

WHEN ORDERING SPECIFY ESSENTIAL INFORMATION.  
**AS9008PD100Z4A1C1A1AG1-A ← EXAMPLE OF MODEL NO.**

REVISONS					
REV	DESCRIPTION	DATE	ECO	DR	APPD
B	REVISED PROBE TOL, SENSING ELEM TABLE; ADDED NOTES	04-18-24	3501457	JWR	RJB

AS900 BASE MODEL NUMBER:

PROBE DIAMETER & NUMBER OF ELEMENTS:									
6.375mm +0.076/-0.030mm [.250 +.004/-0.000]		6.000mm +0.076/-0.030mm [.236 +.003/-0.011]		5.461mm +0.076/-0.030mm [.215 +.003/-0.011]		5.461mm +0.076/-0.030mm [.215 +.003/-0.011] (1) <b>(HAND BENDABLE CASE)</b>		4.788mm +0.076/-0.030mm [.188 +.003/-0.011]	
SINGLE	DUAL	SINGLE	DUAL	SINGLE	DUAL	SINGLE	DUAL	SINGLE	DUAL
AS900	AS910	AS901	AS911	AS902	AS912	AS903	AS913	AS904	AS914

8 FITTING CODE:  
 SEE FITTING CODE TABLE.

**FITTING CODE TABLE (SEE PAGE 3 & 4 FOR FITTING EXAMPLES INFORMATION):**

CODE	PROCESS THREAD	FITTING TYPE	AVAILABLE DIA			
			6.350 [.250]	6.000 [.236]	5.460 [.215]	4.788 [.188]
0	1/2 NPT	ADJUSTABLE SPRING-LOADED	•	•	•	•
2	1/2 NPT	FIXED SPRING-LOADED**	•	•	•	•
3	1/2 NPT	SPRING-LOADED SET SCREW	•	•	•	•
5	G1/2*	ADJUSTABLE SPRING-LOADED	•	•	•	•
8	G1/2*	SPRING-LOADED SET SCREW	•	•	•	•

PD SENSING ELEMENT:  
 SEE SENSING ELEMENT TABLE.

100 INSERTION DEPTH **IN MILLIMETERS:**  
 MIN INSERTION DEPTH = 35mm [1.38] FOR PROBE/  
 HOLDER/HEAD ONLY ASSEMBLIES;  
 MIN INSERTION DEPTH = 13mm [0.5] FOR ASSEMBLIES  
 WITH NIPPLE/UNION EXTENSION;  
 MAX INSERTION DEPTH = 2949mm [116.1].

Z NUMBER OF LEADS PER ELEMENT AND LEAD COLORS:

	SINGLE		DUAL	
	MINCO STANDARD	IEC/EN 60751	MINCO STANDARD	IEC/EN 60751
2-LEAD*	Y	Y	Y	V
3-LEAD	Z	W	Z	W
4-LEAD	X	X	X	U

\*2-LEAD OPTION NOT AVAILABLE ON COPPER ELEMENTS.

4 CONDUIT THREAD:  
 3 = 1/2 - 14 NPT (PER ASME B1.20.1);  
 4 = 3/4 - NPT (PER ASME B1.20.1);  
 5 = M20 x 1.5 - 6H (PER ISO 965).

A CONNECTION HEAD:  
 A = ALUMINUM (CH504, IP66, TYPE 4);  
 E = ALUMINUM, POWDER COATED (CH504\_P, IP66, TYPE 4 & 4X);  
 S = STAINLESS STEEL (CH506, IP66, TYPE 4 & 4X).  
**CONTACT FACTORY FOR SPECIAL CONNECTION HEAD OPTIONS.**

