

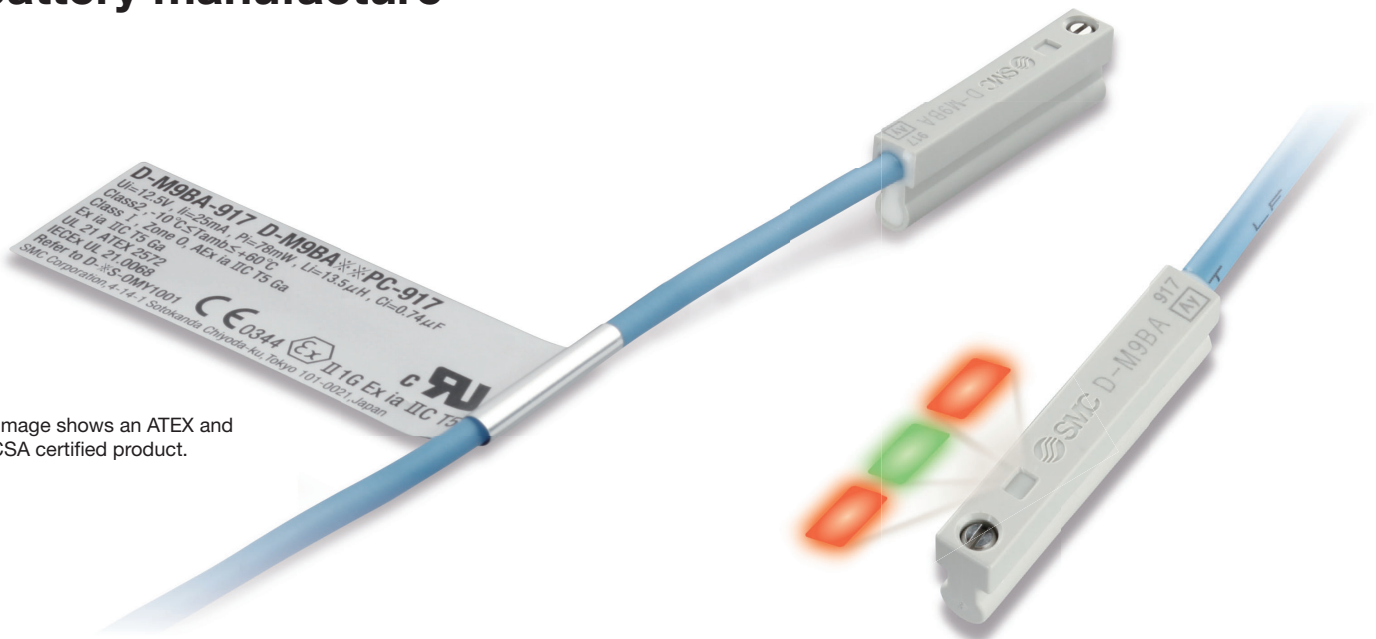
Solid State Auto Switch Intrinsic Safety

● ATEX, UL/CSA

● 2-colour indicator (Red, Green)

The proper operating range can be determined by the colour of the light. (Red → Green ← Red)

● Compatible with material restrictions for secondary battery manufacture



* The image shows an ATEX and UL/CSA certified product.

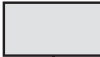
How to Order

⚠ Caution Auto switches must be ordered separately. They will be packaged separately. The auto switch cannot be ordered or shipped together with an actuator.

ATEX, UL/CSA



D-M9BA



● Lead wire specifications and certification type

Symbol	Certification	Target region/country	Lead wire	
			Termination	Length (L)
-917	ATEX, UL/CSA	Europe countries	Discrete wires	3 [m]
SAPC-917			M8-3 pin (1-4)	0.5 [m]
SDPC-917			M12-4 pin (1-4)	0.5 [m]

