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SENSORS

Seamlessly Integrated

- Innovative technology to work seamlessly with all leading control companies ensuring performance.
- Reliable and accurate readings providing energy and cost-efficient control backed with a 5-year warranty.
- Universal compact modular design features a screw-less snap cover with a detachable mounting plate and NEMA 4X/ IP 65 rating for optimum installation and commissioning.

David Alliband, Product Manager

Sensors Nomenclature

| 22 | U | TH | - | 5 | 1 | 0 | X |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power 01 = Passive 22 = Active | Application A = Air C = Cable D = Duct/Immersion H = Surface Mount (Housing) M = Averaging (Duct) P = Pipe (Thermowell) S = Surface Mount (Cable) U = Outside W = Water | Medium C = CO2 CK = CO2, VOC, Temperature, CO2 / VOC MIX CM = CO2, VOC, Temperature CV = CO2, VOC DP = Differential Pressure H = Humidity / Condensation P = Pressure PS = Pressure Switch T = Temperature TC = Temperature & CO2 TH = Temperature & Humidity TM = Temperature, Humidity, CO2 TS = Temperature & Switch V = VOC (Volatile Organic Compounds) | | Region A = Accessory 5 = Americas | Signal type # = Accessory 0 = Switch 1 = VDC (Volt) 2 = VDC (Volt) Multi Range 3 = 4-20 mA 4 = 4-20 mA Multi Range 5 = Modbus 6 = BACnet 8 = 4-20 mA & VDC Multi Range A = PT100 B = PT1000 E = Ni1000 JCI L = NTC10k2 M = NTC10k3 Q = NTC20k | Length/ Pressure [mm] 0 = N/A H = 2" [50] L = 4" [100] M = 5" [140] N = 6" [150] P = 8" [200] Q = 1"wc [250Pa] Selectable R = 12" [300] / APS 0.08" to 1.2"wc [20-300Pa] T = 18" [450] U = APS 0.2" to 2.0"wc [50 - 500Pa] 1 = Water 0-15 psi / APS 0.8" to 4.0"wc [200-1000Pa] 2 = 0-30 psi 3 = 6' [2 m] 4 = 10 ft. [3 m] / Water 0-50 psi / Air 0-10"wc [2500Pa] Selectable / APS 2.0" to 10"wc [500-2500Pa] 5 = 20 ft. [6 m] / 22WDP Water 0-100 psi 6 = 22WP Water 0-100 psi / Air 0-28"wc [7000Pa] Selectable 7 = 200 psi | Details 22UTH-... X = Weather Shield 22HH-... X = Remote Cable Probe 01DTS-... X = Manual Reset 22DTM-... 6 = LCD Display 22ADP-... Blank = No Auto Zero / No LCD A = Auto Zero B = Auto Zero + LCD L = LCD 01APS-... 1 = Multi Pack 22DTH-..., 22UTH-... B = PT1000 E = Ni1000 JCI L = NTC10k2 M = NTC10k3 Q = NTC20k |

1 Complete Ordering Example: 22UTH-510X

Flow Meter Nomenclature

| FM | 050 | | | |
|------------------------------|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------------------------------------|
| FM FM = Flow Meter | Valve Size 050 = ½" 075 = ¾" 100 = 1" 125 = 1¼" 150 = 1½" 200 = 2" | GPM Range 0.07 - 6.6* 0.13 - 12.4* 0.23 - 21.8* 0.36 - 34.2* 0.49 - 47.5* 1.09 - 91.2* | Power Supply 24 = 24 VAC/DC | Output Signal Analog 0 - 10 VDC |

1 Choose the Flow Meter Model

FM050

+Tagging (if needed)

2 Does order require tagging?

Tagging:
 Valves may be tagged per customer specification. (\$10.00 charge per tag)

Example:
 AHU-1
 FCU-2

Part number for tagging:
 99981-00101

3 Complete Ordering Example: FM050

*V'nom = Maximum flow for each flow meter size



Seamlessly integrated. The new sensor range from Belimo.

Belimo HVAC sensors are designed to work seamlessly with all major building automation and control systems and offer easy installation and high performance. The new range includes reliable and accurate sensors for measuring temperature, humidity, CO₂, and VOC for pipe and duct applications. Belimo sensors provide the highest quality and are backed with first-class service and support.




Air Sensors

Duct / Immersion Temperature Sensors



| 22 | D | T | - | 5 | 2 | P |
|---------------------------------------------|--------------------------------------------|----------------------------------|---|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Power 01 = Passive 22 = Active | Application D = Duct / Immersion | Medium T = Temperature | | Region 5 = Americas | Signal type 2 = VDC (Volt) Multi Range 4 = 4-20 mA Multi Range A = PT100 B = PT1000 E = Ni1000 JCI L = NTC10k2 M = NTC10k3 Q = NTC20k | Length [mm] H = 2" [50] L = 4" [100] N = 6" [150] P = 8" [200] R = 12" [300] T = 18" [450] |

| Duct / Immersion Sensor |  |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Accuracy Active Passive | ±1% of measuring range (typ. @ 70°F [21°C]) PT100, PT1000 = ± 0.54°F [0.3°C] @ 32°F [0°C] Ni1000 (JCI) = ±0.72°F [0.4°C] @ 32°F [0°C] NTC 10k2, 10k3, 20k = ±0.36°F [0.2°C] @ 77°F [25°C] |
| Output | 0-5/10 VDC, 4-20 mA, PT100, PT1000, Ni1000 (JCI), 10k2, 10k3, NTC20k |
| Power Supply | mA: 15 to 24 DC (±10%) VDC: 24 AC/DC (±10%) |
| Electrical Connection | PG 11 cable gland and ½" NPT conduit adaptor (included) |
| Ambient Temperature Passive Active | -30°F to +195°F [-35°C to +90°C] -30°F to +160°F [-35°C to +70°C] |
| Medium Temperature Passive Active | -40°F to +300°F [-40°C to +150°C] -30°F to +320°F [-35°C to +160°C] |
| Multi Range Selectable | refer to datasheet for setting ranges |
| Protection | SI Moisture |
| Degree of Protection | NEMA 4X, IP65 |
| Agency Listing | cULus according to UL60730-1, UL2043, CAN/CSA E60730-1 CE according to 2014/30/EU |

For Thermowell pockets & thermal contact fluid for immersion sensors, see accessories on page 20-15.

| Duct Temperature Sensor without Housing for FCU, AHU and VAV Applications | |
|--------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Contact Technical Support for part numbering and pricing or www.belimo.us | |
| Accuracy 01CT Series - Passive | PT1000 = ±0.54°F [0.3°C] @ 32°F [0°C] Ni1000 (JCI) = ±0.72°F [0.4°C] @ 32°F [0°C] NTC 10k2, 10k3, 20k = ±0.36 °F [0.2°C] @ 77°F [25°C] |
| Output | PT1000, Ni1000 (JCI), 10k2, 10k3, NTC20k |
| Probe Length | 4" [100 mm] 8" [200 mm] |
| Cable | 6 ft. [2 m] stainless steel probe with adjustable flange mount accessory: A-22D-A03 |
| Protection | SI Moisture |
| Degree of Protection | NEMA 4X, IP65 |
| Agency Listing | cULus according to UL60730-1, UL2043, CAN/CSA E60730-1 CE according to 2014/30/EU |

