

KVC

SPECIFICATION SHEETS
(www.kvcins.com)

**We would become global leader with
Best quality and service.**



The better future and the better world with high technology of KVC

(주)케이브이씨 는 국내 진공기술 발전의 선두에서 일익을 담당해온 진공 전문 브랜드 기업으로 10년 이상의 풍부한 경험과 노하우를 바탕으로 제품의 품질 및 서비스에서도 우수한 업체로 고객님들의 사랑을 받고 있습니다. 진공 Gauge를 비롯한 산업용계측기를 독자적으로 연구 개발하여 특허등록 및 CE인증 획득을 통해 국내는 물론 해외 10여개국과 대리점 계약을 맺고 있으며, 자사의 우수한 제품을 20여개국의 해외업체에 수출함으로써 국가 대외 경쟁력을 높이는데 최선을 다하고 있습니다.

또한 이런 노력들로 인해 2006년 중소기업청 으로부터 “기술 혁신형 중소기업(IN-NO BIZ)”에 선정되었습니다. 기술 혁신형 기업으로서 급변하는 진공산업의 경쟁력 강화를 위해 끊임없는 투자와 연구개발을 통해 진공산업의 발달을 주도하는 케이브이씨가 될 수 있도록 많은 관심과 성원 부탁드립니다.

KVC is one of leading manufacturer of vacuum products in vacuum industry in Korea. We have more than 10years experienced know-how and techniques which is giving customers to trust. Through by we research and developments in vacuum gauges and industrial measurement controller KVC acquired CE and patent registration so our gauges and controllers give flexibility competitive and accuracy. We made a contract with more than 10 agents in overseas also expert our best quality goods over twenty countries.

Try to satisfying customers' demand and put all our efforts on the development new products to be better than today's KVC. Our challenges will go on till gets recognition of Vacuum industry.

Please keep looking at our growth and we will do our best to the top of the vacuum field.



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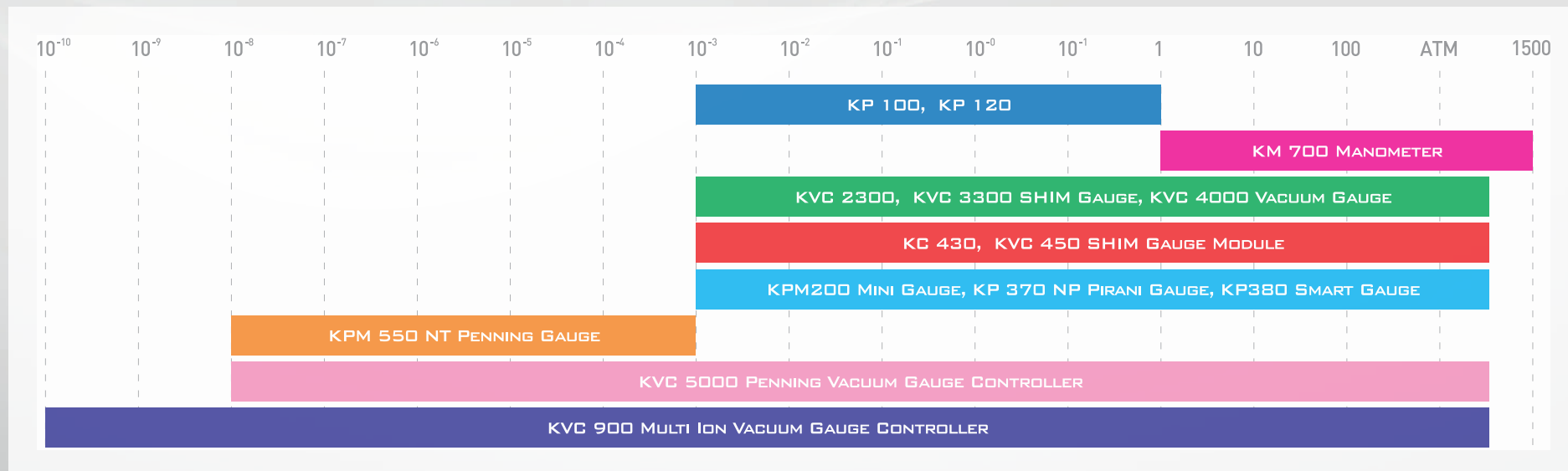
KVP3000 Digital power thyristor unit 33

VACUUM GAUGE



Measurement Range of **KVC** Vacuum gauge

Low Vacuum Gauge / High Vacuum Gauge



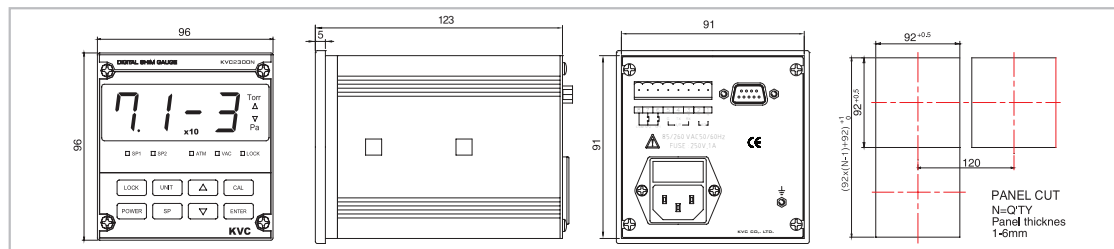
KVC 2300N | A Small but Powerful Corporation

KVC2300N Digital SHIM Vacuum Gauge Controller

Unit : Torr & Pascal Low Vacuum Gauge



Dimension [unit:mm]



Measurement Range : 1000Torr ~ 1.0E-03Torr

➡ KVC2300N Digital SHIM Vacuum Gauge Controller

- Free voltage Input Power
- SHIM gauge, employing new technology

➡ Controller

Sensor type : Convection
 Standards Analog Output & Relay 2-Setpoints
 Unit : Torr & Pascal
 Input power : Free voltage(85Vac ~265Vac)
 Optional : RS232, RS422/485, ModBus

➡ SHIM Gauge

Gas Calibration : Air or N2
 Cable : 9pin D-Sub Connector,
 Multi Conductor Shield Cable
 Cable length : 3m (Standard), 50m (Maximum)
 Fitting : 1/8 NPT, NW16, NW25, 15m O.D,
 1.33"CF, 2.75"CF, 1/4"VCR

Gauge Axis must be horizontal to provide accurate measurement above 1Torr



KVC 2300N

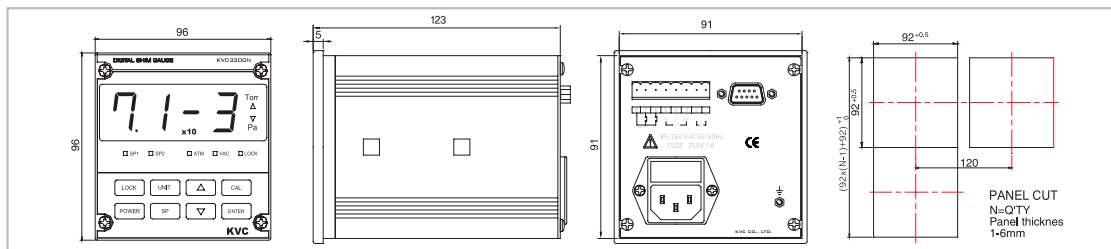
KVC 3300N | A Small but Powerful Corporation

KVC3300 Digital SHIM Vacuum Gauge Controller

Unit : Torr & mTorr Low Vacuum Gauge



Dimension [unit:mm]



Measurement Range : 1000Torr ~ 1mTorr

➡ KVC3300 Digital SHIM Vacuum Gauge Controller

- Free voltage Input Power
- SHIM gauge, employing new technology

➡ Controller

Sensor type : Convection
 Standards Analog Output & Relay 2-Setpoints
 Unit : Torr & mTorr
 Input power : Free voltage(85Vac ~265Vac)
 Optional : RS232, RS422/485, ModBus

➡ SHIM Gauge

Gas Calibration : Air or N2
 Cable : 9pin D-Sub Connector,
 Multi Conductor Shield Cable
 Cable length : 3m (Standard), 50m (Maximum)
 Fitting : 1/8 NPT, NW16, NW25, 15m O.D,
 1.33"CF, 2.75"CF, 1/4"VCR

Gauge Axis must be horizontal to provide accurate measurement above 1Torr

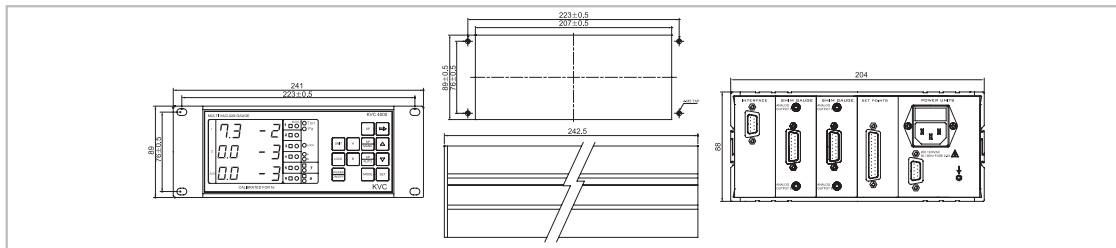
KVC 4000N | A Small but Powerful Corporation

KVC4000N Multi Low Vacuum Gauge Controller

MAX 4Channel Low Vacuum Gauge



Dimension [unit:mm]



Measurement Range : 1000Torr ~ 1.0E-03 Torr

➔ KVC4000N Multi Low Vacuum Gauge Controller

- Multi channel SHIM gauge (Max : 4 channel)
- SHIM gauge, employing new technology

➔ Controller

Channel : Standard 2ch' SHIM Gauge
Max. 4ch' SHIM Gauge

Green LED

Unit : Torr & Pa

Standard Analog output
Cable length : 3m ~ 50m

Power input : 220Vac

250Watts, 50 or 60Hz

Optional : Relay 6-setpoint / RS232 or 485 Interface
ModBus, addition Convection Card(4ch)

