

INTRODUCTION

The Field Isolation Transducer (FIT) is compatible with DECS-400 and DECS-450 Digital Excitation Control Systems, designated as DECS henceforth.

The FIT receives isolated operating power from the DECS and supplies the DECS with isolated field current and field voltage signals. An FIT is required for each DECS unit used in an excitation system.

FITs are identified by four part numbers: 9372900100, 9372900101, 9372900104, and 9372900105.

DECS-400 Models

Part number 9372900100 identifies the FIT assembly. Part number 9372900101 identifies the FIT packaged for shipping and should be specified when requesting a replacement or spare module.

Each FIT is supplied with a cable (Part number: 322900006) for connecting the FIT (connector J1) to the DECS.

DECS-450 Models

Part number 9372900104 identifies the FIT assembly. Part Number 9372900105 identifies the FIT packaged for shipping and should be specified when requesting a replacement or spare module.

Each FIT is supplied with a cable (Part number: 9372900021) for connecting the FIT (connector J1) to the DECS.

For EMC-compliant installations, use FIT 9372900104 or 9372900105, and Cable 9372900021 with the DECS-450.

SPECIFICATIONS

Operating Power:	+5 Vdc, ± 12 Vdc received from DECS
Sensing Ranges	
Field Voltage:	$\pm 300\%$ of the five nominal ranges: 63, 125, 250, 375, or 625 Vdc
Field Current:	0 to 300% of the two nominal shunt ranges: 50 or 100 mVdc
Signal Output	
Field Voltage:	0.9 to 9.1 Vdc (5.0 Vdc = zero field voltage)
Field Current:	2.0 to 9.5 Vdc (2.0 Vdc = zero field current)

Temperature

Operating: -40 to 60°C (-40 to 140°F)

Storage: -40 to 85°C (-40 to 185°F)

Weight: 680 g (1.5 lb.)

Size: See Figure 1 for dimensions.

FUNCTIONAL DESCRIPTION

Field sensing current is supplied to the module by a user-supplied current shunt with an output rating of 50 mVdc or 100 mVdc. The field current sensing input accepts up to 300% of the nominal current range. The field current signal is converted into a voltage signal from 2 to 9.5 Vdc and sent to the DECS through connector J1.

Field sensing voltage is supplied directly from the field to the module. The FIT accepts one of five field voltage ranges: 63 Vdc, 125 Vdc, 250 Vdc, 375 Vdc, or 625 Vdc. The field voltage sensing input accepts up to 300% of the nominal voltage range. The field voltage signal is low-pass filtered, converted into a voltage signal from 0.9 to 9.1 Vdc, and sent to the DECS through connector J1.

MOUNTING

FIT mounting and panel drilling dimensions are illustrated in Figure 1.

CONNECTIONS

FIT terminals and connectors are illustrated in Figure 1. Typical connections are shown in Figure 2.

Module Connectors

Module terminations consist of screw terminals and a D-type connector.

Screw Terminals

Input connections for field voltage and field current are made at #6 screw terminals that accept 22 AWG to 12 AWG wire and have a maximum torque rating of 9 in-lb (1 N•m). Terminal sets accept a nominal field voltage of 63, 125, 250, 375, or 625 Vdc. Each voltage input has a positive and negative terminal. The GND terminal serves as the chassis ground connection and must be hard-wired to earth ground with a 12 AWG copper wire.

D-Type Connector

Field voltage and field current output signals are supplied at the 15-pin, female, D-type connector designated J1. A 15-foot (4.6 meter) cable connects to J1 and supplies field voltage and current output signals to the DECS. See Figure 2 for connections.

