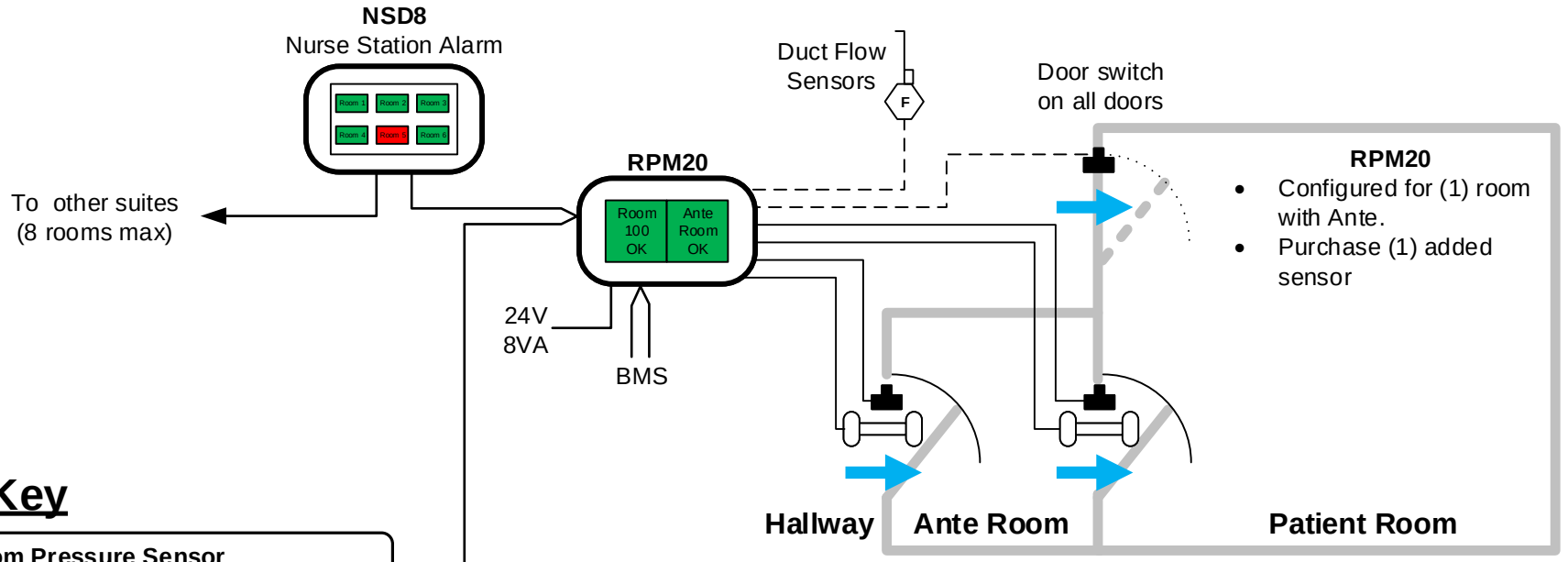
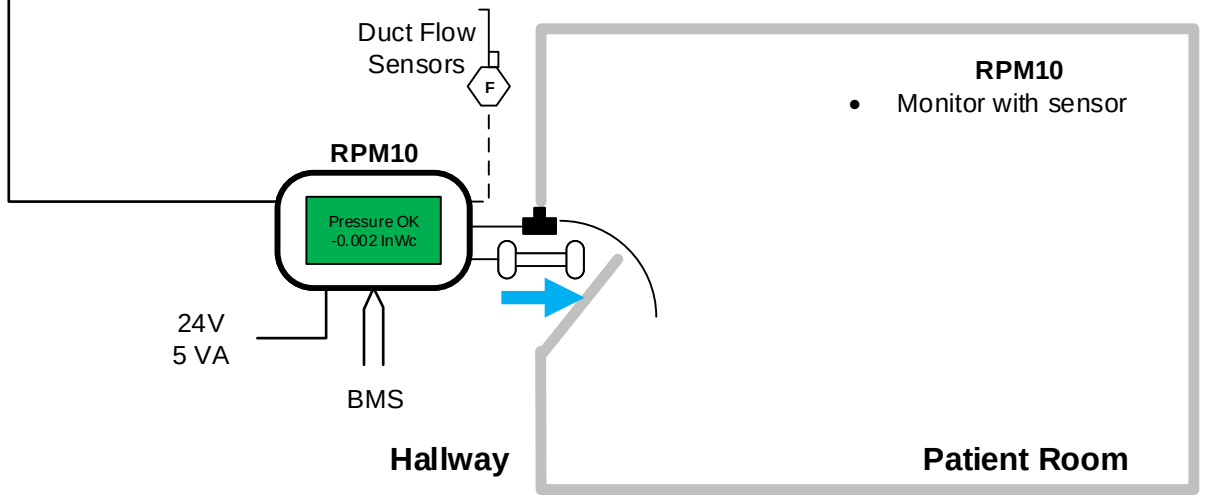