➔ SHIM Gauge

Analog Output : 1V/decade, -3 ~ +3 VDC

Maximum Cable Length : ~ 50m(170ft)

Fitting : 1/8" NPT, 15mm O.D, NW16KF,

NW25KF, 1.33"CF, 2.75"CF, 1/4"VCR

Gauge Axis must be horizontal to provide accurate measurement above 1Torr



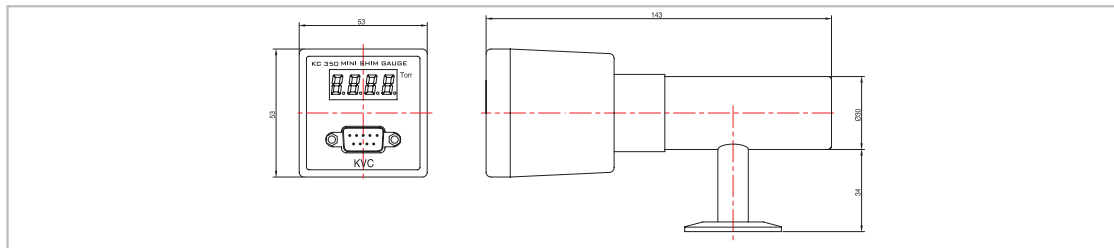
KVC 4000N

KC 430 | A Small but Powerful Corporation KC430 SHIM Gauge Compact Module

MODULE TYPE



Dimension [unit:mm]



Measurement Range : 1000Torr ~ 1.0E-03Torr

➔ KC430 SHIM Gauge Compact Module

- Easy installation and compact size
- Low cost

➔ Specitation

Analog Output : 1V/decade, logscale -3Vdc~+3Vdc(Fullrange)
and 0~10Vdc(above 1Torr) Linear

Input Power : +24Vdc, 2Watts max

Fitting : 1/8NPT, 15m O.D, NW16KF, NW25KF, 1.33"CF,
2.75"CF, 1/4"VCR

Gauge axis must be horizontal to provide accurate measurement
above 1Torr



KC 430

KVC 450

A Small but Powerful Corporation
KVC450 SHIM Gauge Compact Module

MODULE TYPE



Measurement Range : 1000Torr ~ 1.0E-03Torr

➡ KVC450 SHIM Gauge Compact Module

- Easy installation and compact size
- Low consumption

➡ Specitation

Analog Output : 1V/decade, logscale -3Vdc~+3Vdc(Fullrange and 0~10Vdc(above 1Torr) Linear

Input Power : +24Vdc, 2Watts max

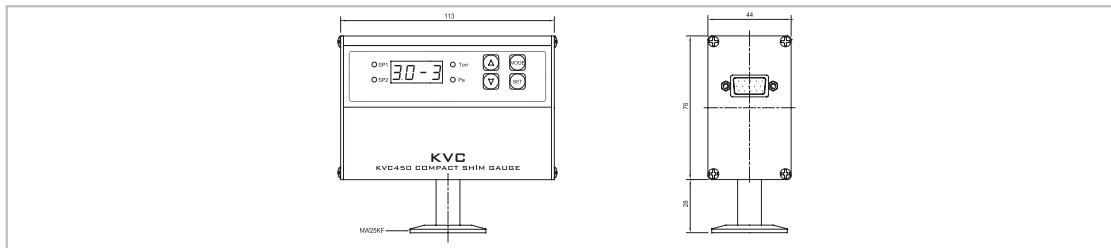
Standard 2-setpoint

Optional : RS485 , ModBus

Fitting : 1/8 NPT, 15m O.D, NW16KF, NW25KF, 1.33"CF, 2.75"CF, 1/4"VCR

Gauge axis must be horizontal to provide accurate measurement above 1Torr

➡ Dimension [unit:mm]



KP 120N | A Small but Powerful Corporation

KP120N Digital Pirani Vacuum Gauge Controller

Pirani Sensor



Measurement range : 10Torr ~ 1.0E-03Torr

➡ KP120N Digital Pirani Vacuum Gauge Controller

- Free voltage Input Power
- Pirani gauge, employing new technology

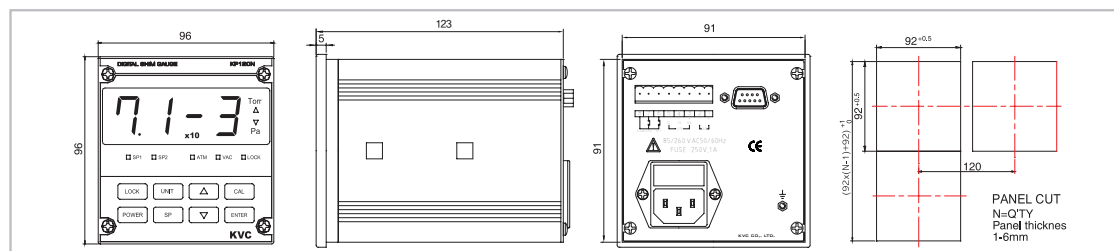
➡ Controller

Sensor type : Pirani
 Input power : Free voltage (85Vac ~ 265Vac)
 Standard analog output & Relay 2-setpoints
 Unit : Torr & Pascal
 Optional : RS232 or RS422/485, ModBus

➡ Pirani Gauge

Gas Calibration : Air or N2
 Sensor type : Thermal conductive
 Bake Out Temp : 100°C in Air Vacuum
 Cable : 9pin D-Sub Connector, Multi Conductor Shield Cable
 Cable length : 3m(Standard), 50m(Maximum)
 Fitting : 1/8 NPT, NW16, NW25, 15m O.D,
 1.33" CF, 2.75"CF, 1/4" VCR

➡ Dimension [unit:mm]



KP 120N

KP 100 | A Small but Powerful Corporation KP 100 Pirani Gauge Indicator

Pirani Sensor Analog



Measurement Range : 1000mTorr ~ 1mTorr

➔ KP 100 Pirani Gauge Indicator

- Simple and low cost Analog gauge

➔ Controller

Sensor type : Pirani

Measurement Range : 1000mTorr ~ 1mTorr

Input power : 220Vac

➔ SHIM Gauge

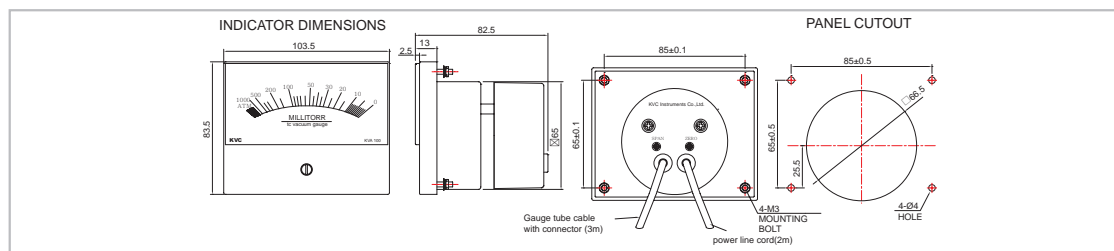
Gas Calibration : Air or N₂

Cable : Multi Conductor Shield Cable

Fitting : 1/8 NPT

NW16KF, NW25KF, 15m O.D, 19m O.D

➔ Dimension [unit:mm]



KP 100

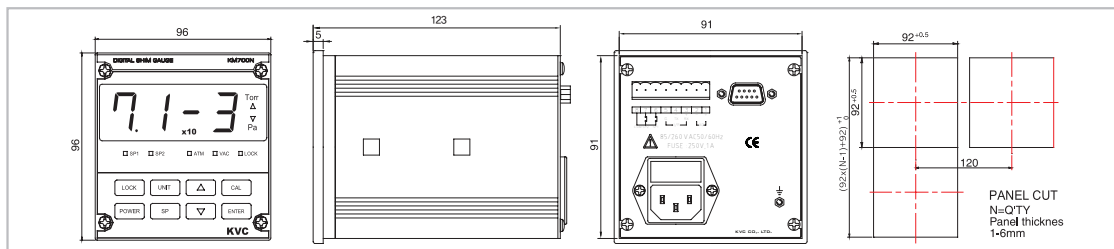
KM 700N

A Small but Powerful Corporation
KM 700N Digital Manometer Indicator

Manometer Sensor



Dimension [unit:mm]



Measurement Range : 1500Torr ~ 1Torr

➡ KM 700N Digital Manometer Indicator

- High accuracy using Manometer unaffected by gas composition

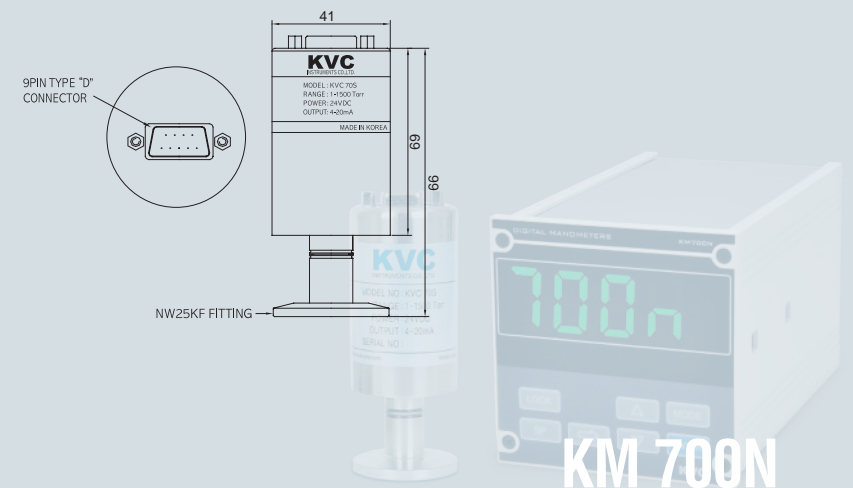
➡ Controller

Sensor type : Manometer
Input power : Free voltage (85Vac ~ 265Vac)
Standards Analog Output & Relay 2-Setpoints
Unit : Torr & kPa
Optional : RS232, RS485, ModBus

