

WHEN ORDERING SPECIFY ESSENTIAL INFORMATION.

AS8108PD1000Z4A1C1A1AG1 ← EXAMPLE OF MODEL NO.

REVISIONS					
REV	DESCRIPTION	DATE	ECO	DR	APPD
C	MAJOR REVISION OF MODEL NO. MAKEUP	01-07-13	1875218	DMK	

AS810

BASE MODEL NUMBER:

PROBE DIAMETER & NUMBER ELEMENTS					
6.000mm [.2360]		6.350mm [.2500]		4.788mm [.1885]	
SIMPLEX	DUPLEX	SIMPLEX	DUPLEX	SIMPLEX	DUPLEX
AS800	AS801	AS810	AS811	AS820	AS821

**PRELIMINARY  
DATA ONLY**

8 FITTING CODE:  
REFERENCE FITTING CODE TABLE.

PD SENSING ELEMENT:  
REFERENCE SENSING ELEMENT TABLE.

1000 INSERTION DEPTH:  
MIN INSERTION DEPTH = 35mm [1.38];  
MAX INSERTION DEPTH = 3000mm [118.11].

Z NUMBER OF LEADS PER ELEMENT AND LEAD COLORS:  
Y = 2 LEADS, MINCO U.S. COLORS (N/A ON COPPER);  
Z = 3 LEADS, MINCO U.S. COLORS;  
X = 4 LEADS, MINCO U.S. COLORS;  
V = 2 LEADS, IEC/EN 60751 COLORS (N/A ON SIMPLEX);  
W = 3 LEADS, IEC/EN 60751 COLORS;  
U = 4 LEADS, IEC/EN 60751 COLORS (N/A ON SIMPLEX).

4 CONDUIT THREAD:  
3 = 1/2 - 14 NPT (PER ANSI/ASTM B1.20.1);  
4 = 3/4 - NPT (PER ANSI/ASTM B1.20.1);  
5 = M20 X 1.5 (PER ISO 965).

A CONNECTION HEAD:  
A = ALUMINUM (IP65, NEMA 3 & 4);  
E = ALUMINUM, EPOXY COATED (IP66, NEMA 3, 4, 4X);  
S = STAINLESS STEEL (IP66, NEMA 3, 4, 4X);  
I = ALUMINUM WITH INDICATOR (IP66, NEMA 3, 4, 4X).

1 EXTENSION LENGTH:  
0 = NO EXTENSION;  
1 = NIPPLE/UNION, 46mm [1.8] LONG, 1/2" NPT;  
2 = NIPPLE/UNION, 66mm [2.6] LONG, 1/2" NPT;  
3 = NIPPLE/UNION, 91mm [3.6] LONG, 1/2" NPT;  
4 = NIPPLE/UNION, 117mm [4.6] LONG, 1/2" NPT.

C1 THERMOWELL MOUNTING TYPE & MOUNTING SIZE:  
C1 = 2" RF FLANGE TYPE, 300# TAPERED;  
X0 = NO THERMOWELL;  
REFERENCE THERMOWELL TABLE.

A THERMOWELL MATERIAL:  
X = NO THERMOWELL;  
A = TYPE 316/316L SST;  
B = TYPE 304 SST.

CONTACT FACTORY FOR COMPLETE LIST.  
**TO ORDER ASSEMBLY WITHOUT TRANSMITTER, STOP HERE. TO ORDER WITH TRANSMITTER, CONTINUE.**

1 TRANSMITTER MODEL (ONLY ONE AVAILABLE ON DUPLEX MODELS):  
0 = TT111 (MINIATURE, 2-LEAD ONLY);  
1 = TT176 (HOCKEY PUCK, 3-LEAD ONLY);  
4 = TT211 (MINIATURE, 2-LEAD ONLY);  
5 = TT246\* (HOCKEY PUCK, 3-LEAD ONLY, VOLTAGE OUTPUT);  
6 = TT520 (HOCKEY PUCK, PROGRAMMABLE);  
7 = TT521 (HOCKEY PUCK, HART PROGRAMMABLE);  
8 = TT522\* (HOCKEY PUCK, PROFIBUS/FIELDBUS PROGRAMMABLE).  
\*NOT FOR USE WITH HEAD OPTION I (INDICATOR).