1 EXTENSION LENGTH:  
 0 = NO EXTENSION;  
 1 = 1/2 NPT NIPPLE/UNION, 1.8" (46mm) LONG (FG537);  
 2 = 1/2 NPT NIPPLE/UNION, 2.6" (66mm) LONG (FG579L20);  
 3 = 1/2 NPT NIPPLE/UNION, 3.6" (91mm) LONG (FG579L30);  
 4 = 1/2 NPT NIPPLE/UNION, 4.6" (117mm) LONG (FG579L40);  
 5 = 1/2 NPT NIPPLE/UNION, 5.6" (142mm) LONG (FG579L50);  
 6 = 1/2 NPT NIPPLE/UNION, 6.6" (168mm) LONG (FG579L60);  
 7 = 1/2 NPT NIPPLE/UNION, 7.6" (193mm) LONG (FG579L70);  
 8 = 1/2 NPT NIPPLE/UNION, 8.6" (218mm) LONG (FG579L80);  
 9 = SPECIAL NIPPLE/UNION LENGTH AND/OR MFG811 ADAPTER.  
**CONTACT FACTORY FOR SPECIAL FITTING OPTIONS.**

C1 THERMOWELL MOUNTING TYPE & MOUNTING SIZE:  
 C1 = 2" RF FLANGE TYPE, 300# TAPERED;  
 X0 = NO THERMOWELL.  
**SEE THERMOWELL TABLE ON SHEET 3 FOR AVAILABLE OPTIONS.**  
**ASSEMBLY WITH THERMOWELL MUST USE 6.375 [.250"] DIA PROBE.**

A THERMOWELL MATERIAL:  
 X = NO THERMOWELL;  
 A = TYPE 316/316L SST;  
 B = TYPE 304 SST.  
**CONTACT FACTORY FOR COMPLETE LIST.**

**TO ORDER WITHOUT TRANSMITTER OR SPECIAL OPTIONS STOP HERE.**

1 TRANSMITTER MODEL: (2)  
 (SINGLE TRANSMITTER REQUIRED ON DUAL MODELS)  
 0 = TT111 (MINIATURE, 2-LEAD ONLY); (3)  
 1 = TT518 (HOCKEY PUCK, 3-LEAD ONLY);  
 5 = TT246 (HOCKEY PUCK, 3-LEAD ONLY, VOLTAGE OUTPUT);  
 6 = TT520 (HOCKEY PUCK, PROGRAMMABLE);  
 7 = TT521 (HOCKEY PUCK, HART PROGRAMMABLE).

AG TRANSMITTER TEMPERATURE CODE:  
 AG = -17.8°C TO 260°C (0°F TO 500°F).  
**CONTACT FACTORY FOR COMPLETE LIST.**

1 TRANSMITTER CALIBRATION:  
 1 = CALIBRATION TO NOMINAL;  
 2 = MATCH CALIBRATED TO 0.75% TOTAL SYSTEM ACCURACY  
 (NOT AVAILABLE WITH DUAL MODELS).  
**CONTACT FACTORY FOR COMPLETE LIST.**

-A SPECIAL OPTIONS/EXTRAS (FACTORY ASSIGNED -A, -B, -C, ETC).  
**CONTACT FACTORY FOR COMPLETE LIST, EXAMPLES BELOW:**  
 - CALIBRATION CERTIFICATE (MEASURED RESISTANCE AT 0°C);  
 - TEST DATA (RESISTANCE MEASUREMENT AT SPECIFIED TEMPERATURES);  
 - SUPPLEMENTAL TAGS (WITH SPECIFIED CONTENT);  
 - SPECIAL CONNECTION HEAD OR THERMOWELL OPTIONS;  
 - SPECIAL DOCUMENTATION.