➡ Sensor

Output Signal : 4 ~ 20mA
Material : All Part 316 or 304S.S
Cable Connector : 9Pin D-Sub Connector
Fitting : 1/8NPT, NW16KF, NW25KF

➡ Dimension [unit:mm]



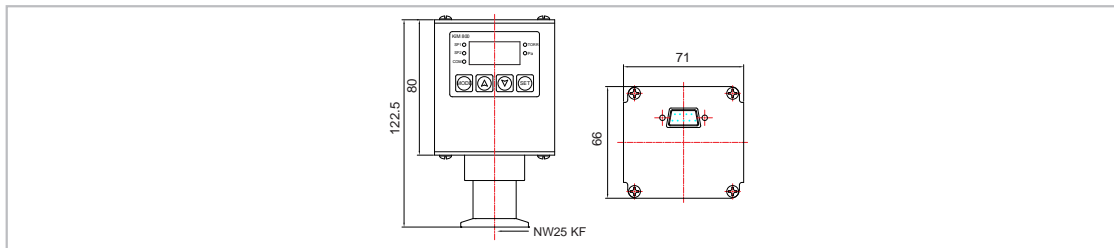
KIM 800 | A Small but Powerful Corporation

KIM 800 Smart Ion Module

Unit : Torr & Pascal High Vacuum Gauge



Dimension [unit:mm]



Measurement Range : 5.0E-3Torr~1.0E-10Torr

➔ KIM800 Smart Ion Module

- 콤팩트한 제품으로 센서일체형으로서 정확한 재현성과 정도를 갖춘 Smart Gauge입니다.
- Dual filaments
- Compact size
- Modbus Interface

➔ Specitcation

Measurement range : 5.0E-3 ~ 1.0E-10

Emission current : 0.01, 0.1, 1.0mA

Input power : +24Vdc

Mini display window

In standard, Analog output & Relay setpoint, 2ponit Normal open

Remote gauge on/off control & Degas control input

Optional part : RS485, ModBus

Fitting : NW25KF



KIM 800

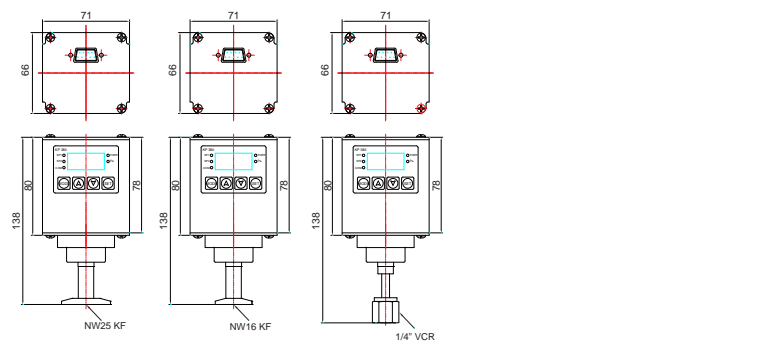
KP 380 | A Small but Powerful Corporation

KP 380 Smart Gauge Module

Combined Pirani & Manometer



Dimension [unit:mm]



Measurement Range : 1500Torr ~ 1.0E-3Torr

➔ KP 380 Smart Gauge Module

- Easy installation and compact size
- New concept combined pirani and Manometer
- High accuracy using Manometer unaffected by gas composition

➔ Specitcation

Analog Output : 1V/decade, 0 ~ 6Vdc

Input Power : 11.5 Vdc ~ 26.5 Vdc

Standard 2-setpoint

Fitting : 1/8" NPT, 15mm O.D, NW16KF, NW25KF, 1.33"CF, 2.75"CF, 1/4"VCR

Position: Any

Option: RS485 ASC, MoDBus



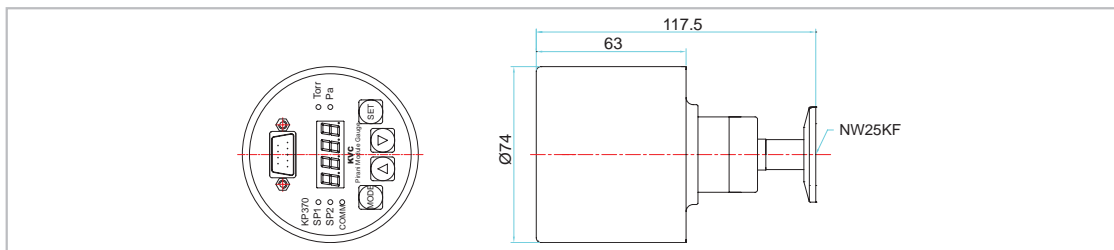
KP 380

KP 370 | A Small but Powerful Corporation KP 370 Pirani Gauge Module

Combined Pirani & Piezo



Dimension [unit:mm]



Measurement range : 1000Torr ~ 1.0E-3Torr

➡ KP 370 Pirani Gauge Module

- Easy installation and compact size
- New concept combined Pirani and Piezo
- Ascent of modern Pirani gauge's accuracy.

➡ Controller

Combined Pirani & Piezo

Stable and accurate reading for 1000~1.0-3Torr

Input power : +24Vdc

Mini display window

In standard, Analog output & Relay setpoint

Optional part : RS485



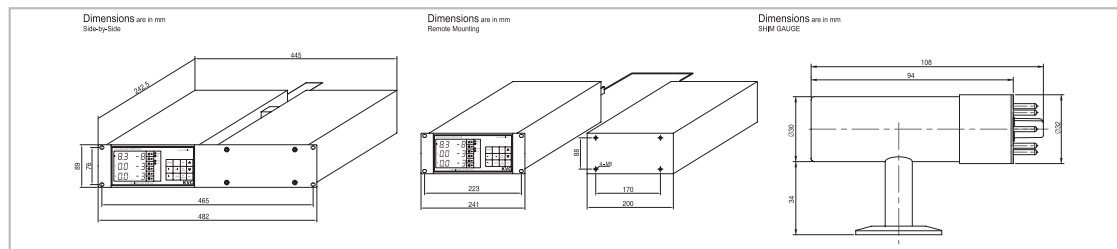
KVC 900N | A Small but Powerful Corporation

KVC 900N Multi Ionization Vacuum Gauge's Specification

HIGH VACUUM SHIM Sensor & ION Sensor



Dimension [unit:mm]



Measurement Range : 1000Torr ~ 1.0E-10Torr

➔ KVC 900N Multi Ionization Vacuum Gauge's Specification

- Comprehensive reading by B-A glass tube and SHIM gauge.
- High accuracy and stability measuring.

➔ Controller

Channel : Max.2ch' IG & 2ch' SHIM Gauge Green LED
 Unit : Torr & Pa
 Standard Degas & Analog output
 Emission current : 0.1, 1, 10mA
 Power input : 220Vac, 250Watts, 50 or 60Hz
 Optional : Relay 6-setpoint RS232 or 485 Interface
 Additional IG / Remote I/O

➔ B-A Ionization Vacuum Gauge

Pressure Range
 Maximum Measurement Limit : 1.0E-10 Torr
 Minimum Measurement Limit : 1.0E-03 Torr
 Available Cable length : 3m(10ft.) ~ 60m(200ft.)
 Analog Output : 1V/decade, 0 ~ 7Vdc

➔ Low Vacuum Gauge

SHIM Gauge Pressure Range
 Measurement Range : 1.0E-03 ~ 1000Torr
 Analog Output : 1V/decade, 0~ 6Vdc
 Cable length : 3meter (Standard), 50meter (Maximum)
 Fitting : 1/8NPT, NW16KF, NW25KF, 15m O.D, 1.33"CF,
 2.75"CF, 1/4"VCR

Gauge axis must be horizontal to provide accurate measurement above 1Torr



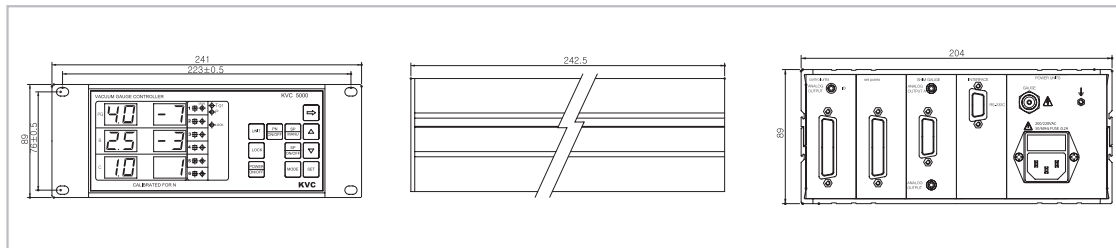
KVC 900N

KVC 5000N | A Small but Powerful Corporation KVC 5000N Penning Vacuum Gauge

HIGH VACUUM SHIM Sensor & Penning Sensor



Dimension [unit:mm]



Measurement Range : 1000Torr ~ 1.0E-08Torr

➤ KVC 5000N Penning Vacuum Gauge

- Robust high vacuum gauge dubbed Penning.
- Comprehensive reading cold cathode and SHIM gauge.
- High accuracy and stability measuring.