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All prices are in US Dollars (USD)

| Air | | Measuring Values | Output Signal | | Multi-Range | Probe | Degree of Protection | NIST | List Price |
|----------|-------------|------------------|---------------|------------|-------------|----------------|----------------------|-------|------------|
| MODEL # | Temperature | Active | Passive | Selectable | Length [mm] | NEMA 4X / IP65 | Adder | | |
| 01DT-5AH | • | | PT100 | | 2" [50] | • | | \$49 | |
| 01DT-5AL | • | | PT100 | | 4" [100] | • | | \$49 | |
| 01DT-5AN | • | | PT100 | | 6" [150] | • | | \$49 | |
| 01DT-5AP | • | | PT100 | | 8" [200] | • | | \$49 | |
| 01DT-5AR | • | | PT100 | | 12" [300] | • | | \$49 | |
| 01DT-5AT | • | | PT100 | | 18" [450] | • | | \$56 | |
| 01DT-5BH | • | | PT1000 | | 2" [50] | • | | \$49 | |
| 01DT-5BL | • | | PT1000 | | 4" [100] | • | | \$49 | |
| 01DT-5BN | • | | PT1000 | | 6" [150] | • | | \$49 | |
| 01DT-5BP | • | | PT1000 | | 8" [200] | • | | \$49 | |
| 01DT-5BR | • | | PT1000 | | 12" [300] | • | | \$49 | |
| 01DT-5BT | • | | PT1000 | | 18" [450] | • | | \$56 | |
| 01DT-5EH | • | | Ni1000 (JCI) | | 2" [50] | • | | \$39 | |
| 01DT-5EL | • | | Ni1000 (JCI) | | 4" [100] | • | | \$39 | |
| 01DT-5EN | • | | Ni1000 (JCI) | | 6" [150] | • | | \$39 | |
| 01DT-5EP | • | | Ni1000 (JCI) | | 8" [200] | • | | \$39 | |
| 01DT-5ER | • | | Ni1000 (JCI) | | 12" [300] | • | | \$39 | |
| 01DT-5ET | • | | Ni1000 (JCI) | | 18" [450] | • | | \$56 | |
| 01DT-5LH | • | | 10k2 | | 2" [50] | • | | \$32 | |
| 01DT-5LL | • | | 10k2 | | 4" [100] | • | | \$32 | |
| 01DT-5LN | • | | 10k2 | | 6" [150] | • | | \$32 | |
| 01DT-5LP | • | | 10k2 | | 8" [200] | • | | \$32 | |
| 01DT-5LR | • | | 10k2 | | 12" [300] | • | | \$32 | |
| 01DT-5LT | • | | 10k2 | | 18" [450] | • | | \$49 | |
| 01DT-5MH | • | | 10k3 | | 2" [50] | • | | \$32 | |
| 01DT-5ML | • | | 10k3 | | 4" [100] | • | | \$32 | |
| 01DT-5MN | • | | 10k3 | | 6" [150] | • | | \$32 | |
| 01DT-5MP | • | | 10k3 | | 8" [200] | • | | \$32 | |
| 01DT-5MR | • | | 10k3 | | 12" [300] | • | | \$32 | |
| 01DT-5MT | • | | 10k3 | | 18" [450] | • | | \$49 | |
| 01DT-5QH | • | | NTC20k | | 2" [50] | • | | \$32 | |
| 01DT-5QL | • | | NTC20k | | 4" [100] | • | | \$32 | |
| 01DT-5QN | • | | NTC20k | | 6" [150] | • | | \$32 | |
| 01DT-5QP | • | | NTC20k | | 8" [200] | • | | \$32 | |
| 01DT-5QR | • | | NTC20k | | 12" [300] | • | | \$32 | |
| 01DT-5QT | • | | NTC20k | | 18" [450] | • | | \$49 | |
| 22DT-52H | • | 0-5/10 VDC | | • | 2" [50] | • | \$75 | \$157 | |
| 22DT-52L | • | 0-5/10 VDC | | • | 4" [100] | • | \$75 | \$157 | |
| 22DT-52N | • | 0-5/10 VDC | | • | 6" [150] | • | \$75 | \$157 | |
| 22DT-52P | • | 0-5/10 VDC | | • | 8" [200] | • | \$75 | \$157 | |
| 22DT-52R | • | 0-5/10 VDC | | • | 12" [300] | • | \$75 | \$157 | |
| 22DT-52T | • | 0-5/10 VDC | | • | 18" [450] | • | \$75 | \$157 | |
| 22DT-54H | • | 4-20 mA | | • | 2" [50] | • | \$75 | \$157 | |
| 22DT-54L | • | 4-20 mA | | • | 4" [100] | • | \$75 | \$157 | |
| 22DT-54N | • | 4-20 mA | | • | 6" [150] | • | \$75 | \$157 | |
| 22DT-54P | • | 4-20 mA | | • | 8" [200] | • | \$75 | \$157 | |
| 22DT-54R | • | 4-20 mA | | • | 12" [300] | • | \$75 | \$157 | |
| 22DT-54T | • | 4-20 mA | | • | 18" [450] | • | \$75 | \$157 | |


Duct / Immersion


Air Sensors

Duct Averaging, Cable, Low Temperature Limit Detection




| 01 | D | TS | - | 5 | 0 | 4 | X |
|---------------------------------------------|------------------------------------------------------------------------------------------------|---------------------------------------------------------------|---|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| Power 01 = Passive 22 = Active | Application C = Cable D = Low Temp Limit Detection (Duct) M = Averaging (Duct) | Medium T = Temperature TS = Temperature & Switch | | Region 5 = Americas | Signal type 0 = Switch 2 = VDC (Volt) Multi Range 4 = 4-20 mA Multi Range A = PT100 B = PT1000 E = Ni1000 JCI L = NTC10k2 M = NTC10k3 Q = NTC20k | Length / Probe [mm] H = 2" [50] L = 4" [100] P = 8" [200] 4 = 10 ft. [3 m] 5 = 20 ft. [6 m] | Details 01DTS-... X = Manual Reset |

| Duct Averaging | |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  | |
| Accuracy 22MT Series - Active 01MT Series - Passive | ±3% of measuring range (typ. @ 70°F [21°C]) PT1000 = ±0.54°F [0.3°C] @ 32°F [0°C] |
| Power Supply 22MT Active | mA: 15 to 24 DC (±10%) VDC: 24 AC/DC (±10%) |
| Output | 4-20 mA, 0-5/10 VDC, PT1000, Ni1000 (JCI), 10k2, 10k3, NTC20k |
| Ambient Temperature Passive Active | -30°F to +160°F [-35°C to +70°C] -30°F to +160°F [-35°C to +70°C] |
| Medium Temperature Passive Active | -30°F to +160°F [-35°C to +70°C] -30°F to +160°F [-35°C to +70°C] |
| Electrical Connection | PG 11 cable gland and ½" NPT conduit adaptor (included) |
| Multi Range | refer to datasheet |
| Degree of Protection | NEMA 4X, IP65 |
| Agency Listing | cULus according to UL60730-1, UL2043, CAN/CSA E60730-1 CE according to 2014/30/EU |

| Cable | |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | |
| Accuracy 22CT Series - Active (Housing) 01CT Series - Passive (Cable Only) | ±1% of measuring range (typ. @ 70°F [21°C]) PT1000 = ±0.54°F [0.3°C] @ 32°F [0°C] Ni1000 (JCI) = ±0.72°F [0.4°C] @ 32°F [0°C] NTC 10k2, 10k3, 20k = ±0.36°F [0.2°C] @ 77°F [25°C] |
| Power Supply 22CT | mA: 15 to 24 DC (±10%) VDC: 24 AC/DC (±10%) |
| Output | 4-20 mA, 0-5/10 VDC, PT100, PT1000, Ni1000 (JCI), 10k2, 10k3, NTC20k |
| Protection | SI Moisture |
| Degree of Protection | NEMA 4X, IP65 |
| Agency Listing | cULus according to UL60730-1, UL2043, CAN/CSA E60730-1 CE according to 2014/30/EU |

