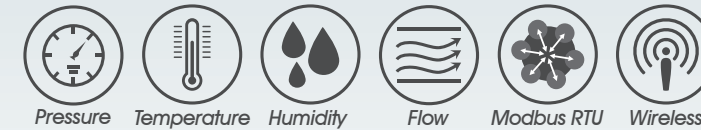


20
OVER
YEARS
EXPERIENCE

KeramControls®
Original Design



KeramControls®
启元控制

KERAM (NANJING) ELECTRICAL EQUIPMENT CO., LTD.

Factory : No.56, Shanyang Road, Huai'an Economic Development Zone, Huai'an, China

Sales Office : Room 1010-1011, Jinrun Building West Tower, Jianye District, Nanjing, China

Tel : +86-25-8320 1426 Fax : +86-25-5282 1532

E-Mail : info@keramcontrols.com



CE ISO9001

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PRODUCT CATALOGUE
HVAC / Building Automation

www.keramcontrols.com



A Message From The CEO

Dear Customers,

Thank you very much for your kind concern and selection of our products.

From the initial establishment to the scale now, Keram control has gone through more than 20 years. For more than 20 years, we have been working hard in the field of HVAC and building automation accessories, and accumulated rich industry experience. From simple manufacturing to the formation of independent R & D and manufacturing capabilities and possessing a variety of patents and independent intellectual property rights, it has made a qualitative leap. The specialization, refinement and high cost performance of product manufacturing make us become OEM suppliers of many international brands.

Facing the future, we are striving to “Create By China”, better serve and create great value to our customers. Thank you again!

Frank Hou
CEO
Keram Controls

Our History

Nanjing Qiyuan Controls & Equipment Co., Ltd. was found in 1998.

In 2005, the number of the employees increased to more than 100.

In 2006, its manufacturing base was moved to Huai An Industrial Development Zone.

Keram Controls has obtained the investment from Keram Group in 2009.

In 2014, business expands to electrical components and appliance, and changed its name to Keram (Nanjing) Electrical Equipment Co., Ltd.

Our Values



Customer Demands



**Quality Is Always
The Priority**



**The Spirit Of
Continuous Innovation**



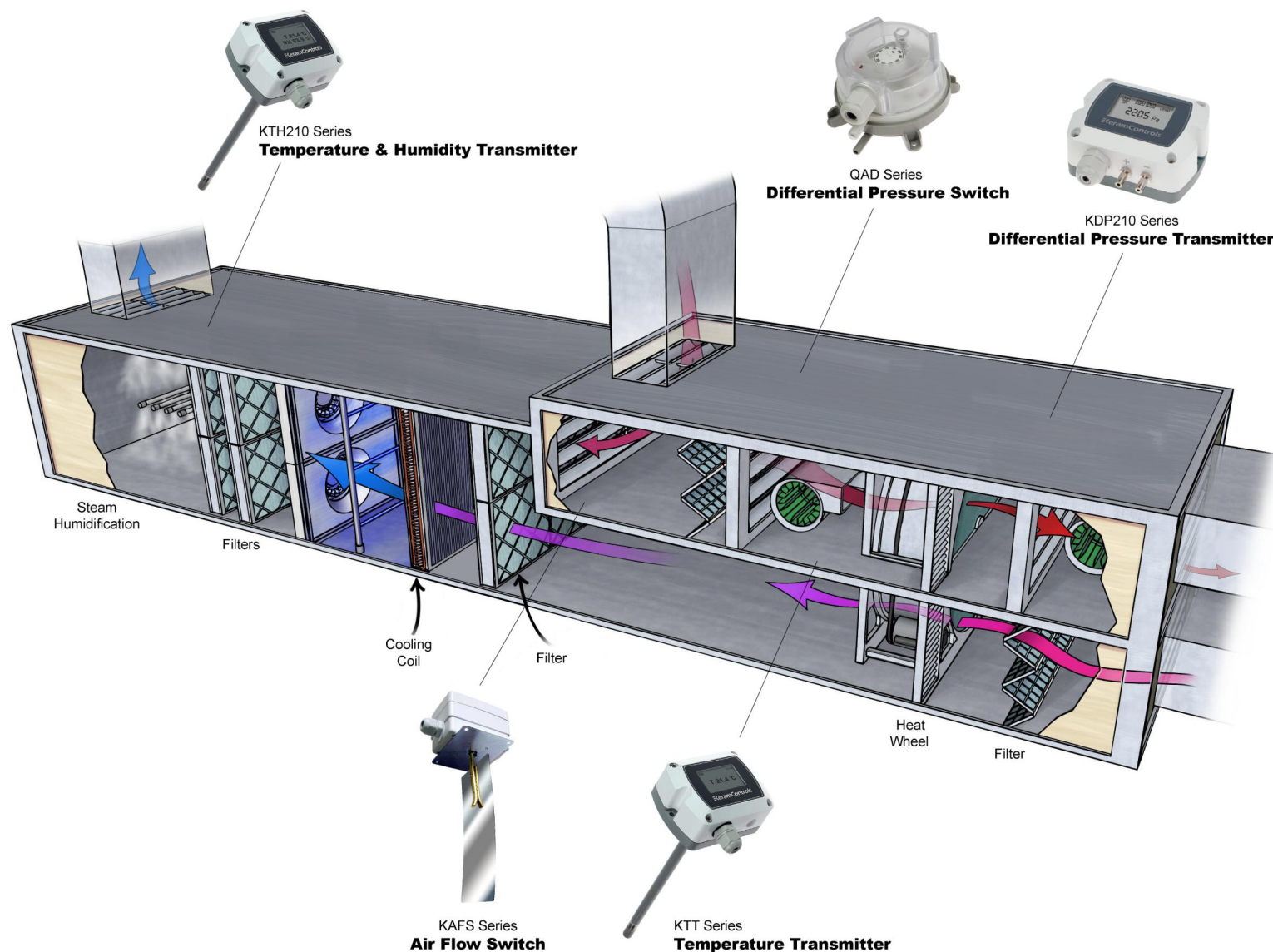
Dedication



Integrity



Passions



APPLICATIONS Air handling units

The Air Handling Unit (AHU) is a centralized air handling system. It originated from a centralized hot air heating and ventilation system in which equipment is installed centrally and air is distributed through air ducts.

The basic centralized system is an all-air single-zone system, which generally includes fans, heaters, coolers, and filter components.

Keram Controls provides a variety of sensors and switches for monitoring air handling units to increase work efficiency and accuracy.

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DIFFERENTIAL PRESSURE TRANSMITTER

KDP210



PATENTED

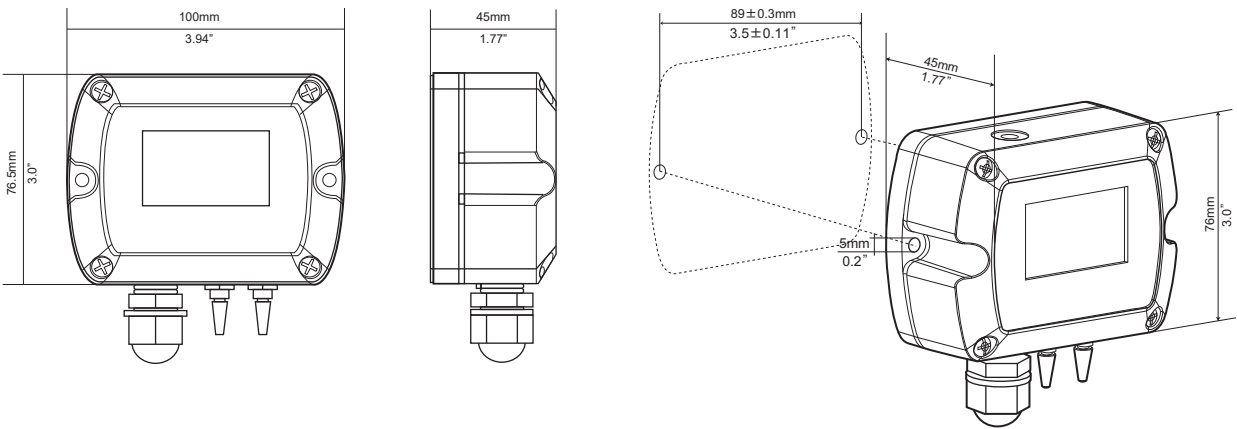
KDP210 differential pressure transmitter has high precision, ultra-low & adjustable range, fast response characteristics, widely used in clean electronics and pharmaceutical factories, as well as large commercial buildings, medical centers and transportation hub.



Specifications

Model	KDP210
Measurement units	Pa, mmH ₂ O, inWG, mmHG, kPa, mbar
Accuracy	<±1% FS @ -5 to +65°C
Response time	20ms; 0.5s; 1s; 2s
Repeatbality	±0.01 % at FS / year
Resolution	1 Pa; 1 mmH ₂ O; 0.01 mbar; 0.04 inWG; 0.01 mmHG; 0.001 kPa
Media	Air and neutral gases
Operating temperature	-20 to +80°C
Storage temperature	-40 to +80°C
Power consumption	<3 W
Tolerated overpressure	×15
Power supply	16~30Vdc/Vac
Output signal	4-20mA (2 wires, 3 wires) 0-5 / 0-10V (3 wires)
Auto zero	Manual calibration
Protection class	IP65 / NEMA4

Dimensions (mm / inch)



Ordering Guide

KDP210 — Range — Display — Output

Model	Ranges		Display		Output	
KDP210	-100~+100Pa	(1)	LCD backlight	(D)	4-20mA (2 wires)	(E)
	-250~+250Pa	(2)			4-20mA (3 wires)	(F)
	-500~+500Pa	(3)			0-5 / 0-10V (3 wires)	(G)
	-1000~+1000Pa	(4)			Customized	
	-2000~+2000Pa	(5)				
	-4000~+4000Pa	(6)				
	-10000~+10000Pa	(7)				
	Customized					

Note: The accuracy of the range -100 ~ + 100Pa model is <±3% FS

DIFFERENTIAL PRESSURE TRANSMITTER

KDP210-MOD



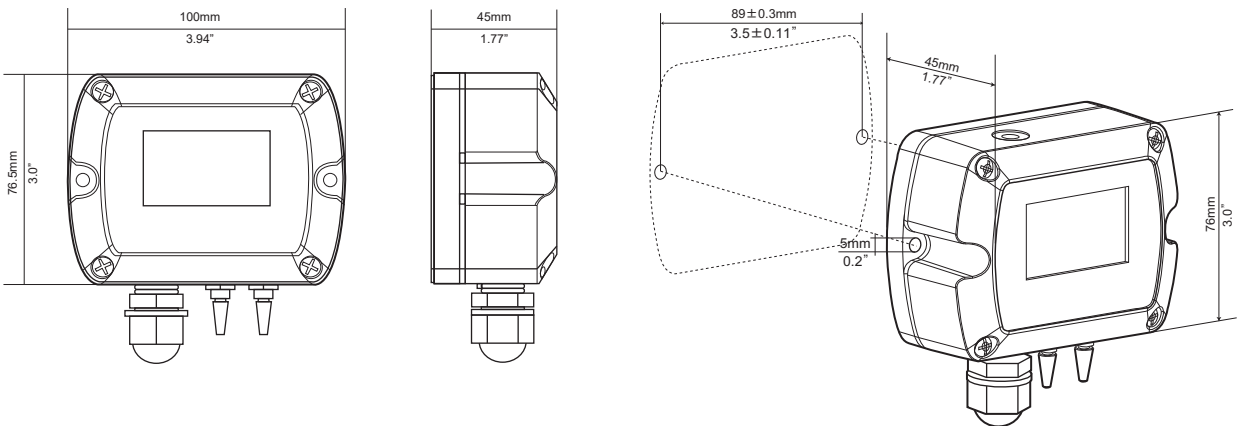
KDP210 differential pressure transmitter has high precision, ultra-low & adjustable range, fast response characteristics, widely used in clean electronics and pharmaceutical factories, as well as large commercial buildings, medical centers and transportation hub.

