

KEN Series Electromagnetic Flow Meter KHN Series Electromagnetic BTU Meter

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Johnson Controls KEN series Inline Electromagnetic Flow Meters measure flow rate or flow speed of electrically conductive liquids in wide application of chiller plant, air side equipment, raw water metering, water distribution, and sea water etc.

KHN Series Electromagnetic BTU Meter

Johnson Controls KHN series Inline Electromagnetic BTU Meters are used to measure the cooling or heating capacity in wide application of chiller plant, air side equipment, and heat transfer station etc.



Features



Premium measuring accuracy:

deliver high measuring accuracy to enable users to save the energy or water consumption.



Robust and reliable design:

no moving parts, a long maintenance-free life under through its operation period.



Easy operation & maintenance:

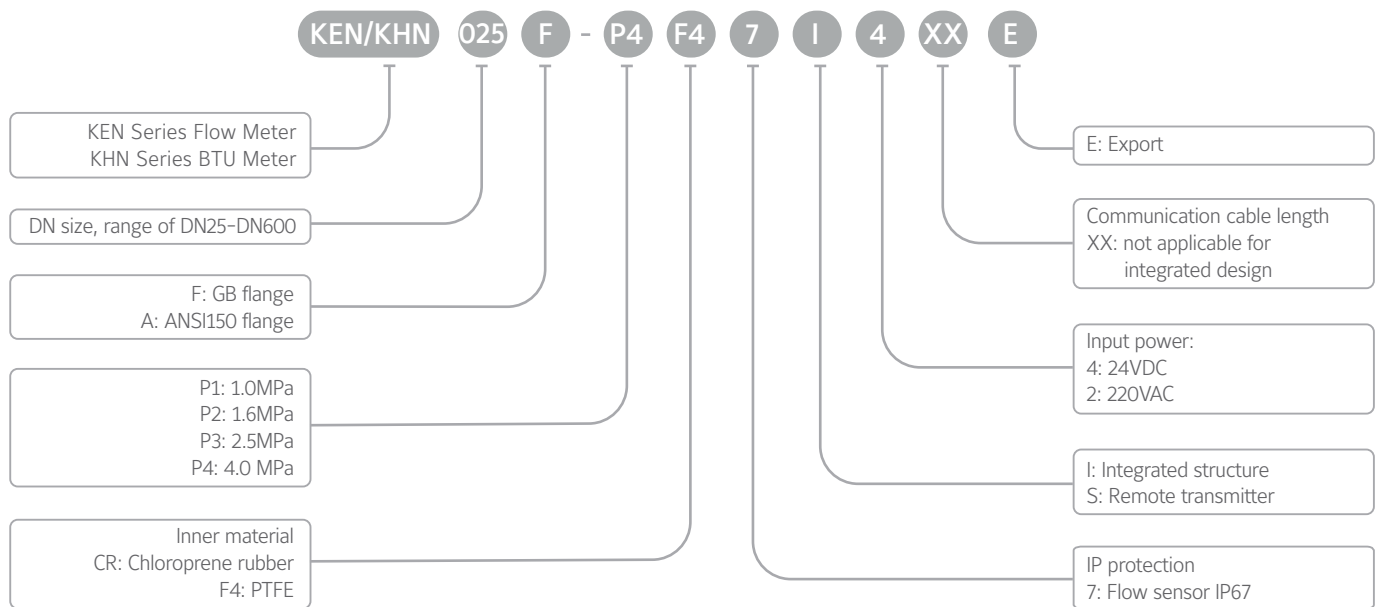
Each meter is calibrated and programmed before shipment. The product is standard with LCD display for local operation, or remote operation communicating to building automation systems. Its type 316L stainless steel electrode material and various inner material options enable the meter to be free-maintenance in applications. Two PT1000 temperature sensors are in standard offering package.



Wide application range:

cover multiple wide applications to measure the flow rate of liquid. The flow meter can operate at ambient temperature range of $-25^{\circ}\text{C} \sim 60^{\circ}\text{C}$, and liquid temperature is up to 120°C .

