

**SMART Gas Detector/Transmitter(4~20mA)
with builtin TFT LCD & explosion proof**

DA-600S-NDIR

Auto - Sampling Type



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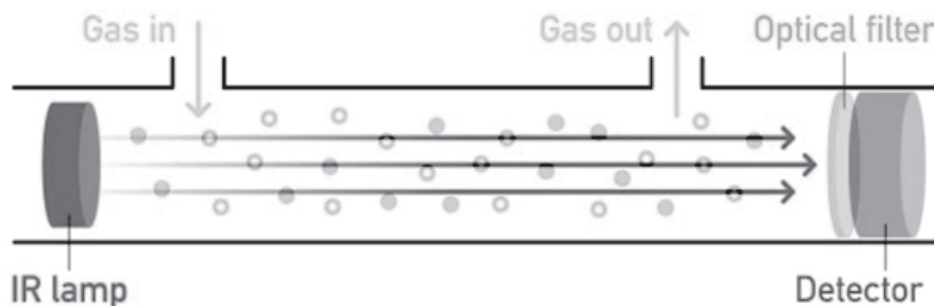
<http://www.gasdna.com>

Product Introduction

The DA-600S-NDIR detector is a non-dispersive infrared detector that uses a full-color LCD and RGB LED to enhance visibility and warning indication.

The DA-600S-NDIR meter is a non-dispersive infrared detector that measures Hydro Carbon and other toxic substances. The basic principle of the NDIR sensor is to utilize the infrared absorption characteristics of a specific wavelength. Each gas has its own infrared absorption spectrum, and this can be used to detect the presence and concentration of a specific gas. This NDIR technology is a very useful tool for accurately and quickly measuring the concentration of a specific gas component. It plays an important role in monitoring specific gases due to global warming, and is utilized in various industrial and environmental fields. NDIR sensors are easy to maintain due to their reliability and simple structure, and are suitable for real-time monitoring, so they are widely used in various applications.

NDIR Measurement Structure



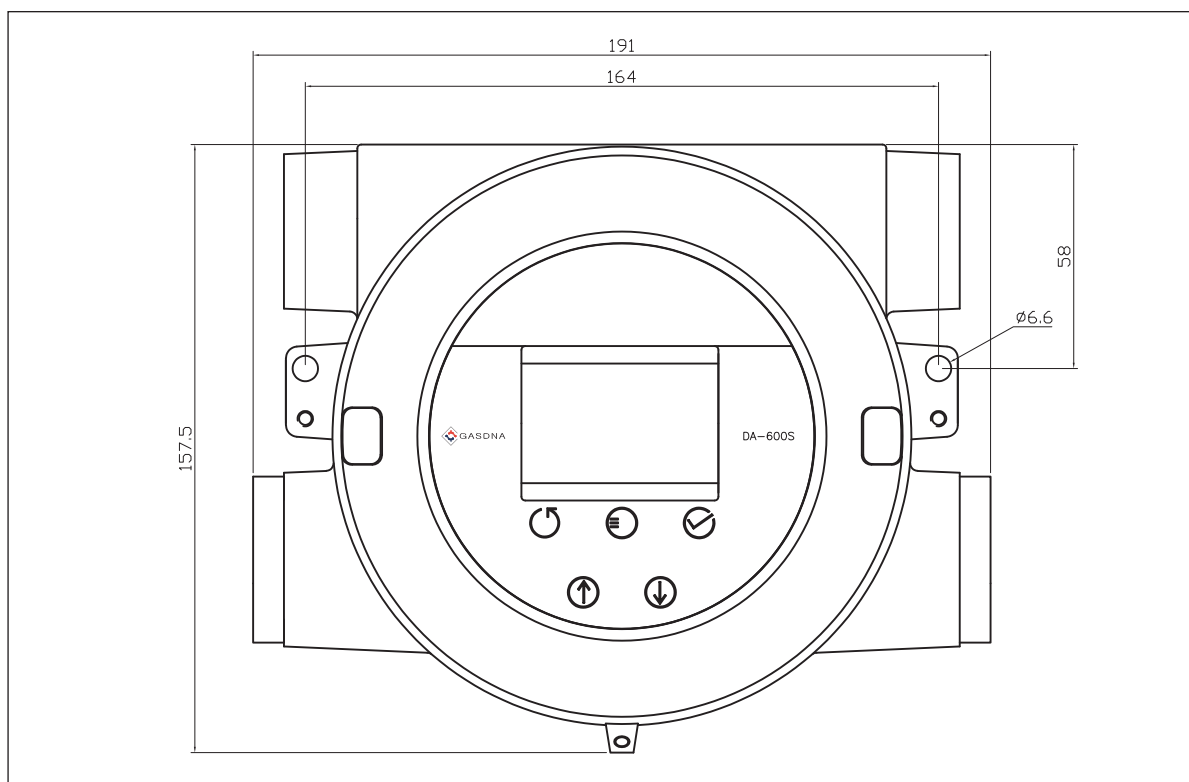
1. The infrared source (IR LAMP_ *infrared red) emits infrared.
2. The infrared that passes through the gas sample chamber is selectively absorbed by gas molecules.
3. The infrared passes through the filter (optical filter) and transmits only the specific absorption wavelength of the gas to the detector.
4. The detector detects the infrared that passes through the filter and converts it into an electrical signal.
5. This signal is proportional to the gas concentration, and the gas concentration is calculated through this.