D-M9BA□-917



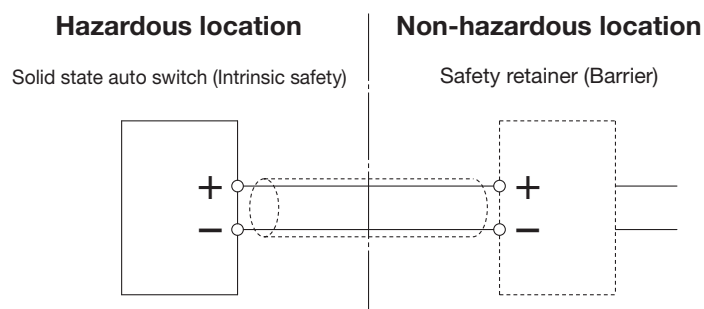
24-EU799-UK

D-M9BA□-917

Specifications

Model		D-M9BA□-917
Load voltage		8.2 V (7 to 12.5 V)
Output current when ON (Load current)		≥ 2.1 mA
Output current when OFF (Leakage current)		≤ 1.2 mA
Operating time		1 ms or less
Indicator light		Operating range: Red LED illuminates. Proper operating range: Green LED illuminates.
Electrical entry		Grommet
Lead wire		Oilproof heavy-duty vinyl cord, Ø 2.6, 0.15 mm ²
Impact resistance		1000 m/s ²
Enclosure		IP67
Insulation resistance		≥ 100 MΩ (500 VDC measured via megohmmeter)
Withstand voltage		1000 VAC for 1 min (Between the lead wire and case)
Ambient temperature		-10 to 60 °C
Intrinsically safe circuit parameters	Allowable voltage (Ui)	12.5 V
	Allowable current (Ii)	25 mA
	Allowable power (Pi)	78 mW
	Internal capacitance (Ci)	0.74 μF
	Internal inductance (Li)	13.5 μH

This product must be connected to an appropriate barrier (certified product) at the max. intrinsically safe circuit parameter values or to a certified intrinsically safe circuit.



Explosion-proof Specification

Certification	Symbol
ATEX	II 1G Ex ia IIC T5 Ga
UL/CSA	Class 1, Zone 0 AEx ia IIC T5 Ga

[What is an "Intrinsic Safety" ?]

It is a product with a structure that limits the amount of electrical energy to a safe level in order to prevent equipment or wiring located in explosive atmospheres from igniting due to sparks or heat.

Hazardous Location

Applicable actuators for intrinsically safe solid state auto switches

Applicable zone	Zone 1	Zone 2
Applicable actuator	ATEX target regions/countries (Europe countries): ATEX actuator	

CDQ2

CDS1

JMB

JMGP

C96

CP96

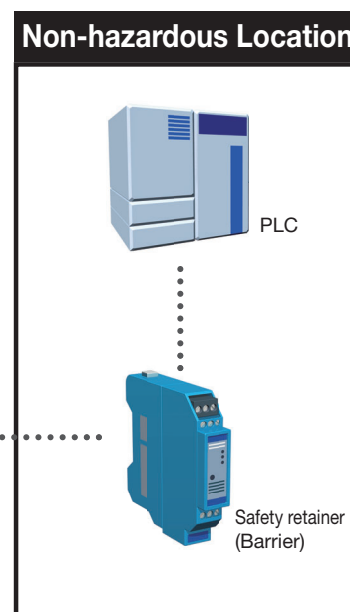
MY

CDRQ2

etc.

