
 Camberley, Surrey GU15 2PL England
 Phone: 0276-69-2500 Fax: 0276-69-2110