➤ Controller

Channel : 1ch' PG & 2ch' SHIM Gauge Green LED
 Unit : Torr & Pa
 Standard Analog output
 Power input : 220Vac, 250Watts, 50 or 60Hz
 Optional : Relay 6-setpoint / RS232 or 485 Interface / ModBus

➤ Penning Vacuum Gauge

Pressure Range
 Maximum Measurement Limit : 1.0E-08 Torr
 Minimum Measurement Limit : 1.0E-03 Torr
 Maximum Cable length : 5m(10ft.) ~ 60m(200ft.)
 Analog Output : 1V/decade, -2 ~ -8Vdc
 Fitting : NW25KF

➤ Low Vacuum Gauge

SHIM Gauge Pressure Range
 Analog Output : 1V/decade, 0~ 6Vdc
 Cable length : 3meter (Standard), 50meter (Maximum)
 Fitting : 1/8NPT, NW16KF, NW25KF, 15m O.D,
 1.33"CF, 2.75"CF, 1/4"VCR

Gauge axis must be horizontal to provide accurate measurement above 1Torr



KVC 5000N

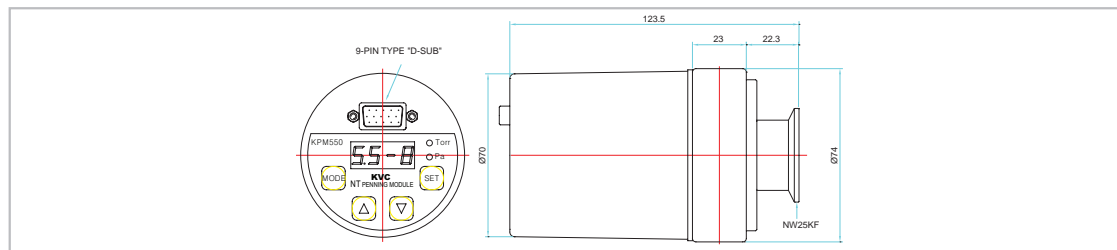
KPM 550 | A Small but Powerful Corporation

KPM550 Nt Penning Gauge Module

HIGH VACUUM Penning Sensor



Dimension [unit:mm]



Measurement Range : 1.0E-03Torr ~ 1.0E-08Torr

➔ KPM550 NT Penning Gauge Module

- High vacuum gauge reading by cold cathode
- Compact size

➔ Features

- Stable reading
- Available communication with computer

➔ Penning Gauge

- Mini display window
- External switching on/off with low vacuum gauge
- Unit : Torr / Pa
- Input power : +24Vdc250mA
- Analog output : DC 0 ~ 6V
- Relay 2-setpoints in Standard
- Optional : RS485, available MODEBUS RTU
- Fitting : NW25KF



KPM 550

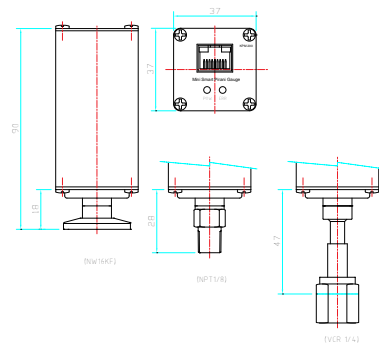
KPM 200 | A Small but Powerful Corporation

KPM 200 Mini Gauge

Mini Low Vacuum Gauge



Dimension [unit:mm]



Measurement Range : 1000Torr ~ 1.0E-03Torr

➡ KPM 200 Mini Gauge Module

- New concept combined Pirani & Piezo and compact size

➡ Controller

1Point alarm O.C

RS 485 Modbus Interface Module

Combined pirani & piezo

Stable and accurate reading for 1000~1.0-3Torr

In put pover : +24Vdc

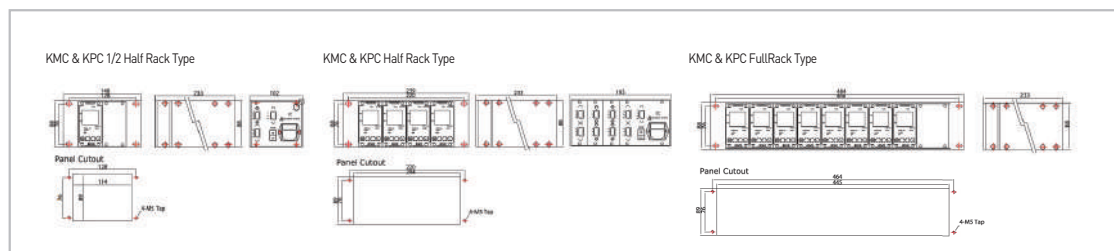


KPM 200

KMC 300-KPC400 | A Small but Powerful Corporation



Dimension [unit:mm]



➤ Mass Flow Controller

- Available to concurrently connect with MFC & CDG

➤ Features

Available to read both MFC and CAPACITANCE MANOMETER
 Easy Management by front panel key
 Free Voltage
 High reponse

➤ Penning Gauge

Available to concurrently connect with MFC and CDG
 Channel : max 8ch. Including MFC and CDG
 MFCController : KMC300
 CDG Controller : KPC400
 Analog output signal : 0 to 5 Volts for MFC / 0 to 10Volts available for CDG by user requirement.
 Units of Display : SCCM, SLM, % for KMC300 / Torr & Pa for KPC 400
 Standard function : Remote Control. RS485 for each channel
 Relay 1-setpoint for each channel.
 Optional : Pressure control, which is available to automatically control connected MFC by CDG's setting pressure
 Input power : 85Vac ~ 265Vac (50/60Hz)
 Mounting rack type : 1/4 rack Half rack
 Full rack(19") 1/4" Rack : 1channel only (Optional : Half Rack or Full Rack)
 Half Rack : 2channel - 4channel (Optional : Full rack)
 Full Rack : 5channel - 8channel

ANGLE VALVE



- Angle valve Pneumatic
- Angle valve manual
- In Line valve Pneumatic
- In Line valve manual

Specification

Materials

Casing Body : Electropolished 304 Stainless Steel
Die-formed and welded body

Stem seal : Bellows or O-ring

Poppet seal : VITON (Other Elastomer Compounds Available)

Bonnet seal : VITON

Maximum Temperature with Viton seal

Sustained : 150

Intermittent : 204

Leak rate

Viton bonnet seal : 1×10^{-9} Torr

Differential Pressure

Maximum 20 psi across valve seat

Actuator

Manual

Pneumatic

- Single acting cylinder (N.C)

- Double

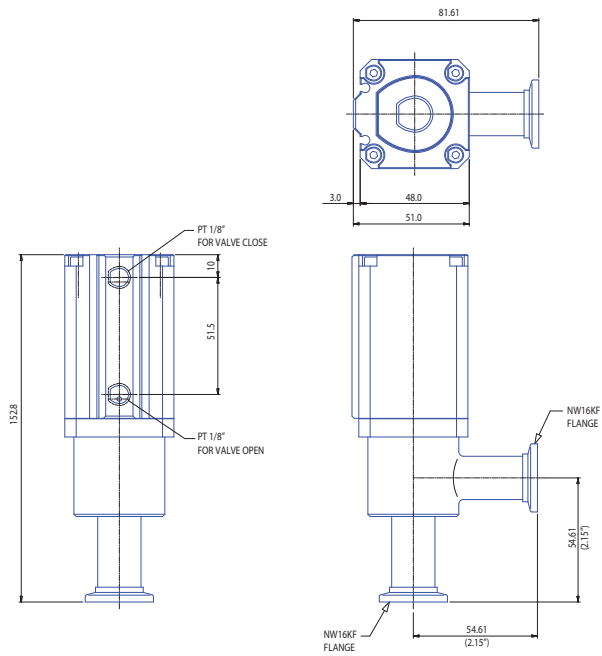
- Optional positioner

Flange Size

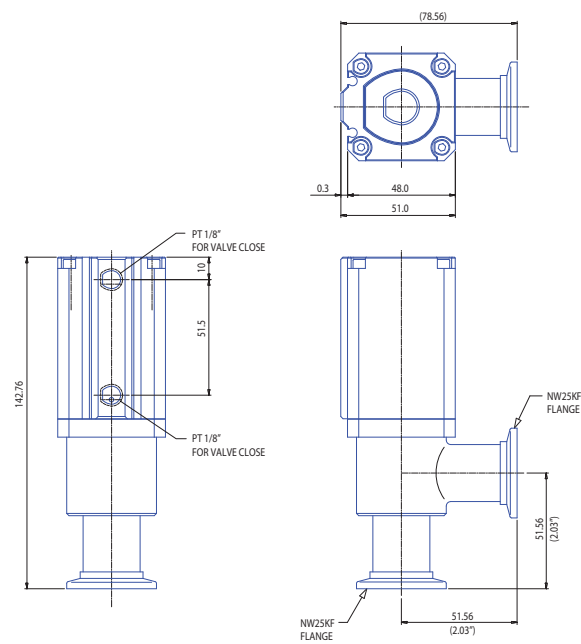
- Max 10 inch for all flange style

- Contact KVC in case of over 10 inch

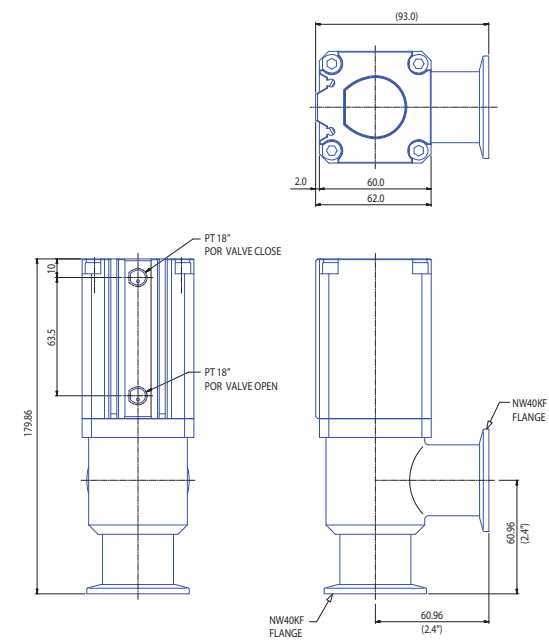
Angle Valve Pneumatic | A Small but Powerful Corporation



