DIGITAL ENCRYPTED SECURITY INTERFACE (DESI)

SAFE | SECURE | CERTIFIED

Product Overview

Prometheus has developed a revolutionary module that replaces the traditional supervised loop end of line resistor or the simple switched voltage relay controls with a state-of-the-art miniaturized computational element located within the security device housing. The Digital Encrypted Security Interface (DESI) is a revolutionary approach for upgrading current security and control interfaces and gathering authenticated, confidential data from the edge. DESI is deployed over the existing infrastructure and provides data authentication and confidentiality. DESI extends data protection right to the fielded security component. DESI provides true edge to cloud authentication and encrypted data for sensing and control applications such as Intrusion Detection, Burglary Systems, Access Control, Fire, SCADA, Building Controls etc.
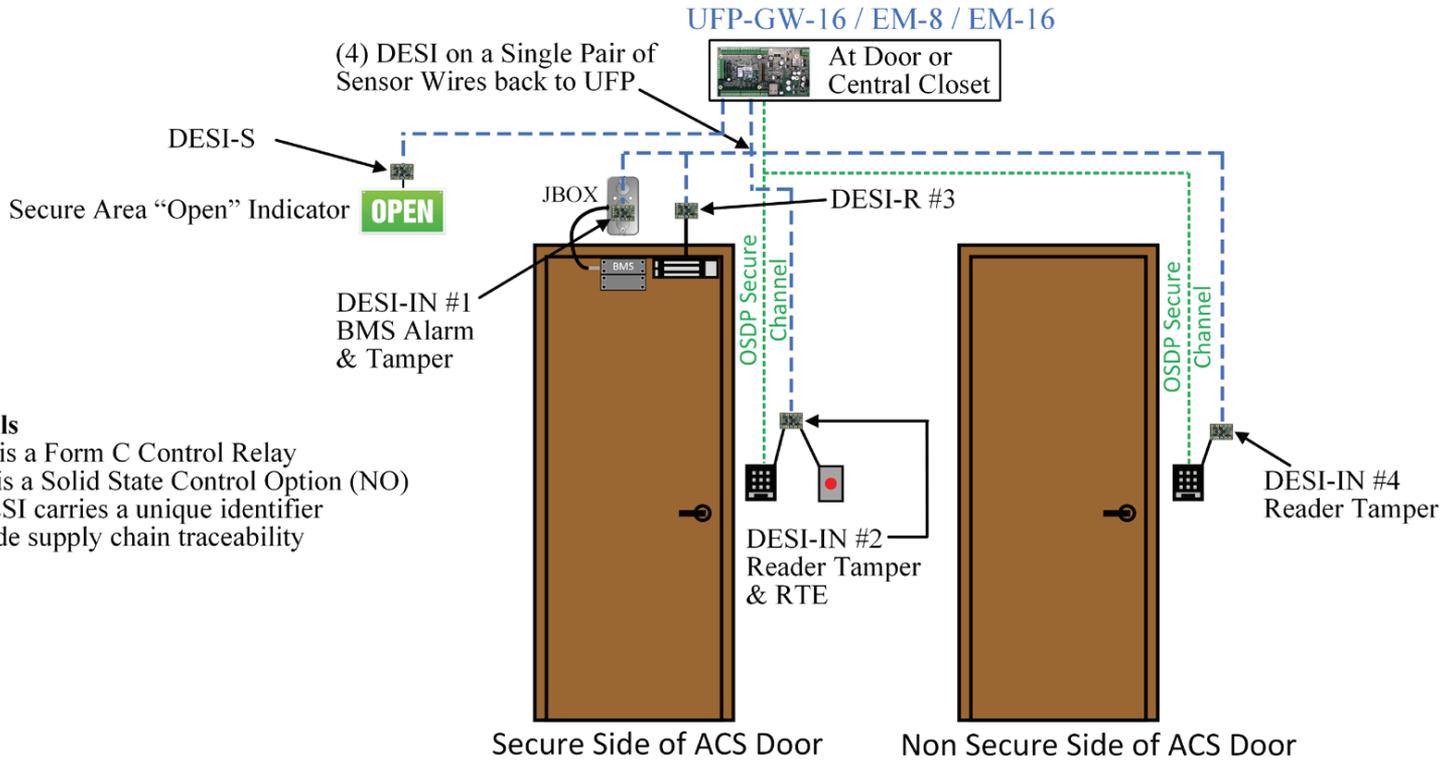
ZERO TRUST - EDGE TO ENTERPRISE AUTHENTICATION™

DESI provides a FIPS compliant public key cryptography interface (PKI) which uses elliptic curve digital signature algorithm (ECDSA) signing operations paired with elliptic curve Diffie-Hellman (ECDH) key exchange for field commissioning without need for symmetric key databases. This PKI approach allows the integration of DESI from various manufacturers without the need for insecure master keying arrangements. The device can generate private keys internally which are never exposed, not even to the field panel. It supports four PKI rekey events over the life of the device and features write authenticated protection of rekey operations. . The device actively monitors for authentication failures and upon detection of a tamper responds by sending an alert. DESI carries a unique identifier that provides supply chain traceability so sensors and electro-mechanical devices can be authenticated as genuine products of their manufacturer.

Product Description

	DESI-IN: Dual Input Device that can be fielded for monitoring sensors
	DESI-R: A single form-C relay output that can be used for controlling electromechanical devices
	DESI-S: Single Form - A relay output (N.O.) that can be used for controlling low power output devices

Secure/Non Secure Door Diagram

UFP-GW-16 / EM-8 / EM-16

At Door or Central Closet

(4) DESI on a Single Pair of Sensor Wires back to UFP

DESI-S

Secure Area "Open" Indicator **OPEN**

JBOX

DESI-R #3

OSDP Secure Channel

OSDP Secure Channel

DESI-IN #1
BMS Alarm
& Tamper

BMS

DESI Details
- DESI-R is a Form C Control Relay
- DESI-S is a Solid State Control Option (NO)
- Each DESI carries a unique identifier
  to provide supply chain traceability

DESI-IN #2
Reader Tamper
& RTE

DESI-IN #4
Reader Tamper

Secure Side of ACS Door

Non Secure Side of ACS Door

Current stocked variants

DESI-IN	Dual input device
DESI-R	Single FORM-C Relay
DESI-S	Single FORM-A Solid State

Approx .6 x .3 Inch

DESI-IN
Two
Inputs

Sensor
Alarm

Sensor
Tamper

Intrusion Sensor

Approx 1.7 x .75 Inch

DESI-R
One
Relay
Output

Door
Lock

Door Lock Mechanism

Approx .7 x .5 Inch

DESI-S
One
Solid
State
Relay

Normally
Open

Visual Status Indicator