

CLASSIC DAMPER INSPECTOR™ NETWORK INSTALLATION AND COMMISSIONING GUIDE

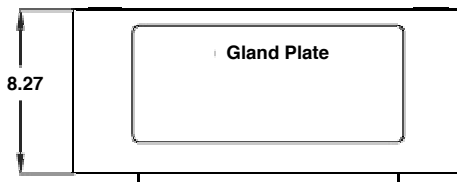
APPLICATION

The Ruskin Inspector™ represents a new generation fire/smoke damper system. It has been designed with the user in mind, providing an advanced tool that simplifies installation and commissioning of fire/smoke dampers. The Panel PC operates on an embedded platform and utilizes solid state technology for optimum reliability. Its server architecture delivers new benefits such as reduced commissioning time and simplified operation for continuous monitoring and automated testing of fire/smoke dampers.

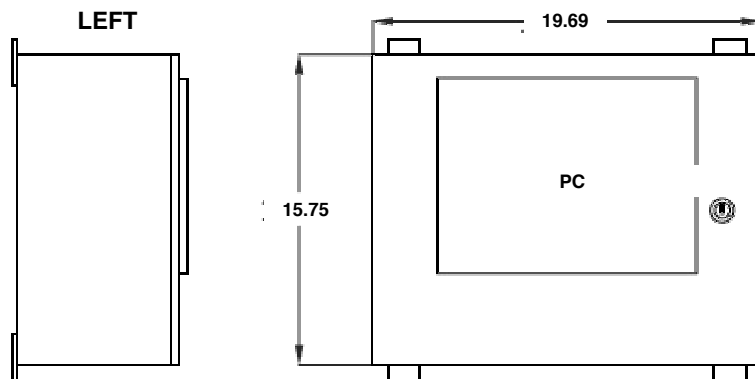


| PANEL SPECIFICATION | |
|------------------------------|---------------------------------------|
| SIZES (H x W x D) | 15.75 X 19.69 X 8.27 (Image Shown) |
| COLOR | RAL 7035 (off-white) |
| HINGED | LEFT |
| POWER CABLE | TOP RIGHT HAND SIDE |
| I/O CABLE | TOP ENTRY |
| INTERNAL PC CABLE | CAT 5e CROSSOVER |
| FIELD NETWORK CABLE | See page 2 |
| MAX ROOM AMBIENT TEMPERATURE | 100°F |

TOP



FRONT



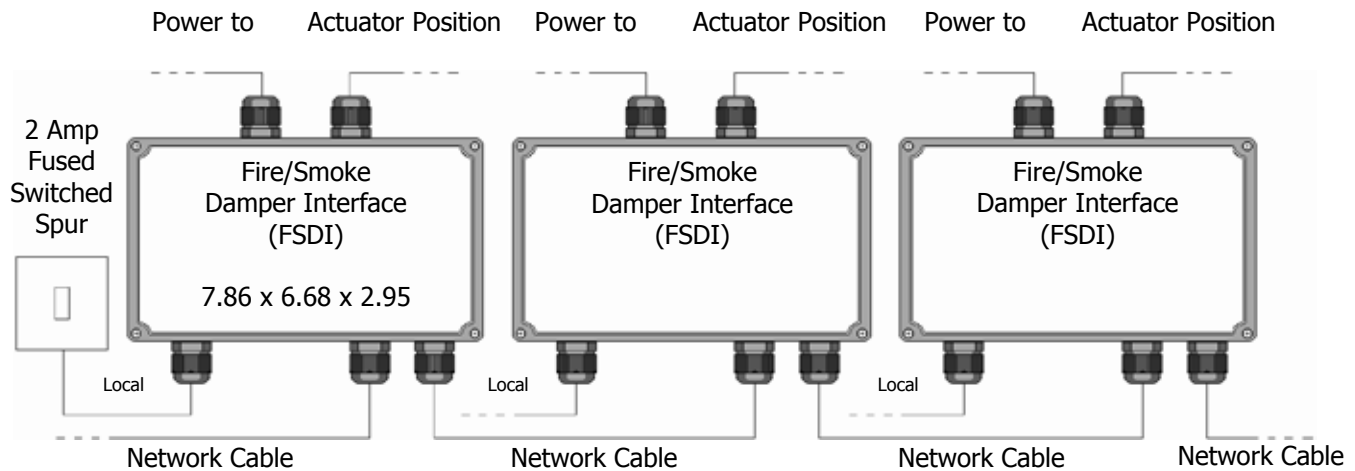
PANEL FEATURES

- Keyed security lock
- Hinged door
- Cable numbering (determined at order)
- Removable gland plate

NOTES

- Panel must be in a ventilated environment
- Use supplied fuses only
- National Electric Code (NEC)
- White-Neutral / Black-Hot
- Use specified network cables only (see page 2)

TYPICAL NETWORK WIRING DETAILS



STANDARD NETWORK SPECIFICATION & RULES

WARNING: The Ruskin Inspector™ system is a life safety damper monitoring & test solution requiring specific network cables that are fundamental to the stable and reliable operation of the network. There are no alternatives or equivalents acceptable. Use of alternate cables will void all warranties and such cables will have to be replaced to allow stable and reliable operation.

NETWORK CABLE SPECIFICATION

Ruskin recommends the following network cable for use with the Inspector™ network. Consult with Ruskin before using any other cable to ensure it will be compatible.