Specifications

Model	KDP210-MOD
Measurement units	Pa, mmH ₂ O, inWG, mmHG, kPa, mbar
Accuracy	<±1% FS @ -5 to +65°C
Response time	20ms; 0.5s; 1s; 2s
Repeatbality	±0.01 % at FS / year
Resolution	1 Pa; 1 mmH ₂ O; 0.01 mbar; 0.04 inWG; 0.01 mmHG; 0.001 kPa
Media	Air and neutral gases
Operating temperature	-20 to +80°C
Storage temperature	-40 to +80°C
Power consumption	<3 W
Tolerated overpressure	×15
Power supply	16~30Vdc/Vac
Output signal	Modbus (RTU) RS-485
Auto zero	Manual calibration
Protection class	IP65 / NEMA4



Dimensions (mm / inch)



Ordering Guide

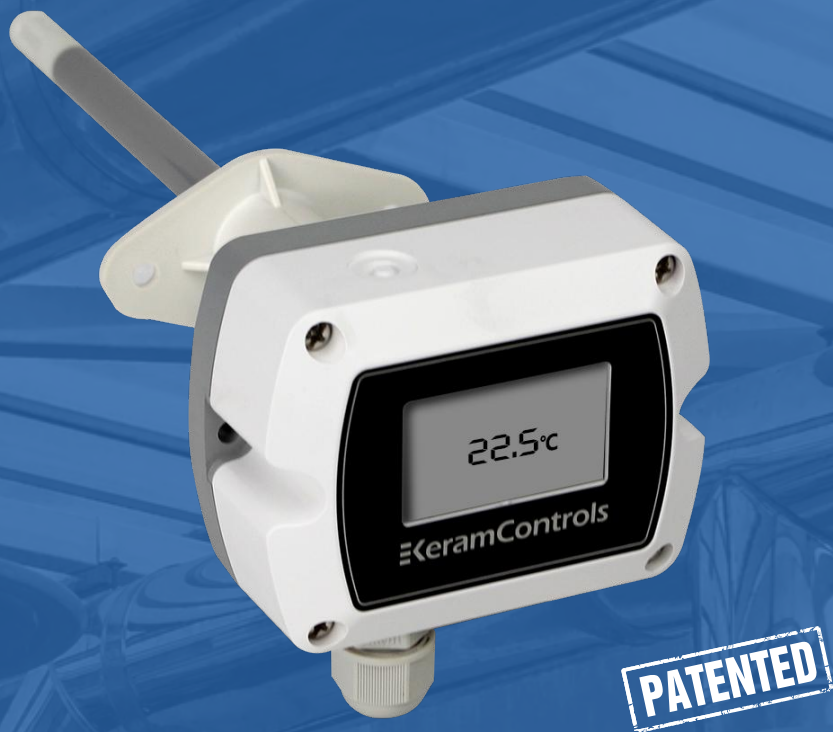
KDP210-MOD	—	Range	—	Display	—	Output
------------	---	-------	---	---------	---	--------

Model	Ranges		Display		Output
KDP210-MOD	-100~+100Pa	(1)	LCD backlight	(D)	Modbus (RTU) RS-485
	-250~+250Pa	(2)			
	-500~+500Pa	(3)			
	-1000~+1000Pa	(4)			
	-2000~+2000Pa	(5)			
	-4000~+4000Pa	(6)			
	-10000~+10000Pa	(7)			
	Customized				

Note: The accuracy of the range -100 ~ + 100Pa model is <±3% FS

TEMPERATURE TRANSMITTER

KTT210



KTT210 temperature transmitter by Keram Controls meets the highest requirements in demanding climate control applications.

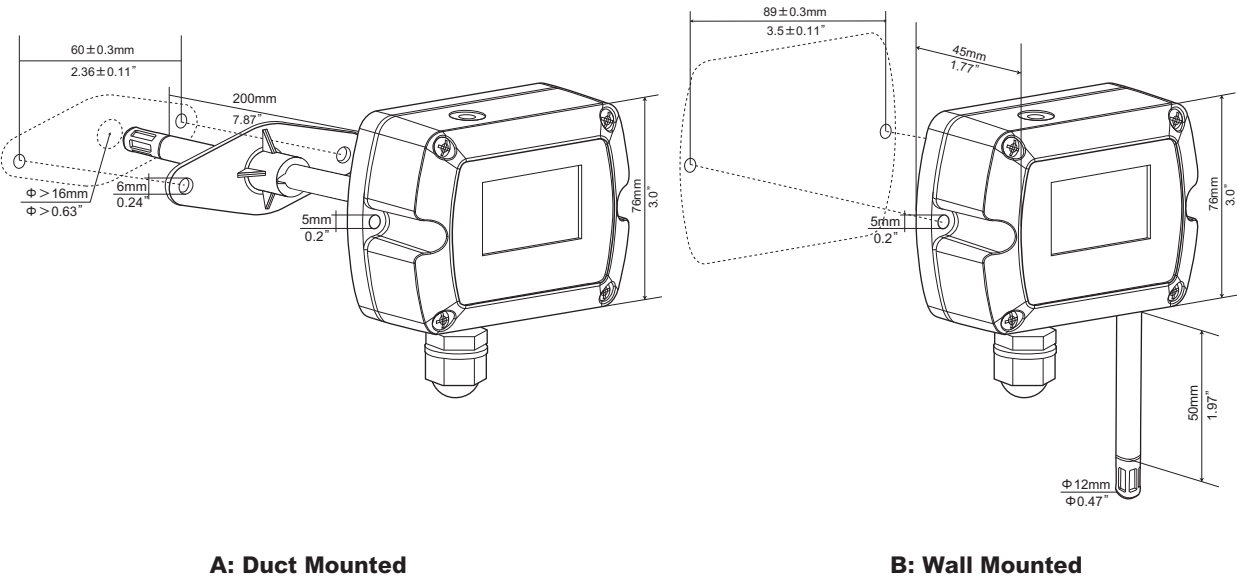
KTT210 is available as wall or duct mounted version. The newly designed housing enclosure minimizes installation costs and provides outstanding protection against contamination and condensation.



Specifications

Model	KTT210
Power Supply	16-30Vdc/Vac
Output Signal	4-20mA 0-10V
Operating Temperature	-40...60°C
Storage Temperature	-40...60°C
Operating Range	-40°C~+60°C
Accuracy	±0.3°C @ 20°C
Range (Switched by setting button)	0°C~+50°C
Protected Solder Pads	Sensor Coating
Housing Material	Polycarbonate & ABS, UL94V-0
Protection Class	IP65 / NEMA 4
Cable Gland	M16*1.5

Dimensions (mm / inch)



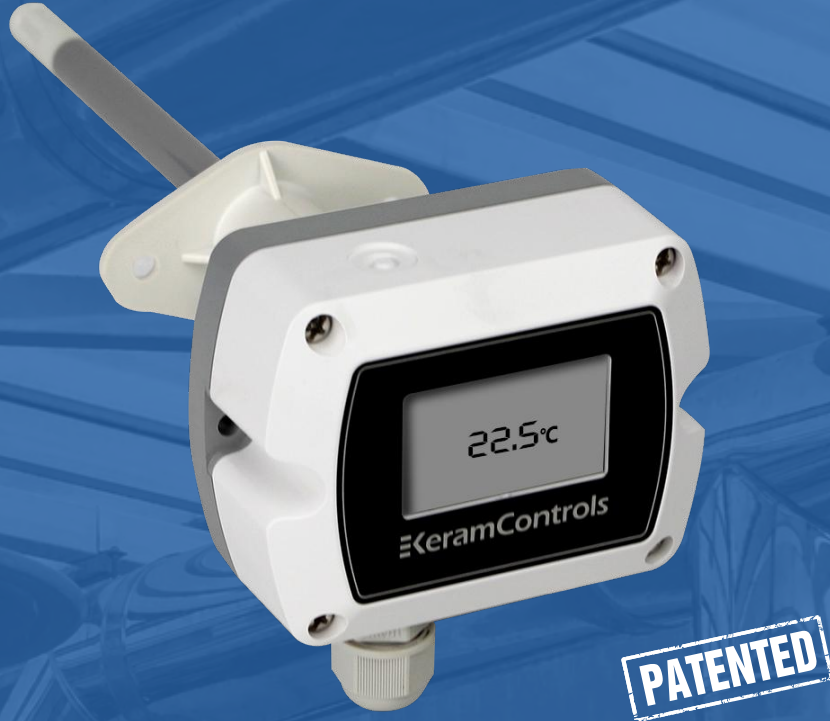
Ordering Guide

KTT210 — Output — Installation — Display — Filter — Probe length

Model	Output		Installation		Display		Filter		Probe length	
KTT210	4-20mA	(C)	Wall	(W)	Backlight	(D)	Film filter	(F)	50mm	(005M)
	0-10V	(V)	Duct	(P)			Stainless filter	(S)	200mm	(02M)

TEMPERATURE TRANSMITTER

KTT210-MOD



KTT210-MOD temperature transmitter by Keram Controls meets the highest requirements in demanding climate control applications. KTT210 is available as wall or duct mounted version. The newly designed housing enclosure minimizes installation costs and provides outstanding protection against contamination and condensation.

