

JDA-500 Series

SMART – Anti-Explosive Gas Detector

IP66



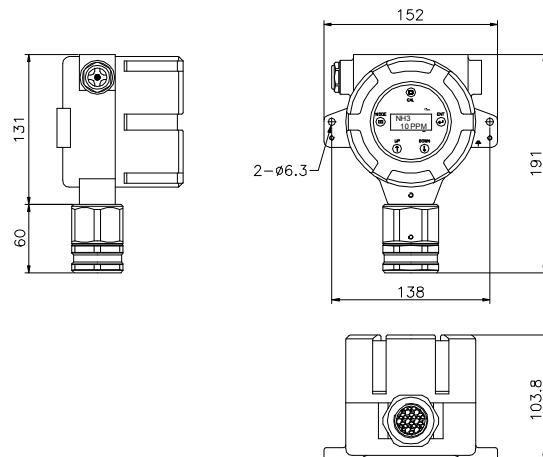
Specific Features

- Digital Process**
 Wide range of artificial intelligence is embodied through the digital process based on micro processor and gas may be more conveniently, accurately, and efficiently detected.
- Non-Intrusive Auto-Calibration With Magnetic Switch**
 The inconvenience to open the cover of detection part for calibration work by applying magnetic switch mechanism to automatic calibration function of digital processor. This function is especially effective in the calibration work in the anti-explosive area. (Zero, Span)
- Self-Inspection**
 Trouble of the product is checked by inspecting surrounding ICs.
- LCD Display With Back-Light**
 Detected level is displayed in LCD at real time for prompt identification of level and automatic back-light function is installed for easy identification of level even in the dark environment.
- User Selection Menu**
 The user may configure the function suitable to using environment with choosing calibrated gas level and detection range with use of micro processor.
- Signal-Output**
 The signals are smoothly transmitted by various output methods including sm2wire loop powered, 2-Step Relay Contact (Option), and RS-485 (Option).

Specification

Detection Mechanism	Catalyst Combustion, Electro-Chemical NDIR(Non-Dispersive Infrared),PID(Photoionization)
Detection Type	Diffusion
Response Rate	0 ~ 100%LEL, 0~10000PPM,0~100%VOL
Accuracy	Within 20 sec, 90%/Full Scale
Level Display	± 2%/Full Sccale
Sensor Calibration	Back Light LCD(8Characters*2Line)
Selection Function	Magnetic Switch
Input Power	Setting calibration level and detection range
Outside Output	DC 20 ~ 30V
Operation Temperature and Humidity	4 ~ 20mA/Full Scale - 2.5km transmission
Signal Cable	-20℃~60℃, 5~95% RH (Non-Condensing)
Cable Conduit	CVVS & CVVSB 1.25sq x 3 Wire - Shield Type
Installation Method	1/2" or 3/4" PF, NPT
Outer Material	Wall or Pipe Station
Anti-Explosion Certificate	Cast Aluminum Alloy
IP Rating	Ex d IIC T5 – Testing Laboratory (KTL)
Output Option	IP66
	2-Step Relay Contact (High/Low), RS-485

