

Description

Gas pressure closing regulator SET245 and regulator with built-in filter SET245/F are designed for inlet pressure up to 500 mbar. Check the capacity diagram before use.

According to EN 88-1

Marked and approved by Iranian National Standardization

Organization: INSO 6027-1

Classification:

Class A, Group 2

Temperature range:

-15 C to 60 C

Gas Type:

NG, LPG, Town gas, Air

Connections:

DN15 (R_p 1/2)

DN20 (R_p 3/4)

DN25 (R_p 1)

Thread according to ISO 7-1, EN 10226

Max. Inlet pressure:

500 mbar

Weight: 0.7 Kg
Regulators with built-in filter SET245/F:

Filtration: 50 µm (on request other filtration qualities)

Filtration area: 4400 mm²

Filter dusting: according to EN 779

Classification of filter: M5 (According to EN779-2012)



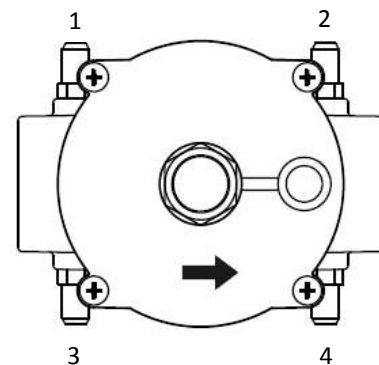
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Spring selection table

Spring code	Color	P ₁ (mbar)					P ₂ (mbar)
		0-100	100-200	200-300	300-400	400-500	
SR10/17x66/100	Red	14-30	16-60	-	-	-	
SB13/17x66/100	Blue	16-60	16-60	16-60	16-60	16-60	
SY20/17x54/90	yellow	-	-	60-80	60-200	60-200	

Pressure Tapping Nipples (PTN)

Position 4 is the factory default option.