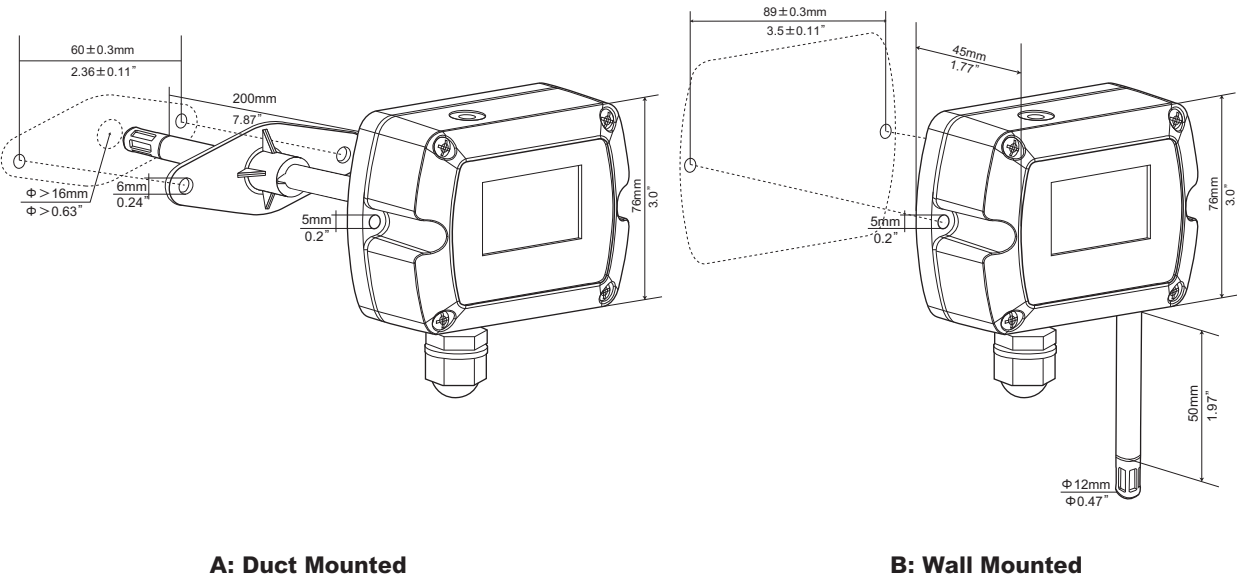


Specifications

Model	KTT210-MOD
Power Supply	16-30Vdc/Vac
Output Signal	Modbus RS-485
Operating Temperature	-40...60°C
Storage Temperature	-40...60°C
Operating Range	-40°C~+60°C
Accuracy	±0.3°C @ 20°C
Range (Switched by setting button)	0°C~+50°C
Protected Solder Pads	Sensor Coating
Housing Material	Polycarbonate & ABS, UL94V-0
Protection Class	IP65 / NEMA 4
Cable Gland	M16*1.5



Dimensions (mm / inch)

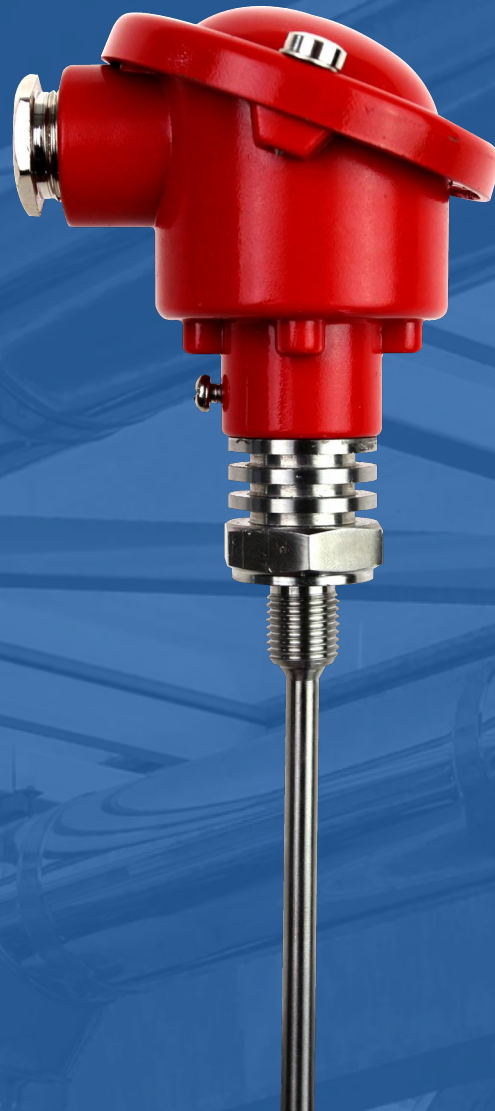


Ordering Guide

KTT210-MOD	—	Output	—	Installation	—	Display	—	Filter	—	Probe length
------------	---	--------	---	--------------	---	---------	---	--------	---	--------------

Model	Output		Installation		Display		Filter		Probe length	
KTT210-MOD	RS-485	(T)	Wall	(W)	Backlight	(D)	Film filter	(F)	50mm	(005M)
			Duct	(P)			Stainless filter	(S)	200mm	(02M)

KIT Series



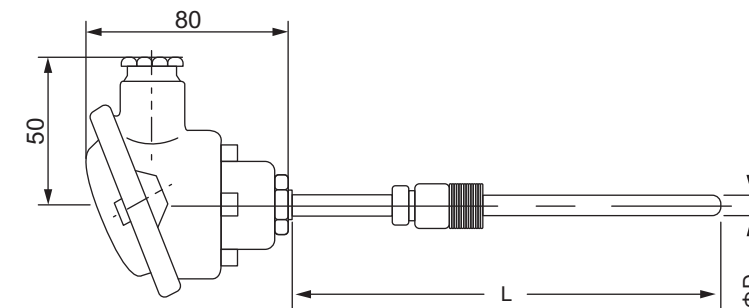
For temperature measurement in gases, in pipes and tanks at low pressure and low flow.
To be mounted with compression fitting either direct into the process.

- Temperature range from -70...+500 °C
- Different heads available, up to IP65
- Optional head-mounted transmitter
- Inserts sheath material stainless steel
- Suitable for most common thermowells

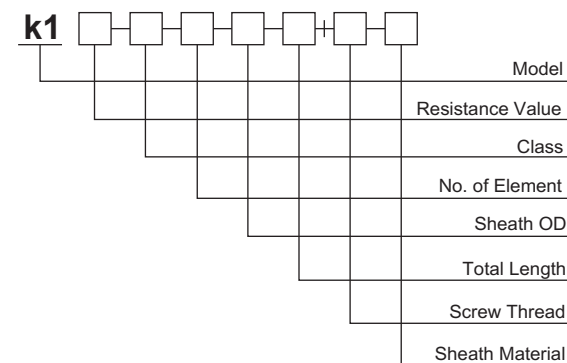
Specifications

Connection head	
Models	K1
Cable gland/ conduit thread	M20 x 1.5 mm
Sensor element	
Sensor	Pt100, Pt500, Pt1000
Circuit type	3-Wire
Connection type	Terminal block or temperature transmitter
Dimensions and material	
Thermowell connection	M18x1.5 or G1/2
Diameter	Ø5 mm, Ø6 mm, Ø6.3 mm, Ø8 mm, Ø9 mm
Material	Stainless steel
Immersion length	100, 160, 250, 400mm
Accuracy	Grade 1/3B: $\pm(0.1+0.0017t)$,
	Grade A: $\pm(0.15+0.002t)$,
	Grade B: $\pm(0.3+0.005t)$,

Dimensions (mm / inch)



Model Selection



Ordering Guide

k1 1 A 2 8 100 + FPT1/4 316

1: PT100 2: PT500 3: PT1000

A: $\pm(0.15+0.002|t|)$ B: $\pm(0.3+0.005|t|)$

Single (default) 2 groups/3 groups (optional)


φ 5 φ 6 φ 6.3 φ 8 φ 9.5


100mm 150mm 200mm 250mm 400mm

Movable screw Fixed screw

304/316 stainless steel

Connecting Thread

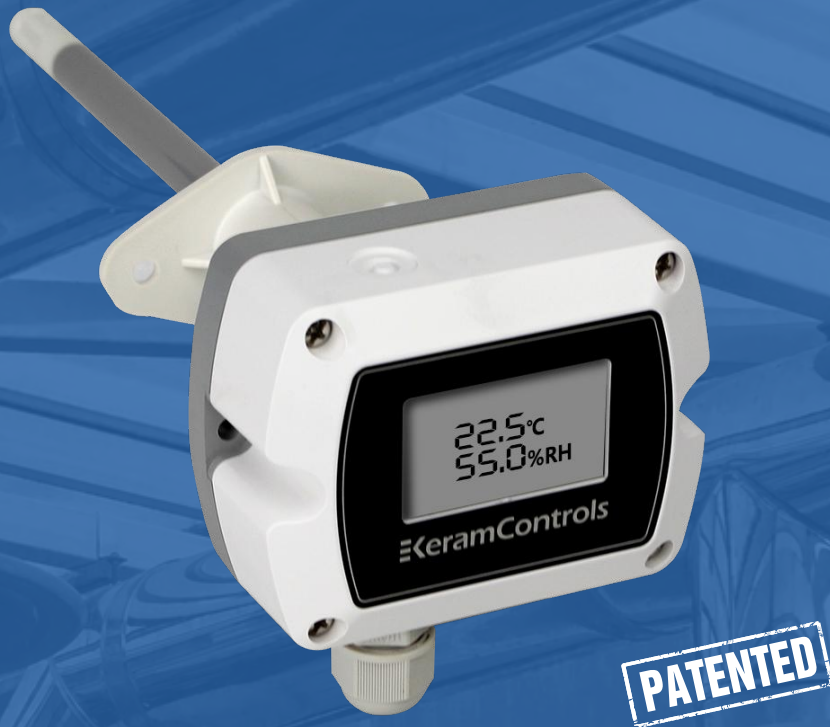
Movable Thread	Size	Sheath Diameter (D)	Thread	
			O.D.	Thread Pitch
	PT1/8	≤5mm	9.728	0.9071
	PT1/4	≤6.4mm	13.157	1.3368
	PT3/8	≤10mm	16.662	1.3368
	PT1/2	≤12mm	20.955	1.8143
	PT3/4	≤16mm	26.441	1.8143

Fixed Thread	Size	Sheath Diameter (D)	Thread	
			O.D.	Thread Pitch
	G1/8 PT1/8	≤5mm	9.728	0.9071
	G1/4 PT1/4	≤6.4mm	13.157	1.3368
	G3/8 PT3/8	≤10mm	16.662	1.3368
	G1/2 PT1/2	≤12mm	20.955	1.8143
	G3/4 PT3/4	≤16mm	26.441	1.8143
	G1 PT1	≤22mm	33.249	2.3091



TEMPERATURE AND HUMIDITY TRANSMITTER

KTH210



KTH210 temperature and humidity transmitter by Keram Controls meets the highest requirements in demanding climate control applications.