➡ Angle Valve Pneumatic NW16KF Valve



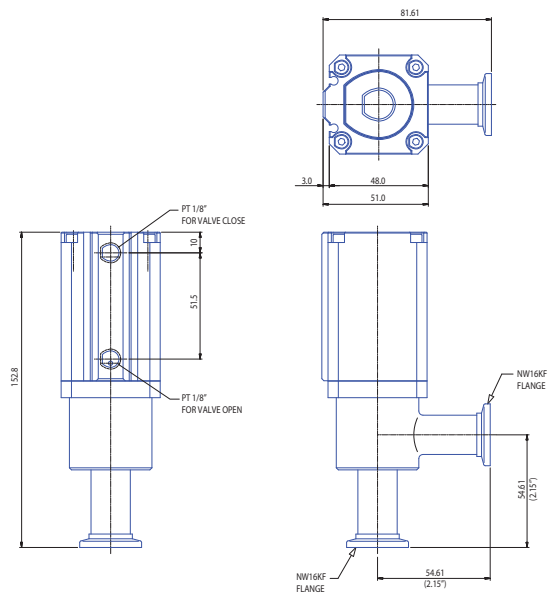
➡ Angle Valve Pneumatic NW25KF Valve



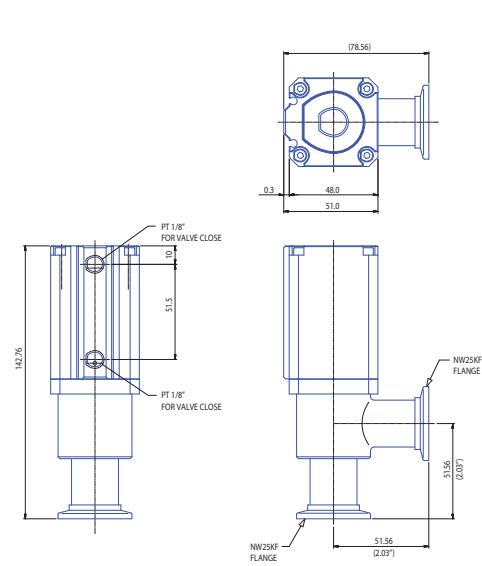
➡ Angle Valve Pneumatic NW40KF Valve

Angle Valve Manual

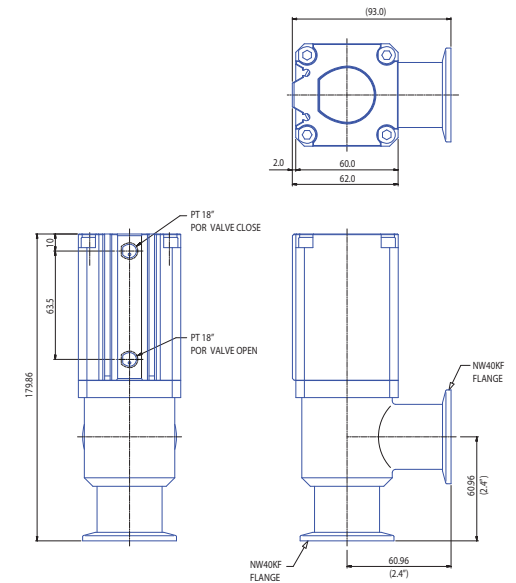
A Small but Powerful Corporation



➔ Angle Valve Manual NW16KF Valve

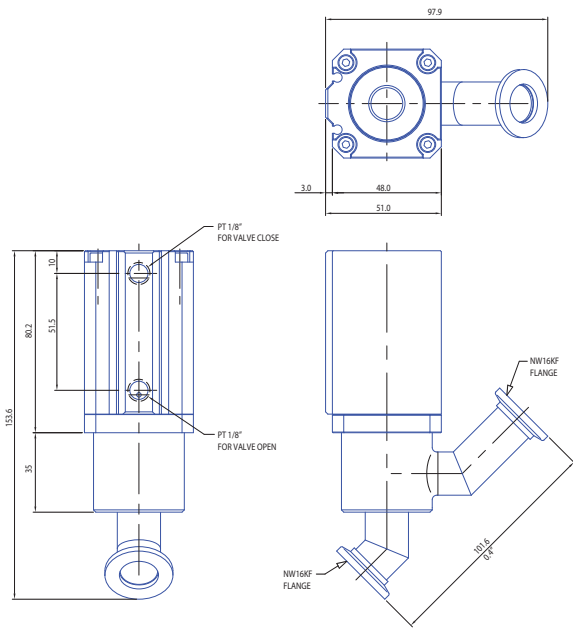


➔ Inline Valve Manual NW25KF Valve

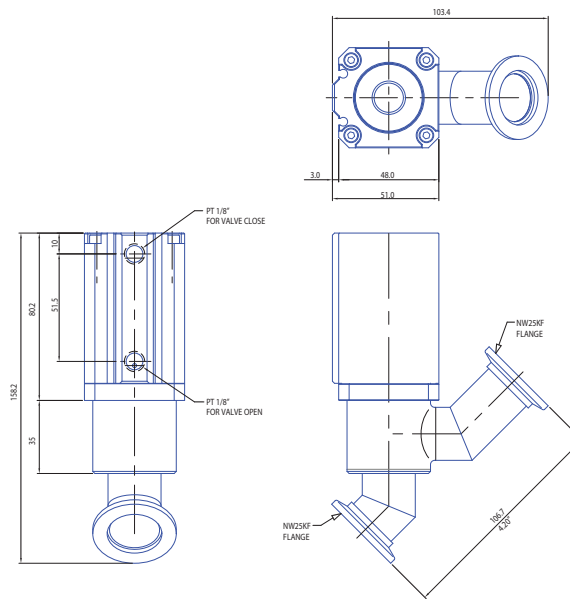


➔ Inline Valve Manual NW40KF Valve

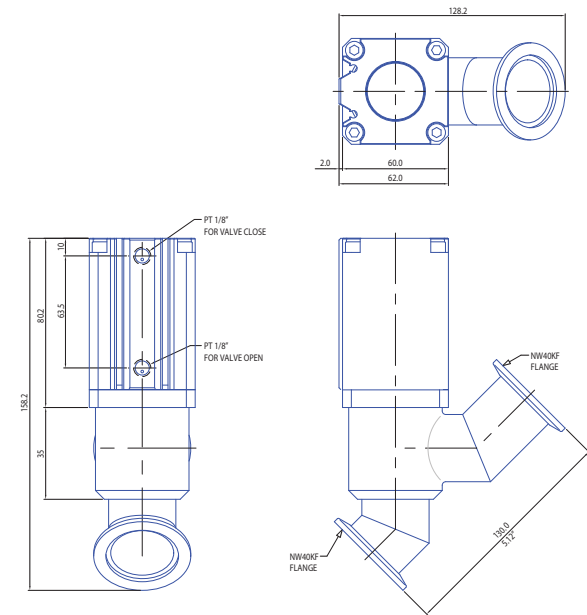
Inline Valve Pneumatic | A Small but Powerful Corporation



➡ Inline Valve Pneumatic NW16KF Valve

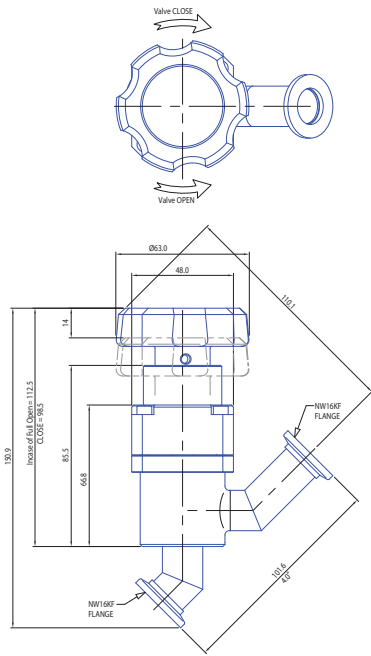


➡ Inline Valve Pneumatic NW25KF Valve

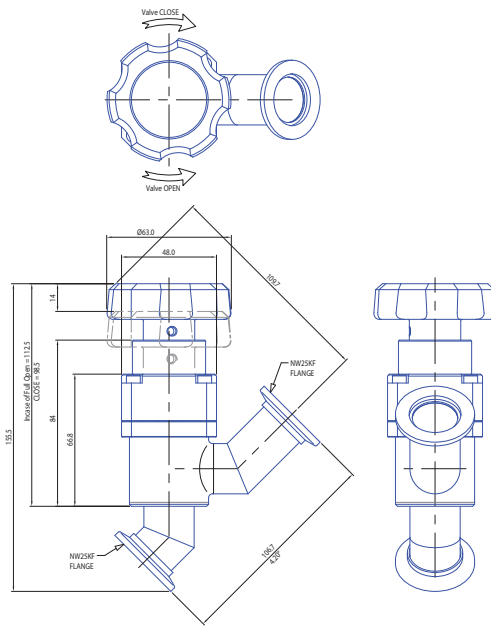


➡ Inline Valve Pneumatic NW40KF Valve

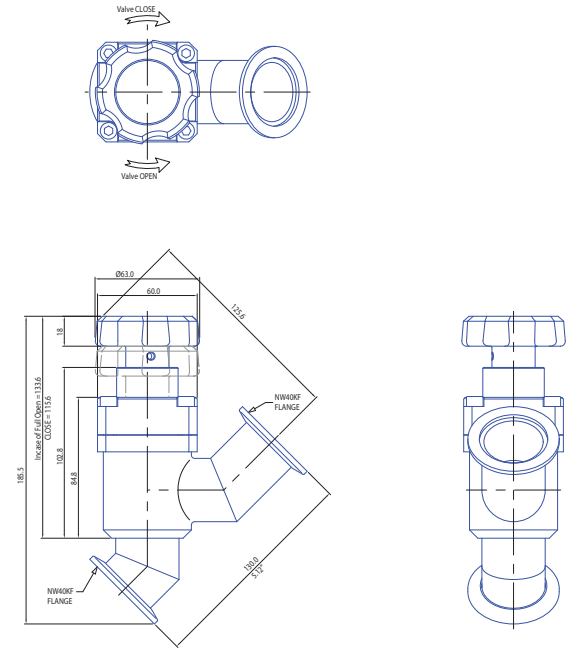
Inline Valve Manual | A Small but Powerful Corporation