Note: Refer to datasheet for plenum rated cable specifications and temperature ranges.

| Low Temperature Limit Detection | |
|-------------------------------------------------------------------------------------|----------------------------------|
|  | |
| Accuracy | ±0.9°F (±0.5°C) |
| Output | relay SPCO max.10A |
| Ambient Temperature | -30°F to +160°F [-35°C to +70°C] |
| Medium Temperature | -30°F to +195°F [-35°C to +90°C] |
| Electrical Connection | M16 cable gland |
| Setpoint Range | 14°F to 54°F [-10°C to +12°C] |
| Degree of Protection | NEMA 4, IP65 |

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All prices are in US Dollars (USD)

| Air | | Measuring Values | Output Signal | | Relay | Temperature | Probe | Degree of Protection | | Reset | | NIST | List Price |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------|---------------|--------------|------------------------|-------------|--------------|----------------------|-----------|--------|-------|------|------------|
| MODEL # | Temperature | Active | Passive | SPCO max.10A | Multi Range Selectable | Length [mm] | NEMA 4X/IP65 | NEMA 4/IP65 | Automatic | Manual | Adder | | |
| Duct Averaging | 01MT-5B4 | • | | PT1000 | | | 10 ft [3 m] | • | | | | | \$262 |
| | 01MT-5B5 | • | | PT1000 | | | 20 ft [6 m] | • | | | | | \$300 |
| | 01MT-5E4 | • | | Ni1000 (JCI) | | | 10 ft [3 m] | • | | | | | \$243 |
| | 01MT-5E5 | • | | Ni1000 (JCI) | | | 20 ft [6 m] | • | | | | | \$300 |
| | 01MT-5L4 | • | | 10k2 | | | 10 ft [3 m] | • | | | | | \$187 |
| | 01MT-5L5 | • | | 10k2 | | | 20 ft [6 m] | • | | | | | \$232 |
| | 01MT-5M4 | • | | 10k3 | | | 10 ft [3 m] | • | | | | | \$187 |
| | 01MT-5M5 | • | | 10k3 | | | 20 ft [6 m] | • | | | | | \$232 |
| | 01MT-5Q4 | • | | NTC20k | | | 10 ft [3 m] | • | | | | | \$187 |
| | 01MT-5Q5 | • | | NTC20k | | | 20 ft [6 m] | • | | | | | \$232 |
| | 22MT-524 | • | 0-5/10 VDC | | | • | 10 ft [3 m] | • | | | | \$75 | \$393 |
| | 22MT-525 | • | 0-5/10 VDC | | | • | 20 ft [6 m] | • | | | | \$75 | \$431 |
| | 22MT-544 | • | 4-20 mA | | | • | 10 ft [3 m] | • | | | | \$75 | \$393 |
| | 22MT-545 | • | 4-20 mA | | | • | 20 ft [6 m] | • | | | | \$75 | \$431 |
| Cable | 01CT-5AH | • | | PT100 | | | 2" [50] | • | | | | | \$37 |
| | 01CT-5BH | • | | PT1000 | | | 2" [50] | • | | | | | \$37 |
| | 01CT-5EH | • | | Ni1000 (JCI) | | | 2" [50] | • | | | | | \$37 |
| | 01CT-5LH | • | | 10k2 | | | 2" [50] | • | | | | | \$22 |
| | 01CT-5MH | • | | 10k3 | | | 2" [50] | • | | | | | \$22 |
| | 01CT-5QH | • | | NTC20k | | | 2" [50] | • | | | | | \$22 |
| | 22CT-52H | • | 0-5/10 VDC | | | • | 2" [50] | • | | | | \$75 | \$157 |
| | 22CT-54H | • | 4-20 mA | | | • | 2" [50] | • | | | | \$75 | \$157 |
| | 01CT-5BL | • | | PT1000 | | | 4" [100] | • | | | | | \$37 |
| | 01CT-5LL | • | | 10k2 | | | 4" [100] | • | | | | | \$26 |
| | 01CT-5ML | • | | 10k3 | | | 4" [100] | • | | | | | \$26 |
| | 01CT-5QL | • | | NTC20k | | | 4" [100] | • | | | | | \$26 |
| | 01CT-5BP | • | | PT1000 | | | 8" [200] | • | | | | | \$37 |
| | 01CT-5LP | • | | 10k2 | | | 8" [200] | • | | | | | \$26 |
| | 01CT-5MP | • | | 10k3 | | | 8" [200] | • | | | | | \$26 |
| 01CT-5QP | • | | NTC20k | | | 8" [200] | • | | | | | \$26 | |
| For Flanged Mounted Duct Temperature Sensors without Housing for FCU, AHU, and VAV Applications - Select 01CT Cable Temperature Sensor plus A-22D-A03 Accessory. | | | | | | | | | | | | | |
| Low Temperature Limit Detection | 01DTS-504 | • | | | • | | 10 ft [3 m] | • | • | | | | \$240 |
| | 01DTS-504X | • | | | • | | 10 ft [3 m] | • | | • | | | \$258 |
| | 01DTS-505 | • | | | • | | 20 ft [6 m] | • | • | | | | \$262 |
| | 01DTS-505X | • | | | • | | 20 ft [6 m] | • | | • | | | \$288 |

Air Sensors

Duct Humidity / Temperature, Duct Air Quality, Differential Pressure Sensor, Differential Pressure Switch



| 22 | D | TM | - | 5 | 1 | M | 6 |
|---------------------------------------------|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power 01 = Passive 22 = Active | Application A = Air D = Duct | Medium C = CO2 CK = CO2, VOC, Temperature, CO2/VOC MIX CM = CO2, VOC, Temperature CV = CO2, VOC DP = Differential Pressure Sensor PS = Differential Pressure Switch TC = Temperature & CO2 TH = Temperature & Humidity TM = Temperature, Humidity, CO2 | | Region 5 = Americas | Signal type 0 = Switch 1 = VDC (Volt) 3 = 4-20 mA 5 = Modbus 6 = BACnet 8 = 4-20 mA and VDC Multi Range | Range / Length M = 5" [140 mm] Q = DPA 1"wc [250Pa] Selectable R = APS 0.08" to 1.2"wc [20 - 300Pa] U = APS 0.2" to 2.0"wc [50 - 500Pa] 1 = APS 0.8" to 4.0"wc [200 - 1000Pa] 4 = DPA 0-10"wc [2500Pa] Selectable / APS 2.0" to 10"wc [500 - 2500Pa] 6 = DPA 0-28"wc [7000Pa] Selectable | Details 22DTM-... 6 = LCD Display 22DTH-... B = PT1000 E = Ni1000 JCI L = NTC10k2 M = NTC10k3 Q = NTC20k 22ADP-... A = Auto Zero B = Auto Zero + LCD L = LCD Display 01APS-... 1 = Multi Pack |