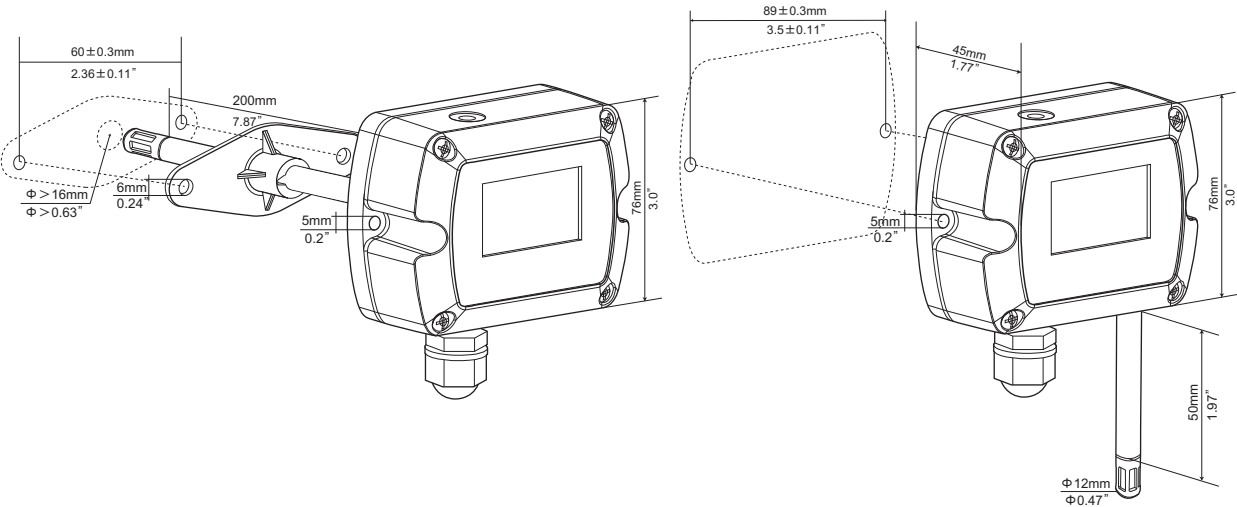
KTH210 is available as wall or duct mounted version. The newly designed housing enclosure minimizes installation costs and provides outstanding protection against contamination and condensation.



Specifications

	Model	KTH210
	Power Supply	16-30Vdc/Vac
	Output Signal	4-20mA, 0-10V
	Operating Temperature	-40...60°C
	Storage Temperature	-40...60°C
Temperature	Operating Range	-40°C~+60°C
	Accuracy	±0.3°C @ 20°C
	Range (Switched by setting button)	0°C~+50°C
Humidity	Operating Range	0~100 % RH
	Accuracy	3% @ 20°C (20~80%RH)
	Drift	<±1% RH / year
	Protected Solder Pads	Sensor Coating
	Housing Material	Polycarbonate & ABS, UL94V-0
	Protection Class	IP65 / NEMA 4
	Cable Gland	M16*1.5

Dimensions (mm / inch)



A: Duct Mounted

B: Wall Mounted

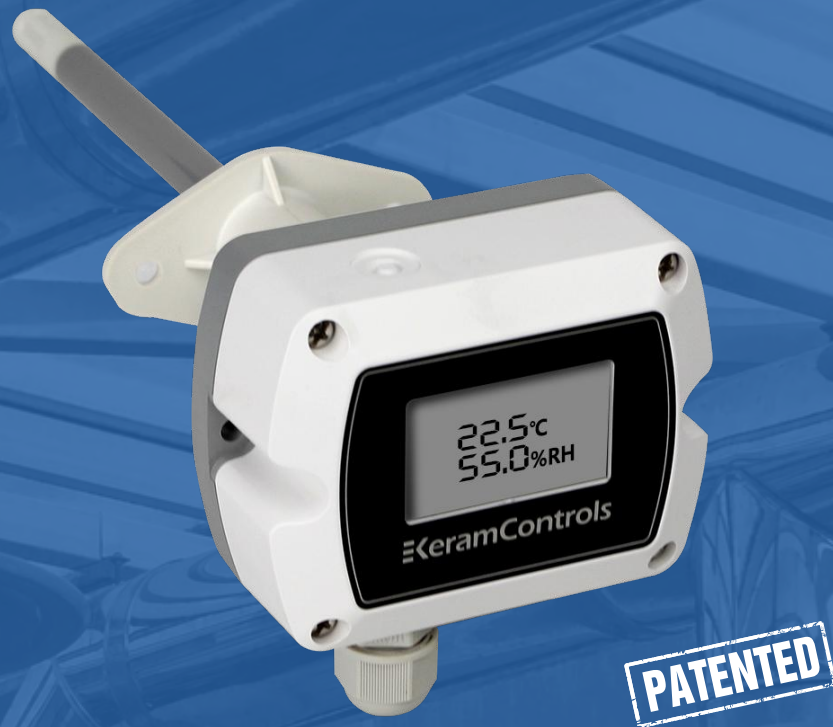
Ordering Guide

KTH210	—	Output	—	Installation	—	Display	—	Filter	—	Probe length
--------	---	--------	---	--------------	---	---------	---	--------	---	--------------

Model	Output		Installation		Display		Filter		Probe length	
KTH210	4-20mA	(C)	Wall	(W)	Backlight	(D)	Film filter	(F)	50mm	(005M)
	0-10V	(V)	Duct	(P)			Stainless filter	(S)	200mm	(02M)

TEMPERATURE AND HUMIDITY TRANSMITTER

KTH210-MOD



KTH210-MOD temperature and humidity transmitter by Keram Controls meets the highest requirements in demanding climate control applications.

KTH210 is available as wall or duct mounted version. The newly designed housing enclosure minimizes installation costs and provides outstanding protection against contamination and condensation.

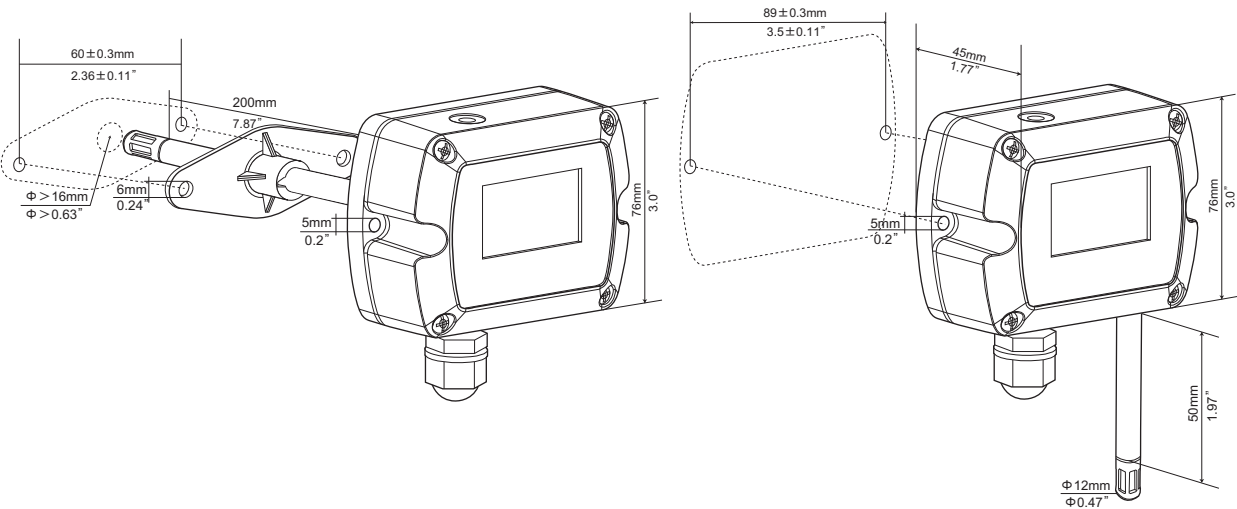


Specifications

	Model	KTH210-MOD
	Power Supply	16-30Vdc/Vac
	Output Signal	Modbus RS-485
	Operating Temperature	-40...60°C
	Storage Temperature	-40...60°C
Temperature	Operating Range	-40°C~+60°C
	Accuracy	±0.3°C @ 20°C
	Range (Switched by setting button)	0°C~+50°C
Humidity	Operating Range	0~100 % RH
	Accuracy	3% @ 20°C (20~80%RH)
	Drift	<±1% RH / year
	Protected Solder Pads	Sensor Coating
	Housing Material	Polycarbonate & ABS, UL94V-0
	Protection Class	IP65 / NEMA 4
	Cable Gland	M16*1.5



Dimensions (mm / inch)



A: Duct Mounted

B: Wall Mounted

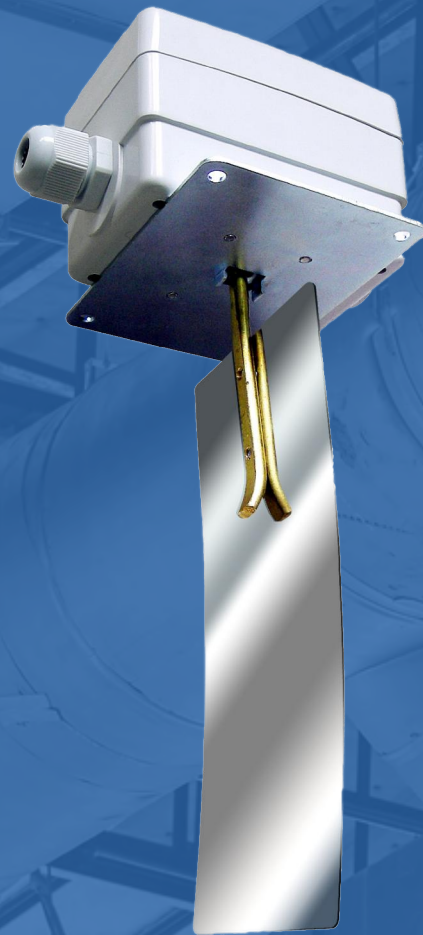
Ordering Guide

KTH210-MOD	—	Output	—	Installation	—	Display	—	Filter	—	Probe length
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Model	Output		Installation		Display		Filter		Probe length	
KTH210-MOD	RS-485	(T)	Wall	(W)	Backlight	(D)	Film filter	(F)	50mm	(005M)
			Duct	(P)			Stainless filter	(S)	200mm	(02M)

AIR FLOW PADDLE SWITCH

KAFS



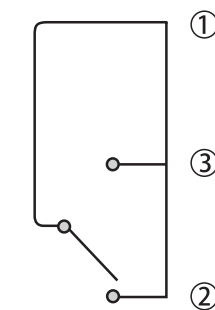
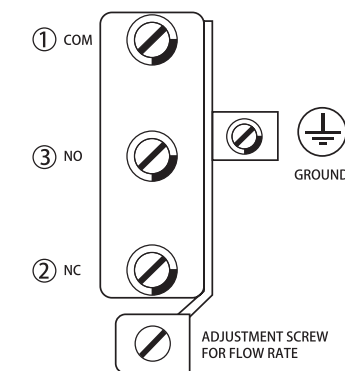
KAFS adjustable air flow paddle switch is used to control and monitor air and non-aggressive gas flow in ducts. Well-suited for air ducts, air conditioning and air handling systems.