**SENSING ELEMENT TABLE:**

	ELEMENT TYPE	AVAILABLE LEAD CONFIGURATIONS				
		Y	Z	X	V	U
CA	10 OHM ±.2% @25°C (77°F) COPPER, 1.42743 TCR (SINGLE)	•	•			
CC	10 OHM ±.5% @25°C (77°F) COPPER, 1.42743 TCR (DUAL)	•	•			
NA	120 OHM ±.5% @0°C (32°F) NICKEL, 1.67196 TCR	•	•	•		
NB	100 OHM ±.22% @0°C (32°F) NICKEL, 1.61800 TCR (DIN 43760)	•	•	•		
PA	100 OHM ±.5% @0°C (32°F) PLATINUM, 1.39261 TCR	•	•	•		
PE	100 OHM ±.5% @0°C (32°F) PLATINUM, 1.38500 TCR	•	•	•		
PM	100 OHM ±.06% @0°C (32°F) PLATINUM, 1.38500 TCR (IEC 60751, CLASS A)	•	•	•	•	•
PD	100 OHM ±.12% @0°C (32°F) PLATINUM, 1.38500 TCR (IEC 60751, CLASS B)	•	•	•	•	•
PF	1000 OHM ±.12% @0°C (32°F) PLATINUM, 1.38500 TCR	•	•	•	•	•
PW	1000 OHM ±.12% @0°C (32°F) PLATINUM, 1.37500 TCR	•	•	•		

ANY REVISION TO THIS DOCUMENT MUST BE REVIEWED BY THE Ex AUTHORIZED PERSON. SEE EI 1218 FOR DETAILS.

**NOTES:**

- (3) TT111 SERIES TRANSMITTER IS CERTIFIED ONLY FOR NORTH AMERICAN USE IN EXPLOSIONPROOF AND FLAMEPROOF APPLICATIONS.
- (2) INTRINSIC SAFETY ASSEMBLIES MUST ONLY USE TT5xx PROGRAMMABLE TRANSMITTERS.
- (1) HAND BENDABLE CASE PROBES MUST NOT BE BENT WITHIN 64mm [2.5"] OF SEALED COPPER ALLOY TIP END.

**METRIC**  
 UNLESS OTHERWISE SPECIFIED  
 DIMENSIONS AND TOLERANCES IN MILLIMETERS  
 DIMENSIONS IN [ ] ARE IN INCHES  
 ONE PLACE (.0) ±0.51 [±.020]  
 TWO PLACE (.00) ±0.25 [±.010]  
 ANGLES:

INITIALS	DATE	ITEM	REQD	INVENTORY NO
DR	WAB	01-05-21		
CHK	CDO	01-05-21		
APP	RjB	01-15-21		
ENGR	KGH	01-15-21		
QA				
PRD				

TITLE:  
 RESISTANCE THERMOMETER, TIP-SENSITIVE  
 WEATHERPROOF CONNECTION HEAD  
 HAZARDOUS LOCATIONS ASSEMBLY  
 ATEX/IECEx/CSAc-us CERTIFIED



MATERIAL:  
 FINISH:

