Gas PADC Installation

Mounting of Gas Pressure ADC "PADC"
Always at rear of
CMS DT Muon chamber

Same for

MB1, MB2, MB3, MB4,...,

for each

+Z and -Z Types

but DIFFERS in orientation for

Services at Left and at Right

040907
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Gas PADC Connections

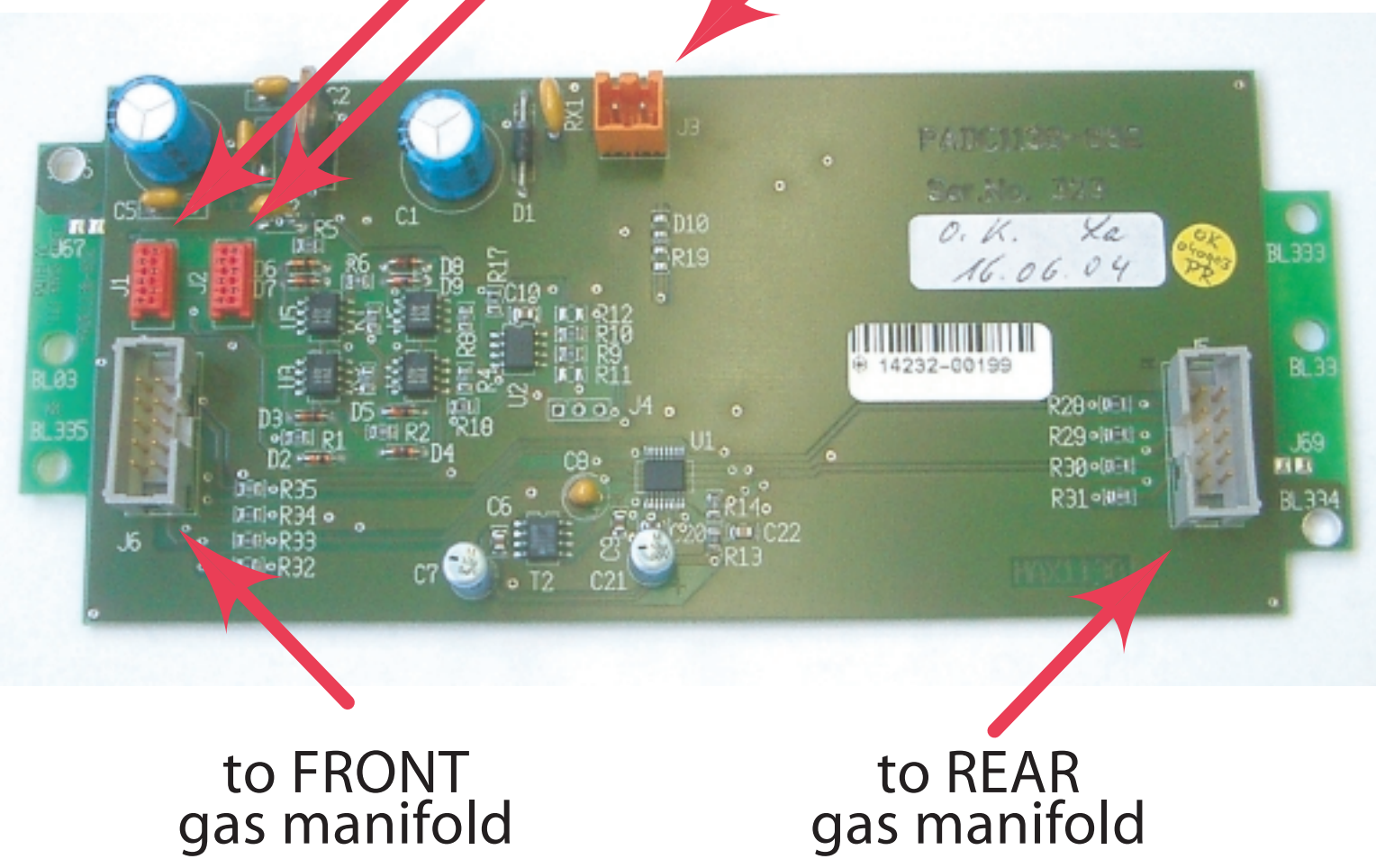

Fig.1: PADC board and its connections.
Orient the PADC board in its box such that the connector "to REAR" points to the rear gas manifold.
This means to the left and right for a "left" and "right" chamber, respectively.