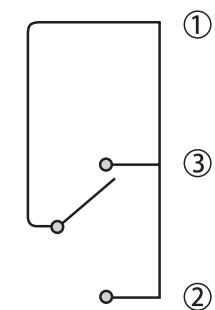
Specifications

Model	KAFS
Type of operation	On/Off, single-stage, micro switch
Output	SPDT, 24/250 VAC, 15 (8) A
Flow rate switching	
-Cut out	Min. 1.0 m/sec, Max. 8.0 m/sec
-Cut in	Min. 2.5 m/sec, Max. 9.2 m/sec
Flow rate setting/adjustment	Internal screw
Sensing element	Paddle
Paddle size	3.2 x 6.9 in. (80 x 175 mm)
Paddle w/level-Length	7.9 in. (200 mm)
Flow applications	Air and non aggressive gases
Paddle material	Stainless steel
Paddle level material	Brass
permissible ambient temperature	
-Housing	-40°F to 185°F (-40°C to 85°C)
-Paddle	14°F to 185°F (-10°C to 85°C)
Permissible ambient humidity	10...90% RH, non-condensing
Cable entry	M18 fitting
Housing -Material	Base:Steel, galvanized Cover:ABS, fire retardant or PC
-Color	White
-Protection	IP65
Installation	Duct mounted
Ship weight	0.7Kg

Electrical Wiring

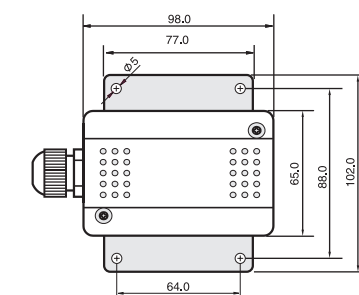
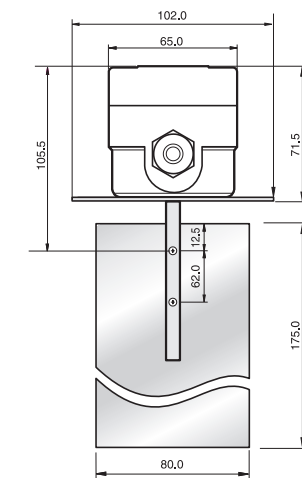
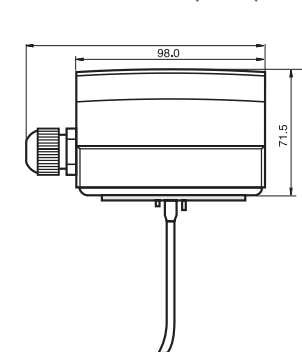


Flow increase and attained to cut-in setting
① & ② connected



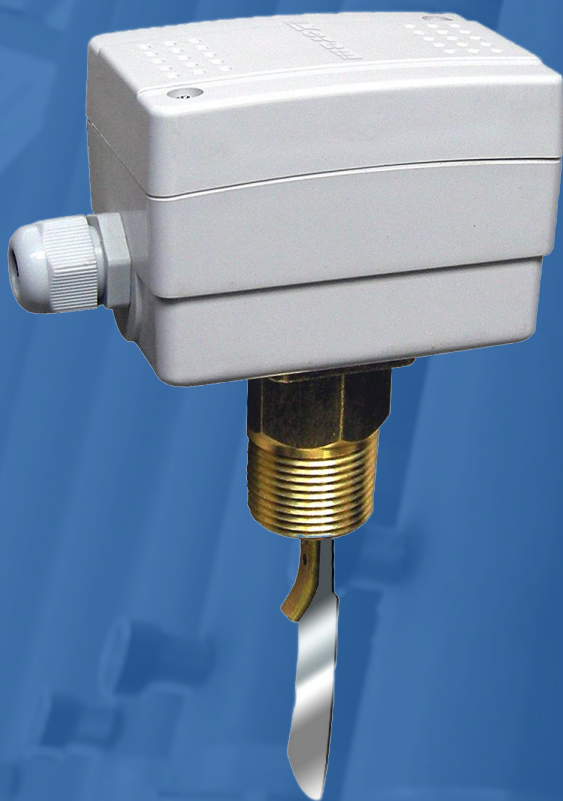
Flow decrease and attained to cut-out setting
① & ③ connected

Dimensions (mm)



LIQUID FLOW PADDLE SWITCH

KWFS Series



KWFS series liquid flow paddle switch, suited for pipes of industrial plants: heating and air conditioning, refrigeration systems and heat pumps. Flow control of water and normal media.



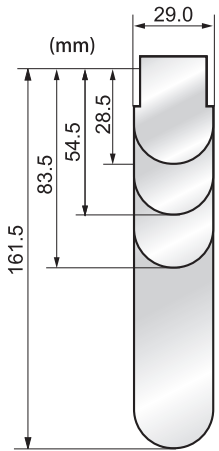
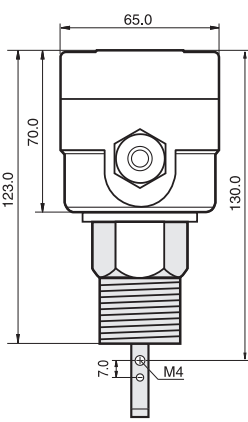
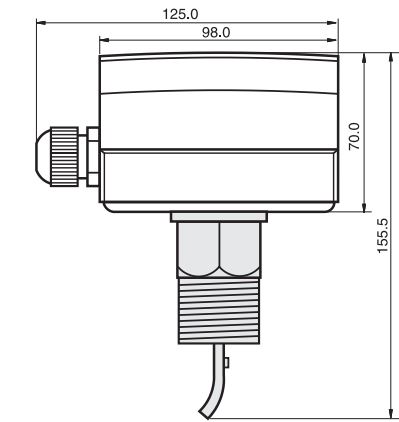
Specifications

Model	KWFS
Type of operation	On/off, single-stage, micro switch
Output	SPDT 15(8A) 24/250VAC
Flow rates	See flow rate table
Flow rate setting adjustment	Internal screw
Sensing element	Paddle
Liquid applications	Hot, chilled, well, pool and sea water, brine or ethylene glycol
Parts material in contact with fluid	Brass
Paddle material	Stainless steel
Liquid temperature	-20°C~120°C
Permissible ambient temperature	-40°C~85°C
Permissible ambient humidity	10...90% RH, non-condensing
Cable entry	M18 Fitting
Housing	Fire Resistance ABS or PC
Protection	IP65
Color	White
Weight	1.0Kg

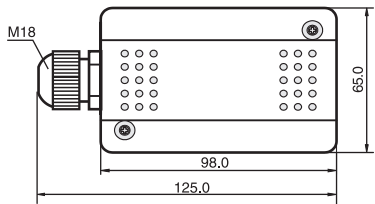
Models

Model	Connection
KWFS-1	1/2"-14 NPT
KWFS-2	3/4"-14 NPT
KWFS-3	1" -11½NPT

Dimensions (mm)



Install Paddle	
Pipe	No.
1"	1
1 1/4"	1
1 1/2"	1
2"	1,2
2 1/2"	1,2
3"	1,2,3
4"	1,2,3
4"Z	1,2,3,4
5"	1,2,3
5"Z	1,2,3,4
6"	1,2,3
6"Z	1,2,3,4
8"	1,2,3
8"Z	1,2,3,4



LIQUID FLOW PADDLE SWITCH

LQY Series



LQY series liquid flow paddle switch, suited for pipes of industrial plants: heating and air conditioning, refrigeration systems and heat pumps. Flow control of water and normal media.

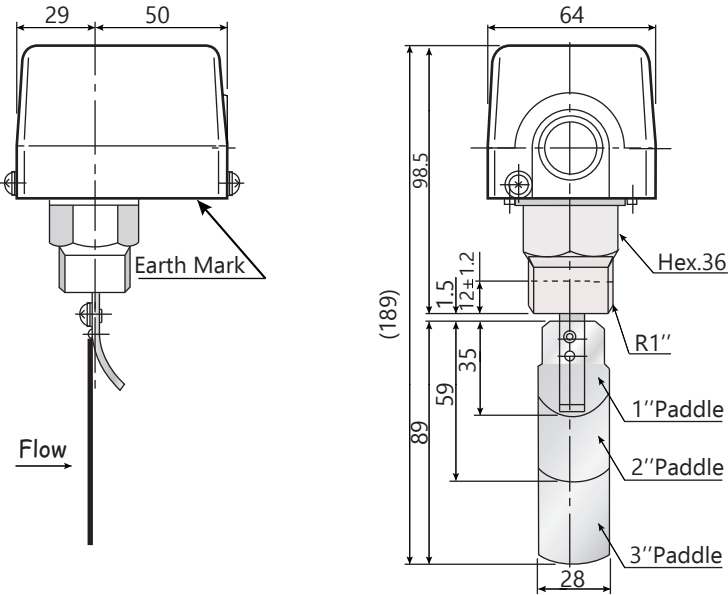
Specifications

Model	LQY
Type of operation	On/off, single-stage, micro switch
Output	SPDT 15(8A) 24/250VAC
Flow rates	See flow rate table
Flow rate setting adjustment	Internal screw
Sensing element	Paddle
Liquid applications	Hot, chilled, well, pool and sea water, brine or ethylene glycol
Parts material in contact with fluid	Brass
Paddle material	Stainless steel
Liquid temperature	-10°C~+120°C
Permissible ambient temperature	-20°C~+85°C
Permissible ambient humidity	10...90% RH, non-condensing
Cable entry	M18 Fitting
Housing	Fire Resistance ABS or PC
Protection	IP54
Color	Red
Weight	0.7Kg

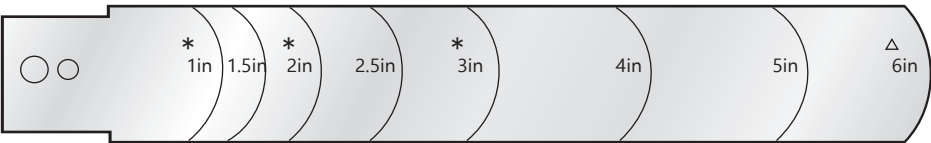
Models

Model	Connection
LQY 50P-1	1" -11 ½NPT
LQY 50P-2	1/2"-14 NPT
LQY 50P-3	3/4"-14 NPT

Dimensions (mm)



Paddles



Notice:
With (*) leaves for the factory is installed;
With (Δ) for additional blades (not installed);
After the leaves trimmed to install, its top of the wall shall not have any friction with the wall and the bottom 5-10 mm gap.

