



MIPEX INFRARED GAS SENSOR FOR METHANE/HYDROCARBONS/CARBON DIOXIDE DETECTION MIPEX-03-X-X-X.X

FEATURES

- **Measurement range up to 100% vol. CH₄**
- **Providing linearized, temperature-compensated measurements**
- **Digital or analog output**
- **The storage of calibration, temperature compensation and linearization data**
- **Power consumption – 3.5 mW**
- **Intrinsically safe explosion protection “ia”**

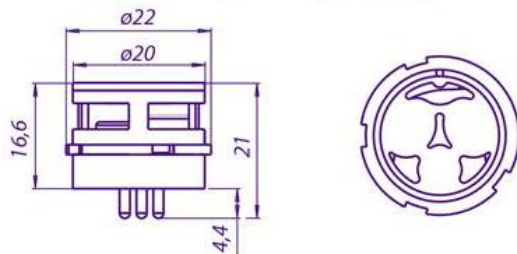
DESCRIPTION

MIPEX-03 are infrared gas sensors operate by using NDIR principle. The sensor contains LED with optimized spectrum and signal processing algorithm, an optical system, specially designed photo diodes, an imbedded temperature sensor and electronics to process the signals. Communications with instrument electronics are provided via digital or analog output.

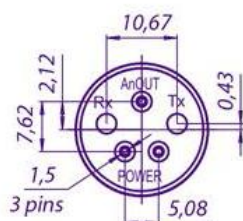
GENERAL SPECIFICATION

General	Gas sampling method:		Diffusion	
	Operating principle:		Non-Dispersive Infra-Red (NDIR)	
	Target gas *		CH ₄	
			CH ₄ /CH ₄ +C ₂ H ₆	
			C ₃ H ₈	
			C ₀ 2	
	Operating, storage and transportation conditions:		Relative humidity	up to 98%
			Atmospheric pressure	80-120 kPa
			Temperature range	-40... +60 °C
	Overall dimensions *		ø20x16.5 mm without pins	
	Pins length		ø22x16.5 mm without pins	
	Weight *		16,6 g	
			15,5 g	
5,5 g				
Enclosure *		Stainless steel (standard and fast response versions)		
		Plastic		
MTBF		10 years		
Measurement	Measurement range *		100% Vol	
			5% Vol	
			2.5% Vol	
			100% LEL	
			1.5% Vol	
			ALARM SENSOR	
			50% LEL	
	Accuracy *		±0.1 % Vol or ±5 % of indication	
			±3 % LEL or ±5% of indication	
	Response time, T90 *		10s	
20s				
30s				
60s				
Supply Voltage Range:		3.0 – 5.0 VDC		
Output signal *:		digital UART, analog output		
Power consumption:		<5mW		
Warm-up time:		not more than 1 min		
Degree of personal protection against electrical shock caused by the sensor		meet the requirement of class III GOST 12.2.007.0		
Marking and standards compliance		Ex ia I Ma/Ex ia IIC Ga. acc. to IEC60079-0, IEC60079- 11, IEC60079-26. -40° ≤ Ta ≤ +60 °C		
		IM1/II1G Ex ia I Ma / Ex ia IIC Ga. acc. to EN60079-0, EN60079-11, EN60079-26. -40° ≤ Ta ≤ +60 °C		
		Class I, Division 1, Group A,B,C,D Conforms to UL913, 60079-0, 60079-11Std.Cert. ti CAN/CSA-C22.2 No. 157- 92 Std.		

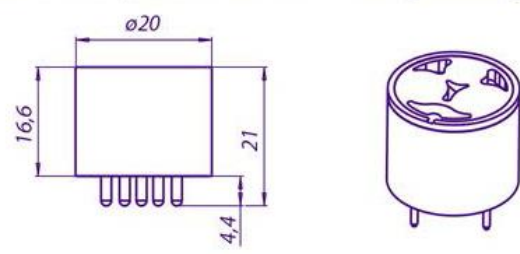
Metal "Fast" housing drawing



Three pins analog interface



Metal and plastic standard housing drawing



Five pins digital and analog interface