Publication	Revision	Instructions	Date	Copyright
9372900990	F		11/24	2024

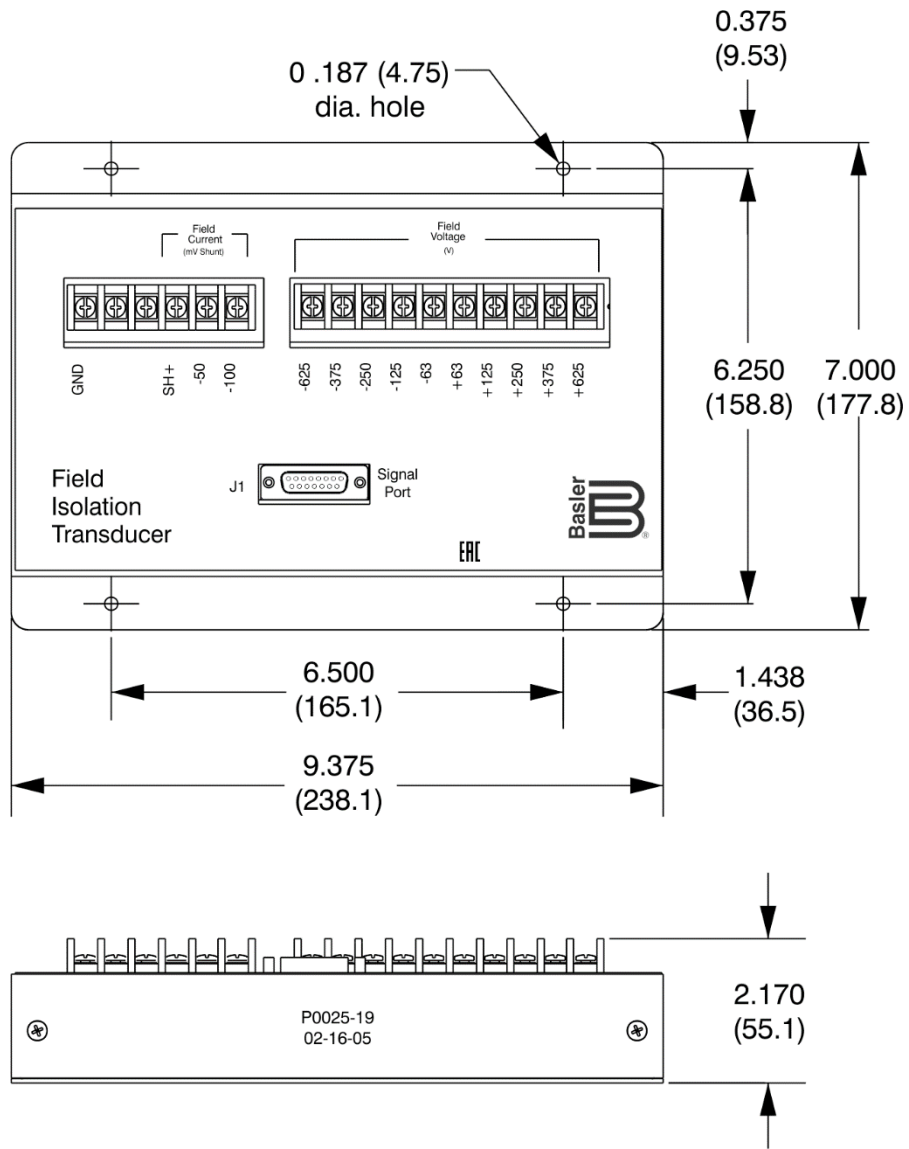
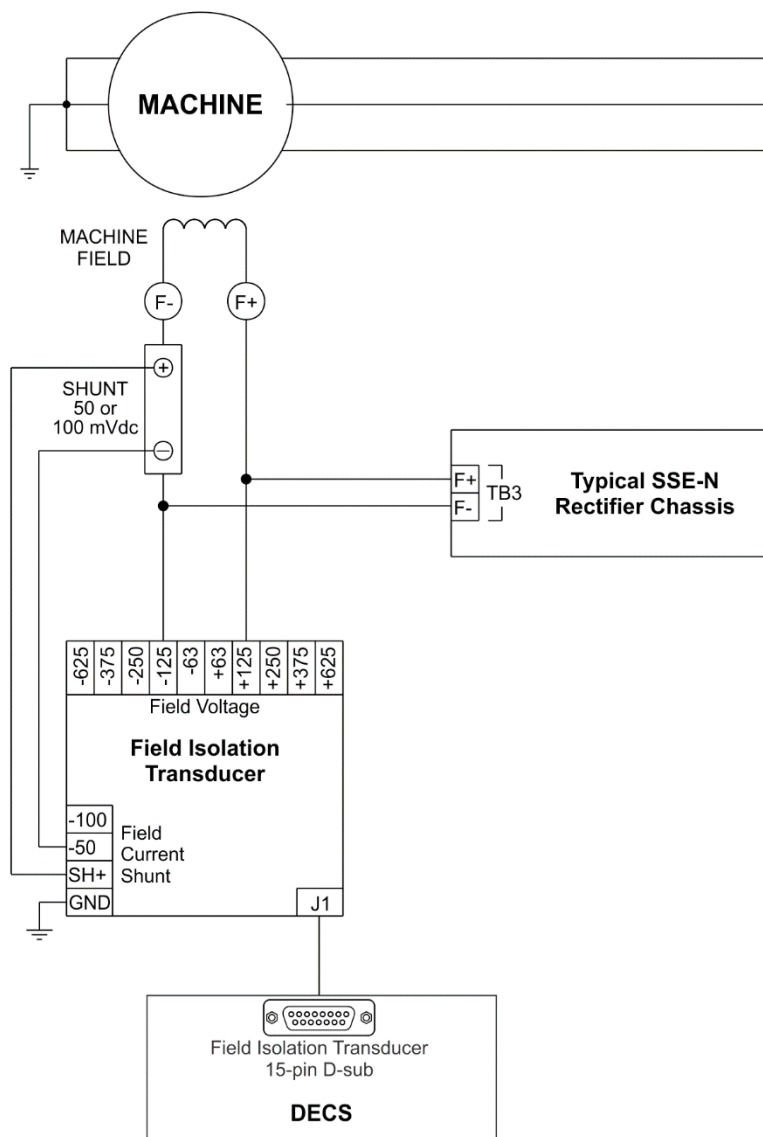