+

D-M9BA□-917

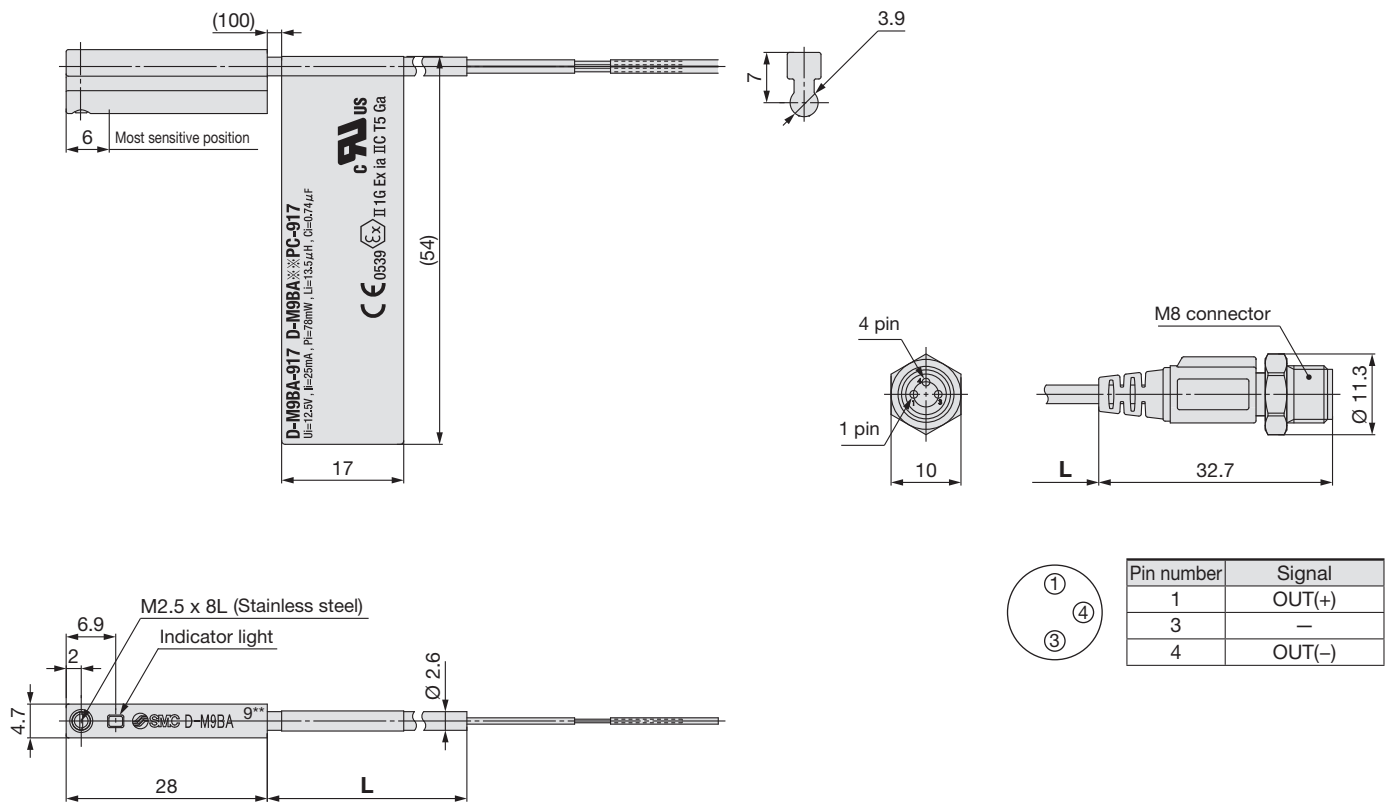


⚠ Caution

SMC accepts no liability for the use of its products in environments classified as Zone 0 or Zone 20.

* This statement supersedes any conflicting provisions in the SMC terms and conditions or in the purchaser's terms and conditions.

Dimensions



Applicable Actuators for Intrinsically Safe Solid State Auto Switches

Intrinsically safe solid state auto switches can be mounted on the following products.

- When installing in a hazardous location, confirm the applicable zone of the actuator as well.
- The operating range, proper mounting position, and mounting brackets are the same as those of the D-M9 series.

■ ATEX target regions/countries (Europe countries)

[When combined with an ATEX certified auto switch]

Applicable actuator: 55-/56-

ATEX target regions/countries

● Cylinders

Description	Series	Bore size [mm]
ISO standard air cylinder	55-C95	Ø 160, Ø 200, Ø 250
ISO standard air cylinder	55-C96	Ø 125
ISO standard air cylinder	55-C96-C	Ø 32 to Ø 100
ISO standard air cylinder	55-CP96	Ø 125
ISO standard air cylinder	55-CP96-C	Ø 32 to Ø 100
ISO standard air cylinder	55-CD55	Ø 20 to Ø 100
Air cylinder	55-CDS1	Ø 125 to Ø 200
Compact cylinder	55-CDQ2-Z	Ø 12 to Ø 100

● Rotary Actuators

Description	Series	Size
Compact rotary actuator	56-CRQ2	10 to 40

⚠ Safety Instructions Be sure to read the “Handling Precautions for SMC Products” (M-E03-3) and “Operation Manual” before use.

SMC Corporation

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