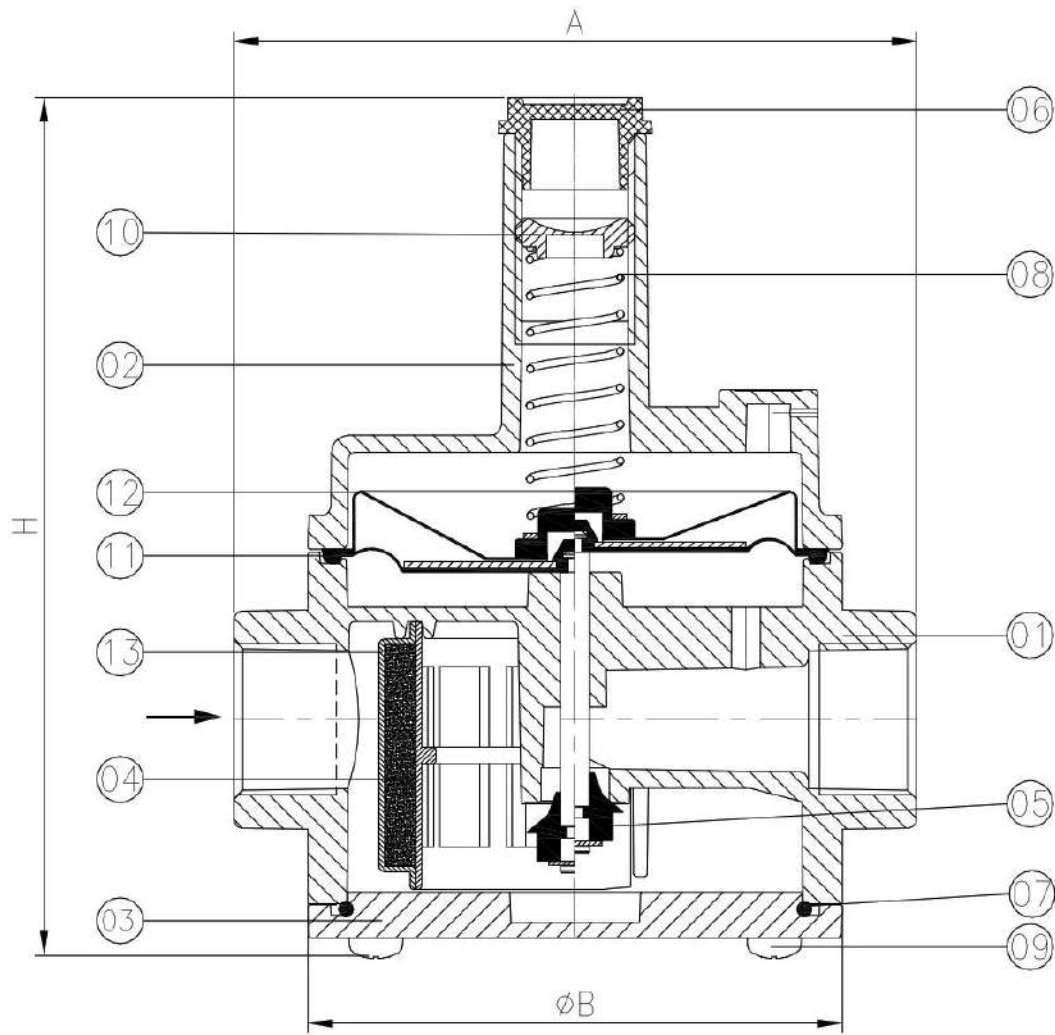


▲ Top View (schematic view)