Figure 1. Overall Dimensions, Location of Terminals and Connectors



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Figure 2. Typical FIT Interconnection

CHINA RoHS

The following table serves as the declaration of hazardous substances for China in accordance with PRC standard SJ/T 11364-2014. The EFUP (Environment Friendly Use Period) for this product is 40 years.

PRODUCT: Field Isolation Transducer										
零件名称 Part Name	有害物质 Hazardous Substances									
	铅 Lead (Pb)	汞 Mercury (Hg)	镉 Cadmium (Cd)	六价铬 Hexavalent Chromium (Cr ⁶⁺)	多溴联苯 Polybrominated Biphenyls (PBB)	多溴二苯醚 Polybrominated Diphenyl Ethers (PBDE)	邻苯二甲酸二丁酯 Dibutyl Phthalate (DBP)	邻苯二甲酸丁苄酯 Benzyl butyl phthalate (BBP)	邻苯二甲酸二酯 Bis(2-ethylhexyl) phthalate (BEHP)	邻苯二甲酸二异丁酯 Diisobutyl phthalate (DIBP)
金属零件 Metal parts	X	O	O	O	O	O	O	O	O	O
聚合物 Polymers	O	O	O	O	O	O	O	O	O	O
电子产品 Electronics	X	O	O	O	O	O	O	O	O	O
电缆和互连配件 Cables & interconnect accessories	X	O	O	O	O	O	O	O	O	O
绝缘材料 Insulation material	O	O	O	O	O	O	O	O	O	O
本表格依据 SJ/T11364 的规定编制。 O: 表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 规定的限量要求以下。 X: 表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 规定的限量要求。 This form was prepared according to the provisions of standard SJ/T11364. O: Indicates that the hazardous substance content in all homogenous materials of this part is below the limit specified in standard GB/T 26252. X: Indicates that the hazardous substance content in at least one of the homogenous materials of this part exceeds the limit specified in standard GB/T 26572.										