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 DUPLEX MODELS).  
CONTACT FACTORY FOR COMPLETE LIST.

FITTING CODE TABLE (SEE PAGE 3 FOR FITTING EXAMPLES):

CODE	PROCESS THREAD	FITTING TYPE	AVAILABLE DIA		
			6.350	6.000	4.788
0	1/2 NPT	FLUID SEAL	X**	X**	X
1	G1/2	FLUID SEAL	X**	X**	X
2	1/2 NPT	SPRING-LOADED SET SCREW	X	X	X
3	G1/2	SPRING-LOADED SET SCREW	X	X	X
4	1/2 NPT	FIXED SPRING-LOADED***	X	X	
8	1/2 NPT	SPRING-LOADED RELEASE KNOB	X	X	X
9	G1/2	SPRING-LOADED RELEASE KNOB	X	X	X

\*\*NOT AVAILABLE WITH STAINLESS STEEL CONNECTION HEAD.  
\*\*\*ONLY AVAILABLE WITH STAINLESS STEEL CONNECTION HEAD.

SENSING ELEMENT TABLE:

ELEMENT TYPE	
CA	10 OHM ±.2% COPPER, 1.42743 TCR (SIMPLEX)
CC	10 OHM ±.5% COPPER, 1.42743 TCR (DUPLEX)
NA	120 OHM ±.5% NICKEL, 1.67196 TCR
NB	100 OHM ±.22% NICKEL, 1.61800 TCR (DIN 43760)
PA	100 OHM ±.5% PLATINUM, 1.39261 TCR
PE	100 OHM ±.5% PLATINUM, 1.38500 TCR
PM	100 OHM ±.06% PLATINUM, 1.38500 TCR (EN 60751, CLASS B)
PD	100 OHM ±.12% PLATINUM, 1.38500 TCR (EN 60751, CLASS A)
PF	1000 OHM ±.12% PLATINUM, 1.38500 TCR
PW	1000 OHM ±.12% PLATINUM, 1.37500 TCR

ANY REVISION TO THIS DOCUMENT THAT AFFECTS THE SAFETY ASPECTS MUST BE REVIEWED BY THE COGNIZANT DESIGN ENGINEER. SEE EI 1218 FOR DETAILS.

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	NO THERMOWELL
1	300# TAPERED								3/4 NPT	3/4 NPT	
2	600# TAPERED								1 NPT	1 NPT	
3	900#/1500# TAPERED								G1/2	G1/2	
4	2500# TAPERED										
5	150# STRAIGHT										
6	300# STRAIGHT										
7	600# STRAIGHT										
8	900#/1500# STRAIGHT										
9	2500# STRAIGHT										

**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	MATERIAL DESCRIPTION
DR WAB	02-14-06	TITLE:			RESISTANCE THERMOMETER, TIP-SENSITIVE/ WEATHERPROOF CONNECTION HEAD FLAMEPROOF ASSEMBLY ATEX Ⓜ II 2 G Ex d IIC T6 REF: TAB0128
CHK RjB	07-11-06				
APP					
ENGR DLW	07-11-06				
QA					
PRD					
NEXT ASSY	PROD CODE 425				
USED ON	INIT. ORDER	INVENTORY NO	SCALE	NONE	DWG SIZE B

RESISTANCE THERMOMETER, TIP-SENSITIVE/  
WEATHERPROOF CONNECTION HEAD  
FLAMEPROOF ASSEMBLY  
ATEX Ⓜ II 2 G Ex d IIC T6  
REF: TAB0128