Product Specifications

Specification	Detail
Measuring Method	Sampling
Measuring Range	0~2000PPM, 0~6000PPM, 0~100% LEL, 0~5.00%VOL, 0~100%VOL
Size	191(W) x 158(H) x 135(D)
Display	2.4" TFT LCD
Screen Size	48.96mm × 36.72mm(2.4inch)
Screen Display	5 magnetic switches with led confirmation
Warning light	RGB Color: RED, Orange & Green
Measuring Principle	NDIR (Non-Dispersive Infrared)
Measuring gas	See the gas list
Detection Time(T90)	>15 Sec
Input Power	DC 20~30V, Maximum power of 10Watts
External Outputs	4-20mA, Rs485 modbus, Relay x 2SPST(220V AC : 0.3A)
Ambient Temperatures & Humidity Range	-40℃ ~ 55℃, 0 ~ 95% RH (Non-Condensing)
Mechanical interface	2 x 3/4"NPT
Certification	Ex db IIC T6 Gb(IP6X), Ex tb IIIC T85℃ Db(IP6X)
Sensor Life Expectancy	5 years
Weight	3.8 Kg

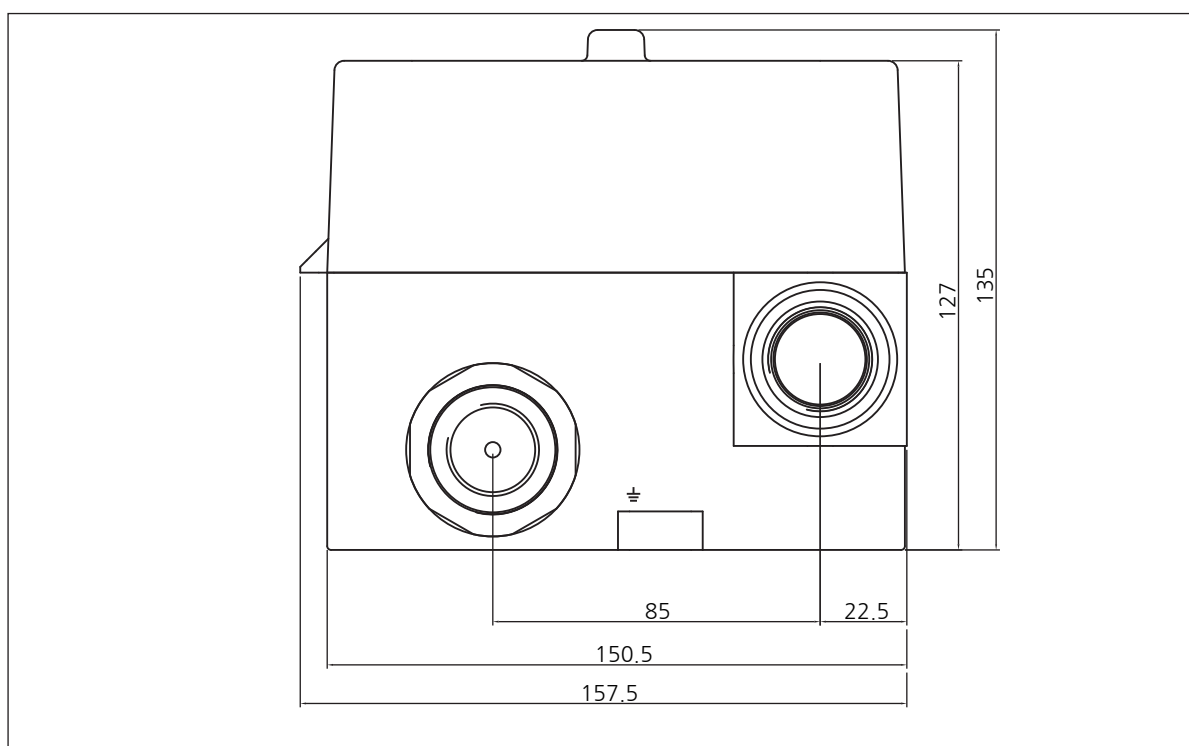
Product Diagram

1. Front View



unit : mm

2. Side View



unit : mm

NDIR Gas Measurement List

Target Gas	Chemical Formula	Measurement Range
Hexafluoroethane	C ₂ F ₆	0~2000 PPM
Hexafluoro-1,3-butadiene	C ₄ F ₆	0~2000 PPM
Octafluorocyclobutan	C ₄ F ₈	0~2000 PPM
Octafluorocyclopentene	C ₅ F ₈	0~2000 PPM
Methane	CH ₄	0~100 %LEL
Acrylic Acid	C ₃ H ₄ O ₂	0~100 %LEL
Epichlorohydrin	C ₃ H ₅ ClO	0~100 %LEL
Dimethylformamide	C ₃ H ₇ NO	0~100 %LEL
isobutylene	C ₄ H ₈	0~100 %LEL