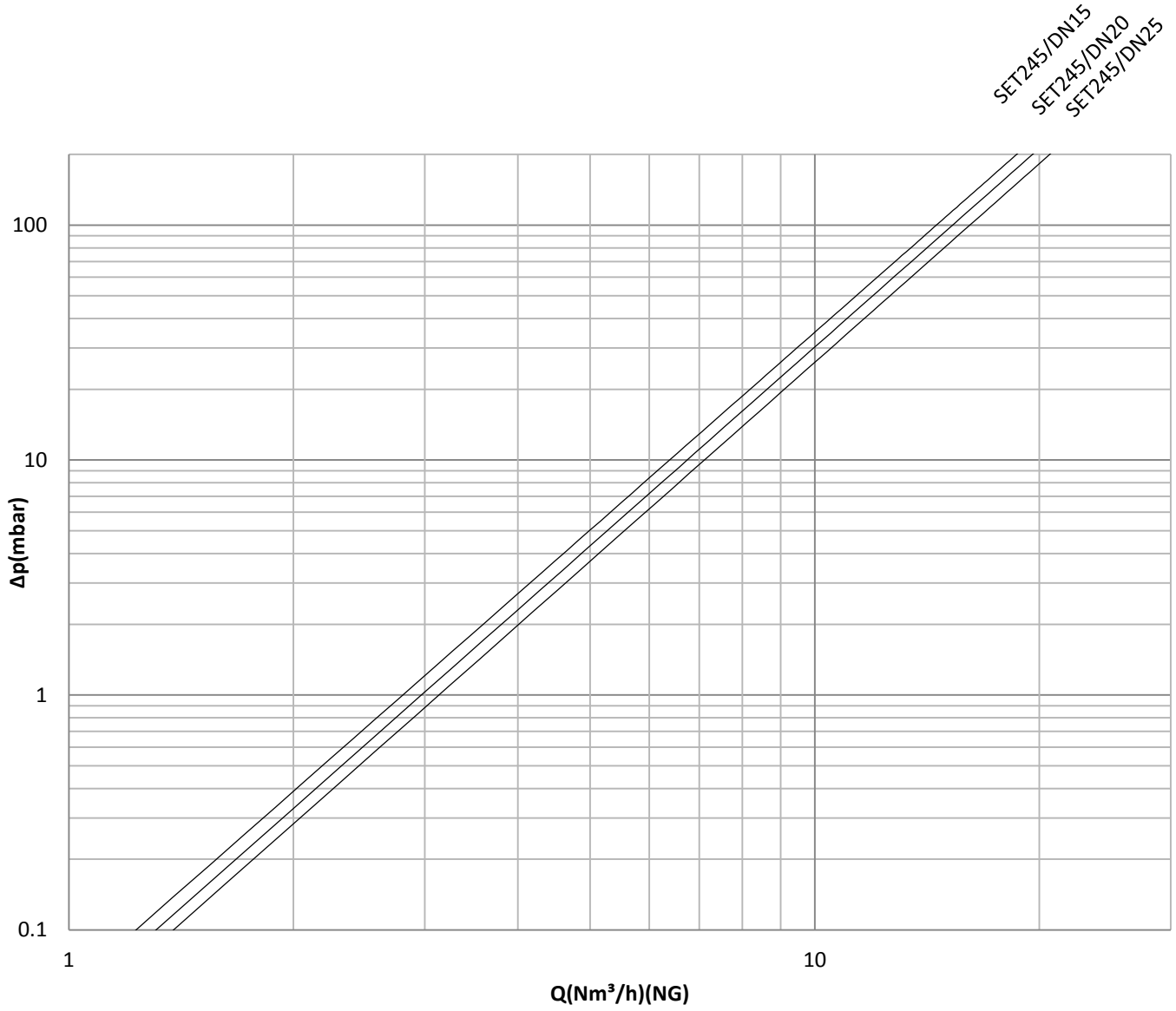
Example of ordering code

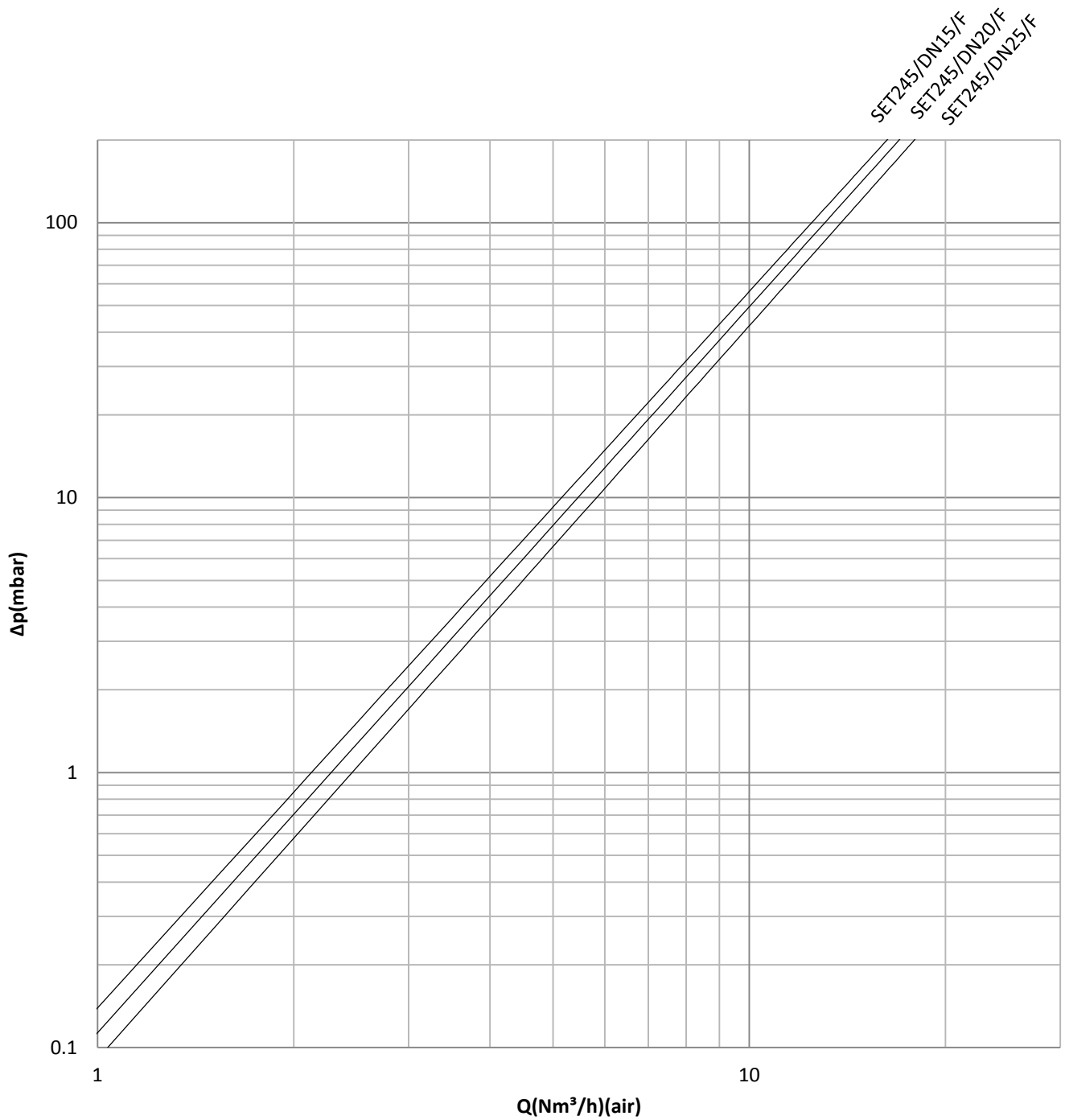
Type	SET245
With filter	/F
DN-Nominal size (R _p 3/4)	/DN20
Maximum inlet pressure (500 mbar)	/05
Outlet pressure (16-60 mbar)	/1660
PTN spot	/T34
Ordering code	SET245/F/DN20/05/1660/T34

Weight (Kg)	Dimensions AxBxH
0.7	120x94x151



09	Screw	STD			
08	Spring	STD	13	Filter framework	HDPE
07	O-Ring	NBR			
06	Closing cap	PA	12	Safety membrane	NBR
05	Obturator	NBR			
04	Filter element	Polyester	11	Working membrane	NBR
03	Bottom cover	AL			
02	Top cover	AL	10	Adjustment screw	Brass
01	Body	AL			
No.	Part name	Material	No.	Part name	Material





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Instructions

In this manual, you will learn how to properly install, run, and use this product.