LIQUID FLOW PADDLE SWITCH

JWFS Series



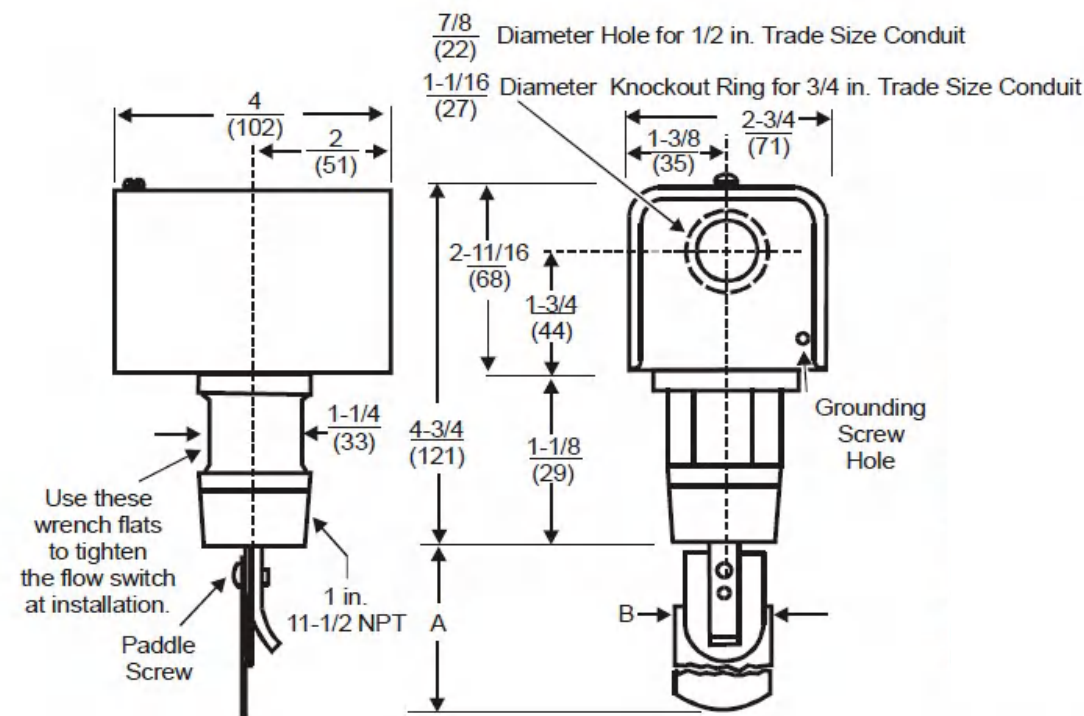
JWFS series liquid flow paddle switch, suited for pipes of industrial plants: heating and air conditioning, refrigeration systems and heat pumps. Flow control of water and normal media.



Specifications

Model	JWFS
Type of operation	On/off, single-stage, micro switch
Output	SPDT 15(8A) 24/250VAC
Flow rates	See flow rate table
Flow rate setting adjustment	Internal screw
Sensing element	Paddle
Liquid applications	Hot, chilled, well, pool and sea water, brine or ethylene glycol
Parts material in contact with fluid	Brass
Paddle material	Stainless steel
Liquid temperature	-20°C~120°C
Permissible ambient temperature	-40°C~85°C
Permissible ambient humidity	10...90% RH, non-condensing
Cable entry	M18 Fitting
Protection	IP65
Color	Gray
Weight	1.3Kg

Dimensions (mm / inch)



MAGNETIC FLOW SWITCH

KMFS1 Series



KMFS1 magnetic flow switch is a target type paddle flow switch, mainly applicable to refrigeration industry, indoor and commercial central air-conditioner (water cooling machine).



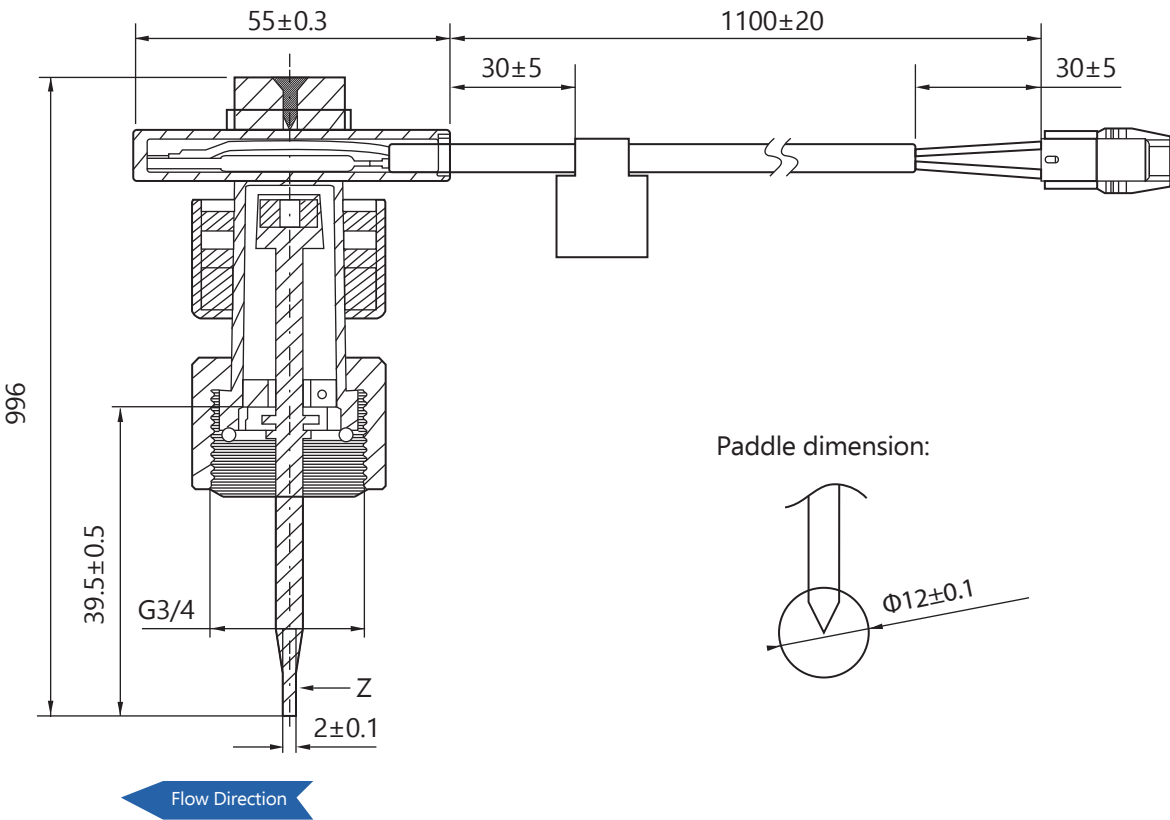
Specifications

Model	KMFS1
Contact Type	A type (normally open) contact
Connection size	G3/4"
Max. Contact Rating	20W
Max. Using Voltage	230VAC , 48VDC
Using Current	< 1A
Using Fluid	Water (no frozen)
Pressure Rating	PN10 (0.1MPa)
Ambient Temperature	Max. +70°C
Fluid Temperature	Max. +100°C
Electrical Life	2×106 (DC25V, 1A, R load)
Maximum Shock	294m/s ²
Maximum Vibration	The vibration frequency is 10-55Hz, the full amplitude is 1.52mm and the X, Y, Z directions, 2 hours, no abnormal performance
Humidity Resistance	90-95% RH, 40°C, 48hours
Protection Level	IP65

Models

Model	Flow setting
KMFS1-14	14L/min±10%
KMFS1-24	24L/min±10%
KMFS1-50	50L/min±10%

Dimensions (mm)



MAGNETIC FLOW SWITCH

KMFS2 Series



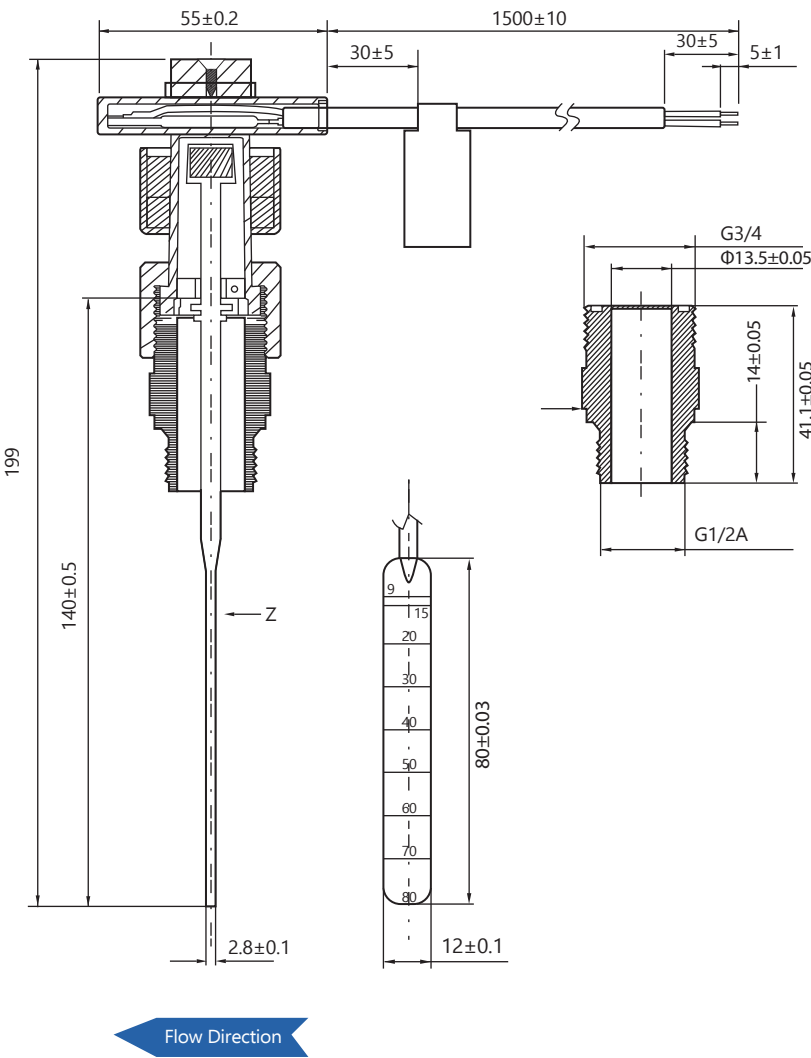
KMFS2 magnetic flow switch is a target type paddle flow switch, mainly applicable to refrigeration industry, indoor and commercial central air-conditioner (water cooling machine).



