FIM
Field Interface Module

Features

- DIN Rail Mounting
- Intrinsically Safe – Ex ia I
- IEC 60079.0 & IEC 60079.11

Description

The FIM is an intrinsically safe interface module designed to restrict the power of an IS power supply. The supply is then acceptable for use with intrinsically safe transmitters, barriers and other associated equipment that have restricted input parameters.

The FIM is DIN rail mountable and made from robust plastic. The module must be housed within a suitable enclosure offering a degree of protection not less than IP54 enabling it to be located in either safe or hazardous areas. Screw terminals are located on the front allowing connection to the input and output load circuits.

Typical applications for the FIM module include interfacing transmitters and isolation barriers to voice communications systems, gas detection systems and other electronic equipment requiring limited intrinsically safe power in Group I applications.

Operation

Current / power is limited by simply inserting the FIM into the circuit as required.

When installing the FIM into a circuit it is necessary to calculate the effect of the internal resistance of the module which may restrict the current capacity or drive potential of an analogue signal.

The FIM does not include any user serviceable components.

Part # 142406 has a total internal resistance of 155 ohms.
Part # 142315 has a total internal resistance of 60 ohms.

Approval & Certification

IECEx : IECEx ITA 10.0005X

Mechanical Specification

Dimensions	: 22 W x 75 H x 98.5 D mm
Weight	: 80g
Operating Temperature	: -20 to +40C
Ingress Protection	: IP-20

Electrical Specification

Intrinsically Safe Parameters

Input Parameters

Both Models	
Ui	15.3V
Ci	The apparatus contains an infallible series resistor that effectively reduces the effect of any capacitance connected either side of the interface module to the other side by a 0.41 multiplier.

Output Parameters

Model 142406		*Model 142315*	
Uo	15.3V	Uo	15.3V
Io	100mA	Io	257.58mA
Po	382mW	Po	985.23mW
Co	15.1uF	Co	15.1uF
# Lo	46mH	Lo	7mH
# L/R	1220µH/Ω	L/R	473µH/Ω

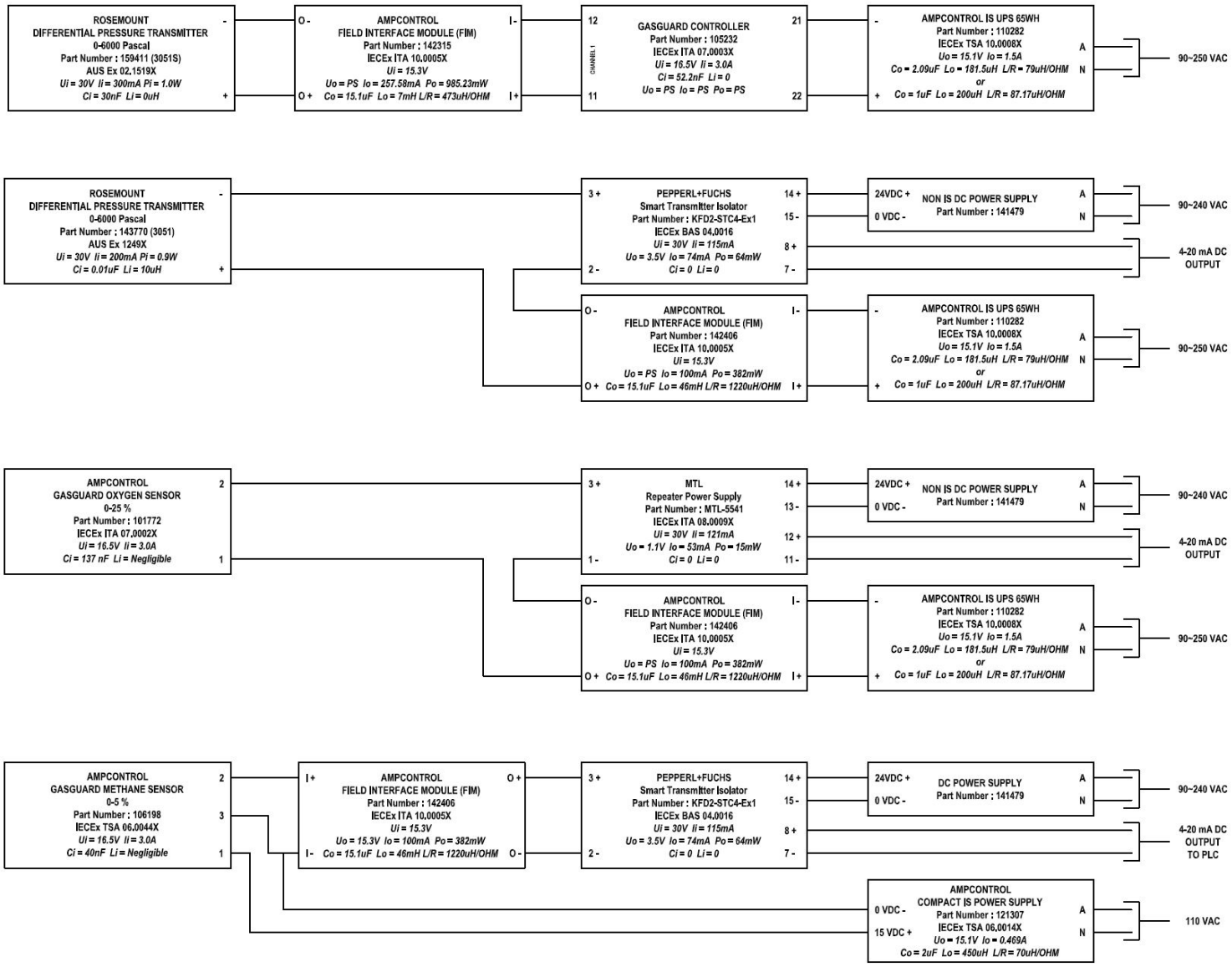
The apparatus contains an infallible series resistor that permits the total system inductance on the output terminals to be the values shown in the table above. The inductance or inductance to resistance ratio of the circuit connected to the input terminals must not exceed those of the separately certified power supply.

Ordering Information

Part Number	Descriptions
142406	FIELD INTERFACE MODULE – FIM – 100MA
142315	FIELD INTERFACE MODULE – FIM – 257.58MA

Dimensions

Electrical Connection & Application Examples



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