



# Certificate of Compliance

**Certificate:** 2379426

**Master Contract:** 176674

**Project:** 2379426

**Date Issued:** June 14, 2011

**Issued to:** Dynapar Corporation

1675 Delany Rd  
Gurnee, IL 60031-1282  
USA  
Attention: Jude Martin

*The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.*



*Ron Wildish*

**Issued by:** Ron Wildish

## **PRODUCTS**

**CLASS 2258 84** - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - - For Hazardous Locations - Certified to US Standards

**CLASS 2258 04** - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - For Hazardous Locations

**Class I, Div. 1, Groups C and D:**

**Exia IIB T4:**

**AEx ia IIB T4:**

Model HD25abbbbc6ef Optical Encoder; input rated 5-26 Vdc or 5-15 Vdc, 50 mA max; intrinsically safe for Class I, Division 1 and Zone 0 with entity parameters of:  $U_i/V_{max} = 15V$ ,  $I_i/I_{max} = 222mA$ ,  $P_i/P_{max} = 1 W$ ;  $C_i = 2.01\mu F$ ,  $L_i = 0$ ; when installed per installation Dwg. 502591-001; Ambient: -40 to +80 Deg. C; Temperature Code T4.

Models HD25abbbbcdefgg, HD20abbbbcdefgg, ISW38bbbbbcdefgg, ISD25bbbbbcdefghh and ISD37bbbbbcdefghh Optical Encoder; input rated 5-26 Vdc or 5-15 Vdc, 50 mA; intrinsically safe for Class I, Division 1 and Zone 0 with entity parameters of:  $U_i/V_{max} = 28V$ ,  $I_i/I_{max} = 222mA$ ,  $P_i/P_{max} = 1 W$ ;  $C_i = 0.6\mu F$ ,  $L_i = 0$ ; when installed per installation Dwg. 502591-001; Ambient: -40 to +80 Deg. C; Temperature Code T4.



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**CLASS2258 03** - PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non-Incendive Systems - For Hazardous Locations

**CLASS 2258 83** - PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non-Incendive Systems - For Hazardous Locations - CERTIFIED TO U.S. STANDARDS

**Class I, Div. 1, Groups C and D:**

**Exia IIB T4:**

**AEx ia IIB T4:**

Models HD25abbbbcdefgg, HD20abbbbcdefgg, ISW38abbbbcdefgg, ISD25abbbbcdefghh and ISD37abbbbcdefghh Optical Encoder; input rated 5-26 Vdc or 5-15 Vdc, 50 mA; intrinsically safe for Class I, Division 1 and Zone 0 when connected to safety barrier manufactured by BEI, Type 60004-XXXX; when installed per installation Dwg. 502591-001; Ambient: -40 to +80 Deg. C; Temperature Code T4.

**Nomenclature:**

HD25abbbbcdefgg

a (Model Code) = 1, 2, 3

b (PPR) = 0000 to 9999 - any four digit numerical combination

c (Shaft) = 0 to 9, A to Z

d (Electrical ratings) = 0, 2, 3, 4, 6, F, G

e (Termination) = 0 to 9, A to Z

f (Options) = A to Y

g (Special) = blank, 01 to 99, AA to ZZ

HD20abbbbcdefgg

a (Model Code) = 1, 2, 3

b (PPR) = 0000 to 9999 - any four digit numerical combination

c (Shaft) = 0 to 9, A to Z

d (Electrical ratings) = 0, 2, 3, 4, F, G

e (Termination) = 0 to 9, A to Z

f (Options) = A to R



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g (Special) = blank, 01 to 99, AA to ZZ

ISW38bbbbcddefgg

b (PPR) = 0000 to 9999 - any four digit numerical combination

c (Shaft) = 0, 1, 2

d (Output format) = 0, 1, 2, 3, 4, 5, 6, 7, A, C, D, E, F, G, H, J, K, L, M, N, P

e (Termination) = 0, 1, 2, 5, 6, 7, 8, A, C, D, H, J, K, M, N

f (Options) = 0, 1, 2, 3, 4, 5

g (Special) = blank, 01 to 99, AA to ZZ

ISD25bbbbcddefghh

b (PPR) = 0000 to 9999 - any four digit numerical combination

c (Shaft) = 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, C, D

d (Output format) = 0, 1, 2, 3, 4, 5, 6, 7, A, C, D, E, F, G, H, J, K, L, M

e (Termination) = 0, 1, 2, 5, 6, 7, 8, A, C, D, E, H, J, K, L, M, N

f (Options) = 0, 1, 2, 3, 4, 5

g (Special Options) = 01, 02\

h (Special) = blank, 01 to 99, AA to ZZ

ISD37bbbbcddefghh

b (PPR) = 0000 to 9999 - any four digit numerical combination

c (Shaft) = 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, C, D, E, F, G, H, P, R

d (Output format) = 0, 1, 2, 3, 4, 5, 6, 7, A, C, D, E, F, G, H, J, K, L, M

e (Termination) = 0, 1, 2, 5, 6, 7, 8, 9, A, C, D, H, J, K, L, M, N, T

f (Options) = 0, 1, 2, 3, 4, 5, 6, 7, A, C, D, E



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g (Special Options) = 01, 02

h (Special) = blank, 01 to 99, AA to ZZ

### **APPLICABLE REQUIREMENTS**

C22.2 No. 0-10 - General Requirements – Canadian Electrical Code, Part II

C22.2 No. 142-M1987 - Process Control Equipment

CAN/CSA-C22.2 No. 157-92 - Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations

CAN/CSA-C22.2 No. 60079-0:07 - Electrical apparatus for explosive gas atmospheres - Part 0: General requirements

CAN/CSA-E60079-11:02 - Electrical apparatus for explosive gas atmospheres - Part 11: Intrinsic Safety "i"

UL 913 (7th Ed.) - Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II and III, Division 1, Hazardous Locations

UL 916 (4th Ed.) - Energy Management Equipment

ANSI/UL 60079-0:09 - Electrical Apparatus for Explosive Gas Atmospheres - Part 0: General Requirements

ANSI/UL 60079-11:09 - Electrical apparatus for Explosive Gas Atmospheres - Part 11: Intrinsic Safety "i"