SENSORS

| Duct Humidity Temperature | |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Accuracy Humidity | ±2% between 10 to 90% rH (typ. @ 70°F [21°C]) |
| Temperature Active | ±1% of measuring range (typ. @ 70°F [21°C]) |
| Passive | PT1000 = ±0.54°F [0.3°C] @ 32°F [0°C] Ni1000 (JCI) = ±0.72°F [0.4°C] @ 32°F [0°C] NTC 10k2, 10k3, 20k = ±0.36°F [0.2°C] @ 77°F [25°C] |
| Power Supply | mA: 15 to 24 DC (±10%) VDC: 24 AC/DC (±10%) |
| Output | 4-20 mA, 0-5/10 VDC, PT1000, Ni1000 (JCI), 10k2, 10k3, NTC20k |
| Ambient Temperature Passive | -4°F to +160°F [-20°C to +70°C] |
| Active | -4°F to +160°F [-20°C to +70°C] |
| Medium Temperature Passive | -4°F to +160°F [-20°C to +70°C] |
| Active | -4°F to +160°F [-20°C to +70°C] |
| Electrical Connection | PG 11 cable gland and ½" NPT conduit adaptor (included) |
| Measuring Range | |
| Temperature Multi Range | refer to datasheet |
| Enthalpy | 0 to 85 kJ/kg |
| Dew Point | 32°F to 122°F [0°C to 50°C] and -4°F to +176°F [-20°C to +80°C] |
| Relative Humidity | 0 to 100% rH non-condensing |
| Absolute Humidity | 0 to 50 g/m³ and 0 to 80 g/m³ |
| Degree of Protection | NEMA 4X, IP65 |
| Agency Listing | cULus according to UL60730-1, UL2043, CAN/CSA E60730-1 CE according to 2014/30/EU |



| Duct Air Quality CO2 / VOC | |
|-----------------------------|-----------------------------------------------------------------------------------|
| Accuracy Temperature Active | ±1% of measuring range @ 70°F [21°C] |
| Humidity | ±2% between 10 to 90% rH @ 70°F [21°C] |
| CO2 | ±75 ppm, >750 ppm: ±10% |
| Power Supply | mA: 15 to 24 DC (±10%) VDC: 24 AC/DC (±10%) |
| Output | 4-20 mA, 0-5/10 VDC |
| Ambient Temperature | 32°F to 122°F [0°C to 50°C] |
| Medium Temperature | 32°F to 122°F [0°C to 50°C] |
| Electrical Connection | PG11 / M20 cable gland (depending on model) and ½" NPT conduit adaptor (included) |
| Measuring Range | |
| Temperature | 32°F to 122°F [0°C to 50°C] |
| Humidity | 0 to 100% rH |
| CO2 | 0 to 2000 ppm |
| VOC | refer to datasheet |
| Degree of Protection | NEMA 4X, IP65 |
| Agency Listing | cULus according to UL60730-1, UL2043, CAN/CSA E60730-1 CE according to 2014/30/EU |



| Differential Pressure Switch | |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Accuracy | ±15% (tolerance for upper and lower switching pressure) |
| Output | SPDT 1 amps @ 250 VAC |
| Electrical Connection | M20 cable gland & ½" NPT conduit adaptor |
| Measuring Range | |
| Pressure | 0.08 to 1.20"wc [20 to 300Pa] 0.20 to 2.00"wc [50 to 500Pa] 0.80 to 4.00"wc [200 to 1000Pa] 2.00 to 10.00"wc [500 to 2500Pa] |
| Ambient Temperature | -4°F to +185°F [-20°C to +85°C] |
| Medium Temperature | -4°F to +185°F [-20°C to +85°C] |
| Degree of Protection | NEMA 3, IP54 |
| Agency Listing | ETL listed |



| Differential Pressure Sensor | |
|------------------------------|---------------------------------------------------------------------------------------------------------|
| Accuracy | refer to datasheet for accuracy on all field selectable pressure ranges |
| Power Supply | mA: 15 to 24 DC (±10%) VDC: 24 AC/DC (±10%) |
| Output | 4-20 mA, 0-5/10 VDC |
| Ambient Temperature | 14°F to 122°F [-10°C to +50°C] |
| Medium Temperature | 14°F to 122°F [-10°C to +50°C] |
| Electrical Connection | PG11 / M20 cable gland (depending on model) and ½" NPT conduit adaptor (included) |
| Measuring Range | |
| Pressure | 0 to 1"wc (8x field selectable) 0 to 10"wc (8x field selectable) 0 to 28"wc (8x field selectable) |
| Degree of Protection | NEMA 4X, IP65 |
| Agency Listing | cULus according to UL60730-1, UL2043, CAN/CSA E60730-1 CE according to 2014/30/EU |
| Optional Features | Auto Zero LCD ModBus |



For accessories, see page 20-14.