NEXT ASSY	PROD CODE	INIT. ORDER	INVENTORY NO	SCALE	DWG SIZE
	425			NONE	B

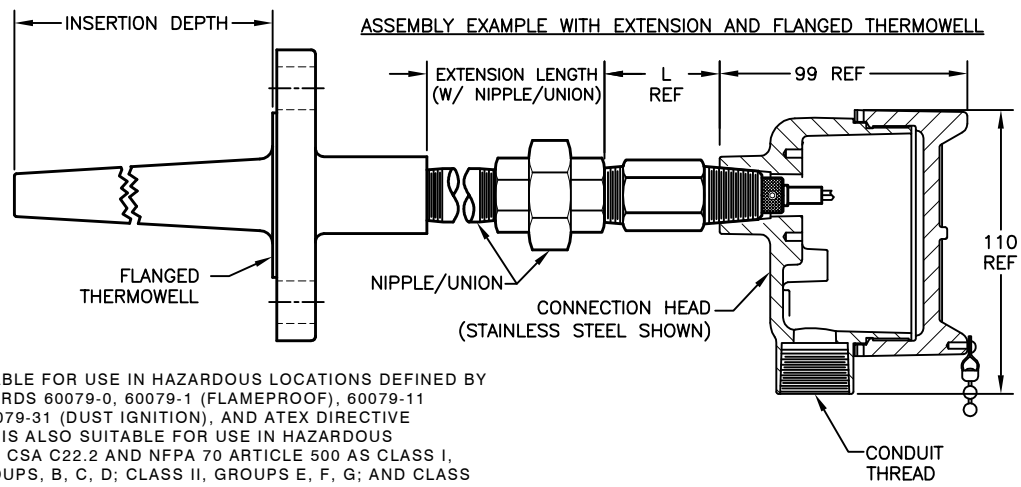
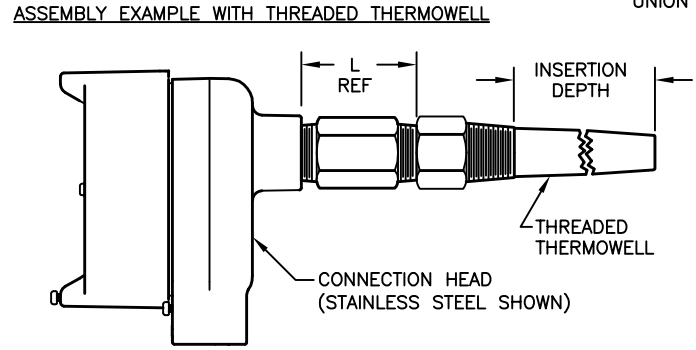
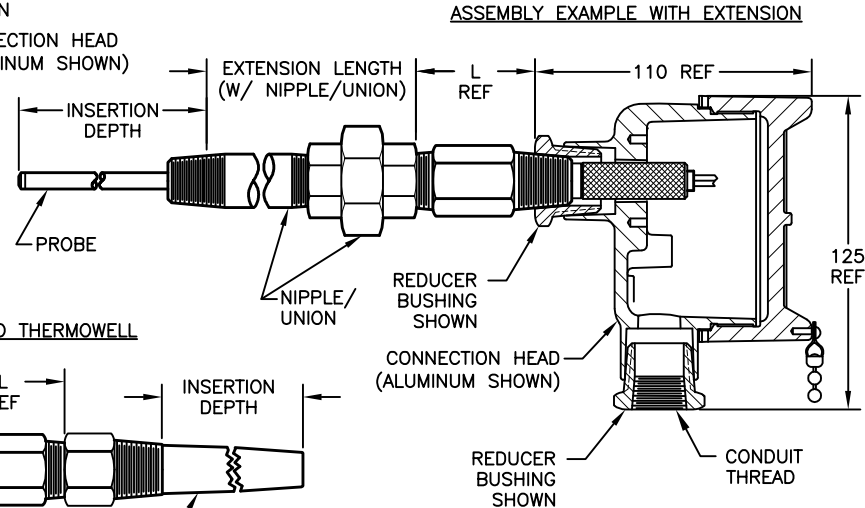
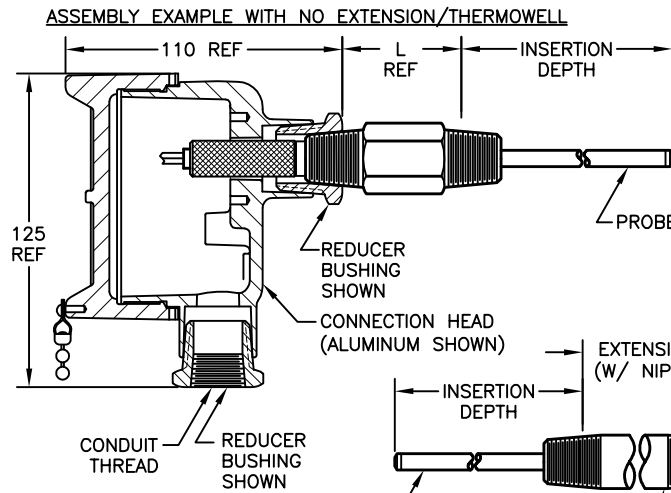
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 REF: TAB0191