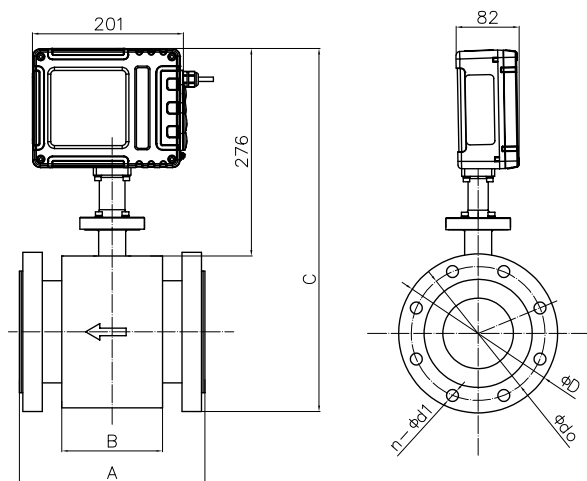
Product Selection



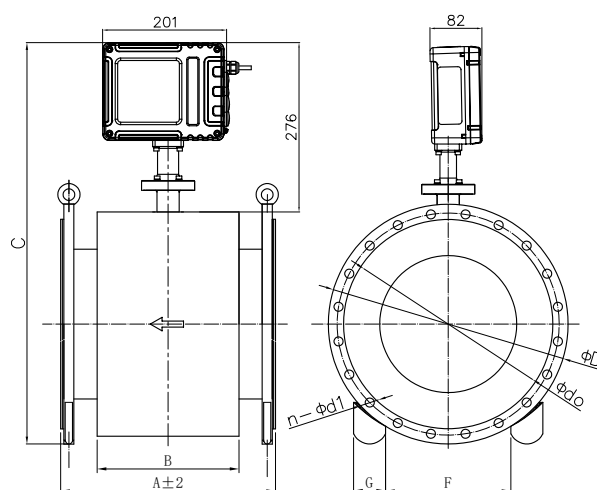
Technical data sheets

Specifications	
Accuracy	Class 0.5 (Flow meter) Class 2 (BTU meter)
Repeatness	0.17%
Flow type	Liquid electrical conductivity $\geq 20 \mu S/cm$
Size range	DN25~DN600
Working pressure	1.0-4.0MPa according to DN size
Pipe connection	GB or ANSI flange (option)
Input power	24VDC 220VAC
Output	4~20mA analog Modbus RTU (RS485)
Transmitter IP protection class	IP67
Flow sensor IP protection class	IP67 IP68 (for remote structure)
Construction	
Sensor housing	Carbon steel
Pipe connection	Carbon steel
Inner material	Chloroprene rubber PTFE
Measuring electrodes	Type 316L stainless steel
Working condition	
Operating ambient temperature	-25°C ~60°C
Storage ambient temperature	-40°C ~60°C
Liquid temperature	-10°C ~60°C (CR inner material) -20°C ~120°C (PTFE inner material)
Electrical connections	
Cable entry	M20x1.5
Certificate	CE

Dimensions



DN25-DN450



DN500-DN600

Unit(mm)

DN	B	4.0MPa					1.6MPa					1.0MPa					
		A±2	C	ΦD	Φd0	n-Φd1	A±2	C	ΦD	Φd0	n-ΦL	A±2	C	ΦD	Φd0	n-Φd1	
25	66	150	389	115	85	4-Φ14	Same as 4.0MPa										
32			406	140	100	4-Φ18											
40			416	150	110	4-Φ18											
50	102	200	434	165	125	4-Φ18											
65			453	185	145	8-Φ18											
80	102	200	464	200	160	8-Φ18											
100	122	250	515	250	210	8-Φ18											
125	138	300	546	285	240	8-Φ22											
150	176	350	594	340	295	12-Φ22	350	597	340	295	8-Φ22						
200	202		400	651	405	355	12-Φ26	400	649	395	350	12-Φ22					
250	222		500	704	460	410	12-Φ26	500	704	445	400	12-Φ22					
300	312		500	760	520	470	16-Φ26	500	754	505	460	16-Φ22					
350	312		600	815	580	525	16-Φ30	600	818	565	515	16-Φ26					
400	392		600	871	640	585	20-Φ30	600	868	615	565	20-Φ26					
450	402																

DN	B	1.0MPa							1.6MPa						
		A	ΦD	Φd0	n-Φd1	C	F	G	A	ΦD	Φd0	n-Φd1	C	F	G
500	400	600	670	620	20-Φ26	921	368	120	630	715	650	20-Φ33	944	382	120
600	430	600	780	725	20-Φ30	1028	400	120	680	840	770	20-Φ36	1058	416	120