**MINCO**  
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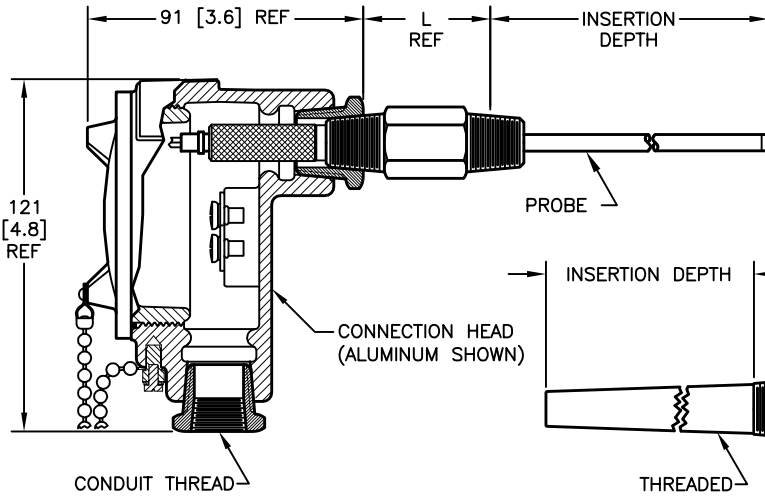
AS800/AS801/AS810/ AS811/AS820/AS821	REV <b>C</b>
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CAGE IDENT: 09359 SHEET 1 OF 3

REVISIONS

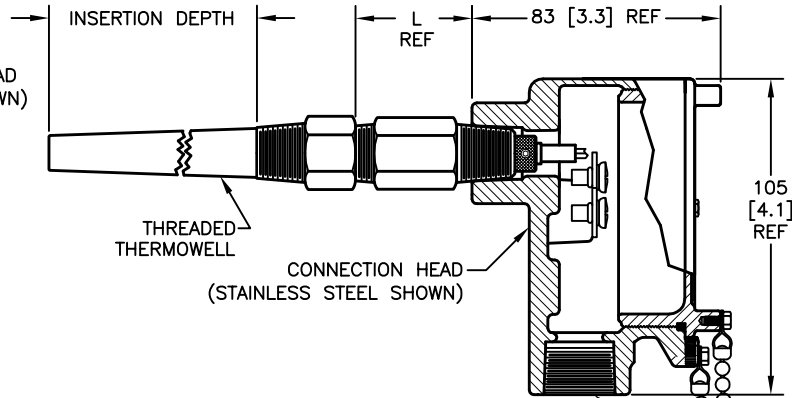
REV	DESCRIPTION	DATE	ECO	DR	APPD
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ASSEMBLY EXAMPLE WITH NO EXTENSION/THERMOWELL