➔ Inline Valve Manual NW16KF Valve

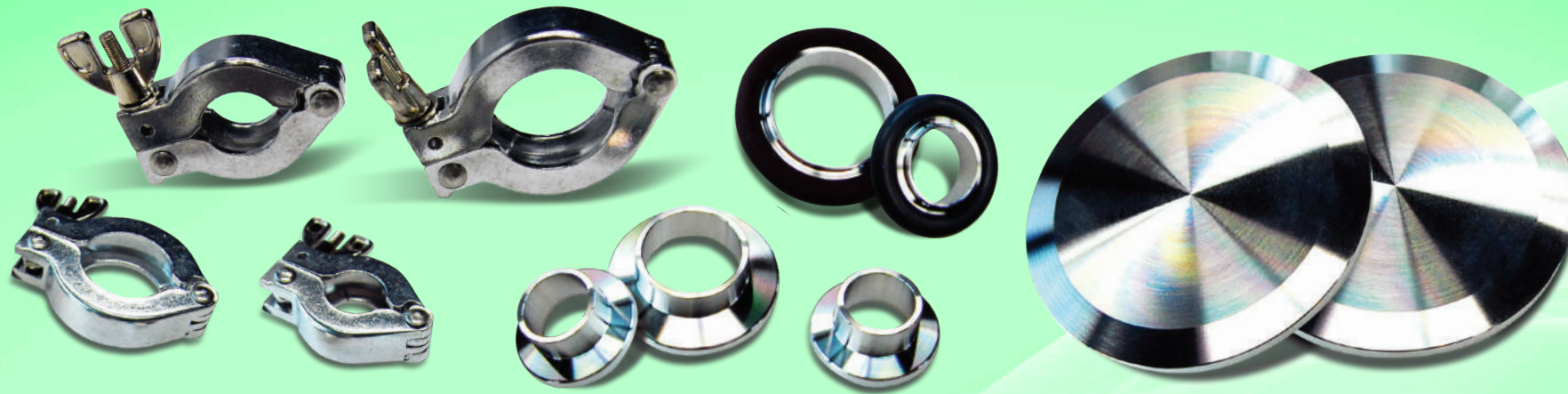


➔ Inline Valve Manual NW25KF Valve



➔ Inline Valve Manual NW40KF Valve

COMPONENTS

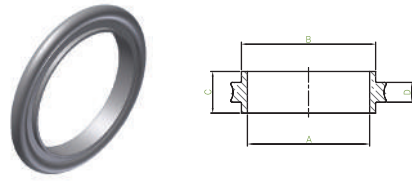


Specification

Tube O-D sizes	3/4 to 2.0 inch
Materials	Flange : 304 or 316L stainless steel O-rings : Viton, Buna & silicon (Other Materials Available)
Fasteners	Wing nut Clamp, bulkhead & EVAC clamp
Vacuum range	Elastomer seal : $\geq 1 \times 10^{-8}$ Torr – High vacuum
Temperature range	Viton : -20 to 200 Silicon : -50 to 230 Buna : -30 to 110

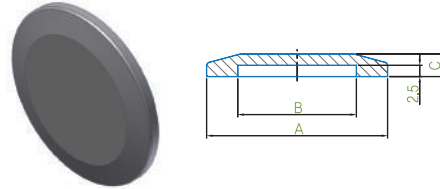
COMPONENTS

A Small but Powerful Corporation



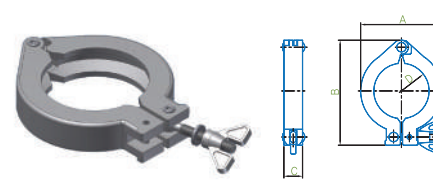
Center-ring

Model No	Material	A	B	C	D	O-ring	Parts No.
NW16	SUS304	15	17	8	3.8	AS-314	CR16
NW25	SUS304	23.5	26	8	3.8	AS-320	CR25
NW40	SUS304	38.5	41	8	3.8	AS-326	CR40
NW50	SUS304	50	52	8	3.8	AS-330	CR50



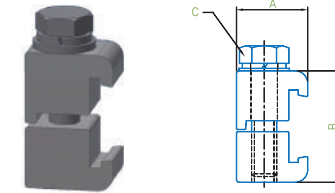
Blank Flange

Model	Material	A	B	C	Parts No.
KF16 Blank	304SS	30.3	17.2	5.0	BKF 16
KF25 Blank	304SS	40.0	26.2	5.0	BKF 25
KF40 Blank	304SS	55.0	41.2	5.0	BKF 40
KF50 Blank	304SS	75.0	52.2	6.0	BKF 50



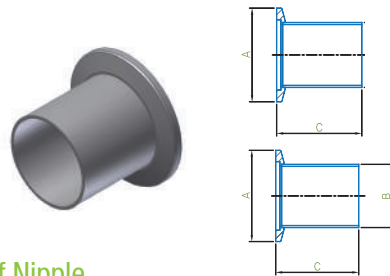
Clamp

Model No	Material	A	B	C	D
NW16	Al	45	63	16	23
NW25	Al	55	72	16	33
NW40	Al	70	90	16	47
NW50	Al	90	114	20	62



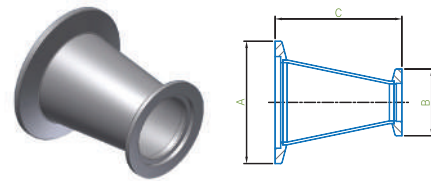
Double Wall Clamp

Model	Material	A	B	C	Parts No.
ISO63-100	Al	24	40	M8	DWCL M8
ISO125-250	Al	28	43	M10	DWCL M10
ISO320-500	Al	34	55	M12	DWCL M12



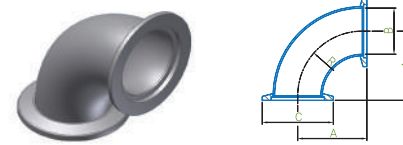
Half Nipple

Model No	Material	A	B	C(Short)	C(Long)	Parts No.
KF 16	304SS	30.0	19.05	20.0	50.0	HNK16
KF 25	304SS	40.0	25.4	20.0	50.0	HNK25
KF 40	304SS	55.0	38.1	20.0	50.0	HNK40
KF 50	304SS	75.0	50.8	20.0	50.0	HNK50



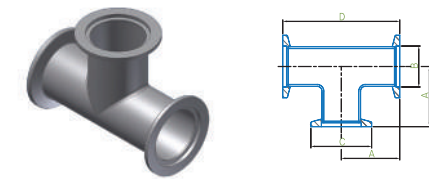
Conical Reducer

Model No	Material	A	B	C	Parts No.
KF25~16	304SS	30.3	40.0	57.0	CRK25~16
KF40~16	304SS	30.3	55.0	57.0	CRK40~16
KF40~25	304SS	30.3	55.0	74.0	CRK40~25
KF50~40	304SS	30.3	75.0	74.0	CRK50~40



90° Elbow

Model No	Material	A	B	C	R	Parts No.	Parts No.
KF 16	304SS	32.0	19.05	30.0	28.5	EK16	CR16
KF 25	304SS	38.5	25.4	40.0	35.0	EK25	CR25
KF 40	304SS	53.5	38.1	55.0	50.0	EK40	CR40
KF 50	304SS	63.5	50.8	75.0	60.0	EK50	CR50



Tee

Model No	Material	A	B	C	R	Parts No.	Parts No.
KF16	304SS	32.0	19.05	30.0	64.0	TK16	CR16
KF25	304SS	38.5	25.4	40.0	77.0	TK25	CR25
KF40	304SS	53.5	38.1	55.0	107.0	TK40	CR40
KF50	304SS	63.5	50.8	75.0	127.0	TK50	CR50

INDICATOR

전압, 전류, RTD, TC 등 다양한 신호를 받아 LED로 그 값을 한눈에 파악할 수 있도록 DISPLAY하며 릴레이 또는 4~20 mA로 출력하여 주변 시스템과 결합하여 제어를 병행할 수 있는 지시조절계입니다.



Kb-100

BAR GRAPH

세계 최소형의 컴팩트 사이즈의 지시계로서 다양한 입력을 가진 계기로 Bar-graphic과 디지털 LED 디스플레이로 측정값을 한눈에 파악 할 수 있는 계측기입니다.



Ki-200

MULTI

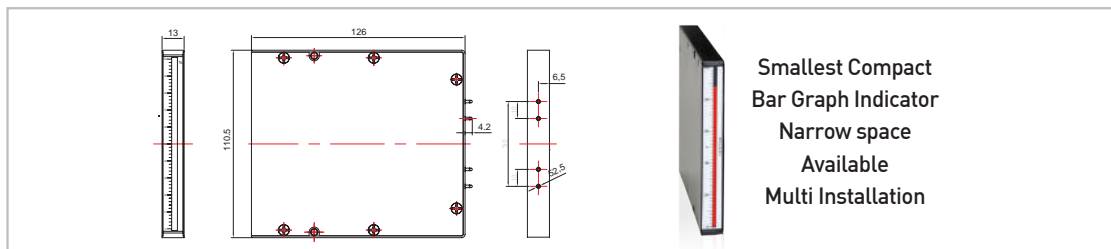
더욱 선명한 표시부와 16Bit A/D 채용으로 고정도 실현, 더욱 다양해진 보조출력 기능까지 탑재한 멀티 인디케이터입니다.