Tetrahydrofuran	C ₄ H ₈ O	0~100 %LEL
Ethyl methyl carbonate	C ₄ H ₈ O ₃	0~2000 PPM
Pentane	C ₅ H ₁₂	0~100 %LEL
Phenol	C ₆ H ₆ O	0~100 %LEL
Propylene Glycol 1-Monomethyl Ether 2-Acetate	C ₆ H ₁₂ O ₃	0~2000 PPM
Ethylene Glycol Monobutyl Ether	C ₆ H ₁₄ O ₂	0~100 %LEL
Triethyl borate	C ₆ H ₁₅ BO ₃	0~2000 PPM
Allyl Methacrylate	C ₇ H ₁₀ O ₂	0~100 %LEL
Butyl Acrylate	C ₇ H ₁₂ O ₂	0~100 %LEL
Isobutyl Isobutyrate	C ₈ H ₁₆ O ₂	0~100 %LEL
Xylene	C ₈ H ₁₀	0~100 %LEL
Octamethyltrisiloxane	C ₈ H ₂₄ O ₂ Si ₃	0~2000 PPM
Carbon tetrafluoride	CF ₄	0~2000 PPM
Difluoromethane	CH ₂ F ₂	0~2000 PPM
Dichloromethane	CH ₂ Cl ₂	0~100 %LEL
Carbon dioxide	CO ₂	0~5000 PPM
Nitrous oxide	N ₂ O	0~1000 PPM
Sulphur Hexafluoride	SF ₆	0~2000 PPM
TETRAETHYLORTHOSILICATE	TEOS	0~100 PPM
Refrigerants	R-227	0~2000 PPM
Refrigerants	R-125	0~2000 PPM
Refrigerants	R-290	0~100 %LEL
Refrigerants	R-134a	0~2000 PPM
Refrigerants	R-404a	0~2000 PPM
Refrigerants	R-407a	0~2000 PPM
Refrigerants	R-407f	0~2000 PPM
Refrigerants	R-410a	0~2000 PPM
Refrigerants	R-417a	0~2000 PPM
Refrigerants	R-1234yf	0~2000 PPM
Refrigerants	R-1234ze	0~2000 PPM
Refrigerants	R-448a	0~2000 PPM
Refrigerants	R-449a	0~2000 PPM
Refrigerants	R-507	0~2000 PPM
Refrigerants	R-32	0~2000 PPM
Refrigerants	R-452a	0~2000 PPM
Refrigerants	R-143a	0~2000 PPM