Dimension



JDA-500 Toxic Target Gas

Type		Range	Model
Acetaldehyde	CH ₃ CHO	0~ 500 ppm	JDA- 500- CH ₃ CHO
Arsine	AsH ₃	0~ 1.00 ppm	JDA- 500- AsH ₃
Arsenic Trichloride	AsCl ₃	0~ 1.00 ppm	JDA- 500- AsCl ₃
Arsenic Trifluoride	AsF ₃	0~ 10.0 ppm	JDA- 500- AsF ₃
Arsenic Pentafluoride	AsF ₅	0~ 10.0 ppm	JDA- 500- AsF ₅
Boron Trichloride	BCl ₃	0~ 15.0 ppm	JDA- 500- BCl ₃
Boron Tribromine	BBr ₃	0~ 15.0 ppm	JDA- 500- BBr ₃
Boron Trifluoride	BF ₃	0~ 10.0 ppm	JDA- 500- BF ₃
Butanethiol	C ₄ H ₉ SH	0~ 10.0 ppm	JDA- 500- C ₄ H ₉ SH
Carbonyl Fluoride	COF ₂	0~ 10.0 ppm	JDA- 500- COF ₂
Carbon Dioxide	CO ₂	0~ 5000 ppm	JDA- 500- LCO ₂
Carbon Dioxide	CO ₂	0~ 5.00 %	JDA- 500- MCO ₂
Carbon Dioxide	CO ₂	0~ 100 %	JDA- 500- HCO ₂
Carbon Tetrachloride	CCl ₄	0~ 30.0 ppm	JDA- 500- CCl ₄
Chlorine	Cl ₂	0~ 10.0 ppm	JDA- 500- Cl ₂
Chlorine Dioxide	ClO ₂	0~ 2.00 ppm	JDA- 500- ClO ₂
Chlorine Trifluoride	ClF ₃	0~ 2.00 ppm	JDA- 500- ClF ₃
Diborane	B ₂ H ₆	0~ 1.00 ppm	JDA- 500- B ₂ H ₆
Dichlorosilane	SiH ₄ Cl ₂	0~ 10.0 ppm	JDA- 500- SiH ₄ Cl ₂
Disulfur Decafluoride	S ₂ F ₁₀	0~ 10.0 ppm	JDA- 500- S ₂ F ₁₀
Disulfur Dichloride	S ₂ Cl ₂	0~ 10.0 ppm	JDA- 500- S ₂ Cl ₂
Flourine	F ₂	0~ 10.0 ppm	JDA- 500- F ₂
Formic Acid	HCOOH	0~ 500 ppm	JDA- 500- HCOOH
Germane	GeH ₄	0~ 1.00 ppm	JDA- 500- GeH ₄
Germanium Chloride	GeCl ₄	0~ 10.0 ppm	JDA- 500- GeCl ₄
Hydrazine	N ₂ H ₄	0~ 10.0 ppm	JDA- 500- N ₂ H ₄
Hydrogen Bromide	HBr	0~ 10.0 ppm	JDA- 500- HBr
Hydrogen Chloride	HCl	0~ 10.0 ppm	JDA- 500- HCl
Hydrogen Cyanide	HCN	0~ 50.0 ppm	JDA- 500- HCN
Hydrogen Fluoride	HF	0~ 10.0 ppm	JDA- 500- HF
Iodine ²	I ₂	0~ 10.0 ppm	JDA- 500- I ₂
Isopropanol ²	(CH ₃) ₂ CHOH	0~ 500 ppm	JDA- 500- (CH ₃) ₂ CHOH
Methanol ²	CH ₃ OH	0~ 500 ppm	JDA- 500- CH ₃ OH
Nitric Oxide	NO	0~ 100 ppm	JDA- 500- NO
Nitrogen Dioxide	No ₂	0~ 20.0 ppm	JDA- 500- No ₂

