OPERATION, PROGRAMMING AND MAINTENANCE GUIDE

Rev. 6.0-English

Regulador Eletrônico de Pressão Inteligente

REPi

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1 WARRANTY INSTRUMENT

The **REPi** device has 1 year warranty against any electronic and/or electro-pneumatic failure occurred during its correct use period, and warranty for life related to the firmware to both the Hardware and Software.
The warranty does not include defects due to the incorrect use of the device as well as accidents or non-compliance with some items as they are described in the user's manual.
Unauthorized maintenance of any part of the device, except for the ones described in the manual, automatically invalidates this warranty instrument.

1.1 IMPORTANT

The **REPi** device is a precision apparatus that requires some special care for its operation in industrial environments:

* It cannot have internal or external contact with water or oil, conductive dust (graphite, solder, and metals in general), and abrasives (solvents) etc.
* Follow the periodical maintenance instructions related to the features for the treatment of compressed air in the correct way (Filtration System).
* Operate it only under the correct electrical supply conditions: +24VDC / 500mA.

Serial number: ***.....***

Warranty Instrument delivery date and installation conditions.

..... / ..... / .....

Responsible person (purchaser):

.....

(Legible name).

2 INDEX

3 INTRODUCTION

3.1 About the REPi:

The **REPi** (In Portuguese “Regulador Eletrônico de Precisão inteligente” means Smart Pressure Electronic Regulator), is featured with an innovative technology: *prAjR-SURE*. This technology basically consists of the union of pressure setting stability of a pressure regulator with an electronic system for microprocessed control, which allows for great flexibility to both the human and the machine interfaces, for the **REPi** has a serial communication interface that permits interconnection to computers or PLCs.

Functions such as digital pressure value setting as well as changing the mediated pressure unit are examples of the **REPi**’s potentiality.

In this manual you will learn how to access all the **REPi**’**s** configurable parameters.

3.2 Pneumatic installation

The **REPi**'s pneumatic feeding must be performed according to the filtration quality type **1.4.1,** in compliance with the **International Standard ISO-8573 -** compressed air or nitrogen can be used as gas.

The feeding pressure cannot be higher than 15 psi to the operation range, as exhibited on the table below:

Models/Pressure Ranges (psi)	Maximum inlet pressure (psi)
1	15
5	20
30	45
100	165
150	165
250	265

In order to enable the desired regulation of the pressure, the pneumatic feeding source should supply 15 psi above the value to be set.

IMPORTANT: Never exceed the maximum inlet pressure to the REPi, because this would damage the device permanently.

3.2.1 Compressed air treatment

Normally, the compressed air line is present everywhere in the plant, supplying air to several different applications, such as cleaning pistols, machines, and tools. One of these items will hardly stop working in a short period of time due to the fact that air contains oil,

particles of dust or water. In fact, for some tools, especially the old ones, it is ideally good to let air contain some oil in it so that the tool is able to work better.

However, none of that is applicable when we are talking about the Smart Electronic Pressure Regulator - **REPi**, electronic systems, sensors, medical-hospital device etc. These are the cases in which dust or a drop of oil, no matter how tiny they are, may cause unexpected failures, which will cause major problems as well as losses, thus damaging the device and causing operational problems to it.

3.2.2 Main Problems and Causes:

- Water: Differences in the temperature from the air generation point (compressor) to the using point cause the compressed air to condense in the pipeline, and the accumulation of “steam” ends up in a big amount of liquid in its network**.**

- **Oil**: For most cases oil comes from the very air compression system.

- Piston compressor: Due to its very conception, this system mix the oil used for its lubrication to the recent intake air – all instantly done. The level of that mixture depends on the periodicity of the maintenance performed in the system.

- Screw compressor: A modern air compression system that produces a much smaller contamination level when compared with the piston compressor; however, it needs the same care and periodical maintenance as the other model’s.

- There are also devices responsible for spraying oil in the air – the lubricators. The purpose of these devices is to lubricate tools and machines during their working process. Thus, it is important that the lubricator have its

outlet directly connected to the tool or to the machine that needs this kind of feature. Never lubricate the whole compressed air area.

- Dust in general: They may come from the air compression system, from contaminated air lines, and from devices with problems along the air network.

3.2.3 Solving Problems

The ideal thing is that all problems are corrected and periodical and preventive maintenances are performed, but even though there is the risk of an unpredictable or accidental problem to occur, which will cause the failure of all devices.

For these reasons, thinking about your safety as well as the quality of your product, we always recommend the use of air treatment systems to the points or lines in which the Smart Electronic Pressure Regulator will be installed.

The air treatment system, often called “filtration Kit”, is composed of a combination of devices with specific functions, such as water separator, oil separator, air drier, coalescing filter, pressure regulator etc.

Apart from the installation of this system, periodical verification of the status of the elements as well as of the saturation indicators is also necessary.

