

## Gas-Transmitter: ADT-4-R

Refrigerant gas transmitter with semi-conductor sensor for monitoring leakages of cooling agents like HFC (hydrofluorocarbon) or HCFC (hydrochlorofluorocarbon). The semi-conductor typical, non-linear signal is translated into a linear, temperature-compensated output signal. (Art.Nr.: ADT-43-20xx)

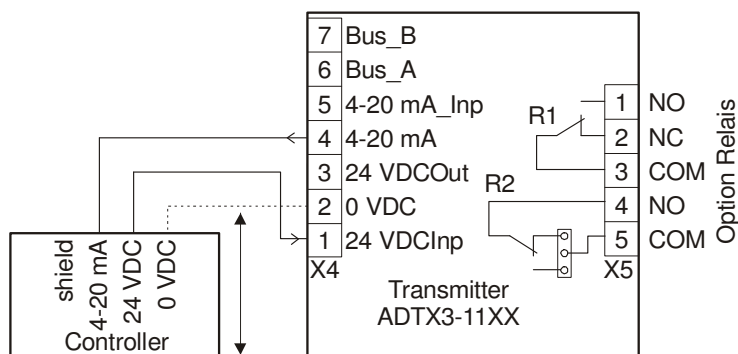
- Analog output 4-20mA or 2-10V/DC
- RS 485 interface



### Features

- Digital measurement value processing incl. temperature compensation
- Linear output signal
- Continuous monitoring
- Low zero point drift
- Good stability to poisoning
- Semi-conductor sensor with long life-time
- Modular plug-in technology
- Comfortable calibration
- Reverse polarity protected, overload and short-circuit proof
- (0) 4 - 20 mA / (0) 2 - 10 V analog signal output, selectable
- Serial interface RS-485
- IP 65 protected
- Manual calibration via potentiometer (optinal)
- Manual addressing für RS-485 mode (optional)
- 4 - 20 mA analog input fir external AT transmitter (optional)
- Relay output (optional)
- Integrated buzzer (optional)
- LCD display (optional)
- Heating (optional)
- Duct mounting (optional)

### Connecting diagram





Specifications		
General sensor performance	Detected gas	Refrigerant gases
	Sensor element	Semi-conductor sensor
	Measuring range	20 - 300 ppm/ 20 - 2000 ppm
	Repeatability	± 20 %
	Response time	t90 < 40 sec.
	Oxygen concentration	21 % (standard) 18 % minimum level
	Humidity	5 – 95 % RH non-condensing
	Operating temperature	-10 °C to 50 °C (14 °F to 122 °F) w/o heating
	Storage temperature	0 °C to 50 °C (32 °F to 122 °F)
	Pressure range	800 – 1100 hPa
	Storage time	Max. 12 months
	Life expectancy	> 5 years/ normal operating environment
	Recommended mounting height	Depending on gas type
	Electrical:	Power supply
Power consumption		60 mA, max. (1.45 VA)
Output signal:	Analog output signal	4 – 20 mA, load ≥ 500 Ω ,
	Selectable: Current / tension Starting point 0 / 20 %	2 - 10 V, load ≥ 50 kΩ proportional, overload and short-circuit proof
Serial interface	Transceiver	RS 485 / 19200 Baud (9600 at Mod-Bus)
Physical characteristics	Enclosure Plastic Type A*	Polycarbonate
	Flammability	UL 94 V2
	Enclosure color*	RAL 7032 (light grey)
	Dimensions (W x H x D)	94 x 130 x 57 mm (3.7 x 5.12 x 2.24 inch.)
	Weight	Approx. 0.5 kg (1.1 lbs.)
	Protection class	IP 65
	Installation	Wall mounting
	Cable entry	Standard 1 x M 20
	Wire connection	Screw type terminal, min. 0.25 mm <sup>2</sup> (24 AWG) max. 2.5 mm <sup>2</sup> (14 AWG)
	Wire distance	Current signal: ca. 500 m (1500 ft) Voltage signal: ca. 200 m (600 ft.)
Relay output	Alarm relay 1	30 VAC/DC, 0.5 A, potential-free, SPDT
	Alarm relay 2	30 VAC/DC, 0.5 A, potential-free, SPNO/SPNC
	Power consumption	30 mA, (max 0.8 VA)
Warning buzzer	Acoustic pressure	85 dB (distance 300 mm) (1 ft)
	Frequency	3.5 kHz
	Power consumption	30 mA, (max 0.8 VA)
LCD display	LCD	Two lines, each 16 characters
	Power consumption	10 mA, (max 0.3 VA)
Heating	Temperature controlled	3 °C ±2 °C (37.5 °F ± 3.6 °F)
	Ambient temperature	- 40 °C (- 40 °F)
	Power consumption	0.3 A; 7.5 VA
Analog input	Only for RS-485 mode	4 – 20 mA overload and short-circuit proof, input resistance 200 Ω
	Power supply for external transmitter	24 VDC max. charge 50 mA