| Air | Measuring Values | | | | | Output Signal | | Comm. | Relay | Temp. | Pressure | | | | Humidity | CO ₂ | Probe | Degree of Protection | | NIST | List Price | | | | |
|------------------------------|-------------------------|-------------|-------------------|-----------------------|-----------------|---------------|------------|--------------|------------|-----------------------|------------------------|-------------------------|---------------------------|-------------------------|----------------------------|------------------------|--------------------------|----------------------|-------------|----------------|---------------|--------------------|-------------------------|-------|---------|
| | | | | | | Active | Passive | | | | | | | | | | | | | | | | | | |
| | MODEL # | Temperature | Relative Humidity | Differential Pressure | CO ₂ | VOC | | BACnet MS/TP | Modbus RTU | SPDT 1 Amps @ 250 VAC | Multi Range Selectable | 0.08-1.20"wc [20-300Pa] | 0.80-4.00"wc [200-1000Pa] | 0.20-2.00"wc [50-500Pa] | 2.00-10.00"wc [500-2500Pa] | Multi Range Selectable | 0-100% rH non-condensing | 0-2000 ppm | Length [mm] | NEMA 4X / IP65 | NEMA 3 / IP54 | LCD - Display Type | Auto Zero - Calibration | Adder | |
| Duct Humidity / Temperature | 22DTH-51M | • | • | | | | 0-5/10 VDC | | | | • | | | | | | • | | 5" [140] | • | | | | \$75 | \$307 |
| | 22DTH-51MB | • | • | | | | 0-5/10 VDC | | | | | | | | | | • | | 5" [140] | • | | | | \$75 | \$307 |
| | 22DTH-51ME | • | • | | | | 0-5/10 VDC | | | | | | | | | | • | | 5" [140] | • | | | | \$75 | \$307 |
| | 22DTH-51ML | • | • | | | | 0-5/10 VDC | | | | | | | | | | • | | 5" [140] | • | | | | \$75 | \$307 |
| | 22DTH-51MM | • | • | | | | 0-5/10 VDC | | | | | | | | | | • | | 5" [140] | • | | | | \$75 | \$307 |
| | 22DTH-51MQ | • | • | | | | 0-5/10 VDC | | | | | | | | | | • | | 5" [140] | • | | | | \$75 | \$307 |
| | 22DTH-53M | • | • | | | | 4-20 mA | | | | | • | | | | | • | | 5" [140] | • | | | | \$75 | \$307 |
| | 22DTH-53MB | • | • | | | | 4-20 mA | | | | | | | | | | • | | 5" [140] | • | | | | \$75 | \$307 |
| | 22DTH-53ME | • | • | | | | 4-20 mA | | | | | | | | | | • | | 5" [140] | • | | | | \$75 | \$307 |
| | 22DTH-53ML | • | • | | | | 4-20 mA | | | | | | | | | | • | | 5" [140] | • | | | | \$75 | \$307 |
| | 22DTH-53MM | • | • | | | | 4-20 mA | | | | | | | | | | • | | 5" [140] | • | | | | \$75 | \$307 |
| | 22DTH-53MQ | • | • | | | | 4-20 mA | | | | | | | | | | • | | 5" [140] | • | | | | \$75 | \$307 |
| | 22DTH-55M | • | • | | | | 0-5/10 VDC | | | • | | | | | | | • | | 5" [140] | • | | | | \$75 | \$375 |
| 22DTH-56M | • | • | | | | 0-5/10 VDC | | • | | | | | | | | • | | 5" [140] | • | | | | \$75 | \$375 | |
| Air Quality Duct | 22DC-51 | | | • | | | 0-5/10 VDC | | | | | | | | | | • | | 7" [180] | • | | | | \$75 | \$524 |
| | 22DC-53 | | | • | | | 4-20 mA | | | | | | | | | | • | | 7" [180] | • | | | | \$75 | \$524 |
| | 22DCK-51 | • | | • | • | | 0-5/10 VDC | | | | | | | | | | • | | 7" [180] | • | | | | \$75 | \$1,011 |
| | 22DCM-51 | • | | • | • | | 0-5/10 VDC | | | | | | | | | | • | | 7" [180] | • | | | | \$75 | \$936 |
| | 22DCV-51 | | | • | • | | 0-5/10 VDC | | | | | | | | | | • | | 7" [180] | • | | | | \$75 | \$861 |
| | 22DTC-51 | • | | • | | | 0-5/10 VDC | | | | | | | | | | • | | 7" [180] | • | | | | \$75 | \$599 |
| | 22DTC-53 | • | | • | | | 4-20 mA | | | | | | | | | | • | | 7" [180] | • | | | | \$75 | \$599 |
| | 22DTM-51 | • | • | • | | | 0-5/10 VDC | | | | | | | | | | • | | 7" [180] | • | | | | \$75 | \$787 |
| | 22DTM-51M6 | • | • | • | | | 0-5/10 VDC | | | | | | | | | | • | | 7" [180] | • | | • | | \$75 | \$918 |
| | 22DTM-56 | • | • | • | | | 0-5/10 VDC | | • | | | | | | | | • | | 7" [180] | • | | | | \$75 | \$805 |
| Differential Pressure Sensor | 22ADP-58Q | | • | | | | 4-20 mA | 0-5/10 VDC | | | | | | | | • | | | | • | | | | \$75 | \$281 |
| | 22ADP-58QL | | • | | | | 4-20 mA | 0-5/10 VDC | | | | | | | | • | | | | • | • | | | \$75 | \$345 |
| | 22ADP-58QA | | • | | | | 4-20 mA | 0-5/10 VDC | | | | | | | | • | | | | • | • | | | \$75 | \$360 |
| | 22ADP-58QB | | • | | | | 4-20 mA | 0-5/10 VDC | | | | | | | | • | | | | • | • | | | \$75 | \$468 |
| | 22ADP-55Q | | • | | | | 4-20 mA | 0-5/10 VDC | | • | | | | | | • | | | | • | | | | \$75 | \$345 |
| | 22ADP-55QL | | • | | | | 4-20 mA | 0-5/10 VDC | | • | | | | | | • | | | | • | | | | \$75 | \$449 |
| | 22ADP-55QA | | • | | | | 4-20 mA | 0-5/10 VDC | | • | | | | | | • | | | | • | | | | \$75 | \$449 |
| | 22ADP-55QB | | • | | | | 4-20 mA | 0-5/10 VDC | | • | | | | | | • | | | | • | • | | | \$75 | \$524 |
| | 22ADP-584 | | • | | | | 4-20 mA | 0-5/10 VDC | | | | | | | | • | | | | • | | | | \$75 | \$281 |
| | 22ADP-584L | | • | | | | 4-20 mA | 0-5/10 VDC | | | | | | | | • | | | | • | | | | \$75 | \$345 |
| | 22ADP-554 | | • | | | | 4-20 mA | 0-5/10 VDC | | • | | | | | | • | | | | • | | | | \$75 | \$345 |
| | 22ADP-554L | | • | | | | 4-20 mA | 0-5/10 VDC | | • | | | | | | • | | | | • | | | | \$75 | \$449 |
| | 22ADP-586 | | • | | | | 4-20 mA | 0-5/10 VDC | | | | | | | | • | | | | • | | | | \$75 | \$281 |
| | 22ADP-586L | | • | | | | 4-20 mA | 0-5/10 VDC | | | | | | | | • | | | | • | | | | \$75 | \$345 |
| | 22ADP-556 | | • | | | | 4-20 mA | 0-5/10 VDC | | • | | | | | | • | | | | • | | | | \$75 | \$345 |
| 22ADP-556L | | • | | | | 4-20 mA | 0-5/10 VDC | | • | | | | | | • | | | | • | | | | \$75 | \$449 | |
| Differential Pressure Switch | 01APS-50R | | • | | | | | | | • | • | | | | | | | | | • | | | | | \$66 |
| | 01APS-50R.1 (45 pieces) | | • | | | | | | | • | • | | | | | | | | | • | | | | | \$2,443 |
| | 01APS-50U | | • | | | | | | | • | | • | | | | | | | | • | | | | | \$66 |
| | 01APS-50U.1 (45 pieces) | | • | | | | | | | • | | • | | | | | | | | • | | | | | \$2,443 |
| | 01APS-501 | | • | | | | | | | • | • | | | | | | | | | • | | | | | \$66 |
| | 01APS-501.1 (45 pieces) | | • | | | | | | | • | • | | | | | | | | | • | | | | | \$2,443 |
| | 01APS-504 | | • | | | | | | | • | | | • | | | | | | | • | | | | | \$66 |
| | 01APS-504.1 (45 pieces) | | • | | | | | | | • | | | • | | | | | | | • | | | | | \$2,443 |


Air Sensors


Outdoor Air Temperature, Outdoor Humidity / Temperature



| 22 | U | TH | - | 5 | 1 | 0 | B |
|---------------------------------------------|-----------------------------------|-----------------------------------------------------------------|---|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Power 01 = Passive 22 = Active | Application U = Outdoor | Medium T = Temperature TH = Temperature & Humidity | | Region 5 = Americas | Signal type 1 = VDC (Volt) 2 = VDC (Volt) Multi Range 3 = 4-20 mA 4 = 4-20 mA Multi Range 5 = Modbus 6 = BACnet A = PT100 B = PT1000 E = Ni1000 JCI L = NTC10k2 M = NTC10k3 Q = NTC20k | Length [mm] 0 = If N/A | Details 22UTH-... B = PT1000 E = Ni1000 JCI L = NTC10k2 M = NTC10k3 Q = NTC20k X = Weather Shield |