Single Isolation Room with Ante Room



Single Isolation Room Procedure Room

Symbol Key

Room Pressure Sensor
UL 2 Hour Fire Wall Rated
Bi-Directional, Mount over door

RPMxx_DIM
(Digital Indication Module) Keypad & Display, A/V Alarms. Mount in hallway outside room or suite.

Pressure OK
-0.002 InWc

Output To BMS
Network connection (BACnet, LON, Modbus, see quote), Alarm Relays, Room Pressure Analog signal,

BMS

NSD8 Nurse Station Alarm
Remote alarm for up to (6) rooms

Room 1 Room 2 Room 3
Room 4 Room 5 Room 6

Door Switch
SPDT On Each Door into room
Note: Door switches are optional, reduces nuisance callbacks.

Duct Flow
Switch for loss of flow.
Sensor for air change rate and loss of flow

F

Air Flow

Bayside HVAC Products LLC 415-333-5099 dan@baysidehvac.com	**Isolation Room Pressure Monitoring Layout & 2019 Code** Page 1 of 2			
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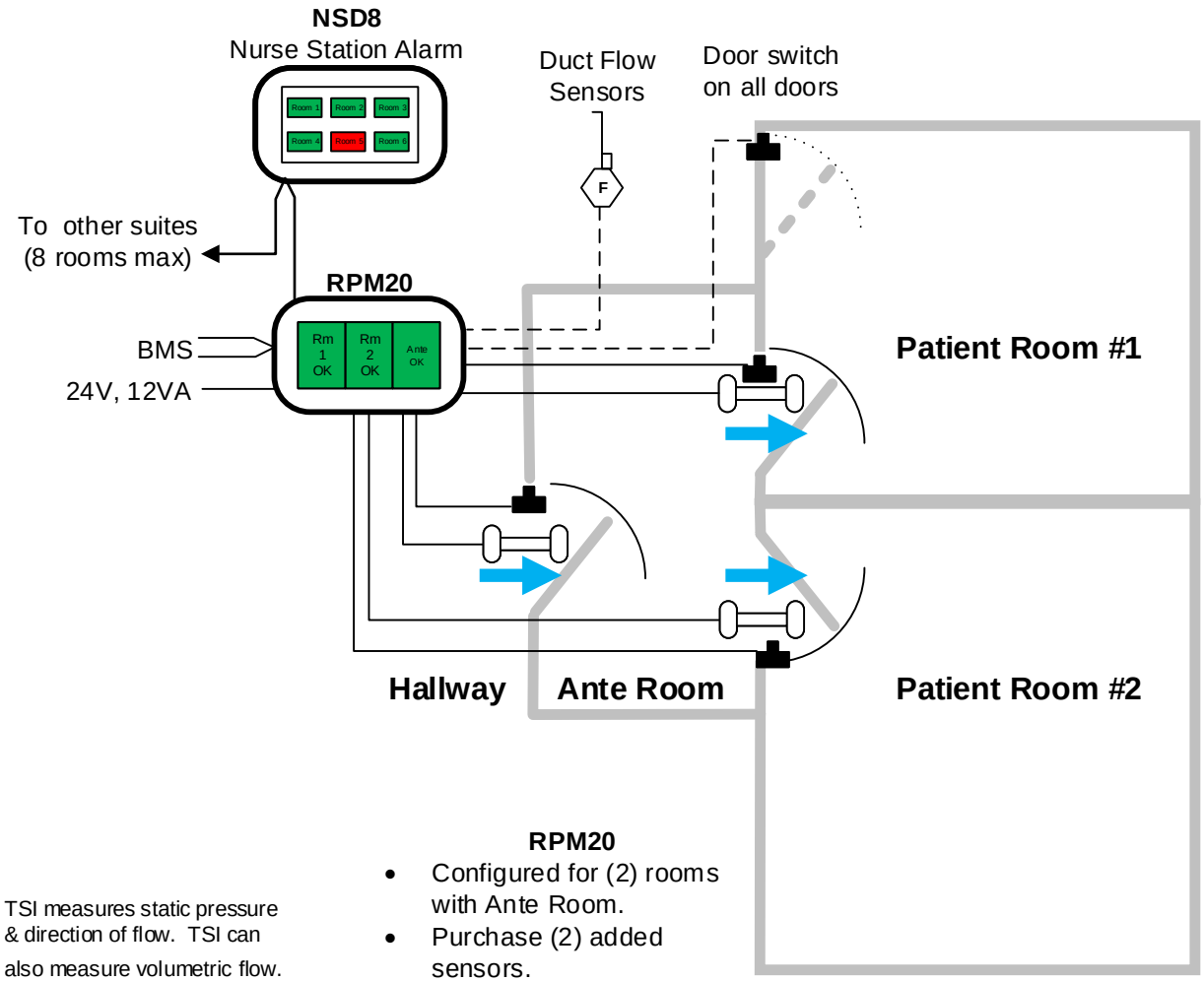
ASHRAE 170, 7.2, 2017