CAUTION:

- When the use of an air treatment system is required by a TEX representative and the system has not been installed yet, your device will be subject to forfeiture of warranty

- From the outlet point in the treatment system the hose length cannot be longer than three meters in order to avoid risks of new condensation.

- The air that will be used in the **REPi** cannot go through the air lubricator; the air line that feeds the regulator must be ISOLATED from the lubricated line.

- Always monitor the device air filter status; in case of saturation, the chances for damaging the pneumatic system increase considerably.

- Always check the connections as well as the pipes used in the entire system. Bad connections of the pipes that convey the pressurized air may cause the pipes to disconnect and even to “whip”, causing severe risks of personal injury;

3.2.4 Filtration kit and recommended components

With the purpose of supplying a complete solution to the customers, TEX in partnership with **SMC Pneumáticos do Brasil**, assembled an air treatment system - a filtration kit that guarantees the quality of the compressed air in companies that have air lines with basic treatment.

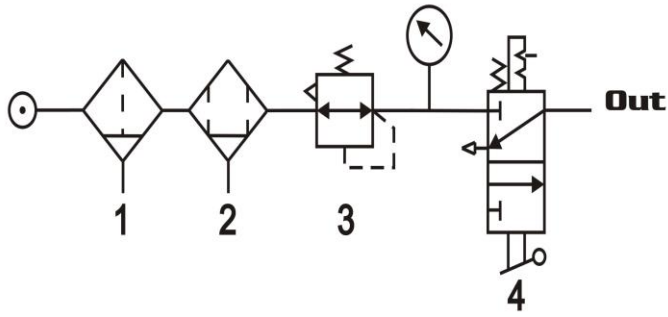
For companies that do not have air driers or even for those that have a drier, but even though have problems related to the condensation of water in the air, we recommend the purchase of a filtration kit with an air drier. This device is designed to remove humidity from the air, and it does not need electrical feeding or a big installation space. It is connected to the other filtration kit components in series.

 The higher the level of contamination in the air line, the shorter the filtration kit efficiency time will be. We remind you that it is necessary to perform inspections and maintenance (replacement of the elements) periodically, before a saturation of the system occurs.

If you already have a pneumatic material supplier, order from him/her a filtration system with quality type **1.4.1** according to the **international standard ISO-8573**. This class of quality (**1.4.1**) guarantees dry air free from oil and particles necessary for the proper work of the device. Below there is a pneumatic scheme as well as its components to the filtration kit with and without a drier.

3.2.5 Filtration kit without a drier

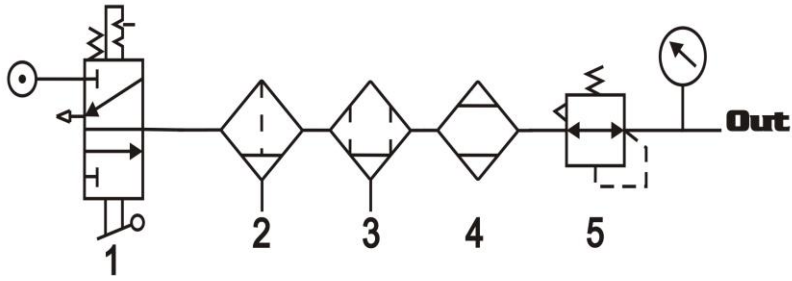
Filtration Kit - Without air drier



Item	Description	Product	Element Code
Maximum inlet pressure: 1.0 MPa – Maximum Outlet pressure: 0.85 MPa			
1	Water separation filter	AMG150C-F02D	AMG-EL150
2	Pre-filter, micro particle separator (Oil)	AMH150C-F02D-T	AMG-EL150
3	Pressure regulator	AR20-F02E	-
4	Manual direction valve – With lock	VHS20-F02	-
Maximum inlet pressure: 1.2 MPa – Maximum Outlet pressure: 1.1 MPa			
1	Water separation filter	AMG150C-F02D	AMG-EL150
2	Pre-filter, micro particle separator (Oil)	AMH150C-F02D-T	AMG-EL150
3	Pressure regulator with gauge	AR20-F02E	G36-15-01-X7
4	Manual direction valve – With lock	VHS20-F02	-

3.2.6 Filtration kit with a drier

Filtration Kit - With air drier



Item	Description	Product	Element Code
Maximum inlet pressure: 1.0 MPa – Maximum Outlet pressure: 0.85 MPa			
1	Manual direction valve – with lock	VHS20-F02	-
2	Water separation filter	AMG150C-F02D	AMG-EL150
3	Pre-filter, micro particle separator and oil	AMH150C-F02D-T	AMH-EL150
4	Air drier by membrane	IDG20H-F02	IDG-EL20H
5	Pressure regulator	AR20-F02E	-
Maximum inlet pressure: 1.2 MPa – Maximum Outlet pressure: 1.1 MPa			
1	Manual direction valve – with lock	VHS20-F02	-
2	Water separation filter	AMG150C-F02D-X20	AMG-EL150
3	Pre-filter, micro particle separator and oil	AMH150C-F02D-T-X20	AMG-EL150
4	Not available; an external drier should be used.	-	-
5	Pressure regulator with gauge	AR20-F02-X425	G36-15-01-X7