Nitrogen Trifluoride	NF ₃	0~ 30.0 ppm	JDA- 500- NF ₃
Ozone	O ₃	0~ 1.00 ppm	JDA- 500- O ₃
Phosgene	COCl ₂	0~ 5.00 ppm	JDA- 500- COCl ₂
Phosphine	PH ₃	0~ 1.00 ppm	JDA- 500- PH ₃
Phosphorus Trichloride	PCl ₃	0~ 15.0 ppm	JDA- 500- PCl ₃
Phosphorous	PCl ₅	0~ 15.0 ppm	JDA- 500- PCl ₅
Phosphoryl Chloride	POCl ₃	0~ 10.0 ppm	JDA- 500- POCl ₃
Silane	SiH ₄	0~ 20.0 ppm	JDA- 500- SiH ₄
Silicon Tetrachloride	SiCl ₄	0~ 10.0 ppm	JDA- 500- SiCl ₄
Stibin ²	SbH ₃	0~ 1.00 ppm	JDA- 500- SbH ₃
Sulfuryl Fluoride ²	SO ₂ F ₂	0~ 10.0 ppm	JDA- 500- SO ₂ F ₂
Sulfur Tetrafluoride	SF ₄	0~ 9.00 ppm	JDA- 500- SF ₄
Trichlorosilane	SiHCl ₃	0~ 15.0 ppm	JDA- 500- SiHCl ₃
Thiophene	C ₄ H ₄ S	0~ 50.0 ppm	JDA- 500- C ₄ H ₄ S
Tin Tetrabromide	SnBr ₄	0~ 10.0 ppm	JDA- 500- SnBr ₄
Tin Tetrachloride	SnCl ₄	0~ 30.0 ppm	JDA- 500- SnCl ₄
Tin Tetrafluoride	SnF ₄	0~ 10.0 ppm	JDA- 500- SnF ₄
Titanium Tetrachloride	TiCl ₄	0~ 10.0 ppm	JDA- 500- TiCl ₄
Trichlorosilane	SiHCl ₃	0~ 10.0 ppm	JDA- 500- SiHCl ₃
Trichlorotriazine	C ₃ Cl ₃ N ₃	0~ 10.0 ppm	JDA- 500- C ₃ Cl ₃ N ₃
Trifluorotriazine	C ₃ F ₃ N ₃	0~ 10.0 ppm	JDA- 500- C ₃ F ₃ N ₃
Vinyl Chloride	CH ₂	0~ 10.0 ppm	JDA- 500- CH ₂
Oxygen+Carbon Monoxide	O ₂ +CO	0~ 30%, 0~ 1000 ppm	JDA- 500- O ₂ +CO

JDA-500EX Combustible Gas

Type		Lower explosion limit (% VOL)
Acetaldehyde	CH_3CHO	4
Acetic acid	CH_3COOH	4
Acetone	CH_3COCH_3	2.5
Acetylene	C_2H_2	2.5
Bezene	C_6H_6	1.5
Butane	C_4H_{10}	1.86
Chloro benzene	$\text{C}_6\text{H}_5\text{Cl}$	1.3
Cyclohexane	C_6H_{12}	1.3
Di- Methylene	CH_3OCH_3	2
Ethane	C_2H_6	3.22
Ethanol	$\text{CH}_3\text{CH}_2\text{OH}$	3.6
Ethylene	C_2H_4	2.75
Ethylene glycol (EG)	$\text{HOCH}_2\text{CH}_2\text{OH}$	3.2
Ethylene oxide (EO)	$\text{C}_2\text{H}_4\text{O}$	3.0
Formic acid	CH_2O_2	16.9
Gasoline		1.4
Heptane	$\text{CH}_3(\text{CH}_2)_5\text{CH}_3$	1.05
Iso- butane	i- C_4H_{10}	1.8
Iso- propyl alcohol	$(\text{CH}_3)_2\text{CHOH}$	2
Methyl alcohol	CH_4O	7.3
Methyl bromide	CH_3Br	1
Naphthalene	C_{10}H_8	0.9
Octane	$\text{CH}_3(\text{CH}_2)_6\text{CH}_3$	1
Pentane	$\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_3$	1.5
Phenol	$\text{C}_6\text{H}_5\text{OH}$	1.3
Propane	C_3H_8	2.1
Propylene	C_3H_6	2
Propylene oxide (PO)	$\text{C}_3\text{H}_6\text{O}$	2.3
Thinners		1
Toluene	C_7H_8	1.2
Vinyl acetate (VAM)	$\text{CH}_2=\text{CHOCOCH}_3$	2.6
Vinyl chloride	$\text{CH}_2=\text{CHCl}$	3.6
Xylene	$\text{C}_8\text{H}_{10}=\text{C}_6\text{H}_4[\text{CH}_3]_2$	1.1