e. The room envelope shall be sealed to provide a minimum differential pressure of 0.01 in. of water (2.5 Pa) across the envelope.

f. Differential pressure between AII rooms and adjacent spaces that are not AII rooms shall be a minimum of –0.01 in. of water (–2.5 Pa). Spaces such as the toilet room and the anteroom (if present) that are directly associated with the AII room and open directly into the AII room are not required to be designed with a minimum pressure difference from the AII room but are still required to maintain the pressure relationships to adjacent areas specified in Table 7.1.

g. When an anteroom is provided, the pressure relationships shall be as follows: (1) the AII room shall be at a negative pressure with respect to the anteroom, and (2) the anteroom shall be at a negative pressure with respect to the corridor.



California Mechanical Code 2019

416.0 Alarms - Airborne Infection Isolation Rooms and Protective Environment Rooms
[OSHPD 1, 2, 3 & 4]

416.1 An alarm system which is based on static pressure control, volumetric control, or directional flow measurement shall be provided for each isolation room. The alarm system shall consist of a display monitor located on the corridor wall near the door to the room and a visual and audible alarm which annunciates at the room and at a nurses' station or other suitable location that will provide responsible surveillance. A time delay shall be provided to allow for routine openings of doors. The alarm shall annunciate when the supply, return, or exhaust fans are interrupted and when one of the following conditions is not being met during closed door conditions:

1. When the minimum air quantity difference of 75 cfm (35.4 L/s) required by Table 4-A is not being maintained; or
2. When a minimum pressure differential of 0.01 inch (0.003 kPa) of water and a minimum inward (outward for protective environment rooms) air velocity of 100 feet per minute (0.508 m/s) is not being maintained at the air transfer opening required by Table 4-A.

TSI measures static pressure & direction of flow. TSI can also measure volumetric flow.

TSI has built in A/V alarms. Remote A/V alarm at nurse station.

Time delay standard. Door switches provide dual delays.

TSI accepts flow switches or sensors, can calculate ACH

TSI Measures to 0.00001 InWc or **100x lower than code requires**

RPM20

- Configured for (2) rooms with Ante Room.
- Purchase (2) added sensors.

Dual Isolation Rooms w/ Shared Ante Room

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Isolation Room Pressure Monitoring
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