3.3 Pneumatic connections in the REPi:

M5 REPi connections

As we can see in figure 2, the **REPi** is featured with three connections; one of them is for the Escape alone, and the other two with a female-M5 thread for the Pilot and Sensor.
See the description of each before-mentioned item below:

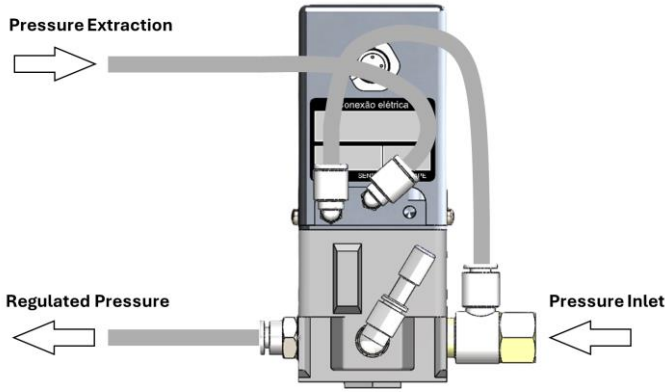
- **PILOTO**: This inlet is where feeding from the **REPi's** inlet pilot is received. This connection is always connected to the inlet pressure. **The maximum pressure for this connection is 150 psi.**
- **SENSOR**: This is an inlet to the **REPi's** Pressure Sensor. There are two possible uses to this inlet. (See the possibilities on items 3.3.1 and 3.3.2).
- **ESCAPE**: For pressure relief from the pilot chamber outlet.

  IMPORTANT:
  Never cover or obstruct this connection (ESCAPE).

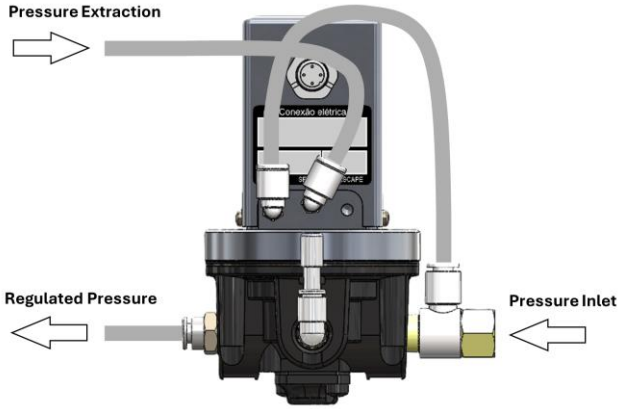
Below there is a pneumatic connection scheme with pressure extraction in the system, and with pressure extraction at the Gauge connection.

3.3.1 Pressure extraction in the system:

This operation mode makes the **REPi** different from the electronic systems for conventional pressure regulation. **REPi** is the only regulator available in the market that makes undesirable load loss offset possible for the dynamic systems (constant or variable flow). In order for load loss offset to happen, the installation of connection pipes to the SENSOR must be made to the exact point or the nearest possible to the spot where the pressure regulation is desired (pressure remote feedback).
It is necessary to pay attention to the limitations of the installations, for in some cases the losses of load are so high that they exceed the regulator/system outflow limit.



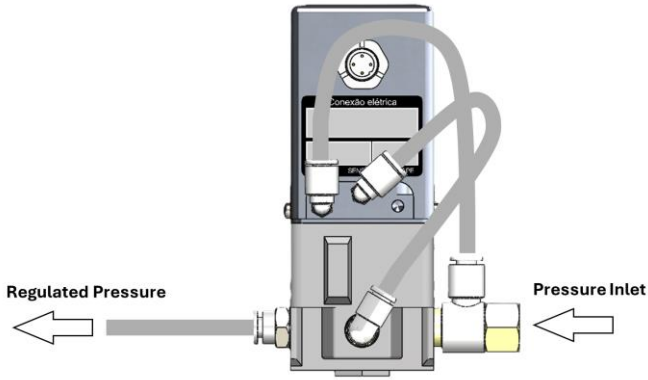
Connection scheme with pressure extraction in the system (for ranges higher than 1 psi)



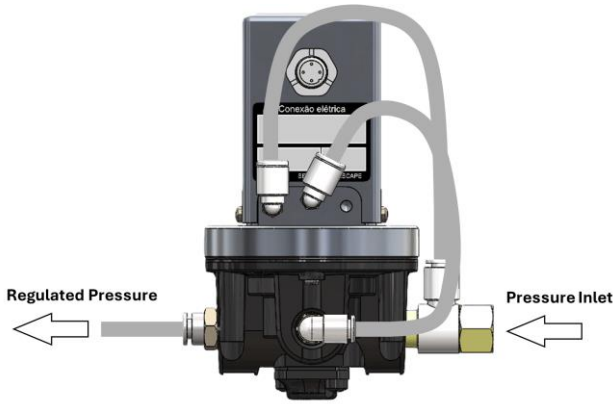
Connection scheme with pressure extraction in the system (for high flow or high pressure type)

3.3.2 Pressure extraction at the Gauge:

This mode of operation is similar to the mode of operation of the conventional regulators available in the market. The local pressure extraction (Gauge) should be performed on static systems (when a short time after the pressurization of the system the pressure is the same in any point).