Specifications

Model	KMFS2
Contact Type	A type (normally open) contact
Connection size	G3/4"
Max. Contact Rating	20W
Max. Using Voltage	230VAC , 48VDC
Using Current	< 1A
Using Fluid	Water (no frozen)
Pressure Rating	PN10 (0.1MPa)
Ambient Temperature	Max. +70°C
Fluid Temperature	Max. +100°C
Electrical Life	2×106 (DC25V, 1A, R load)
Maximum Shock	294m/s ²
Maximum Vibration	The vibration frequency is 10-55Hz, the full amplitude is 1.52mm and the X, Y, Z directions, 2 hours, no abnormal performance
Humidity Resistance	90-95% RH, 40°C, 48hours
Protection Level	IP65

Dimensions (mm)



PRESSURE SWITCH

Q Series



Q series adjustable pressure switches, suitable for the monitoring of flow failure and proving in pumps, chillers, valves etc. Units have an adjustable setpoint and differential. It can be not only used in fluorinated refrigerant, but also in the air and liquid (allowed liquid temp. -20 to 120°C)

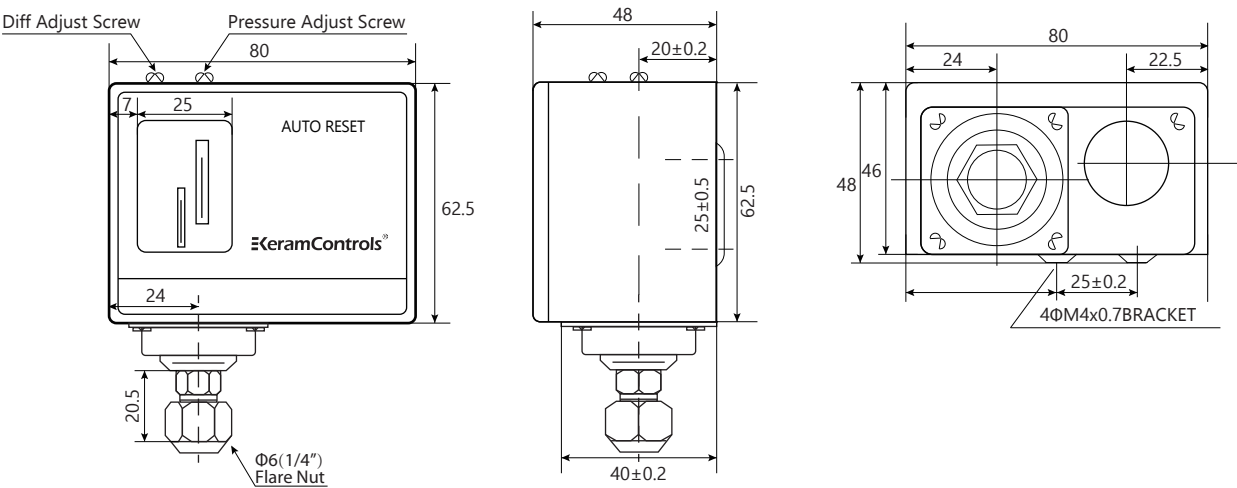


Specifications

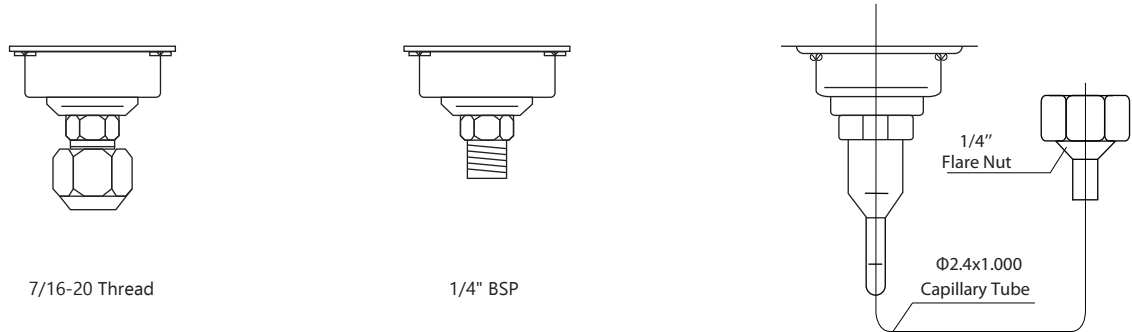
Model	Range(Bar)		Differential(Bar)		Factory Setting(Bar)		Max. Bellows Pressure (Bar)
	Min.	Max.	Min.	Max.	OFF	ON	
Q3	-0.5	3	0.35	1.5	2	1	16.5
Q6	-0.5	6	0.6	4	3	2	16.5
Q6M	-0.5	6	≤1		3	Manual Reset	16.5
Q10	1	10	1	3	6	5	16.5
Q16	5	16	1	4	10	8	33
Q20	5	20	2	5	16	3	33
Q30D	5	30	3	10	20	15	33
Q30	6	30	3-5(Fixed)		20	15-17	33
Q30M	6	30	≤4		20	Manual Reset	33

Note:
Calibration unit on scale plate with “bar” & “psig”, could be revised into “Mpa”& “kgf/cm2” if required by customers.
Connections could have selections as British Flare (E), solder (C) and capillary (S).

Dimensions (mm)



Connections



Note:
Connections are optional, and can be customized according to customer needs.

PRESSURE SWITCH

Q830 Series

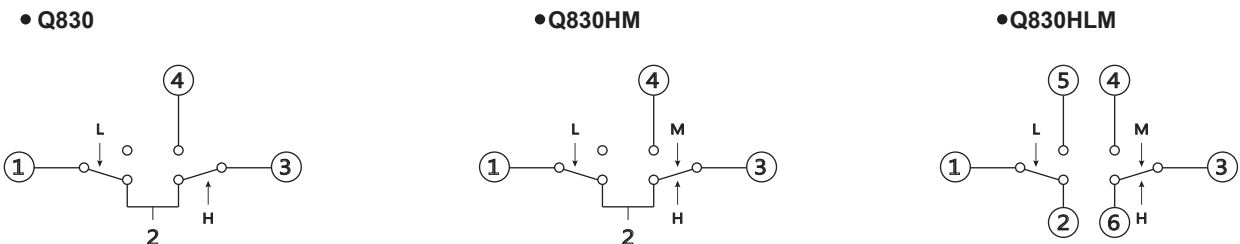


Q830 series dual pressure switch is designed for use as a pump guard to control and protect supply water pumps. It combines the functions of a pressure switch and a flow monitoring device. The left-hand pressure bellows control the pump pressure. The right-hand bellows cut out the pump if the suction pressure is too low. In this way, the pump is protected from running dry and consequent bearing damage. And dual pressure switch can be not only used in liquid (allowed liquid temp. -20 to 120°C), but also in the air and fluorinated refrigerant.

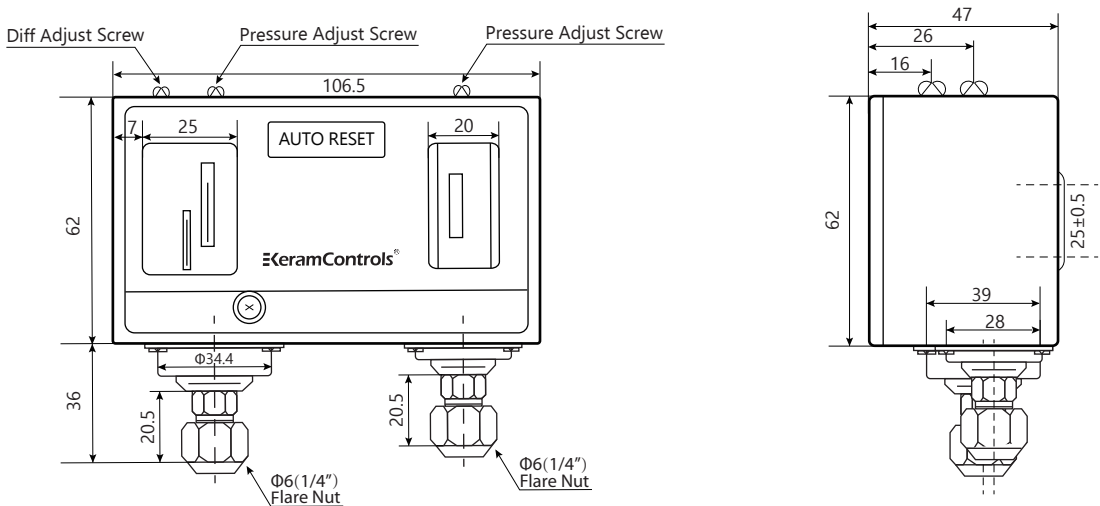
Specifications

Model	Low pressure(bar)		High pressure(bar)		High pressure(bar)		Factory Setting(bar)			
	Pressure Adjust Range	Differential	Pressure Adjust Range	Differential	Pressure Adjust Range	Differential	Low Pressure		High Pressure	
							OFF	ON	OFF	ON
Q830	-0.5~6	0.6~4	8~30	3~5(Fixed)	8~30	3~5(Fixed)	3	2	20	15
Q830HM	-0.5~6	0.6~4	8~30	≤5	8~30	≤5	3	2	20	Manual Rest
Q830HLM	-0.5~6	≤1	8~30	≤5	8~30	≤5	3	Manual	20	Manual Rest

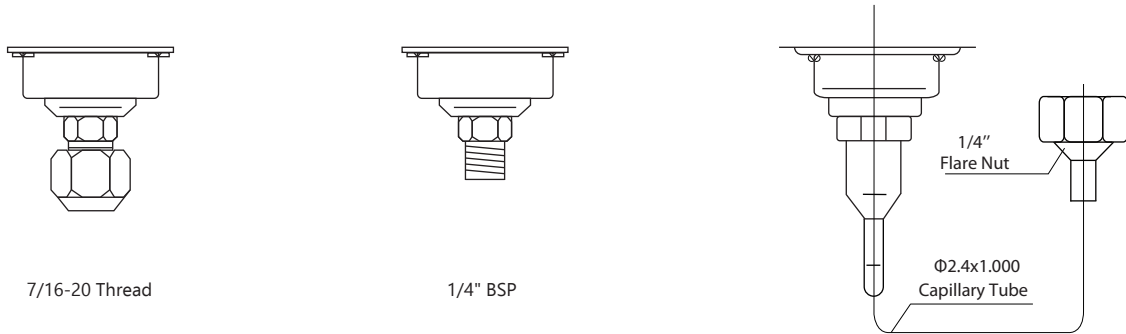
Electric Wiring



Dimensions (mm)



Connections



Note:
Connections are optional, and can be customized according to customer needs.

DIFFERENTIAL PRESSURE SWITCH

QYD Series



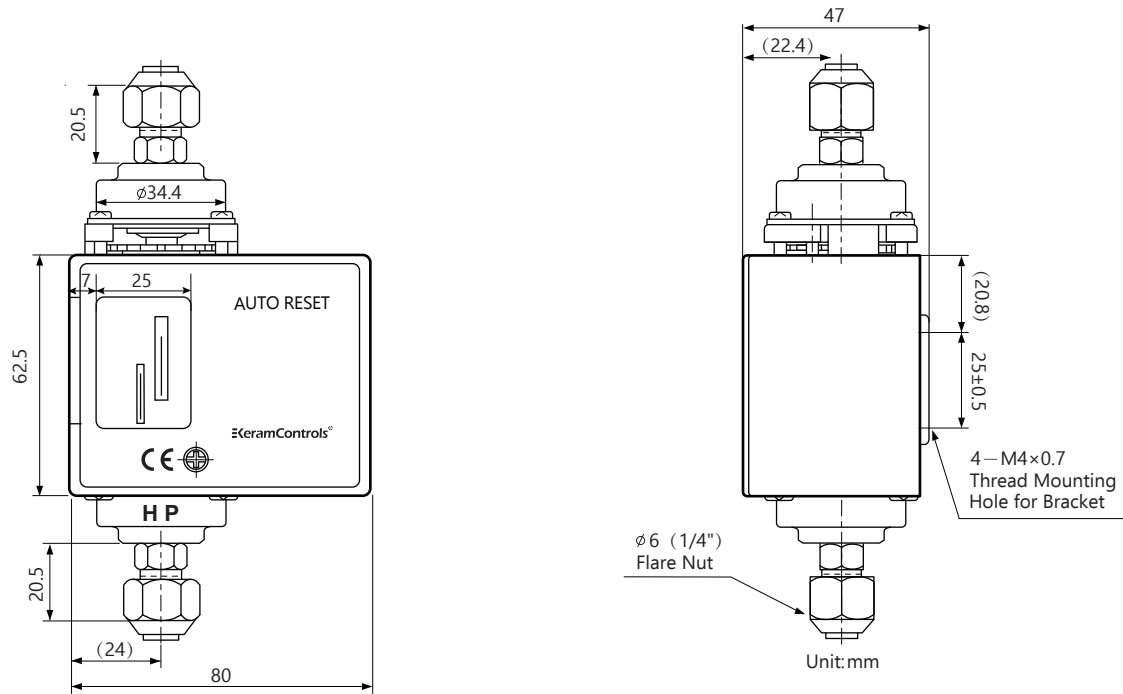
QYD series differential pressure switch is designed to prove flow through pumps. It can be used in fluorinated refrigerant, also in air and liquid (-20 to 120°C), renovated SPDT micro-switch ensure the reliable switch function and flexible mounting bracket suits various kinds of application.



