



INSTRUCTIONS 1101-S00 e

Section	1101
Effective	June 2008
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Original instructions

Puncture detector for Abaque squeezed tube pumps

INSTALLATION

OPERATION

MAINTENANCE

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Your distributor :

PUNCTURE DETECTOR FOR SQUEEZED TUBE PUMP

(A25, A40, AX40, A65, A80, AX80, A100, AS125)

SAFETY, STORAGE, INSTALLATION AND MAINTENANCE INSTRUCTIONS

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REMARKS :

The puncture detection kit for BLACKMER squeezed tube pumps **MUST** be installed in equipment installation layouts designed by qualified personnel. The installation **MUST** be in conformity with local standards, national regulations and safety rules.


This manual is intended for the installation and start up of puncture detection kits for squeezed tube pumps and **MUST** accompany the kit.

The squeezed tube pump servicing shall have to be carried out **ONLY** by qualified technicians. This maintenance shall have to respect local standards, national regulations and safety rules.

This manual, with all instructions and precautions, is to be read in its integrality **BEFORE** any use of the BLACKMER pumps.

All warning and utilisation labels and stickers are to be left in place.

SAFETY INFORMATIONS



This is a SAFETY ALERT SYMBOL

When you see this symbol on the product, or in the manual, look for one of the following signal words and be alert to the potential for personal injury, death or major property damage.

DANGER

Warns of hazards that **WILL** cause serious personal injury, death or major property damage

WARNING

Warns of hazards that **CAN** cause serious personal injury, death or major property damage.


CAUTION

Warns of hazards that **CAN** cause personal injury or property damage.

NOTICE

Indicates special instructions which are very important and must be followed.


CAUTION



**Slippery lubricant.
Spills should be
cleaned up.**

THE PUMP LUBRICANT IS VERY SLIPPERY AND MAY CAUSE SERIOUS INJURY. ANY SPILLS MUST BE CLEANED UP.

WARNING



**Dangerous voltage.
Can cause
injury and death.**

DISCONNECT THE ELECTRICITY SUPPLY BEFORE ANY MAINTENANCE OPERATION.

1. WORKING PRINCIPLE

The pipe puncture detection of the squeezed tube pump is ensured by a capacitive proximity detector mounted on the level pipe of the pump.

The capacitive proximity detector detects metallic and non metallic materials.

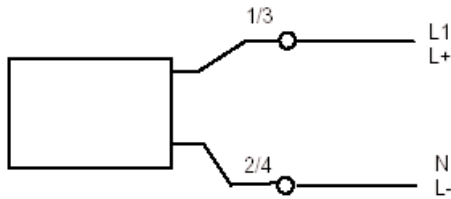
2. TECHNICAL CHARACTERISTICS

Supply voltage 20 to 250 V AC/DC
Hold output current 350 Ma AC
..... 100 Ma DC
Call output current 250 mA

Consumption at 24 V <10mA
Switching frequency 25 Hz AC / 40 Hz DC
Ambient utilisation temperature ... -25°C to +80°C
..... (-13°F to +176°F)
Protection IP 65

3. CONNECTION DIAGRAM

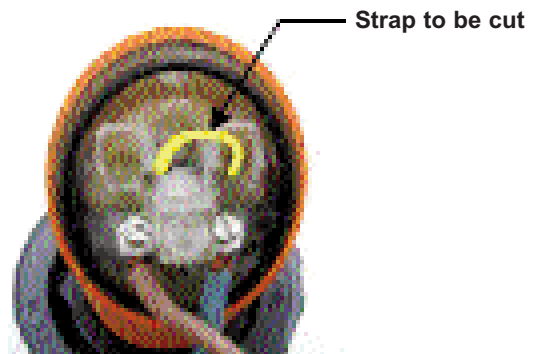
The connection is made by terminal up to 2,5 mm²



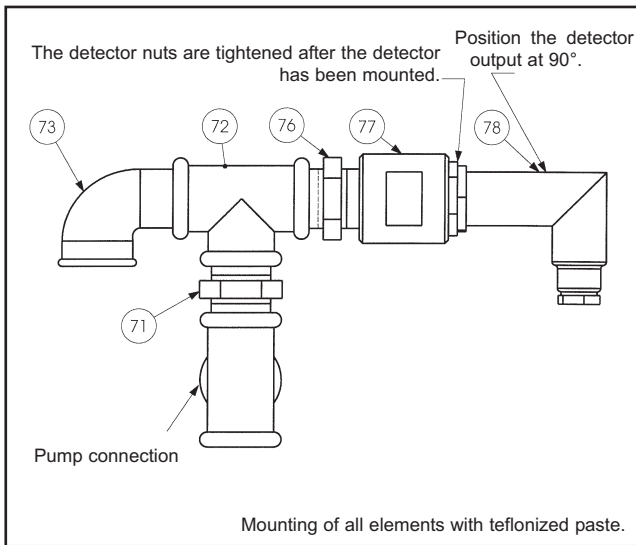
Two different functioning modes are possible :

- Normally open contact :
- Normally closed contact :

The normally closed contact is obtained by cutting the detector strap :



4. DETECTOR MOUNTING



A25 - A40 - AX40

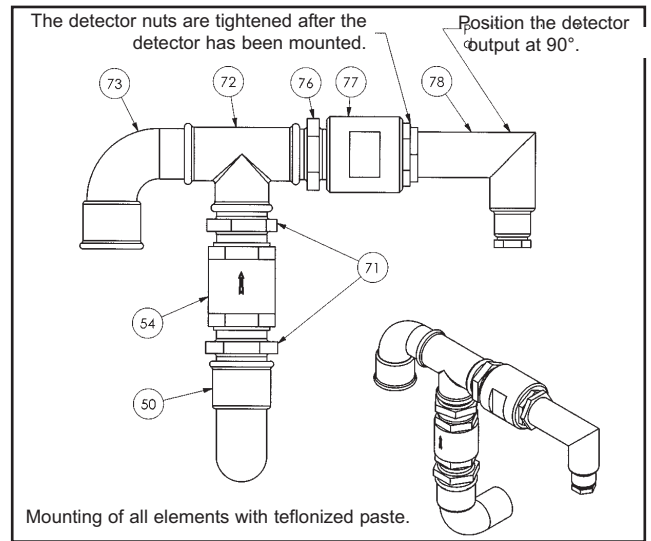
Remove the 2 elbow bends larger than the breathing vent.

Screw the fitting **71** on the elbow bend **50**.

Install back-flow valve **54** and its two **71** connections adhering to orientation (A65 - A80 - AX80 - A100 - AS125).

Mount the tee **72** and then the elbow bend **73**.

Screw the fitting **76** on the tee **72**.



A65 - A80 - AX80 - A100 - AS125

Mount the detector **78** in the connector piece **77**.

Position the output of the detector **78** at 90° in a downward direction.

Screw the nuts in the detector.

Perform wiring operations as per § CONNECTION DIAGRAM.