PADC Orientation

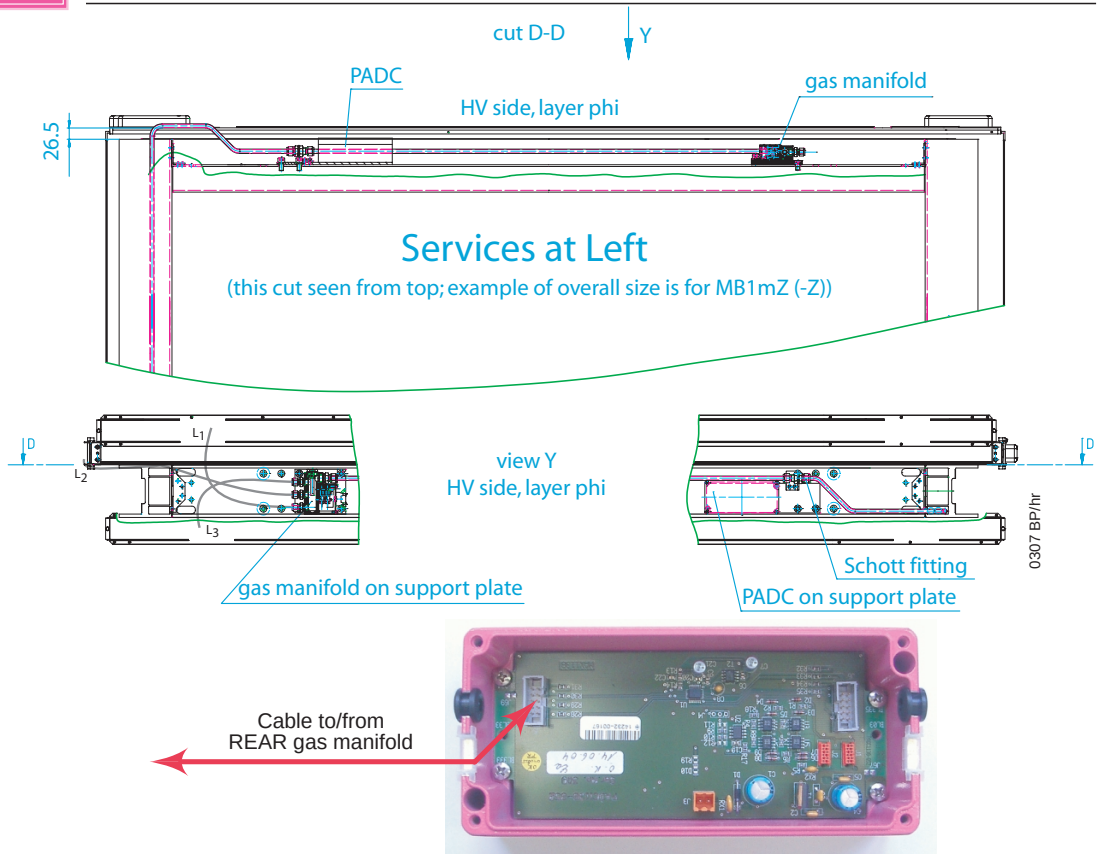

Fig.2: PADC on a "left" chamber.

Gas manifold and PADC-box are attached to the C-profile through spacer plates to ensure free access to the outer two threaded holes at left and right, for handling of the chamber. On all MB4 chambers (have no SLtheta and honeycomb panel is accordingly thicker) the fixation holes are ~27 mm higher but this also holds for the alignment passages. Therefore the same gas components also fit on MB4; keep the lateral gas pipe at the upper border of its passage.