SENSORS

| Outdoor Air Temperature | |
|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | |
| Accuracy Temperature Active Passive | ±1% of measuring range @ 70°F [21°C] PT100, PT1000 = ±0.54°F [0.3°C] @ 32°F [0°C] Ni1000 (JCI) = ±0.72 °F [0.4°C] @ 32°F [0°C] NTC 10k2, 10k3, 20k = ±0.36 °F [0.2°C] @ 77°F [25°C] |
| Power Supply | mA: 15 to 24 DC (±10%) VDC: 24 AC/DC (±10%) |
| Output | 4-20 mA, 0-5/10 VDC, PT100, PT1000, Ni1000 (JCI), 10k2, 10k3, NTC20k |
| Ambient Temperature Passive Active | -40°F to +195°F [-40°C to +90°C] -30°F to +160°F [-35°C to +70°C] |
| Medium Temperature Passive Active | -40°F to +195°F [-40°C to +90°C] -30°F to +160°F [-35°C to +70°C] |
| Electrical Connection | PG 11 cable gland and ½" NPT conduit adaptor |
| Multi Range Selectable | refer to datasheet for setting ranges (Active) |
| Degree of Protection | NEMA 4X, IP65 |
| Agency Listing | cULus according to UL60730-1, UL2043, CAN/CSA E60730-1 CE according to 2014/30/EU |

| Outdoor Humidity Temperature | |
|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | |
| Accuracy Humidity Temperature Active Passive | ±2% between 10 to 90% rH (typ. @ 70°F [21°C]) ±1% of measuring range (typ. @ 70°F [21°C]) PT1000 = ±0.54°F [0.3°C] @ 32°F [0°C] Ni1000 (JCI) = ±0.72°F [0.4°C] @ 32°F [0°C] NTC 10k2, 10k3, 20k = ±0.36°F [0.2°C] @ 77°F [25°C] |
| Power Supply | mA: 15 to 24 DC (±10%) VDC: 24 AC/DC (±10%) |
| Output | 4-20 mA, 0-5/10 VDC, PT1000, Ni1000 (JCI), 10k2, 10k3, NTC20k |
| Ambient Temperature Passive Active | -40°F to +160°F [-40°C to +70°C] -30°F to +160°F [-35°C to +70°C] |
| Medium Temperature Passive Active | -40°F to +160°F [-40°C to +70°C] -30°F to +160°F [-35°C to +70°C] |
| Electrical Connection | PG11 cable gland and ½" NPT conduit adaptor (included) |
| Measuring Range Temperature Enthalpy Dew Point Relative Humidity Absolute Humidity | range selectable (Active) refer to datasheet 0 to 85 kJ/kg 32°F to 122°F [0°C to 50°C] and -4°F to +176°F [-20°C to +80°C] 0 to 100% rH non-condensing 0 to 50 g/m³ and 0 to 80 g/m³ |
| Degree of Protection | NEMA 4X, IP65 |
| Agency Listing | cULus according to UL60730-1, UL2043, CAN/CSA E60730-1 CE according to 2014/30/EU |

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All prices are in US Dollars (USD)


| Air | Measuring Values | | Output Signal | | | Communication | | Measuring Range | | Degree of Protection | | NIST | List Price | |
|--------------------------------|------------------|-------------------|---------------|------------|--------------|---------------|------------|------------------------|--------------------------|----------------------|----------------|-------|------------|-------|
| | | | Active | Passive | Temperature | | | Humidity | | | | | | |
| MODEL # | Temperature | Relative Humidity | | | | BACnet MS/TP | Modbus RTU | Multi Range Selectable | 0-100% rH non-condensing | NEMA 4X / IP65 | Weather Shield | Adder | | |
| Outdoor Air Temperature | 01UT-5A | • | | | PT100 | | | | | • | | | \$71 | |
| | 01UT-5B | • | | | PT1000 | | | | | • | | | \$71 | |
| | 01UT-5E | • | | | Ni1000 (JCI) | | | | | • | | | \$64 | |
| | 01UT-5L | • | | | 10k2 | | | | | • | | | \$45 | |
| | 01UT-5M | • | | | 10k3 | | | | | • | | | \$45 | |
| | 01UT-5Q | • | | | NTC20k | | | | | • | | | \$45 | |
| | 22UT-52 | • | | 0-5/10 VDC | | | | • | | • | | | \$75 | \$169 |
| | 22UT-54 | • | | 4-20 mA | | | | • | | • | | | \$75 | \$169 |
| Outdoor Humidity / Temperature | 22UTH-51 | • | • | 0-5/10 VDC | | | | • | • | • | | | \$75 | \$318 |
| | 22UTH-510B | • | • | 0-5/10 VDC | PT1000 | | | | • | • | | | \$75 | \$318 |
| | 22UTH-510E | • | • | 0-5/10 VDC | Ni1000 (JCI) | | | | • | • | | | \$75 | \$318 |
| | 22UTH-510L | • | • | 0-5/10 VDC | 10k2 | | | | • | • | | | \$75 | \$318 |
| | 22UTH-510M | • | • | 0-5/10 VDC | 10k3 | | | | • | • | | | \$75 | \$318 |
| | 22UTH-510Q | • | • | 0-5/10 VDC | NTC20k | | | | • | • | | | \$75 | \$318 |
| | 22UTH-53 | • | • | 4-20 mA | | | | • | • | • | | | \$75 | \$318 |
| | 22UTH-530B | • | • | 4-20 mA | PT1000 | | | | • | • | | | \$75 | \$318 |
| | 22UTH-530E | • | • | 4-20 mA | Ni1000 (JCI) | | | | • | • | | | \$75 | \$318 |
| | 22UTH-530L | • | • | 4-20 mA | 10k2 | | | | • | • | | | \$75 | \$318 |
| | 22UTH-530M | • | • | 4-20 mA | 10k3 | | | | • | • | | | \$75 | \$318 |
| | 22UTH-530Q | • | • | 4-20 mA | NTC20k | | | | • | • | | | \$75 | \$318 |
| | 22UTH-510X | • | • | 0-5/10 VDC | | | | • | • | • | • | | \$75 | \$655 |
| | 22UTH-530X | • | • | 4-20 mA | | | | • | • | • | • | | \$75 | \$655 |
| | 22UTH-550X | • | • | 0-5/10 VDC | | | | • | • | • | • | | \$75 | \$730 |
| | 22UTH-560X | • | • | 0-5/10 VDC | | | • | • | • | • | • | | \$75 | \$730 |


Water Sensors


Surface Mount Temperature, Condensation Sensor, Liquid Gage, Liquid Differential




| | | | | | | | |
|---------------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|----------|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| 22 | H | H | - | 5 | 0 | 0 | X |
| Power 01 = Passive 22 = Active | Application H = Surface Mount (Housing) S = Surface Mount (Cable) W = Water | Medium DP = Differential Pressure H = Condensation (Humidity) P = Gage Pressure T = Temperature | | Region 5 = Americas | Signal type 0 = Switch 1 = VDC (Volt) 2 = VDC (Volt) Multi Range 3 = 4-20 mA 4 = 4-20 mA Multi Range A = PT100 B = PT1000 E = Ni1000 JCI L = NTC10k2 M = NTC10k3 Q = NTC20k | Range / Length 0 = If N/A 1 = 0-15 psi 2 = 0-30 psi 3 = 6 ft. (2 m) 4 = 0-50 psi 5 = WDP 0-100 psi 6 = WP 0-100 psi 7 = 200 psi | Details 22HH-... X = Remote Cable Probe |

| | |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Surface Mount Temperature |  |
| Accuracy Temperature Active Passive | ±1% of measuring range (typ. @ 70°F [21°C]) PT100, PT1000 = ±0.54°F [0.3°C] @ 32°F [0°C] Ni1000 (JCI) = ±0.72°F [0.4°C] @ 32°F [0°C] NTC 10k2, 10k3, 20k = ±0.36 °F [0.2°C] @ 77°F [25°C] |
| Power Supply | mA: 15 to 24 DC (±10%) VDC: 24 AC/DC (±10%) |
| Output | 4-20 mA, 0-5/10 VDC, PT100, PT1000, Ni1000 (JCI), 10k2, 10k3, NTC20k |
| Ambient Temperature Passive Active | -30°F to +195°F [-35°C to +90°C] -30°F to +160°F [-35°C to +70°C] |
| Medium Temperature Passive Active | -30°F to +195°F [-35°C to +90°C] -30°F to +160°F [-35°C to +70°C] |
| Electrical Connection (Active) | PG 11 cable gland and ½" NPT conduit adaptor (included) |
| Measuring Range Temperature | range selectable (Active) refer to datasheet |
| Protection | SI Moisture |
| Degree of Protection | NEMA 4X, IP65 |
| Agency Listing | cULus according to UL60730-1, UL2043, CAN/CSA E60730-1 CE according to 2014/30/EU |

