

SAFETY BARRIER

DATA SHEET

PWX

This safety barrier is used for intrinsic safety explosion-proofing of electronic instrumentation systems to ensure safe operation in the process of generating explosive gases.

It is used in combination with field instruments installed in hazardous area as an intrinsic safety explosion-proof system.

SPECIFICATIONS

Explosion-proof structure:

Intrinsic safety explosion-proof

- Applicable gas:** FCX transmitter gas (3aG4)
 Optical switch signal converter gas (3aG4 and 2G4)
 Optical repeater gas (3aG4 and 2G4)
 Optical fiber type multi-point temperature converter gas (3aG4 and 2G4)
 FCX-AII, AIII series transmitter (Ex ia IICT4)

Safety hold rating:

250V AC and 250V DC

Combination instrument:

FCX Series transmitter, optical repeater, optical switch signal converter, optical fiber type multi-point temperature converter (Inspection guarantee No. of safety barrier should be attached to instrument)

FCX-AII, AIII series transmitter (Device Certification)

Ambient temperature of combination instrument:

60°C or less

Modification of combination instrument:

Modification is prohibited (unit can be replaced).

Grounding:

Class A grounding

Mounting method:

Safety barrier should be installed in non-hazardous area using the supplied clip screw.

Terminal structure:

Input/output terminal; rod type plug-in system [up to 4mm²(12AWG)]
 Earth; M4 screw terminal (with nut)

Rated operating voltage:

25.8V DC ±0.5%

Total resistance:

Terminal 1 to 3 ... 340Ω
 Terminal 2 to 4... [0.9V+20Ω] or short

Intrinsic safety max. voltage:

28V

Intrinsic safety max. current:

93mA

Fuse:

50mA



External wiring condition:

Combination instrument	Applicable gas	Allowable external wiring resistance (less than) (Note)	Allowable external wiring static capacity (less than F)	Allowable external wiring inductance (less than mH)
FCX transmitter	3aG4	16	0.059	1
Optical switch signal converter	3aG4 2G4	under application	under application	under application
Optical repeater	3aG4	86	0.022	1
	2G4	86	0.22	5
Optical fiber type multi-point temperature converter	3aG4	86	0.022	1
	2G4	86	0.22	5
FCX-AII, AIII series transmitter	ExiaIICT4	30	0.0504	1.91

(Note) Indicates allowable resistance of external wiring terminal when input resistance 250Ω of upper distributor is subtracted.

Explosion-proof structure:

Intrinsic safety explosion-proof

Allowable common mode voltage:

AC 0.5Vrms

Error:

0.01% or less

Ambient temperature:

5 to 95% RH

Error:

0.01% or less

Dimensions (H×W×D):

61.5×93.5×14.2mm

Mass:

About 125g

Structure:

Indoor installation structure, plastic case

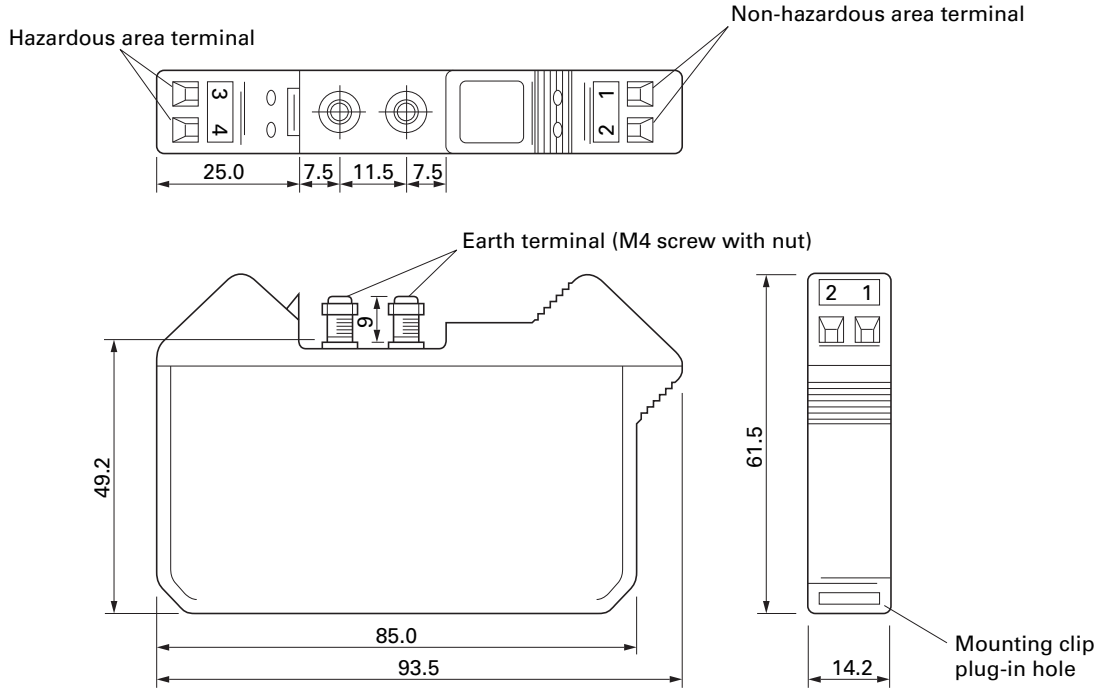
Code symbols

1	2	3	4	5	6	7	8	Description
P	W	X	A	0	0	1		
A								Application FCX transmitter (4 to 20mA, 2-wire system), 3aG4 Optical switch signal converter, 3aG4 (under application) Optical switch signal converter, 2G4 (under application)
B								Optical repeater, 3aG4 Optical repeater, 2G4
C								Optical fiber type multi-point temperature converter, 3aG4 Optical fiber type multi-point temperature converter, 2G4
D								Entity, ia IIC (FCX-AII, AIII transmitter can be combined.)
A								Object TIIS Intrinsic safety explosion-proofing

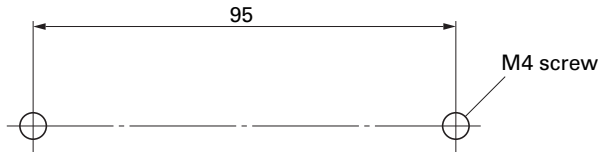
Scope of delivery

Main unit, mounting clip

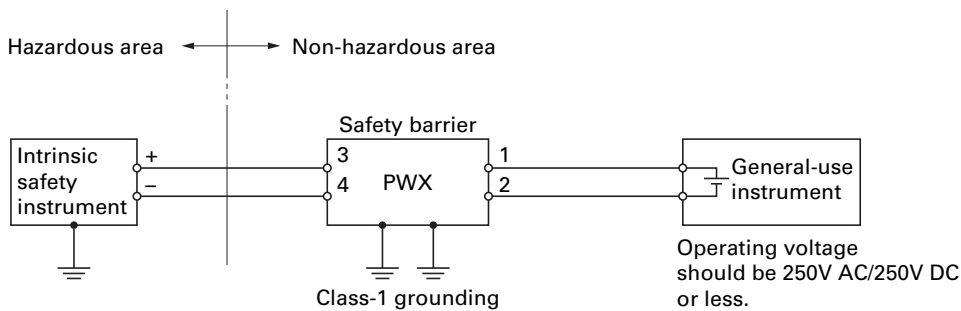
Outline diagram (Unit: mm)



Mounting method (supplied mounting clip used)



Use of combination instrument



⚠ Caution on Safety

*Before using this product, be sure to read its instruction manual in advance.

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