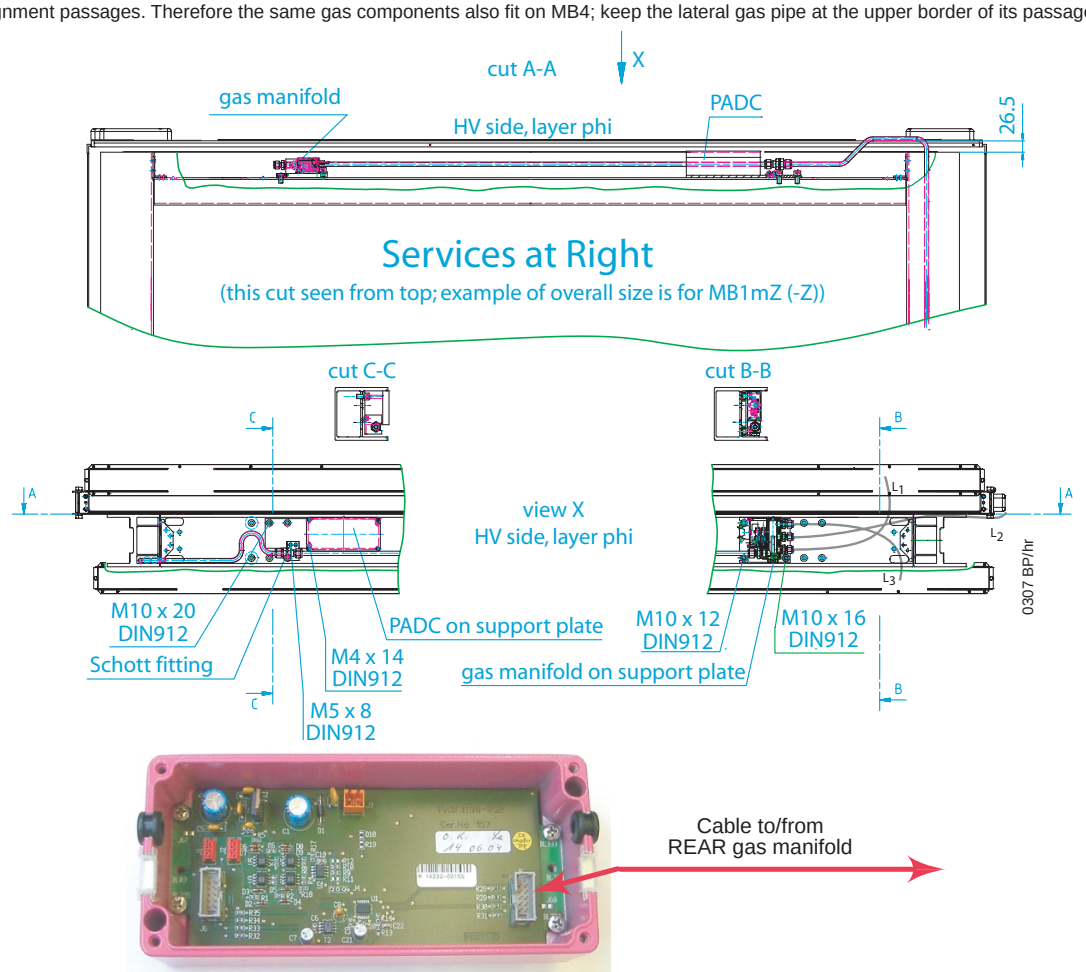

Fig.3: PADC on a "right" chamber.

Note that the gas pipe also passes through the lower lateral channel. Watch the orientation of the PADC board inside its box. The orientation of the box itself is independent from the orientation of the PADC.