Kb-100 | A Small but Powerful Corporation

BAR GRAPH Indicator



Dimension [unit:mm]



Installation

Operation condition

Used Ambient Temp & Humidity : -10 ~60 , 10~90%

Storage Temp & Humidity : -20 ~70 , 5~95%

Power Supply

Input Power : DC24 Volt (DC9V ~ DC28V)

Max Current : 62mA

Power Consumption : 1.5VA (Max)

Others

Weight : 200g

Installation : Bolt

Dimension : 13.5(W) X 110(H) X 130(D)mm

Performance

Response time : 500ms

Display : 101Bar Red LED

Specification

Input : DCmA, DCV (0~100%)

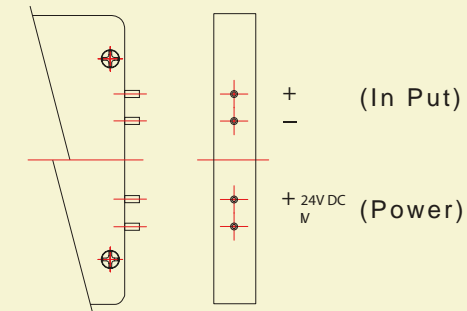
Input Sampling Cycle : 50ms

Input Resistance : 1M Ω

Signal Resistance : under 300 Ω / Line

CMRR(Commom Mode Rejection Ratio) : over 140dB

Input Specification



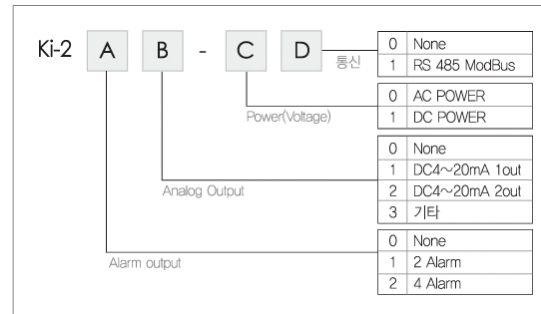
Ki-200 | A Small but Powerful Corporation



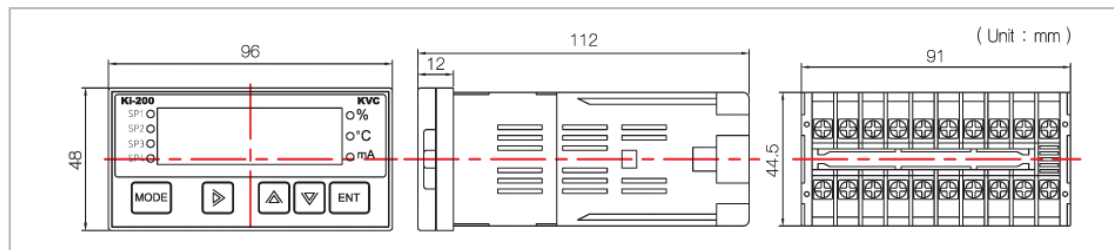
Features

- 5-Digit Display
- High Accuract by 16bit A/D Converter
- Multi Input
- ModBus Available by RS485
- 4-20mA / 0~10Vdc Isolation Output
- 2 or 4 Point Alarm output
- Internal Sensor Power Supply for 2Wire Transmitter
- Filter Time Setting
- Peak-Hold Function

Input Specification



Dimension [unit:mm]



Specification

Model		Ki-200 Series
Input Power		AC 85~265V (50~60Hz) 10VA, DC 24V ±20% 200mA
Accuracy		±0.2% FS
Input Sampling time		100 ms
Input Resistance	Volt Type	1M Ω
	mA Type	250 Ω
	Others Type	500 kΩ
Signal Resistance	PT100	40 Ω / Line
	Others	1kΩ / Line
Sensor Power		DC 24V ±10% 50mA
Linearity		0.1% FS
Alarm relay capacity		AC 125V 2A
		DC 30V 2A
Current output		Max, 600 Ω (DC 4~20mA)
Voltage output		Min 1kΩ (DC 0~10V)
Interface		RS485 ModBus RTU
Operation Condition	Used ambient temp & Humidity	-10 ~ 60 / 5~90%
	Storage temp & Humidity	-20 ~70 / 0~95%
Others	Weight	250g
	Case Material	ABS
	Dimension	Refer to Dimension
	Cutting size	Refer to next page
	Installation	Panel Installation

Input Specification

	TYPE	RANGE	INDICATION
T/C	B	0~1800	b
	R	0~1750	r
	S	0~1750	S
	K	250~1350	ε
	E	-199.9~700.0	E
	J	-199.9~800.0	J
	T	-199.9~400.0	t
	N	-250~1350	n
RTD	DPt100Ω	-199.9~800.0	d-Pt
	JPt100Ω	-199.9~500.0	J-Pt
Volt	mV	-100~100mV DC	mV
	1Volt	-1.0~1.0V DC	1V
	10Volt	-10~10V DC	10V
mA	mA	4~20mADC	20mA

KTM10 | A Small but Powerful Corporation

KTM10 10Channel Multi 입력 Modbus Module

General Specification



Features

- TC/mV type Sensor 10 Channel Signal
- 고성능, 고정도 의 16bit A/D Converter로 처리하여 측정치를 MODBUS RTU로 전송합니다.

Specification

- INPUT : TC/mV 10CH
- 측정 및 update 주기 : 200ms/10CH
- 정도 : ± 0.2 % FS
- CMRR(Common Mode Rejection Ratio) : 140db 이상
- NMRR(Normal Mode Rejection Ratio):50db 이상
- 이동 평균 Filter 내장
- MODBUS 통신 출력(Optional)
방식 : RS485
data 길이 : 8bit
speed : 4800,9600,19200,38400,115200(표준 38400)
Parity : Even parity
최대 접속대수 : 32대
protocol : MODBUS 1.1 RTU
절연저항 : 100MΩ/1000VDC
- 사용 조건
동작 온.습도 : -5°C ~55°C, 10%~90%
보존 온.습도 : -20°C ~70°C, 5%~95%
- 전원 전압
사용 전압 : DC12~30 Volt(200mA 이내)
소비 전력 : 5W(MAX)
절연 저항 : 100MΩ, INPUT(power) - RS485
- 기타
MODBUS)
무게 : 500g
취부 방법 : rail 취부형

Input specification

	TYPE	RANGE	SCALE	INDICATION
TC	B		0~1800	ㄷㄷ-b
	R		0~1750	ㄷㄷ-r
	S		0~1750	ㄷㄷ-s
	K		-250~1350	ㄷㄷ-k
	E		-199.9~700.0	ㄷㄷ-E
	J		-199.9~800.0	ㄷㄷ-J
	T		-199.9~400.0	ㄷㄷ-t
	N		-250~1350	ㄷㄷ-n
DC mV	100mV	±100mV	-199~9999	ㄷㄷ

Sensor Calibration

장시간 SENSOR를 사용하여 ZERO 점이 변동하든지, SENSOR의 선로길이가 길어서 오차가 발생 시 측정치에 대해 보정치를 가감할 수 있는 기능
 SENSOR 보정 전 = 510°C
 SENSOR 보정 후 = 측정치 + 보정치
 = 510°C - 10°C = 500°C

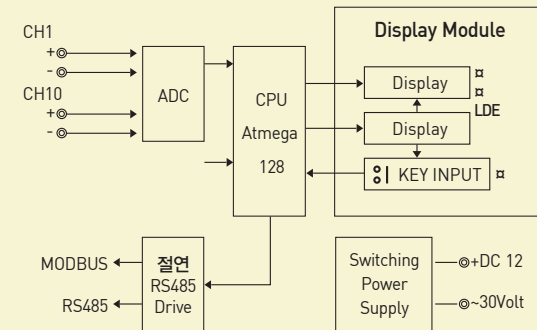
Display Scaling

입력이 mV일 경우 입력 값을 Scaling하여 표시가능
 예)입력이 0~100mV Display 0.0 ~ 800.0
 IN-H = 100.0 / IN-L = 0.0
 SC-H = 800.0 / SC-L = 0.0

Installation Precautions

- 취부 Bolt를 너무 조이지 마세요.
- 고도 2000M 이상에서는 사용할 수 없습니다.
- 반드시 옥내 또는 노출되지 않는 장소에 설치 하세요.
- 아래의 설치 장소는 피하여 주십시오.
부식성 가스가 있는 곳
먼지가 심한 곳
강한 고주파가 발생하는 곳
물기가 있는 곳
진동 또는 열을 받는 곳

Block Diagram



KTM 100 | A Small but Powerful Corporation

KTM100 100Channel Multi input module

General Specification



Features

- TC/mV type Sensor 100 Channel Signal
- 고성능, 고정도 의 16bit A/D Converter로 처리하여 측정치를 MODBUS RTU로 전송합니다.

Specification

- INPUT : TC(B,R,S,K,E,J,T,N), 100mV (max 100 Channel)
- 측정 및 updata 주기 : 50ms/100CH
- 정도 : ± 0.2 % FS
- CMRR(Common Mode Rejection Ratio) : 140db 이상
- NMRR(Normal Mode Rejection Ratio):50db 이상
- 이동 평균 Filter 내장(1 ~ 32)
- MODBUS 통신 출력(Option)
방식 : RS485 / Ethernet
data 길이 : 8bit
speed : 1200,2400,4800,9600,19200,38400,115200 (로타리 스위치 설정)
Parity : Even parity
최대 접속대수 : 10대(주소 로타리 스위치로 설정)
protocol : ModBus 1.1 RTU, TCPModBus
절연저항 : 100MΩ/1000VDC
- 사용 조건
동작 온습도 : -5°C ~55°C, 10%~90%
보존 온습도 : -20°C ~70°C, 5%~95%
- 전원 전압
사용 전압 : DC12~30 Volt(2000mA 이내)
소비 전력 : 50W(MAX)
절연 저항 : 100MΩ, INPUT(power) - RS485 MOD BUS)
- 기타
무게 : 5Kg
취부 방법 : wall 취부형

Input specification

TYPE	Code	SCALE	ModBus DATA
None input	0		
TC	B	1	0~1800 (X 1)
	R	2	0~1750 (X 1)
	S	3	0~1750 (X 1)
	K	4	-250~1350 (-250 ~1350(X1))
	E	5	-199.9~700.0 (-1999 ~ 7000(X 10))
	J	6	-199.9~800.0 (-1999 ~ 8000(X 10))
	T	7	-199.9~400.0 (-1999 ~ 4000(X 10))
	N	8	-250~1350 (-2500 ~ 1350(X 1))
DC mV	100mV	9	0.0~100.0 (0~ 1000(X 10))

Sensor Calibration

장시간 SENSOR를 사용하여 ZERO 점이 변동하든지, SENSOR의 선로길이가 길어서 오차가 발생 시 측정치에 대해 보정치를 가감할 수 있는 기능
 SENSOR 보정 전 = 510°C
 SENSOR 보정 후 = 측정치 + 보정치
 = 510°C - 10°C = 500°C