Connection scheme with pressure extraction in the system (for standard type)



Connection scheme with pressure extraction in the system (for high flow or high pressure type)

3.4 REPi's electrical connection:

When the feeding source is connected directly to the **REPi**, it turns on automatically with no need of pressing any button to start the regulator.

In order to set up the digital communication, it is necessary to connect the TX and RX pinouts (Only for Digital **REPi**) to a computer or PLC, by observing the correct setting of the terminal (Item 4) as well as the communication protocol (Item 5) in order to send the commands.

To establish analogical communication, connect the analogical inlet terminal to an analogical control source; This analogical inlet should be 0~5 V (Control from 0 to 100% of the pressure range).

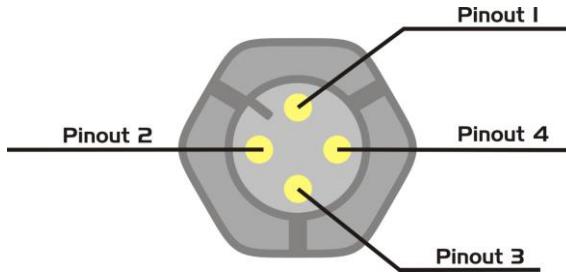
For the **REPi's** electrical installation a 4-pole M12-male connector is used, and for communication we advise you to use an **XS5-Omron**-series female connector.

CAUTION:

Connect the cable to the connector on the regulator body according to the guidance. In case of wrong connection, the regulator can become partially or totally damaged, thus making it inoperable. Always use a 24 VDC power supply with low noise level.

3.4.1 REPi's male connector pinout

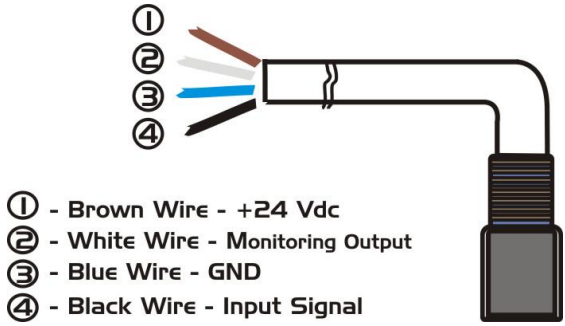
For the **REPi's** feeding and communication a 4-pole male connector fixed on the device is used. The positions as well as the numbering of the terminals are as follows:



REPi's male connector pinout.

According to the pinout above, the connection to the feeding and communication of each model (Analogical or Digital) are the ones below:

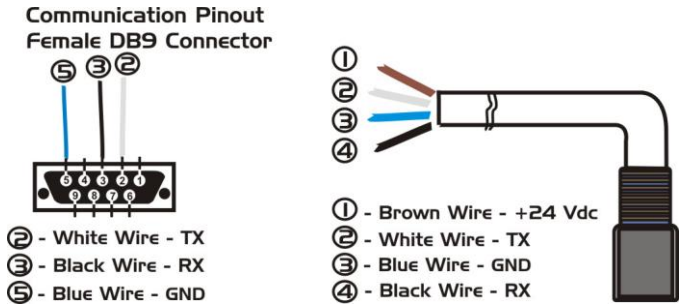
3.4.2 Connection scheme to the regulator cable of the Analogical model.



*** The monitoring output item is optional to the Analogical REPi.**

Connection scheme of the Analogical cable according to the Omron female cable.

3.4.3 Connection scheme to the regulator cable of the Digital model.



Connection scheme of the Digital cable according to the Omron female cable.

CAUTION:
Check the purchased regulator model before making the connections.

4 Communicating with HyperTerminal (for models with Command Line Interface - CLI)

The **REPi** regulator has a serial communication interface that gives you the option to visualize the data. TEX also supplies software for the visualization of data as well as the communication cable that can be purchased as optional accessories.

Now we will show you how to communicate in a simple and quick way, by using the “HyperTerminal” software included in the Microsoft Windows.

To start with it is necessary to connect the feeding cable to the regulator. One of the cable tips should feed the regulator with the appropriate tension, and the other one should connect the COM communication serial port available in your computer (EX: COM1).

Communication port

After that, it is necessary to open the HyperTerminal, where a screen will be displayed - the connection must be named (E.g. TEX-SERIAL).