COMPANY CONFIDENTIAL  
 PROPRIETARY INFORMATION OF MINCO PRODUCTS, INC.  
 DO NOT DUPLICATE

AS900/AS901/AS902/ AS903/AS904/AS910/ AS911/AS912/AS913/AS914	REV B
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CAGE IDENT: 09359  
 SHEET 1 OF 3

REVISIONS					
REV	DESCRIPTION	DATE	ECO	DR	APPD



1. THE ASSEMBLY IS SUITABLE FOR USE IN HAZARDOUS LOCATIONS DEFINED BY IEC/EN/CSA/ISA STANDARDS 60079-0, 60079-1 (FLAMEPROOF), 60079-11 (INTRINSIC SAFETY), 60079-31 (DUST IGNITION), AND ATEX DIRECTIVE 2014/34/EU. ASSEMBLY IS ALSO SUITABLE FOR USE IN HAZARDOUS LOCATIONS DEFINED BY CSA C22.2 AND NFPA 70 ARTICLE 500 AS CLASS I, DIVISIONS 1 AND 2, GROUPS, B, C, D; CLASS II, GROUPS E, F, G; AND CLASS III.
2. TEMPERATURE RANGE: -50°C TO 260°C (-58°F TO 500°F), EXCEPT NB NICKEL ELEMENTS TO 250°C (482°F), REDUCING TO 200°C (392°F) FOR PROBE FITTING, REDUCING TO 85°C (185°F) FOR CONNECTION HEAD.
3. DIELECTRIC STRENGTH: 600 VOLTS RMS AT 60 Hz FOR 2 SECONDS, PROBE LEADS TO CONNECTION HEAD, WITH 5 mA MAXIMUM LEAKAGE CURRENT.
4. CONNECTION: TERMINAL BOARD (OR OPTIONAL TEMPTRAN) FOR WIRES UP TO AWG #14.
5. SEE SHEET 1 FOR MODEL NUMBER MAKEUP.

<b>METRIC</b> UNLESS OTHERWISE SPECIFIED DIMENSIONS AND TOLERANCES IN MILLIMETERS DIMENSIONS IN [ ] ARE IN INCHES ONE PLACE (.0) ±0.51 [±.020] TWO PLACE (.00) ±0.25 [±.010] ANGLES: MATERIAL:	INITIALS	DATE	ITEM	REQD	INVENTORY NO	MATERIAL DESCRIPTION	
	DR	WAB	01-05-21	TITLE:	RESISTANCE THERMOMETER, TIP-SENSITIVE WEATHERPROOF CONNECTION HEAD HAZARDOUS LOCATIONS ASSEMBLY ATEX/IECEx/CSAc-us CERTIFIED REF: TAB0191		
	CHK	CDO	01-05-21				
	APP	RjB	01-15-21				
ENGR	KGH	01-15-21					
FINISH:	NEXT ASSY	PROD CODE	INVENTORY NO	SCALE	DWG SIZE	 www.minco.com COMPANY CONFIDENTIAL PROPRIETARY INFORMATION OF MINCO PRODUCTS, INC. DO NOT DUPLICATE	REV
USED ON		425		NONE	B		AS900/AS901/AS902/ AS903/AS904/AS910/ AS911/AS912/AS913/AS914
						CAGE IDENT: 09359	SHEET 2 OF 3

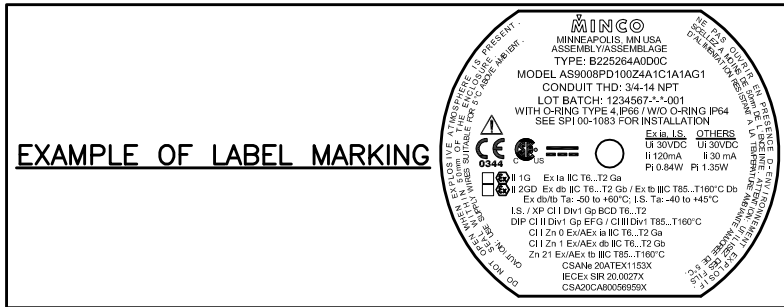
REVISIONS				
REV	DESCRIPTION	DATE	ECO	DR