The manual is required wherever this product is used.

Please feel free to contact the technical support team if you need more information about installation, repair, or any other item not covered in the manual.



ATTENTION:

- Each product should only be selected, installed and maintained by experts according to instructions.
- Controls should only be used for their intended purpose.
- The customer is not allowed to use any other gases than that specified.
- The control conditions must match the range specified on the product label and the specifications in this guide. To maintain the pressure range, it is the customer's responsibility to set the other controls properly.
- In the event of a repair or a replacement, only parts approved by the manufacturer may be used. Using miscellaneous parts not only voids the warranty and support, but the controls are also prone to malfunction.
- When the control is installed outside, it requires a roof to protect it from rain and oxidation. The company is not responsible for any damage caused by improper use.

Considerations of Pre-installation

- It is necessary to close the gas upstream of the device prior to installation.
- It is important that the arrow on the device points toward the application.
- Ensure that the gas line pressure is lower than the maximum pressure on the control label, and that it is within P₁ range.
- All components and pipes should be clean and free of foreign objects.
- Do not use the top cap neck as a lever to help screw it, but only use special tools.
- For non-standard connections with parallel threads, the pipe must have a thread length proportional to the thread length of the control so as not to damage the internal components.
- As a general rule, it is better to follow the recommendations that prevent unwanted events. For example: regular annual inspections.

Installation

Fasten and seal the control on a pipe or any other device that is fixed and has a suitable support.

Flanged connection (DN25)

In order to convert controls into a flanged control, a Rotating flange SET950X should also be ordered in proportion to the nominal size. The flange must be properly positioned on the Flange Interface in place, then closed using a side hole installed on the Interface until it reaches the seating level on the control. The threads can be sealed using LOCKSET 1131 (gas sealing adhesive) while the flanges can be sealed using LOCKSET 3247 (washer maker glue). These adhesives are easy opening and do not damage the control. Note that if the surface is completely degrease, the bond strength will increase.

The steps and tips that should be considered when closing the flanged control are:

- 1) Fasten and seal the control on a pipe or any other device that is fixed and has a suitable support. The gasket should be completely between the flanges.
- 2) If there is still extra space between the flanges after installation, avoid over tightening the screws. This problem should be investigated and resolved in principle.
- 3) Use suitable washers with the nuts.

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- 4) Tighten the nuts or bolts gradually, in a “cross” pattern. Tighten them, first by 30%, then by 60% and finally 100% of the maximum torque.

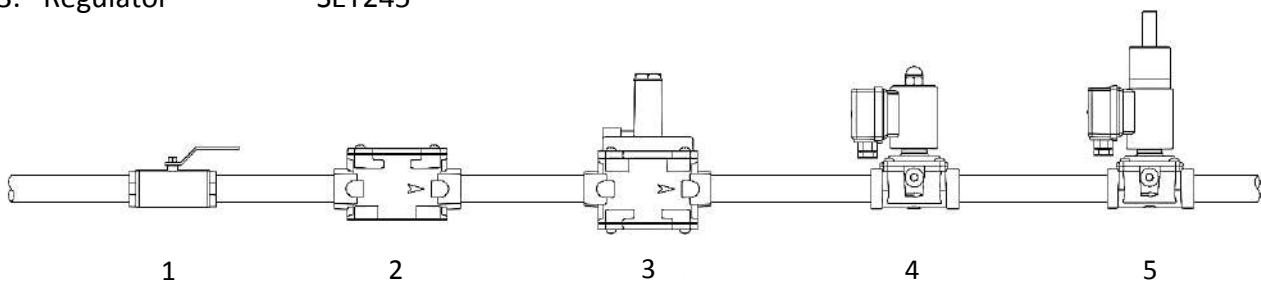


ATTENTION:

- The regulator is normally positioned before the application. The best position is when the top cover (the location of the adjusting spring) is facing upwards. In other installation cases, the correct operation of the control must be ensured.
- During installation, avoid getting debris or metal residue inside the device.
- Once the installation is complete, ensure that there are no leaks.
- In the process of installation, troubleshooting or after repairs, it is necessary to check the effect of inlet gas pressure fluctuations by measuring the outlet gas pressure through the NPT in the regulator outlet.
- In testing piping leaks, be careful not to damage the regulator due to increased pressure.