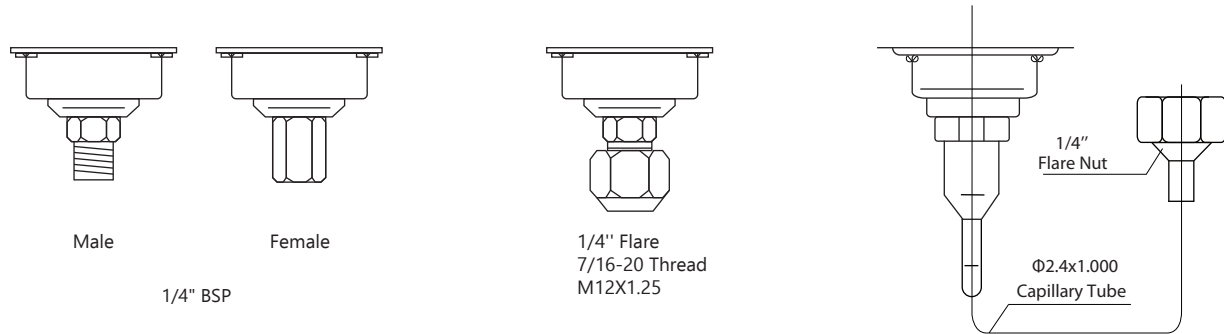
Specifications

Model	Differential(Bar)		Factory Setting(Bar)	Max Working pressure(Bar)
	Min	Max		
QYD2C	0.5	2	0.5	12
QYD4C	0.5	3.5	1	12
QYD4CH	0.5	3.5	1	30
QYD6CH	1	6	6	30
QYD4C/B	0.3	4	0.3	17

Dimensions (mm)



Connections



Operating Instruction

- 1.The new outer cover, two fingers pinch both sides of the plastic lid, open the outer cover can be pumped out;
- 2.To be installed in the pipe, must use two wrenches and twist tight;
- 3.Do not install the controller over electric rating of the device.

DIFFERENTIAL PRESSURE SWITCH

KCL Series



KCL series differential pressure switch is used to monitor the pressure difference of neutral and slightly aggressive liquid and gases. It is applied to monitor pump status, boiler, flow, and filter condition. It will send the signal when the flow or pressure falls or rises to an alarm condition. The special design makes it easy for installation and adjusting the switching point.



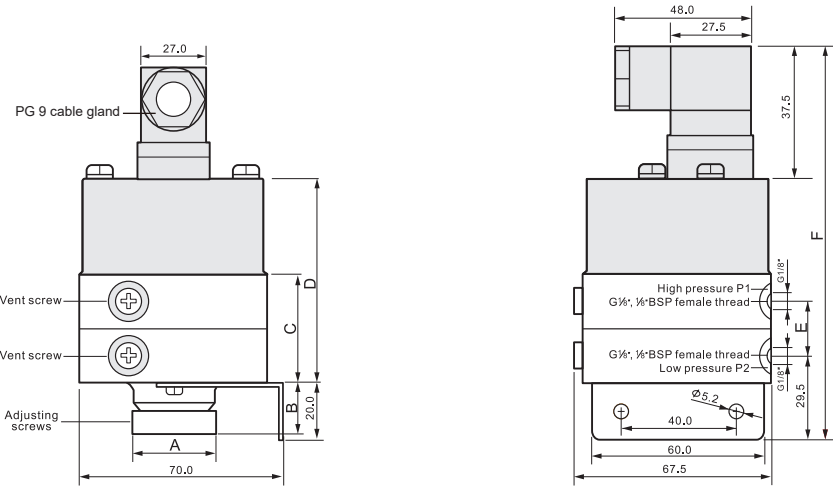
Specifications

Model	Pressure Range	Hysteresis
KCL250	40 to 250 mbar	25 mbar
KCL1000	0.07 to 1 bar	50 mbar
KCL4000	0.2 to 4 bar	100 mbar

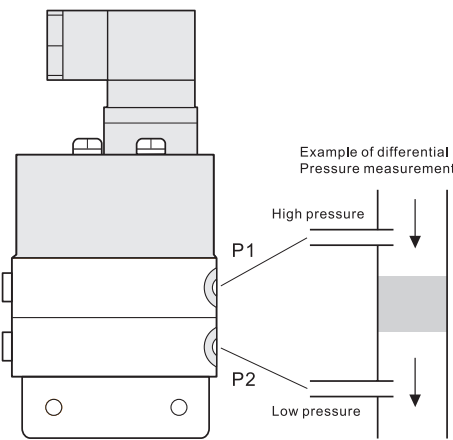
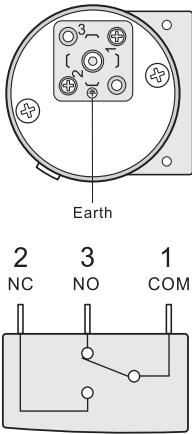
Maximum operating pressure		20 bar
Cable gland		PG 9 thread (female in body)
Contact		SPDT micro-switch with a rating of 5A at 250V AC
Life		>10 ⁶ switching cycles
	Body	Brass
Materials	Cover	Steel with power painting
	Diaphragm	EPDM
Pressure connection		G1/8"(DIN 259), 1/8" BSP female thread, (P1>P2)Enclosure
Enclosure rating		IP54
Working temperature		-10 to 85°C
Dimensions (HxLxW)		133.5x67.5x67.5mm, 139x67.5x67.5mm
Weight		1100g, 1320g

Dimensions (mm)

Model	No.	A	B	C	D	E	F
KCL250/1000		Φ29.0	18.5	37.8	76.0	18.8	133.5
KCL4000		Φ40.5	31.5	43.0	81.0	21.5	139.0



Installation



AIR DIFFERENTIAL PRESSURE SWITCH

QAD Series



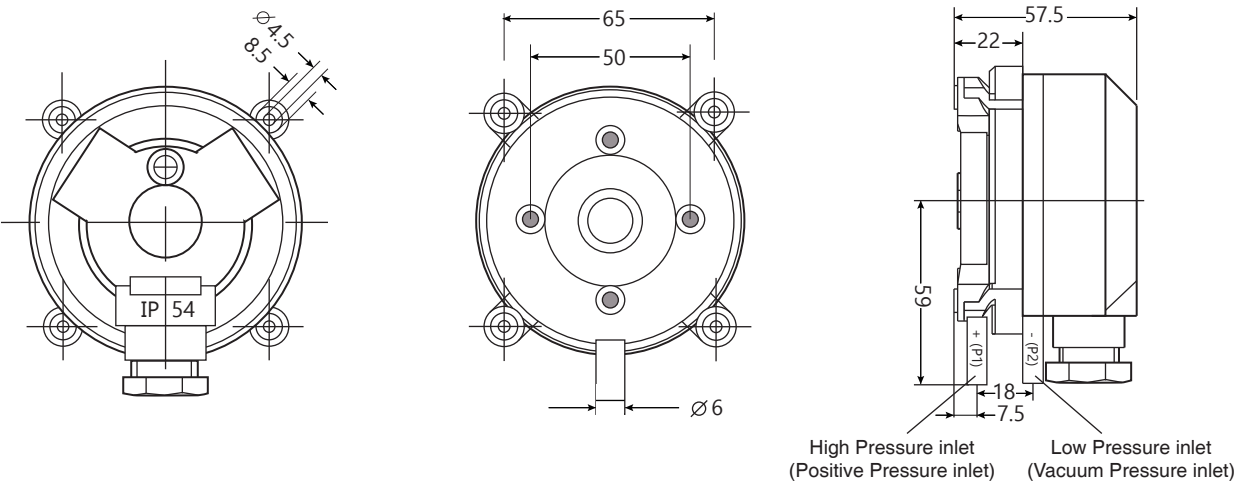
QAD series air pressure controls is used to sense tiny pressure change and widely used to control the flow of aerator, to monitor fan and air conditioner. It is also suitable for over heating protection and frost protection in industrial cooling system. Due to its outstanding design, the set point can be adjusted visually.



Specifications

Model	QAD
Medium	Air, non-combustible and non-aggressive gasses
Max Operating Pressure	10 kPa
Mounting Position	Diaphragm in any vertical plane
Degree of protection	IP54 (with cover)
Operating Temperature	-40°C to 85°C
Contact Arrangement	SPST or SPDT
Electrical Rating	Resistance: Initial: < 400 milliohms
	Current: 1.5A resistive(0.4A inductive) @ 250V
	Housing: ABS
	Duct connectors: ABS
Material	Membrane: Silicone
	Cable sleeve: PVC
	Terminals
Connection	6.4mm(0.25")copper alloy
Weight	6.0mm Dia. for tube connection
Approval	0.15kg(0.35kg with flexible pipe)
	CE, RoHS

Dimensions (mm)



Product Range

Model	Pressure Range	Differential	Tolerance
QAD-1	20-200Pa	10Pa	±15%
QAD-2	30-300Pa	10Pa	±15%
QAD-3	40-400Pa	20Pa	±15%
QAD-4	50-500Pa	20Pa	±15%
QAD-5	200-1000Pa	100Pa	±15%
QAD-6	500-2500Pa	150Pa	±15%
QAD-7	1000-5000Pa	250Pa	±15%

Conversion: 1"W.C.= 1 inch/H2O=249Pa 1mbar=100Pa

NTC TEMPERATURE SENSOR



Specifications

Fast response design $TC \leq 6S$

Accuracy $\pm 1\%$, available $\pm 0.2K(0 \sim 70^\circ C)$

Excellent long-term stability

Operating range from $-30^\circ C$ up to $150^\circ C$

Voltage resistance AC 1500V 5 sec

DC500V insulating strength $\geq 100 M\Omega$

Sensor Material can be Nickel-plated brass, brass, stainless steel

NTC temperature sensors are widely used in gas boilers, air conditioners, refrigerators, freezers, water heaters, water dispensers, heaters, dishwashers, disinfection cabinets, washing machines, dryers and other household appliances.

