NDIR sensor series
Part number specification

The part number is composed of several fields as listed below. When specifying the part number in an order, please make sure to specify all the fields of the list in the correct order according to the steps here below. See the separate product data sheet for detailed specifications and options for each model.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>NET/OEM</td>
<td>Size*</td>
<td>Gas</td>
<td>Range</td>
<td>Certification</td>
<td>Output</td>
<td>Pol.</td>
<td>Pin</td>
</tr>
<tr>
<td>IN</td>
<td>P</td>
<td>20</td>
<td>CO2</td>
<td>B</td>
<td>NC</td>
<td>VS</td>
<td>P</td>
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</tr>
<tr>
<td>IF</td>
<td>E</td>
<td>32</td>
<td>CH4</td>
<td>L</td>
<td>EX</td>
<td>VR</td>
<td>N</td>
<td>3</td>
</tr>
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<td>IA</td>
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<td>C</td>
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</tbody>
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**Example**: INP20-CO25-NCVSN-3
IRNET Pro model, 20 mm, CO2, range 0-5% vol, not certified, standard voltage output, negative polarity, 3 pins.

**Example**: INP20-PROL-EXLSP
IRNEX Pro model, 20 mm, Propane, range 0-1.7% vol, IECEEx certification, low power and standard voltage output, positive polarity, 5 pins

1) **Choose the sensor model**
- IN : IRNET (not certified) or IRNEX (certified) sensor
- IF : IREF for refrigerants, SF6 and others (available only in 32 mm size)
- IA : IREF-A for refrigerants, SF6 and others (available only in 32 mm size flow type)

2) **Choose the sensor version:**
- P : The smart microprocessor version has an incorporated signal linearization and temperature compensation and is suited for manufacturers without any specialist knowledge in IR technology. Open enclosure on top.
- E : As “P” but with different enclosure only for OEM (not available for IA model).

3) **Choose the size of the sensor suitable for your equipment**
- 20 : 20 mm diameter (not available for the IREF and IREF-A model)
- 32 : 32 mm diameter (not available for the IRNEX model)

4) **Choose the gas you wish to detect**
- CO2 : CO2
- CH4 : Methane
- ETI : Ethylene
- 1ZE : R1234ze
- SF6 : SF6
- PRO : Propane
- 404 : R404a
- 47F : R407f
- 125 : R125
- 134 : R134a
- 410 : R410a
- 507 : R507
- 1YF : R1234yf
- 449 : R449

*Other gases are available on request.*
5) 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)
M : 0 - 1000 ppm Available for SF6
B : 0 - 2000 ppm Available for SF6 and R125, R134a, R1234yf, R507, R404a, R410a, R407f, R1234ze, R449
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.

6) Choose the certification needed for the sensor
NC : Not certified. Internal optical mechanics in 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

7) 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.
LS : low power, standard voltage output [0.4 V—2 V] dc. Available only for IRNET and IRNEX versions in 20mm size.
LR : low power, customized rising voltage output. The rising voltage range must be specified separately in the order. Available only for IRNET and IRNEX versions in 20mm size.
BR : customized rising bridge output [Vcc/2 + Δ)] dc. To use when substituting a Low-power pellistor. The raising value Δ must be specified separately in the order.

See the data sheet for further descriptions of the above outputs as well as for IRNET BASIC 7 pins, IRPELL—full pellistor output and IRIS intrinsically safe.

8) Choose the polarity configuration of the sensor
P : positive Available only for 20 mm size
N : negative Available for 20/32 mm size

9) Choose the number of pins / communication
Left blank : 5 pins version (standard, with modbus protocol)
3 : 3 pins version (+V, -V and signal output)
C : 5 pin version with UART P2P protocol

* Default Uart Speed for 32mm sensor size: 4800 bps
Default Uart Speed for 20mm sensor size: 38400 bps
Contact our office for other speed options.

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