Example

- | | | | |
|----------------------|--------|--------------------------------|-----------|
| 1. Manual Ball Valve | | 4. Fast Opening Solenoid Valve | SET144/SQ |
| 2. Filter | SET345 | 5. Slow Opening Solenoid Valve | SET144/RQ |
| 3. Regulator | SET245 | | |



Installation in places where there is the risk of explosion

It does not pose a source of specific hazards when installed and serviced in full compliance with all the conditions described in this document. The regulator only emits gas into the atmosphere if both the working membrane (11) and the safety membrane (12) malfunction. The compatibility of the regulator with potentially hazardous equipment should be assessed in cases with particularly critical installation conditions (unattended areas, poor maintenance, and poor ventilation) and in particular when potential sources of ignition and/or dangerous equipment are located near the regulator as they may generate electric arcs or sparks during operation.

Maintenance



IMPORTANT: Installing and maintaining must be done by qualified personnel.



NOTE: It is necessary to close the gas upstream of the device prior to installation. Also, make sure that there is no pressurized gas inside.

Checking the filtering element

- 1- Loosen the fastening screws (09) and very carefully remove the bottom cover (03).
- 2- Check the obturator's (05) integrity and, if necessary, replace the rubber seal.
- 3- Extract the filter framework (13) and take out the filter element (04) from it, and then check its conditions, Blow it and clean it, if necessary, replace it.
- 4- Reassemble the bottom cover (03) and secure it in its original position. As you place the filter framework on the body (01) make sure it fits perfectly in the groove. Make sure the sealing O-Ring (07) of the bottom cover (03) is inside the relevant groove before putting it back on.

Adjusting the outlet pressure



NOTE: Before starting, check that the spring supplied with the regulator is appropriate for the desired adjustment pressure.

- 1- Unscrew the cap (06), then unscrew the adjustment screw (10) and set it to the minimum calibration allowed (loosen the screw to the top).
- 2- To increase the pressure calibration downstream of the regulator, tighten the adjustment screw (10) to the desired value. Ensure there is a minimum flow downstream of the regulator.
- 3- To measure the pressure, NPT can be used, if any.

Warranty

The warranty period on all SETAAK gas controls is 24 months, beginning on the day of the production.

For damage caused by:

- Misuse of the device;
 - Failure to observe the requirements described in guide booklet;
 - Failure to observe the regulations pertaining to installation;
 - Tampering, modification and use of non-original spare parts;
- are not covered by the rights of the warranty or compensation for damage.

The warranty also excludes maintenance work, the assembly of other manufacturers' parts, making changes to the device and natural wear.

Insurance

SETAAK gas control valves are covered by 60 months of civil liability insurance from the date of manufacture.

Location of warranty and insurance services

Warranty, support and insurance are limited to the Islamic Republic of Iran. Obviously, in export cases, the rules are specifically stated in the agreement with the customer.

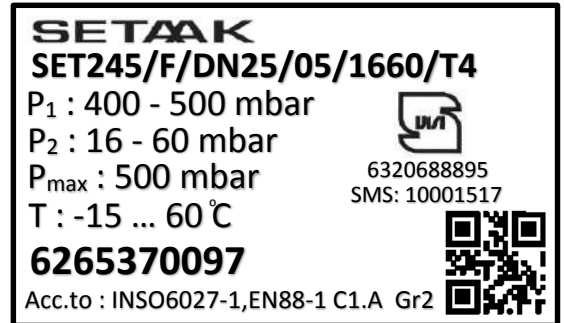
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Checking the authenticity of the products and the status of the insurance

You can get the required information about the authenticity of the products and their insurance status by entering the serial or product barcode through <https://www.setaak.com/en/igc-fa>, or you can download the gas control technical information for further familiarity.

Label Information

- 1) Manufacturer's Name/Logo: **SETAAK**
- 2) Product Order Code: *SET245/F/DN25/05/1660/T4*
- 3) Inlet Pressure Range: $P_1 : 400 - 500 \text{ mbar}$
- 4) Outlet Pressure Range: $P_2 : 16 - 60 \text{ mbar}$
- 5) Maximum operating pressure range: $P_{max} : 500 \text{ mbar}$
- 6) Temperature range: $-15 \text{ C to } 60 \text{ C}$
- 7) Serial No.: *6265370097*
- 8) Iranian Standard mark
- 9) In accordance with the standard: *INSO6027-1, EN88-1 C1.A Gr2*
- 10) Standard ID: *6320688895*
- 11) Standard product inquiry SMS number: *10001517*
- 12) QR code for receiving useful information



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