**THERMOWELL TABLE:**

	A	B	C	D	E	F	G	H	J	K	X
	1" RF FLANGE	1.5" RF FLANGE	2" RF FLANGE	3" RF FLANGE	1" RTJ FLANGE	1.5" RTJ FLANGE	2" RTJ FLANGE	3" RTJ FLANGE	THREADED STEPPED	THREADED TAPERED	NONE
0	150# TAPERED								1/2 NPT	1/2 NPT	<del>NO THERMOWELL</del>
1	300# TAPERED								3/4 NPT	3/4 NPT	<del>NO THERMOWELL</del>
2	600# TAPERED								1 NPT	1 NPT	<del>NO THERMOWELL</del>
3	900#/1500# TAPERED								G1/2	G1/2	<del>NO THERMOWELL</del>
4	2500# TAPERED										<del>NO THERMOWELL</del>
5	150# STRAIGHT										<del>NO THERMOWELL</del>
6	300# STRAIGHT										<del>NO THERMOWELL</del>
7	600# STRAIGHT										<del>NO THERMOWELL</del>
8	900#/1500# STRAIGHT										<del>NO THERMOWELL</del>
9	2500# STRAIGHT										<del>NO THERMOWELL</del>

NOTE: ASSEMBLY WITH THERMOWELL MUST USE 6.375 [.250] DIA PROBES ONLY.

SCHEMATIC DIAGRAMS - MINCO STANDARD LEAD COLORS				SCHEMATIC DIAGRAMS - IEC/EN 60751 LEAD COLORS			
2-LEAD MODEL	3-LEAD MODEL	4-LEAD MODEL		2-LEAD MODEL	3-LEAD MODEL	4-LEAD MODEL	
			SINGLE ELEMENT MODEL				
				DUAL ELEMENT MODEL (ADDITIONAL)			



FITTING TYPE	SKETCH	PROCESS THREAD	LENGTH L	PRESSURE RATING
SPRING-LOADED SET SCREW		1/2 NPT	55mm [2.18]	3.4 BAR [50 PSI]
		G1/2	55mm [2.18]	
FIXED SPRING-LOADED		1/2 NPT	55mm [2.18]	NONE
		G1/2	NOT AVAILABLE	
ADJUSTABLE SPRING-LOADED RELEASE KNOB		1/2 NPT	55mm [2.18]	3.4 BAR [50 PSI]
		G1/2	55mm [2.18]	

METRIC		INITIALS	DATE	ITEM	REQD	INVENTORY NO	MATERIAL DESCRIPTION	
UNLESS OTHERWISE SPECIFIED DIMENSIONS AND TOLERANCES IN MILLIMETERS DIMENSIONS IN [ ] ARE IN INCHES		DR	01-05-21	TITLE:			<b>MINCO</b> www.minco.com COMPANY CONFIDENTIAL PROPRIETARY INFORMATION OF MINCO PRODUCTS, INC. DO NOT DUPLICATE REF: TAB0191	
ONE PLACE (.0) ±0.51 [±.020]		CHK	01-05-21	RESISTANCE THERMOMETER, TIP-SENSITIVE				
TWO PLACE (.00) ±0.25 [±.010]		APP	01-15-21	WEATHERPROOF CONNECTION HEAD				
ANGLES:		ENGR	01-15-21	HAZARDOUS LOCATIONS ASSEMBLY				
MATERIAL:		PRD		ATEX/IECEx/CSAc-us CERTIFIED				
FINISH:		NEXT ASSY	PROD CODE	INVENTORY NO	SCALE	DWG SIZE	REV	
		USED ON	425		NONE	B	B	
			INIT. ORDER				CAGE IDENT.	SHEET 3 OF 3
							09359	