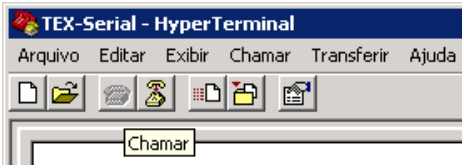
Connection name

After having defined the connection “name”, it is necessary to select the communication port – in this example, COM1.

Right after, a “Port Configurations” port will appear, in which the communication parameters will be defined. By clicking on the “Restore Standards” icon, the desired configuration will be achieved.

Restore Standards

When OK is clicked to confirm, the software is ready to start the communication.



Setting of the terminal

5 REPi Protocols (for models with Command Line Interface - CLI)

Write command list:

-For defining the pressure unit:

Example: "**u=4\r**" ("u" lowercase)

Note: **\r** means <ENTER>.

Table of units:

bar=0
mmHg=1
mmH2O=2
kPa=3
mbar=4
PSI=5
kgf/cm2=6
help=?

-For defining the pressure to be set:

Example: "**p=200\r**" ("p" lowercase)

-For starting the pressure regulation:

"**G\r**" (uppercase))

-For pausing the pressure regulation:

"**g\r**" lowercase)

-For zeroing the pressure and pausing:
"**s\r**" (lowercase)

-For forcing the **REPi** to adjust to the pressure registered after the initialization:
"**W\r**" (uppercase)

-For disabling the forced mode of pressure setup after initialization:
"**w\r**" (lowercase)

--For forcing auto-zero after the **REPi** has already initialized:
"**0\r**" (number zero)

-For saving the parameters at the EEPROM:
"**F\r**" (uppercase)

NOTE:
After sending these commands, the **REPi** returns:
"OK\r" " If the command is correct;
"ERRO!\r" If the command is incorrect;

<u>Command list for information reading:</u>

-For reading the current pressure from the sensor:
"**l\r**" (lowercase)
The **REPi** returns:
Example: **"l=199.5_mbar\rOK\r"**

-For reading the adjusted parameter from the **REPI**:
"**a\r**" (lowercase)

The **REPI** returns:
Example:
"p=200_mbar\ru=4\rf=1.005\rk=1.002\rW\rG\rOK\r"

-For receiving the configurations (range and serial number) from the **REPi**:
"**c\r**" (lowercase)
The **REPi** returns:
Example: **"r=100_PSI\rn=REPi001-10\rOK\r"**

- For receiving the Software version:
"**v\r**"
The **REPi** returns:
Example:
"**v=4.1_06/07/2010_por_Leonardo_Antonio_Rocha\rOK\r"**

NOTE:
If the command is not known, the **REPI** returns:
"**ERRO!\r**"

List of setup commands of the "manual" pressure ("With the REPi paused")

-For "manually" increasing the pressure":
"**+\r**"
The **REPi** increases and returns:
"\rOK\r"

-For "manually" decreasing the pressure":
"**-\r**"
The **REPi** increases and returns:
"\rOK\r"

6 TexNet Protocol

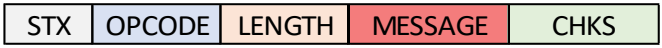
The TexNet protocol enables message exchange between devices in master-slave mode via TTL/RS-232 serial interface. Communication is initiated by the master through a REQUEST, and the slave device responds with a message using the same OPCODE as the REQUEST or responds with an NACK byte in case of a checksum failure. The message contains a CHECKSUM byte used to confirm the consistency of the transmitted message.

6.1 Serial Communication

Below is the configuration of the serial port used in the TexNet protocol with REPi.

Baud rate: 9600 bps
Data bits: 8
Parity: None
Stop bits: 1

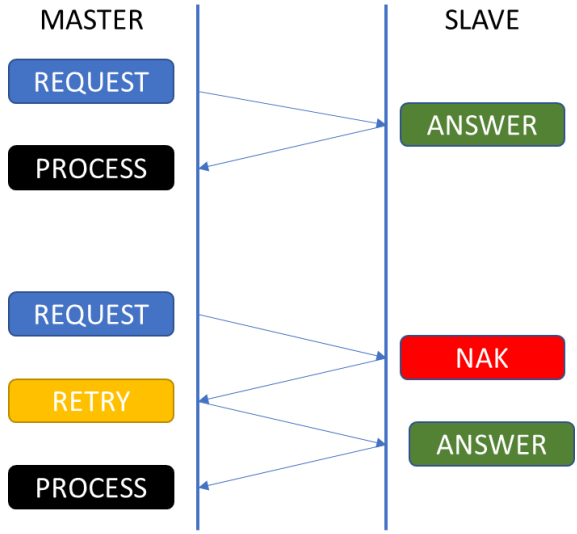
6.2 Message Format



Where:
STX: 1 byte ASCII character 0x02
OPCODE: 1 byte representing the message OPCODE
LENGTH: 1 byte representing the message size (0-255)
MESSAGE: 0 to 255 bytes, depending on the LENGTH
CHKS: *Checksum* of all bytes between OPCODE and the last byte of the message
NAK: 1 byte ASCII character 0x03 for checksum failure

6.3 Message Flow

All REQUEST messages sent by the master must receive a response, either a message or a NAK indicating that the received message was incorrect.



