

NDIR SENSORS

Part number specifications



The sensor's order code is made up of several fields as listed below.

Each field will determine the sensor characteristics and features, and each of them must be filled, apart from #8, which can be left blank.

For any question or doubt about filling the order code, please contact NET.

See also the separate product data sheets for detailed specifications and available options for each model.

1	2	-	3	4	-	5	6	7	-	8
Model	Size	-	Gas	Range	-	Certification	Output	Pinout	-	Pin / SIL
INP	20	-	CO2	B	-	NC	V5	P	-	[blank]
IFP	32	-	CH4	L	-	EX	VR	N	-	3
IFL		-	PRO	M	-	AX	BR		-	35
		-	SF6	P	-		BF		-	5
		-	ETI	T	-		TH		-	
		-	<i>etc.</i>	V	-				-	
		-		1	-				-	
		-		2	-				-	
		-		5	-				-	

Example: INP20-CH4L-NCV5N

IRNET-P model, 20mm diameter, calibrated for Methane in %LEL range, not ATEX certified, standard voltage output, negative pinout, 5 pins with ModBus communication

Example: INP20-CO2S-NCV5N-3

IRNET Pro model, 20 mm, CO2, range 0-5% vol, not certified, standard voltage output, negative pinout, 3 pins.

Example: INP20-PROL-EXV5P

IRNEx Pro model, 20 mm, Propane, range 0-1.7% vol, IECEx certification, standard voltage output, positive pinout, 5 pins

1) Choose the sensor model

INP :IRNET (not certified) or IRNEx (certified) sensor

IFP :IREF PRO for refrigerants, SF6 and others (available only in 32 mm size)

IFL :IREF LITE for refrigerants in %LEL range (available only in 32 mm size)

2) Choose the size of the sensor suitable for your equipment

20 :20 mm diameter (not available for the IREF model)

32 :32 mm diameter (not available for the IRNEx model)

3) Choose the target gas

CO2 :CO ₂	3ZD :R-1233zd	R32 :R-32	420 :R-422d
CH4 :Methane	1YF :R-1234yf	404 :R-404a	448 :R-448a
ETI :Ethylene	1ZE :R-1234ze	407 :R-407a	449 :R-449a
PRO :Propane	125 :R-125	47C :R-407c	45B :R-452b
SF6 :SF ₆	1B4 :R-134a	47F :R-407f	507 :R-507
	143 :R-143a	410 :R-410a	54B :R-454B
	227 :R-227ea	417 :R-417a	51B :R-513a

Other gases are available on request

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4) Choose the sensor range

V	:0 - 100% vol	Available for Methane and CO2
T	:0 - 20% vol	Available for CO2
L	:0 - 100% LEL	Available for hydrocarbons (4.4% vol for Methane, 1.7% for Propane, 2.3 % vol for Ethylene) R-32, R-1234yf, R-1234ze and other A2L gases.
M	:0 - 1000 ppm	Available for SF6 and R1234ze
B	:0 - 2000 ppm	Available for SF6 all refrigerant gases
P	:0 - 5000 ppm	Available for CO2
1	:0 - 1% vol	Available for CO2
2	:0 - 2% vol	Available for CO2 and Propane (0-100 % LEL outside of Europe)
5	:0 - 5% vol	Available for CO2 and Methane (0-100 % LEL outside of Europe)

Other full scale ranges are available on request.

5) Choose the certification needed for the sensor

NC	:Not certified. Internal optical mechanics in special treated aluminium, external enclosure in stainless steel (SS).
EX	:IECEX certified Ex d for flameproof equipment. Internal optical mechanics in aluminium, external enclosure in SS. Not available for 32mm size
AX	:ATEX certified Ex d for flameproof equipment. Internal optical mechanics in aluminium, external enclosure in SS. Not available for 32mm size

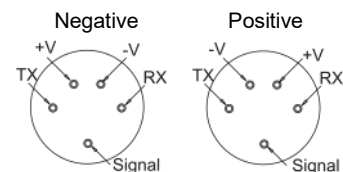
6) Choose the sensor output

VS	:standard voltage output [0.4 V—2 V] dc
VR	:customized rising voltage output. The rising voltage range must be specified separately in the order.
BR	:customized rising bridge output [$V_{cc}/2 + \Delta$] dc. To use when substituting a Low-power pellistor. The raising value Δ must be specified separately in the order. Available only for IRNET and IRNEX versions in 20mm size.
BF	customized falling bridge output [$V_{cc}/2 - \Delta$] dc. To use when substituting a Low-power pellistor. The falling value Δ must be specified separately in the order. Available only for IRNET and IRNEX versions in 20mm size.
TH	:Threshold output. User-programmable output consisting of different voltage levels (default, 10% LEL=1V, 25% LEL=1.5V). The user can select the output level, the corresponding output and the hysteresis of the thresholds through Modbus RTU commands.

See individual data sheets for further descriptions of the available outputs

7) Choose the pinout configuration of the sensor

P	:Positive
N	:Negative



8) Choose the number of pins and/or SIL certification

3	:3 pin version without SIL certification
3S	:3 pin version with SIL certification
5	:5 pin version with SIL certification
(Left blank)	:5 pin version without SIL certification