| | |
|------------------------------------|-------------------------------------------------------------------------------------|
| Liquid Pressure Transmitter |  |
| Accuracy Pressure | 0.5% full scale (FS) @ 77°F [25°C] |
| Power Supply | mA: 15 to 24DC (±10%) VDC: 15 to 24 DC (±10%) or 24 AC (±10%) |
| Output | 4-20 mA, 0-10 VDC |
| Thread/Port Connection | ¼" NPT (internal) |
| Ambient Temperature | -40°F to +220°F [-40°C to +105°C] |
| Medium Temperature | -40°F to +255°F [-40°C to +125°C] |
| Electrical Connection | MVS plug connection (DIN EN175301-803) |
| Measuring Range Pressure | 0 to 15 psi 0 to 50 psi 0 to 100 psi 0 to 200 psi |
| Degree of Protection | NEMA 4, IP65 |

| | |
|----------------------------|--------------------------------------------------------------------------------------|
| Condensation Sensor |  |
| Power Supply | mA: 15 to 24 DC (±10%) VDC: 24 AC/DC (±10%) |
| Output | Relay SPCO 24V / 1A |
| Ambient Temperature | -4°F to +140°F [-20°C to +60°C] |
| Medium Temperature | -4°F to +140°F [-20°C to +60°C] |
| Electrical Connection | PG 11 cable gland and ½" NPT conduit adaptor (included) |
| Degree of Protection | NEMA 4X, IP65 |
| Agency Listing | cULus according to UL60730-1, UL2043, CAN/CSA E60730-1 CE according to 2014/30/EU |

| | |
|-----------------------------|---------------------------------------------------------------------------------------|
| Liquid Differential |  |
| Accuracy Pressure | <±1% FS 23°F to 167°F [-5°C to +75°C] |
| Power Supply | mA: 15 to 24 DC (±10%) VDC: 15 to 24 DC (±10%) or 24 AC (±10%) |
| Output | 4-20 mA, 0-10 VDC |
| Ambient Temperature | 15°F to 120°F [-10°C to +50°C] |
| Medium Temperature | 15°F to 175°F [-10°C to +80°C] |
| Electrical Connection | MVS plug connection (DIN EN175301-803) |
| Thread/Port Connection | ¼" NPT (internal) |
| Measuring Range Pressure | 0 to 15 psi 0 to 30 psi 0 to 50 psi 0 to 100 psi |
| Degree of Protection | NEMA 4, IP65 |

For accessories, see page 20-15.

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| Water | Measuring Values | | | | Relay | Output Signal | | Temperature | Pressure | | | | | Cable | Enclosure Type | | Display | | NIST | List Price | | |
|---------------------------|------------------|-------------|--------------|-----------------------|-------|---------------|---------------|--------------|----------|---------|------------------------|-------------|-------------|------------|----------------|--------------|--------------|--------------|------|------------|----------------|---------------|
| | MODEL # | Temperature | Condensation | Differential Pressure | | Gage Pressure | SPCO 24V / 1A | | Active | Passive | Multi Range Selectable | 0 to 15 psi | 0 to 30 psi | | 0 to 50 psi | 0 to 100 psi | 0 to 200 psi | Cable Length | | | NEMA 4X / IP65 | NEMA 4 / IP65 |
| Surface Mount Temperature | 01HT-5A | • | | | | | PT100 | | | | | | | | | • | | | | | \$54 | |
| | 01HT-5B | • | | | | | PT1000 | | | | | | | | | • | | | | | \$54 | |
| | 01HT-5E | • | | | | | Ni1000 (JCI) | | | | | | | | | • | | | | | \$54 | |
| | 01HT-5L | • | | | | | 10k2 | | | | | | | | | • | | | | | \$43 | |
| | 01HT-5M | • | | | | | 10k3 | | | | | | | | | • | | | | | \$43 | |
| | 01HT-5Q | • | | | | | NTC20k | | | | | | | | | • | | | | | \$43 | |
| | 22HT-52 | • | | | | | 0-5/10 VDC | | • | | | | | | | • | | | | | \$75 | \$157 |
| | 22HT-54 | • | | | | | 4-20 mA | | • | | | | | | | • | | | | | \$75 | \$157 |
| | 01ST-5A3 | • | | | | | | PT100 | | | | | | 6 ft [2 m] | | • | | | | | | \$39 |
| | 01ST-5B3 | • | | | | | | PT1000 | | | | | | 6 ft [2 m] | | • | | | | | | \$39 |
| | 01ST-5E3 | • | | | | | | Ni1000 (JCI) | | | | | | 6 ft [2 m] | | • | | | | | | \$39 |
| | 01ST-5L3 | • | | | | | | 10k2 | | | | | | 6 ft [2 m] | | • | | | | | | \$29 |
| | 01ST-5M3 | • | | | | | | 10k3 | | | | | | 6 ft [2 m] | | • | | | | | | \$29 |
| | 01ST-5Q3 | • | | | | | | NTC20k | | | | | | 6 ft [2 m] | | • | | | | | | \$29 |
| Condensation Sensor | 22HH-50 | • | | | | | | | | | | | | | • | | | • | | | \$206 | |
| | 22HH-500X | • | | | | | | | | | | | | | • | | | • | • | | \$225 | |
| Liquid Pressure | 22WP-511 | | | | | | 0-10 VDC | | • | | | | | | | • | | | | | \$330 | |
| | 22WP-531 | | | | | | 4-20 mA | | • | | | | | | | • | | | | | \$330 | |
| | 22WP-514 | | | | | | 0-10 VDC | | | • | | | | | | • | | | | | \$330 | |
| | 22WP-534 | | | | | | 4-20 mA | | | • | | | | | | • | | | | | \$330 | |
| | 22WP-516 | | | | | | 0-10 VDC | | | | • | | | | | • | | | | | \$330 | |
| | 22WP-536 | | | | | | 4-20 mA | | | | • | | | | | • | | | | | \$330 | |
| | 22WP-517 | | | | | | 0-10 VDC | | | | | • | | | | • | | | | | \$330 | |
| | 22WP-537 | | | | | | 4-20 mA | | | | | • | | | | • | | | | | \$330 | |
| Liquid Differential | 22WDP-511 | | • | | | | 0-10 VDC | | • | | | | | | | • | | | | | \$824 | |
| | 22WDP-531 | | • | | | | 4-20 mA | | • | | | | | | | • | | | | | \$824 | |
| | 22WDP-512 | | • | | | | 0-10 VDC | | | • | | | | | | • | | | | | \$824 | |
| | 22WDP-532 | | • | | | | 4-20 mA | | | • | | | | | | • | | | | | \$824 | |
| | 22WDP-514 | | • | | | | 0-10 VDC | | | | • | | | | | • | | | | | \$824 | |
| | 22WDP-534 | | • | | | | 4-20 mA | | | | • | | | | | • | | | | | \$824 | |
| | 22WDP-515 | | • | | | | 0-10 VDC | | | | | • | | | | • | | | | | \$824 | |
| | 22WDP-535 | | • | | | | 4-20 mA | | | | | • | | | | • | | | | | \$824 | |