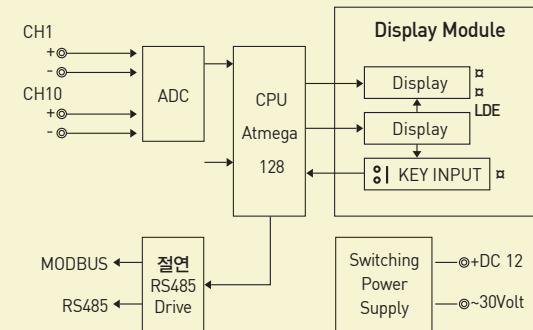
Display Scaling

입력이 mV일 경우 입력 값을 Scaling하여 표시가능
 예)입력이 0~100mV Display 0.0 ~ 800.0
 IN-H = 100.0 / IN-L = 0.0
 SC-H = 800.0 / SC-L = 0.0

Installation Precautions

- 취부 Bolt를 너무 조이지 마세요.
- 고도 2000M 이상에서는 사용할 수 없습니다.
- 반드시 옥내 또는 노출되지 않는 장소에 설치 하세요.
- 아래의 설치 장소는 피하여 주십시오.
부식성 가스가 있는 곳
먼지가 심한 곳
강한 고주파가 발생하는 곳
물기가 있는 곳
진동 또는 열을 받는 곳

Block Diagram



KVP Series Digital Power thyristor unit



전류나 전압의 제어기능을 가진 반도체소자를 이용하여 전력을 조절하는 기기로서 단상 및 삼상으로 구성되어 있으며
입력값의 변화와 관계없이 출력이 변하지 않는 “정전압” 형, “정전류” 형 및 “정전력” 형 등이 있으며
Heater의 종류, 용도 및 부하의 용량에 따라 다양한 선택이 가능할 뿐만 아니라
compact하게 설계 되어 있어 회로 보호기능이 뛰어나며 조작 방법이 매우 쉽게 설계되었으며 CE 인증을 받은 제품입니다.

SCR

KVP3000

풀 디지털화한 세계 최고 수준의 제품으로 Analog SCR Unit의 안정성은 물론 전기로에서의 Noise문제 등을 해결함으로써 최적의 공정을 실현할 수 있도록 설계된 제품입니다. 다양한 감시 기능과 통신 기능을 강화하여 사용자의 편리함과 안정성을 실현한 전력조절기입니다.

주문 CODE

KVP3 - 1 - 2 - 456 - 7 - 8

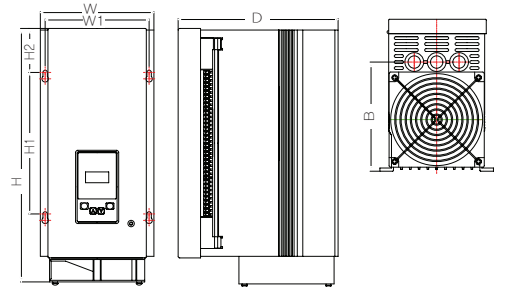
- 1...Type : M = 단상 소형, S = 단상, T = 삼상
- 2...전압 : 1 = 110V, 2 = 220V, 3 = 380V, 4 = 440V
- 456...전류(25~1000A)
- 7...온도제어기능 0 = 없음, 1 = PID 오토튜닝 온도제어
- 8...통신 0 = 없음, 1 = MODBus RTU (RS485)

사양

구분	사양	구분	사양
정격 전압	110/220/380/440 VAC	내전압	2KV (1분)
정격 전류	삼상 : 25~400A AC, 단상 : 25~950A AC	절연저항	100MΩ
정격 주파수	50/60Hz	제어전원	AC 110/220V 50/60 Hz 15VA
제어 입력신호	자동 : DC4~20mA, DC0~20mA, DC1~5V, DC0~5V, DC0~10V, ON/OFF, 통신, 온도제어 수동 : 내부 가변저항, 외부가변저항 (10KΩ)	환경	동작온도: -10~60℃ / 동작습도: 0~90%RH 저장온도: -20~80℃ / 저장습도: 0~90%RH 사용고도: 1500M 이하
제어방식	위상제어 / Zero crossing 가변주기제어	냉각방식	자연냉각, 강제냉각
부하	저항성 부하, 유도성부하(위상제어만)	알람출력	Relay 접점 출력 2NO / 1A 30VDC / 0.5A 125VAC
설정방법	전면 Key, MODBus 통신	온도제어	PID Auto tuning 제어
제어출력	위상제어 : 0~98% / Cycle 제어: 0~99%	온도입력	TC(B,R,S,K,E,J,T,N), RTD(PT100), DC100mV
표시	7segment FND 4DIGIT LED 상태표시	멀티SP	두개 Di로 4단계 SP선택

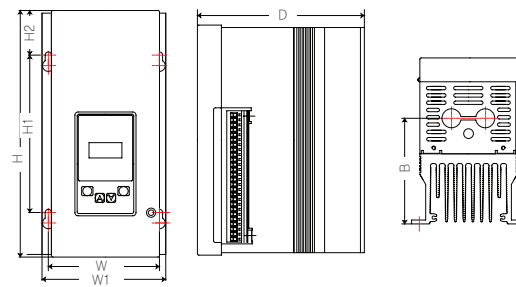
치수도면 및 취부 도면

· KVP series(3phase)



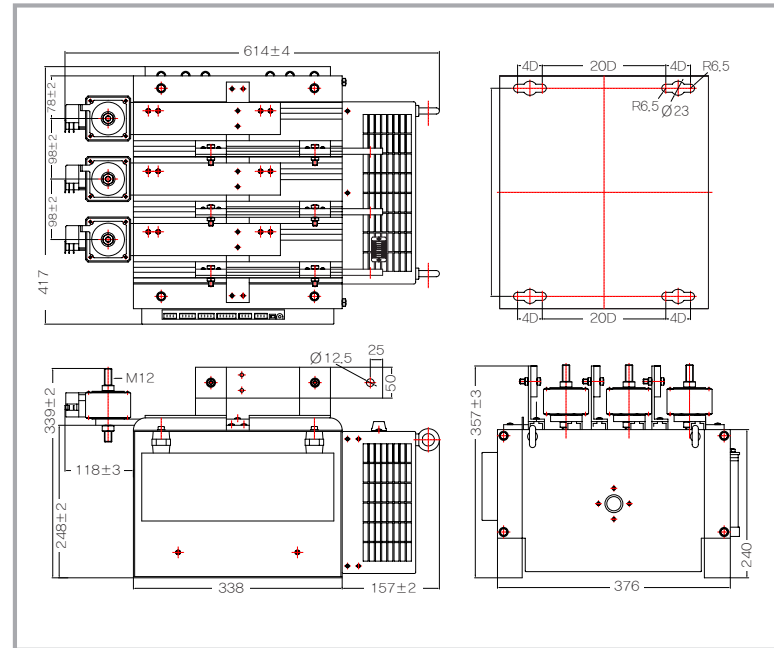
Rated Current(A)	W	H	D	W1	H1	H2	B	볼트	Remark
25/50	142	317	200	130	177	55	136	M5	T-type
70/100/150/180/200	210	378	243	195	200	100	182	M6	T-type
250/400	278	440	252	261	200	115	200	M6	T-type
600/2000A									

· KVP series(1phase)

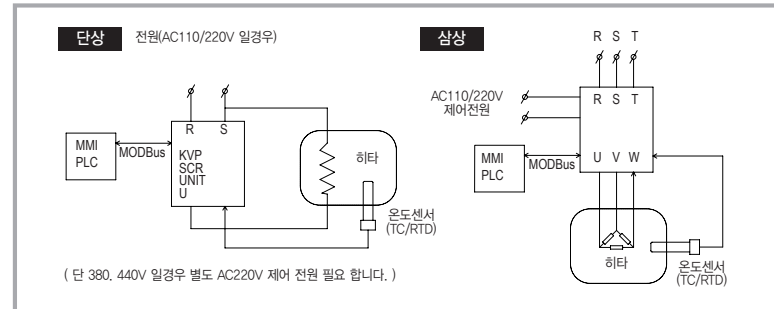


Rated Current(A)	W	H	D	W1	H1	H2	B	볼트	Remark
25/40/50/70	118	235	170	106	150	40	108	M5	S-type
80/100/150/200	142	317	200	130	177	55	136	M5	S-type
250/400	210	378	243	195	200	100	182	M6	S-type
500/600/750/950	278	450	252	261	200	115	210	M6	S-type
25A 전용Type	75	170	159	66	140	15	90		M-type

· KVC Series (3phase)
(Ø3 / 600-1000A)



사용예)



기능

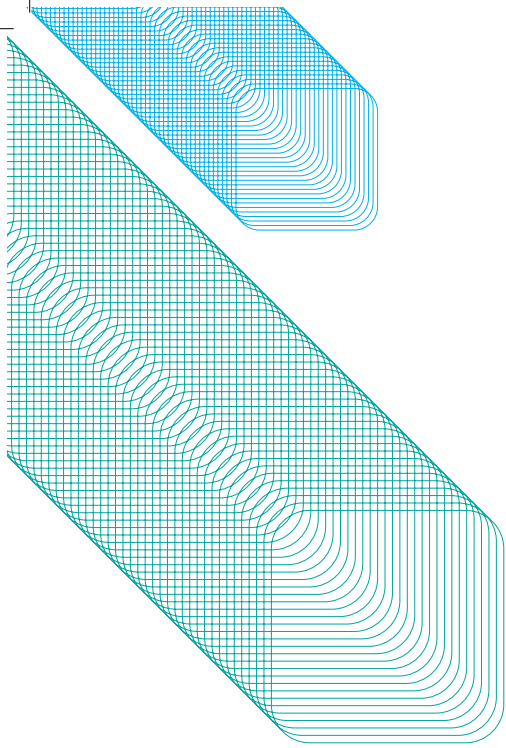
- 온도제어
- 퓨즈단선 검출
- 과전압 과전류 검출 및 차단
- Soft up · down
- 방열판 과온 감지 및 차단
- 입력 스케일링 및 출력 리미트
- 부하 저항 감시 및 단선 검출
- 역상 및 주파수 자동감지 운전
- 정전압, 전류, 전력제어
- 전력 · 적산 펄스 출력

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