Where:
REQUEST: Request message sent by the master to the slave
ANSWER: Response message sent by the slave to the master
NAK: Control character NAK (0x03) indicating failure in the last message
RETRY: Communication failure handling process by the master, generating a message retransmission
PROCESS: Response handling process by the master

6.4 Example OPCODE to Read Version 0x76:

REQUEST

STX	OPCODE	LENGTH	CHKS
0x02	0x76	0x00	0x76

ANSWER

STX	OPCODE	LENGTH	MESSAGE									CHKS
0x02	0x76	0x0A	0x31	0x2E	0x30	0x2E	0x31	0x2E	0x31	0x31	0x00	0x00	0xFE

6.4.1 Checksum Calculation:

0x76 + 0x0A + 0x31 + 0x2E + 0x30 + 0x2E + 0x31 + 0x2E + 0x31 + 0x31 + 0x00 + 0x00 = 0x1FE

Consider only the least significant byte, in this case, 0xFE.

6.5 Read Version:

6.5.1 REQUEST

Field	Value	Type	Size	Obs.
OPCODE	0x76	byte	1	
LENGTH	0	byte	1	
MESSAGE	----	----	0	

6.5.2 ANSWER

Field	Value	Type	Size	Obs.
OPCODE	0x76	byte	1	
LENGTH	10	byte	1	
MESSAGE	Versão	string	10	

6.6 Read Pressure – REPi with local pressure port

Pressure is always provided in kPa, and temperature in °C.

6.6.1 REQUEST

Field	Value	Type	Size	Obs.
OPCODE	0x51	byte	1	
LENGTH	0	byte	1	
MESSAGE	----	----	0	

6.6.2 ANSWER

Field	Value	Type	Size	Obs.
OPCODE	0x51	byte	1	
LENGTH	12	byte	1	
MESSAGE	Local sensor pressure in kPa	float	4	
	0	float	4	
	Temperature	float	4	

6.7 Read Pressure – REPi with remote pressure port

Pressure is always provided in kPa, and temperature in °C.

6.7.1 REQUEST

Field	Value	Type	Size	Obs.
OPCODE	0x51	byte	1	
LENGTH	0	byte	1	
MESSAGE	----	----	0	

6.7.2 ANSWER

Field	Value	Type	Size	Obs.
OPCODE	0x51	byte	1	
LENGTH	12	byte	1	
MESSAGE	Remote sensor pressure in kPa	float	4	
	Local sensor pressure in kPa	float	4	
	Temperature	float	4	

6.8 Read Model

6.8.1 REQUEST

Field	Value	Type	Size	Obs.
OPCODE	0x6D	byte	1	
LENGTH	0	byte	1	
MESSAGE	----	----	0	

6.8.2 ANSWER

Field	Value	Type	Size	Obs.
OPCODE	0x6D	byte	1	
LENGTH	20	byte	1	
MESSAGE	Model	String	20	

6.9 Read Serial Number

6.9.1 REQUEST

Field	Value	Type	Size	Obs.
OPCODE	0x6E	byte	1	
LENGTH	0	byte	1	
MESSAGE	----	----	0	

6.9.2 ANSWER

Field	Value	Type	Size	Obs.
OPCODE	0x6E	byte	1	
LENGTH	11	byte	1	
MESSAGE	Serial Number	String	11	

6.10 Write Pressure Setpoint

6.10.1 REQUEST

Field	Value	Type	Size	Obs.
OPCODE	0x54	byte	1	
LENGTH	4	byte	1	
MESSAGE	Setpoint value in kPa	float	4	

6.10.2 ANSWER

Field	Value	Type	Size	Obs.
OPCODE	0x54	byte	1	
LENGTH	0	byte	1	
MESSAGE	----	----	0	

6.11 Read Pressure Setpoint

6.11.1 REQUEST

Field	Value	Type	Size	Obs.
OPCODE	0x74	byte	1	
LENGTH	0	byte	1	
MESSAGE	----	----	0	

6.11.2 ANSWER

Field	Value	Type	Size	Obs.
OPCODE	0x74	byte	1	
LENGTH	4	byte	1	
MESSAGE	Setpoint value in kPa	float	4	

6.12 Start Pressure Adjustment

6.12.1 REQUEST

Field	Value	Type	Size	Obs.
OPCODE	0x47	byte	1	
LENGTH	0	byte	1	
MESSAGE	----	----	0	

6.12.2 ANSWER

Field	Value	Type	Size	Obs.
OPCODE	0x47	byte	1	
LENGTH	0	byte	1	
MESSAGE	----	----	0	