Flow Meters

NPT Female Inlet and Male Outlet



| FM | 050 | | | |
|-----------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------------------------------------|
| FM = Flow Meter | Valve Size 050 = 1/2" 075 = 3/4" 100 = 1" 125 = 1 1/4" 150 = 1 1/2" 200 = 2" | GPM Range 0.07 - 6.6* 0.13 - 12.4* 0.23 - 21.8* 0.36 - 34.2* 0.49 - 47.5* 1.09 - 91.2* | Power Supply 24 = 24 VAC/DC | Output Signal Analog 0 - 10 VDC |

SENSORS

| Flow Meters | |
|-----------------------------------------------------|-------------------------------------------------------------------------------------------|
| |  |
| Service | chilled or hot water, up to 60% glycol max, condenser water (open loop/steam not allowed) |
| End Fitting | NPT female inlet, NPT male outlet |
| Sensor Housing | forged brass, nickel plated |
| Sensor Housing Pressure Rating | 360 psi |
| Media Temperature Range | -4°F to +250°F [-20°C to +120°C] |
| Ambient Temperature Range | 32°F to 122°F [0°C to 50°C] |
| Inlet Length to Meet Specified Measurement Accuracy | inlet: 5X nominal pipe size (NPS) outlet: no requirement |
| Flow Sensor Technology | ultrasonic with glycol and temperature compensation |
| Electrical Connection | 3 ft., 18 GA plenum cable |
| Power Supply | 24 VAC/DC |
| Output Signal | analog (0-10 VDC) |
| 0V | sensor has no supply voltage |
| 0.3V | sensor has supply voltage but is in error state |
| 0.5V | 0% of V _{nom} * |
| 10V | 100% of V _{nom} * |
| Flow Measurement Tolerance | ±2% ** |
| Flow Measurement Repeatability | ±0.5% |

*V_{nom} is the maximum/nominal flow rate for each size
 **All flow accuracies are at 77°F [25°C] / Glycol 0% vol.

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| Water | | Measuring Values | Output Signal | Pressure | | | | | | Enclosure Type | List Price |
|-------------|-------|------------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|----------------|------------|
| MODEL # | | Flow | 0-10 VDC | 0.07-6.6 GPM | 0.13-12.4 GPM | 0.23-21.8 GPM | 0.36-34.2 GPM | 0.49-47.5 GPM | 1.09-91.2 GPM | NEMA 1/ IP54 | |
| Flow Meters | FM050 | • | • | • | | | | | | • | \$582 |
| | FM075 | • | • | | • | | | | | • | \$590 |
| | FM100 | • | • | | | • | | | | • | \$780 |
| | FM125 | • | • | | | | • | | | • | \$1,210 |
| | FM150 | • | • | | | | | • | | • | \$1,300 |
| | FM200 | • | • | | | | | | • | • | \$1,500 |

Sensor Accessories

Air



| Model Number | 01DT | 22DT | 22DTH | 22DTC | 22DTM | 22DC | 22DCV | 22DCK | 22DCM | 01APS | 22ADP | List Price |
|----------------------------------------------------------------------------------------------------------------------|------|------|-------|-------|-------|------|-------|-------|-------|-------|-------|------------|
| A-22AP-A01 Metal duct connectors, L = 1.5" (40 mm) | | | | | | | | | | • | • | \$15 |
| A-22AP-A03 Metal duct connectors, L = 4" (100 mm) | | | | | | | | | | • | • | \$21 |
| A-22AP-A05.1 6 ft. (2 m) PVC tube and 2 plastic duct probes for 01APS pressure switch (multipack - 50 pcs) | | | | | | | | | | • | | \$750 |
| A-22D-A03 Mounting flange for duct temperature sensors Ø 0.25" (6 mm) | • | • | | | | | | | | | | \$9 |
| A-22D-A34 Mounting flange for duct humidity and air quality sensors | | | • | • | • | • | • | • | • | | | \$15 |

SENSORS



| Model Number | 01DT | 22DT | 01ST | 01HT | 22WP | 22WDP | List Price |
|----------------------------------------------------------------------------------------|------|------|------|------|------|-------|------------|
| A-22P-A05 Thermowell (2 part) stainless steel 2" (50 mm) ½" NPT | • | • | | | | | \$41 |
| A-22P-A07 Thermowell (2 part) stainless steel 4" (100 mm) ½" NPT | • | • | | | | | \$43 |
| A-22P-A09 Thermowell (2 part) stainless steel 6" (150 mm) ½" NPT | • | • | | | | | \$51 |
| A-22P-A11 Thermowell (2 part) stainless steel 8" (200 mm) ½" NPT | • | • | | | | | \$64 |
| A-22P-A13 Thermowell (2 part) stainless steel 12" (300 mm) ½" NPT | • | • | | | | | \$97 |
| A-22P-A15 Thermowell (2 part) stainless steel 18" (450 mm) ½" NPT | • | • | | | | | \$131 |
| A-22P-A17 Thermowell (2 part) brass 2" (50 mm) ½" NPT | • | • | | | | | \$30 |
| A-22P-A19 Thermowell (2 part) brass 4" (100 mm) ½" NPT | • | • | | | | | \$36 |
| A-22P-A21 Thermowell (2 part) brass 6" (150 mm) ½" NPT | • | • | | | | | \$43 |
| A-22P-A23 Thermowell (2 part) brass 8" (200 mm) ½" NPT | • | • | | | | | \$52 |
| A-22P-A25 Thermowell (2 part) brass 12" (300 mm) ½" NPT | • | • | | | | | \$75 |
| A-22P-A27 Thermowell (2 part) brass 18" (450 mm) ½" NPT | • | • | | | | | \$94 |
| A-22P-A36 Thermowell (machined) stainless steel 2" (50 mm) ½" NPT | • | • | | | | | \$109 |
| A-22P-A37 Thermowell (machined) stainless steel 4" (100 mm) ½" NPT | • | • | | | | | \$146 |
| A-22P-A38 Thermowell (machined) stainless steel 6" (150 mm) ½" NPT | • | • | | | | | \$150 |
| A-22P-A39 Thermowell (machined) stainless steel 8" (200 mm) ½" NPT | • | • | | | | | \$172 |
| A-22P-A40 Tightening strap 2" (50 mm) for pipe sensor with contact fluid | | | • | • | | | \$11 |
| A-22P-A42 Tightening strap 2-35" (900 mm) for pipe sensor with contact fluid | | | • | • | | | \$19 |
| A-22P-A44 Thermal contact fluid 0.04 oz (1.2 ml) | • | • | • | • | | | \$7 |
| A-22WP-A01 Adapter ¼" NPT to ½" NPT | | | | | • | | \$21 |
| A-22WP-A03 Adapter connection set 6 mm ¼" NPT brass (2x) | | | | | | • | \$32 |
| A-22WP-A05 Adapter connection set 6 mm ¼" NPT stainless steel (2x) | | | | | | • | \$142 |
| A-22WP-A07 Adapter connection set 8 mm ¼" NPT brass (2x) | | | | | | • | \$36 |
| A-22WP-A09 Adapter connection set 8 mm ¼" NPT stainless steel (2x) | | | | | | • | \$165 |

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SENSORS