1 pair 22AWG Stranded Unshielded Level 4 Plenum Echelon/Lonworks Blue Jacket TYPE CMP/CSA FT6 (MADE IN THE USA)



Network Rules: NO 'EQUIVALENTS' NO 'ALTERNATIVES'

1. All devices to be wired in a "daisy chain" fashion as shown in the illustration above.
2. Standard network rules apply i.e. network cables must NOT be run alongside any high voltage and/or high frequency sources. **If FSDI's are wired in areas of high voltage such as plant rooms/elevator lobbies, network cable must be installed in dedicated conduit.**
3. Network cable types must NOT be mixed on a cable segment.
4. Maximum TOTAL wire length for cable segment must not exceed 1650 feet.
5. If greater than 60 dampers and/or cable segment length of greater than 1650 feet, a network extender must be utilized.
6. Damper interfaces must be wired on a dedicated power supply.

CONTRACTOR'S INSTALLATION / COMMISSIONING GUIDE

Electrical Contractor responsibilities:

(Refer to FSDI Datasheet and Installation Instructions)

- A. Check to ensure FSDI enclosure has been properly installed and wired into the Inspector Ready™ junction box located on the damper. Consult installation instructions for details.
- B. Provide correct voltage to each FSDI enclosure/FS Damper.
- C. If 24V, AC or DC is acceptable. Be mindful of voltage drop over distance.
- D. Furnish and install, or coordinate the installation of, all FSDI network cable(s) in accordance with local and national codes and standards. Terminate to inside of FSDI enclosure via glands. Outer cable sheaths to be stripped to approx. 1 Inch only, to ensure glands seal on cable sheath.
- E. Terminate the network cable end(s) at each FSDI and the FSDPC Inspector™ Panel PC.
- F. Power supply and all interconnecting wiring between, BMS and any other systems integrated with the Inspector™ system to be terminated by the electrical contractor, or trade as defined by specifying engineer.
- G. Mounting of FSDPC Inspector™ Panel PC shall be the responsibility of the electrical contractor.
- H. Furnish drawings of "as wired" cable route(s) to Ruskin authorized commissioning agent and coordinate co missioning event with Mechanical contractor of record.

Note:

- 1. If plans indicate a remote mounted FSDI enclosure location (exceeding 36" from the damper), additional material and labor will be required. Furnish and install rigid conduit and necessary wiring between the remote mounted FSDI Enclosure and the Inspector Ready™ junction box located on the damper. Refer to installation instructions for additional details.

Mechanical Contractor responsibilities:

(Refer to FSDI Datasheet and Installation Instructions)

- A. Install or coordinate the installation of all dampers in accordance with Ruskin installation instructions, local building codes and standards. Consult with the local authority having jurisdiction to resolve any discrepancies.
- B. Install or coordinate the installation of all FSDI enclosures. FSDI enclosures shall be installed within 36" of the damper actuator. Terminate factory installed wires in the Inspector Ready™ junction box located on the damper. Refer to installation instructions for additional information. Install FSDI enclosures, using pre-drilled mounting holes only. Standard FSDI enclosures are for indoor use only. If plans and specification require a remote FSDI enclosure mounting, coordinate the additional wiring with the Electrical Contractor in accordance with note 1 under electrical contractor responsibilities
- C. Install code required duct access door at each life safety damper location, as defined by the International Building Code (IBC) and National Fire Protection Agency (NFPA). Ruskin requires head and shoulder access to the FSDI Inspector Ready™ logic card enclosure.
- D. Furnish a full set of 'As Built' drawings prior to scheduling the commissioning activities.
- E. Coordinate the commissioning event with Ruskin authorized commissioning agent.

Note:

- 1. Dampers are designed for applications in normal dry filtered air systems, not for outdoor use. If external use is required please contact Ruskin.

Prior to Commissioning

A pre commissioning checklist will be issued for completion prior to the site visit for commissioning. Ruskin requires three weeks notice, completed checklist and a complete set of latest revision drawings before the site visit and subsequent commissioning.

COMMISSIONING

Commissioning

Ruskin's role in the installation and integration of the Inspector™ system is to commission only. Our commissioning activities, which must be at the earliest opportunity by the site engineer, will commence on completion of the mechanical & electrical installation work if the following conditions are met:

1. Full site access is available and the site meets all current Health and Safety requirements.
2. The dampers and ductwork have been correctly installed to the applicable standards including access to dampers and actuators.
3. The damper actuators and the FSDI's are fully & safely accessible.
4. The network & power supply cable(s) have been correctly installed in accordance with all local and national codes and standards.
5. Permanent electrical power is available for testing / setting up procedures.

Please note: Aborted visits will be charged if misleading information has been provided.

CONTRACTORS INSTALLATION / COMMISSIONING GUIDE

Our Commissioning Activities consist of:

1. Installation of FSDI circuit board within the previously mounted FSDI enclosure.
2. Operate and prove each damper within the Ruskin Inspector™ network.
3. Program Inspector™ FSDPC panel pc to ensure every damper is in communication and is operational.
4. Create back up of system configuration.
5. Turn network over to building maintenance personnel and provide necessary operational training.

Handover:

Upon completion of commissioning, The Ruskin authorized commissioning agent will fully demonstrate all functions of the system to the client's representative and instruct them at the user level. We will also prove the environmental strategy, if required.

Certification:

The Ruskin Inspector™ network & Ruskin fire/smoke dampers conform to all current relevant standards and upon completion a commissioning, a certificate of code required testing and conformance will be issued.

Documentation:

Together with the commissioning certificate we will also issue the following documentation:

- Overview
- User guide
- Panel drawings



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