6.13 Pause Pressure Adjustment

6.13.1 REQUEST

Field	Value	Type	Size	Obs.
OPCODE	0x48	byte	1	
LENGTH	0	byte	1	
MESSAGE	----	----	0	

6.13.2 ANSWER

Field	Value	Type	Size	Obs.
OPCODE	0x48	byte	1	
LENGTH	0	byte	1	
MESSAGE	----	----	0	

6.14 Stop Pressure Adjustment

6.14.1 REQUEST

Field	Value	Type	Size	Obs.
OPCODE	0x58	byte	1	
LENGTH	0	byte	1	
MESSAGE	----	----	0	

6.14.2 ANSWER

Field	Value	Type	Size	Obs.
OPCODE	0x58	byte	1	
LENGTH	0	byte	1	
MESSAGE	----	----	0	

6.15 Read Adjustment Factor

If the REPi has **two** sensors (one for local pressure measurement and the other for remote pressure measurement), the "MESSAGE x Value" field should consider **1** for the **remote sensor** and **2** for the **local sensor**.

If the REPi has **one** sensor (local pressure measurement), the "MESSAGE x Value" field should consider the value **1**.

6.15.1 REQUEST

Field	Value	Type	Size	Obs.
OPCODE	0x49	byte	1	
LENGTH	0	byte	1	
MESSAGE	Sensor Type (1 or 2)	byte	1	

6.15.2 ANSWER

Field	Value	Type	Size	Obs.
OPCODE	0x49	byte	1	
LENGTH	5	byte	1	
MESSAGE	Sensor Type (1 or 2)	byte	1	
	Adjustment Factor	float	4	

6.16 Writing Adjustment Factor

If the REPi has **two** sensors (one for local pressure measurement and the other for remote pressure measurement), the "MESSAGE x Value" field should consider **1** for the **remote sensor** and **2** for the **local sensor**.
If the REPi has **one** sensor (local pressure measurement), the "MESSAGE x Value" field should consider the value **1**.

6.16.1 REQUEST

Field	Value	Type	Size	Obs.
OPCODE	0x69	byte	1	
LENGTH	5	byte	1	
MESSAGE	Tipo de Sensor (1 or 2)	byte	1	
	Fator de Ajuste	float	4	

6.16.2 ANSWER

Field	Value	Type	Size	Obs.
OPCODE	0x69	byte	1	
LENGTH	0	byte	1	
MESSAGE	----	----	0	

6.17 Set Zero for Sensor Reading

6.17.1 REQUEST

Field	Value	Type	Size	Obs.
OPCODE	0x7A	byte	1	
LENGTH	0	byte	1	
MESSAGE	----	----	0	

6.17.2 ANSWER

Field	Value	Type	Size	Obs.
OPCODE	0x7A	byte	1	
LENGTH	0	byte	1	
MESSAGE	----	----	0	

7 Technical characteristics

- **Power supply:** 24VDC (±5%)
- **Electric consumption:** 200 mA or less
- **Box:** Aluminum
- **Enclosure:** IP42
- **Pneumatic material:** TEX, SMC, FAIRCHILD
- **Pneumatic connections:** ¼" BSPT Female
- **CPU:** MSP430
- **A/D converters:** 24 bits
- **Pressure sensor:** Piezoresistive, isolated
- **Linearity:** ± 0.25% F.S. or less
- **Hysteresis:** 0.25% F.S. or less
- **Repeatability:** ± 0.25% F.S. or less
- **Sensitivity:** ± 0.05% F.S. or less
- **Response time:** 2 s or less (without load)
- **Temp. characteristics:** ±0.05% F.S./°C or less
- **Ambient and fluid temp.:** 0 to 50°C (No condensation)
- **Flow Characteristics at 100 psi:**
    - **Standard type:** Maximum 1000 L/min
    - **High flow type:** Maximum 1250 L/min
- **Analogical input:** 0~5VDC
- **Serial communication:** RS232 @ 9600 bps (Data bits: 8; Parity: None; Stop bit: 1; Flow control: None)