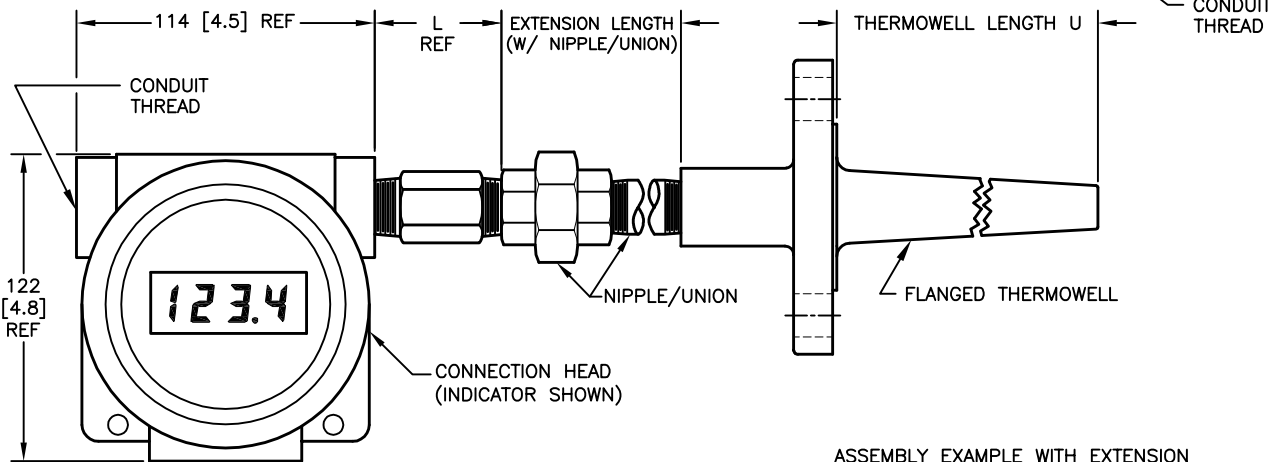


PRELIMINARY DATA ONLY

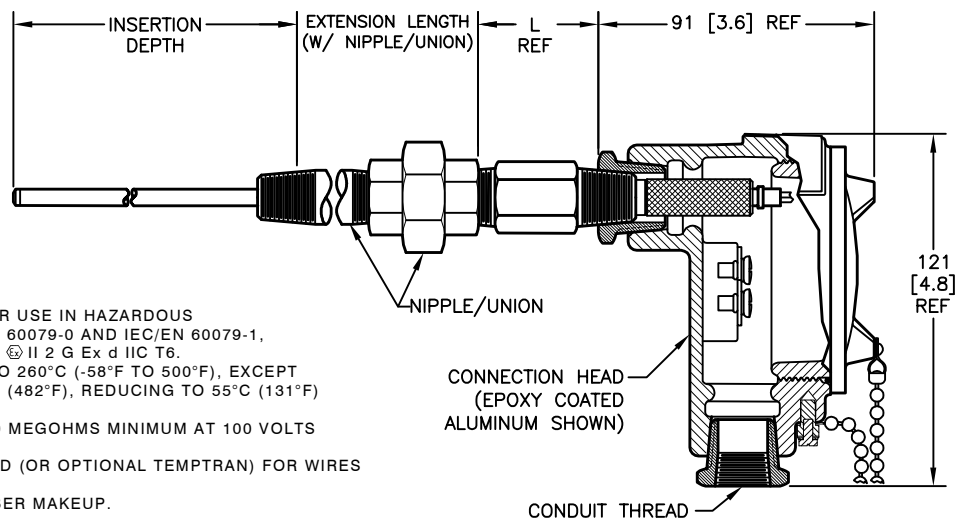
ASSEMBLY EXAMPLE WITH THREADED THERMOWELL



ASSEMBLY EXAMPLE WITH EXTENSION, INDICATOR, AND FLANGED THERMOWELL



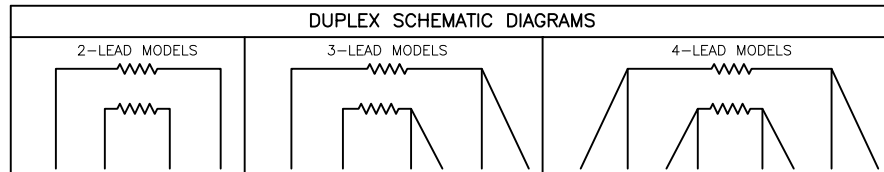
ASSEMBLY EXAMPLE WITH EXTENSION



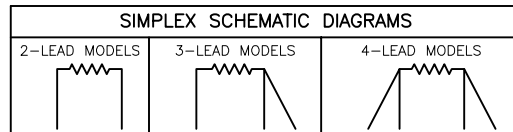
1. THE ASSEMBLY IS SUITABLE FOR USE IN HAZARDOUS LOCATIONS DEFINED BY IEC/EN 60079-0 AND IEC/EN 60079-1, ATEX DIRECTIVE (94/9/EC), AND Ⓜ II 2 G Ex d IIC T6.
2. TEMPERATURE RANGE: -50°C TO 260°C (-58°F TO 500°F), EXCEPT NB NICKEL ELEMENTS TO 250°C (482°F), REDUCING TO 55°C (131°F) FOR CONNECTION HEAD.
3. INSULATION RESISTANCE: 1000 MEGOHMS MINIMUM AT 100 VOLTS DC, LEADS TO PROBE CASE.
4. CONNECTION: TERMINAL BOARD (OR OPTIONAL TEMPTRAN) FOR WIRES UP TO AWG #14.
5. SEE SHEET 1 FOR MODEL NUMBER MAKEUP.