PADC Cabling

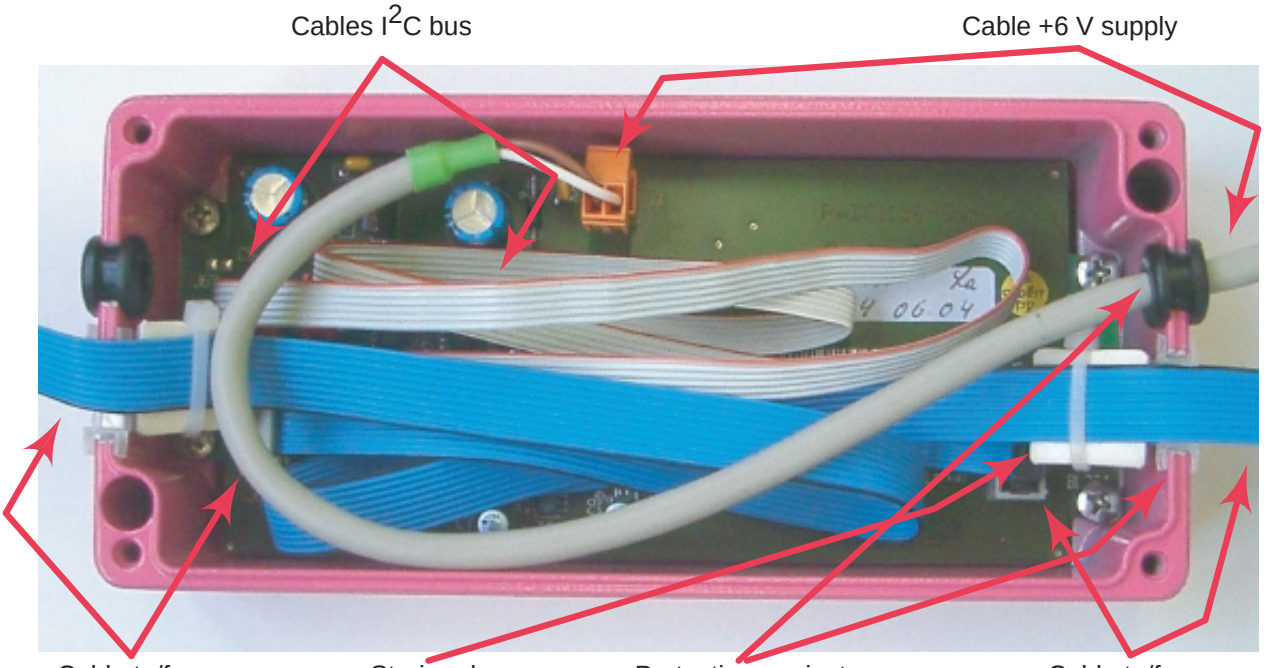

Fig.4: PADC cabling, here on a "right" chamber.

Note that the gas pipe also passes through the lower lateral channel. Watch the orientation of the PADC board inside its box. The orientation of the box itself is independent from the orientation of the PADC. Please note that the spare length of all cables is housed inside the box. Finally, the PADC board can be connected to local ground (default), or isolated from it if needed, by ensuring/removing the contact at the four screws attaching the PADC board to its box.

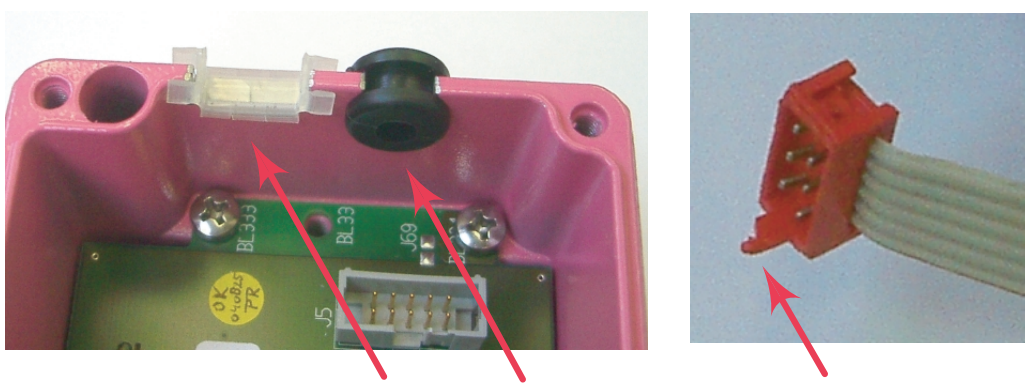

Fig.5: PADC cabling warnings.

Always make sure that the protections against sharp edges (see left photo) are in place. Note that the small connectors of the I2C bus cables are very weak and do not have any own strain release. These connectors do have a KEY in the form of a small protruding "nose" (see right photo) which fits into a hole in the PCB - this "nose" is very weak.