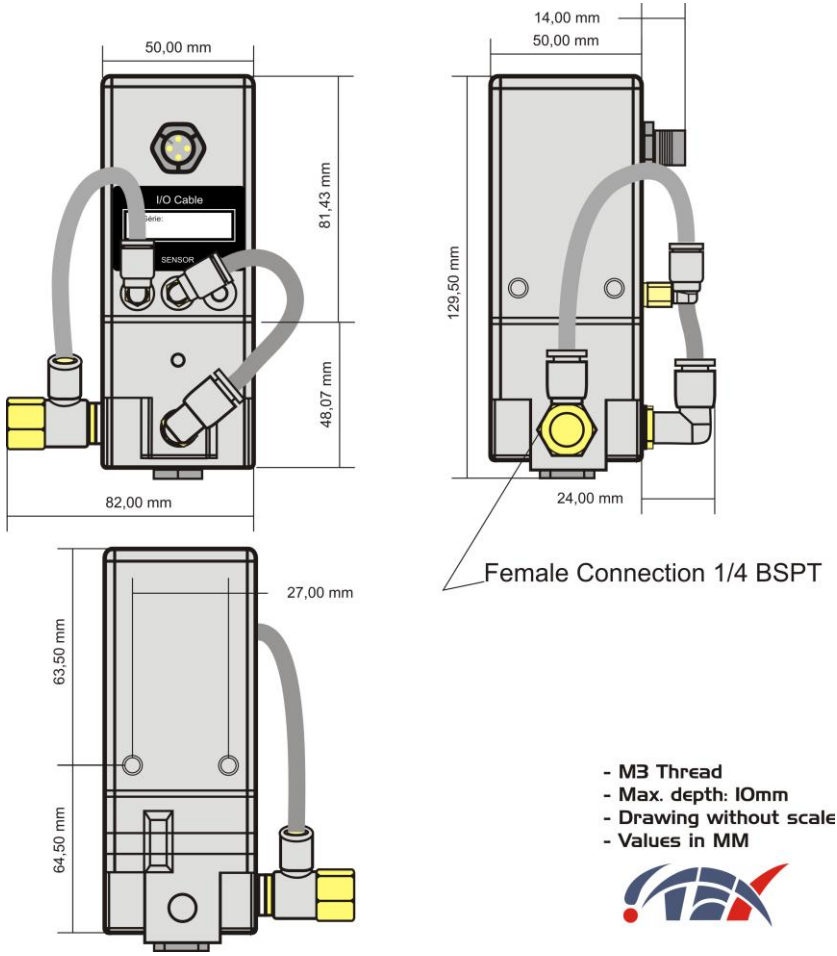
8 Trouble shooting”

Below there is a table with some problems and their possible causes and solutions. This table does not rule out all the possible problems and their causes, but it helps solving the most common ones. Every resolution should be attempted **without opening the device cover**!

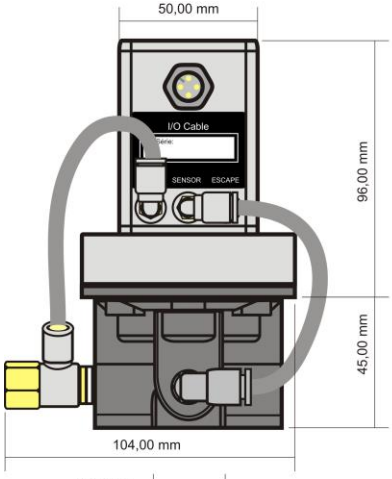
PROBLEM	POSSIBLE CAUSE	SOLUTION
8.1. The device does not turn on	a. Switched-off feeding source.	Connect the 24VDC feeding source (±5%) to the **REPi** connector.
	b. Damaged feeding source.	Check if the voltage value of the source that feeds the **REPi** is in compliance with the specified levels.
	c. Faulty **REPi**	Send the device to TEX
8.2. Pressure cannot be gauged.	a. Very low inlet pressure.	Check if the feeding pressure is correct. It must be 15 psi above the set pressure value;.
	b. The communication cable or analogical signal is disconnected.	Check if there is improper contact to the analogical or digital communication cable.
	c. Faulty **REPi**.	Send the device to TEX.

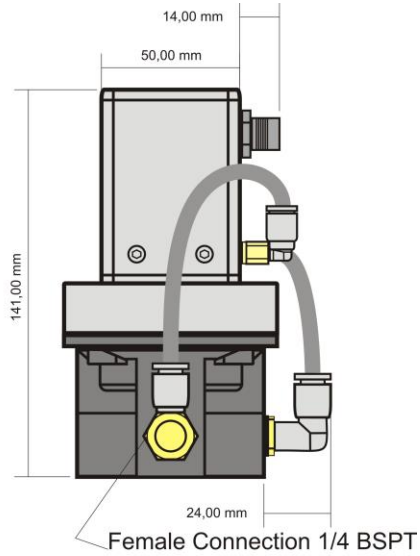
9 Device dimensions

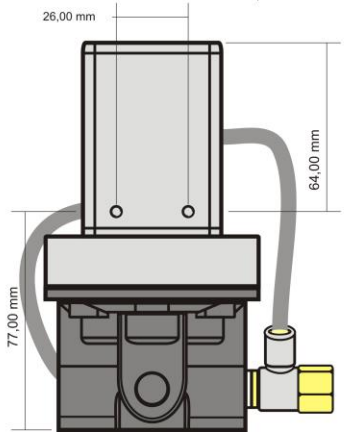
9.1 Standard type dimensions



9.2 High flow or high pressure type dimensions







- M3 Thread
- Max. depth: 10mm
- Drawing without scale
- Values in MM

10 TEX Contact

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