<p><b>METRIC</b> UNLESS OTHERWISE SPECIFIED DIMENSIONS AND TOLERANCES IN MILLIMETERS DIMENSIONS IN [ ] ARE IN INCHES</p> <p>ONE PLACE (.0) ±0.51 [±.020] TWO PLACE (.00) ±0.25 [±.010] ANGLES:</p>	DR	WAB	02-14-06	ITEM	REQD	INVENTORY NO	MATERIAL DESCRIPTION
	CHK	RjB	07-11-06	TITLE:			<p><b>MINCO</b> www.minco.com</p> <p>COMPANY CONFIDENTIAL PROPRIETARY INFORMATION OF MINCO PRODUCTS, INC. DO NOT DUPLICATE</p>
	APP			RESISTANCE THERMOMETER, TIP-SENSITIVE/ WEATHERPROOF CONNECTION HEAD FLAMEPROOF ASSEMBLY ATEX Ⓜ II 2 G Ex d IIC T6			
	ENGR	DLW	07-11-06	AS800/AS801/AS810/ AS811/AS820/AS821			
QA			REV C				
MATERIAL:	PRD			SCALE	NONE	DWG SIZE	B
FINISH:	NEXT ASSY	PROD CODE	425	CAGE IDENT.	09359	SHEET	2 OF 3
	USED ON	INIT. ORDER	INVENTORY NO				

REVISIONS						
REV	DESCRIPTION	DATE	ECO	DR	APPD	



MINCO U.S. COLORS	Y	RED	BLUE	YELLOW	WHITE	Z	RED	BLUE	YELLOW (2)	WHITE (2)	X	RED (2)	BLUE (2)	YELLOW (2)	WHITE (2)
IEC/EN 60751 COLORS	V	WHITE	YELLOW	BLACK	RED	W	WHITE	YELLOW	BLACK (2)	RED (2)	U	WHITE (2)	YELLOW (2)	BLACK (2)	RED (2)



MINCO U.S. COLORS	Y	RED	WHITE	Z	RED	WHITE (2)	X	RED (2)	WHITE (2)
IEC/EN 60751 COLORS	V			W	WHITE	RED (2)	U		

**PRELIMINARY  
DATA ONLY**

FITTING TYPE	SKETCH	PROCESS THREAD	LENGTH L	PRESSURE RATING
FLUID SEAL		1/2 NPT	23mm [.9]	3.4 BAR [50 PSI]
		G1/2	20mm [.8]	
SPRING-LOADED SET SCREW		1/2 NPT	48mm [1.9]	3.4 BAR [50 PSI]
		G1/2	48mm [1.9]	
FIXED SPRING-LOADED		1/2 NPT	32mm [1.3]	NONE
		G1/2	N/A	
SPRING-LOADED RELEASE KNOB		1/2 NPT	46mm [1.8]	3.4 BAR [50 PSI]
		G1/2	43mm [1.7]	

<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:	INITIALS	DATE	ITEM	REQD	INVENTORY NO	MATERIAL DESCRIPTION	
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	CHK	RjB	07-11-06				
	APP						
ENGR	DLW	07-11-06					
MATERIAL:	QA					 <a href="http://www.minco.com">www.minco.com</a> COMPANY CONFIDENTIAL PROPRIETARY INFORMATION OF MINCO PRODUCTS, INC. DO NOT DUPLICATE	REV
FINISH:	PRD						AS800/AS801/AS810/ AS811/AS820/AS821
	NEXT ASSY	PROD CODE	INVENTORY NO	SCALE	DWG SIZE	CAGE IDENT.	SHEET
	USED ON	425		NONE	B	09359	3 OF 3