Key Product List

Flow meter SKU	BTU meter SKU	DN	Inner material	PN(mPa)	Vnormal (m ³ /h) (Flow rate 0.5-5m/s)	Vmin (m ³ /h)	Vmax (m ³ /h)
KEN025F-P4F471XXXE	KHN025F-P4F471XXXE	DN25	PTFE	4.0	0.88-8.8	0.88	17.6
KEN032F-P4F471XXXE	KHN032F-P4F471XXXE	DN32	PTFE	4.0	1.45-14.5	1.45	29
KEN040F-P4F471XXXE	KHN040F-P4F471XXXE	DN40	PTFE	4.0	2.3-23	2.3	46
KEN050F-P4CR71XXXE	KHN050F-P4CR71XXXE	DN50	CR	4.0	3.5-35	3.5	70
KEN050F-P4F471XXXE	KHN050F-P4F471XXXE	DN50	PTFE	4.0	3.5-35	3.5	70
KEN065F-P4CR71XXXE	KHN065F-P4CR71XXXE	DN65	CR	4.0	6-60	6	120
KEN065F-P4F471XXXE	KHN065F-P4F471XXXE	DN65	PTFE	4.0	6-60	6	120
KEN080F-P4CR71XXXE	KHN080F-P4CR71XXXE	DN80	CR	4.0	9-90	9	180
KEN080F-P4F471XXXE	KHN080F-P4F471XXXE	DN80	PTFE	4.0	9-90	9	180
KEN100F-P2CR71XXXE	KHN100F-P2CR71XXXE	DN100	CR	1.6	14-140	14	280
KEN125F-P2CR71XXXE	KHN125F-P2CR71XXXE	DN125	CR	1.6	22-220	22	440
KEN150F-P2CR71XXXE	KHN150F-P2CR71XXXE	DN150	CR	1.6	32-320	32	640
KEN200F-P1CR71XXXE	KHN200F-P1CR71XXXE	DN200	CR	1.0	56-560	56	1120
KEN200F-P2CR71XXXE	KHN200F-P2CR71XXXE	DN200	CR	1.6	56-560	56	1120
KEN250F-P1CR71XXXE	KHN250F-P1CR71XXXE	DN250	CR	1.0	88-880	88	1760
KEN250F-P2CR71XXXE	KHN250F-P2CR71XXXE	DN250	CR	1.6	88-880	88	1760
KEN300F-P1CR71XXXE	KHN300F-P1CR71XXXE	DN300	CR	1.0	127-1270	127	2540
KEN300F-P2CR71XXXE	KHN300F-P2CR71XXXE	DN300	CR	1.6	127-1270	127	2540
KEN350F-P1CR71XXXE	KHN350F-P1CR71XXXE	DN350	CR	1.0	170-1700	170	3400
KEN350F-P2CR71XXXE	KHN350F-P2CR71XXXE	DN350	CR	1.6	170-1700	170	3400
KEN400F-P1CR71XXXE	KHN400F-P1CR71XXXE	DN400	CR	1.0	220-2200	220	4400
KEN400F-P2CR71XXXE	KHN400F-P2CR71XXXE	DN400	CR	1.6	220-2200	220	4400
KEN450F-P1CR71XXXE	KHN450F-P1CR71XXXE	DN450	CR	1.0	280-2800	280	5600
KEN450F-P2CR71XXXE	KHN450F-P2CR71XXXE	DN450	CR	1.6	280-2800	280	5600
KEN500F-P1CR71XXXE	KHN500F-P1CR71XXXE	DN500	CR	1.0	350-3500	350	7000
KEN500F-P2CR71XXXE	KHN500F-P2CR71XXXE	DN500	CR	1.6	350-3500	350	7000
KEN600F-P1CR71XXXE	KHN600F-P1CR71XXXE	DN600	CR	1.0	500-5000	500	10000
KEN600F-P2CR71XXXE	KHN600F-P2CR71XXXE	DN600	CR	1.6	500-5000	500	10000

Note: KEN/KHN.....XXE: first X means product power supply, 24VDC/220VAC can be chosen, the second XX means length of remote cable, only for remote type products.

Johnson Controls:

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