

CABLE ASSEMBLY SCHEMES

for *West Input* cabling

Change History

| Version | Date | Changes/Reasons |
|----------------|-------------|---|
| V1 | 2000 | initial suspension cabling |
| v2 | 2003 | added cabling of sensors and actuators on Filter #7 |
| v3r0 | mar08 | added TCS cabling |
| v3r1 | 4mar10 | Added 2 temperature sensors close to the RefMass |
| | | |
| | | |
| | | |
| | | |

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Informazioni generali

Ciascun spezzone di cavo va terminato ad una estremità da un connettore circolare 32 poli (tipo presa), all'altra estremità con uno o più connettori Lemo multipolari (generalmente tipo spina). I cavi sono del tipo:

- cavo piatto a 18 conduttori trefolati AWG 24, isolati in goretex, a coppie ritorte e schermate singolarmente (cavo STP).
- cavo assemblato in lab a conduttori solidi AWG 18, isolati in polimide, a coppie ritorte (cavo TP).
- cavo assemblato in lab a conduttori solidi AWG 22, isolati in polimide, a triplete ritorte (cavo TT).

Identificazione componenti

- Ciascun cavo è identificato da una lettera dell'alfabeto.
- Il tipo di cavo utilizzato e' indicato in prossimità' del disegno: la sigla comprende il numero di coppie di conduttori, il tipo di schermatura (STP, TP, TT), la sezione (es. AWG24). Es.: la sigla **9.STP.AWG24** specifica un tipo di cavo avente 18 conduttori intrecciati e schermati a coppie, di sezione AWG24
- Ciascun conduttore di un cavo STP è identificato da un numero cardinale relativo alla coppia (**1** per la coppia bianco/rossa a seguire fino ad **9** per le altre coppie bianco/gialle), da una lettera (**A** per il conduttore con isolante a strisce rosse, **B** per l'altro conduttore della coppia, **S** per la calza) (es. la calza nella terza coppia, è identificata da **3.S**).
- Ciascun connettore Lemo è identificato da due caratteri: il primo è la lettera del cavo sul quale è saldato il connettore, il secondo è un numero cardinale, che va da 1 al n. max di connettori Lemo sullo stesso cavo (es. per il cavo **B** terminato da due Lemo, essi sono identificati da **B1** e **B2**)
- I contatti di ciascun connettore Lemo sono identificati dal nome del connettore, seguito dal numero del contatto indicato sull'isolante del connettore (es. il contatto¹ n. 4 che si trova sul connettore Lemo **B3** e' identificato da **B3.4**)
- I contatti di ciascun connettore circolare a 32 poli sono identificati da lettere (A÷Z, a÷j). Per quelli interni vale il pinout serigrafato sul retro dell'isolante, per quelli esterni vale il pinout standard

¹ Nel caso di conduttori Lemo, il contatto n. 1 e' quello col semicerchio bianco, i successivi sono quelli lungo la linea bianca che parte dal contatto n. 1.

Legenda

| | |
|----------------|---------------------------------------|
| F1 + | motore, fase 1, positivo |
| F1 - | motore, fase 1, negativo |
| F2 + | motore, fase 2, positivo |
| F2 - | motore, fase 2, negativo |
| FC fw | motore, fine corsa, forward |
| FC bw | motore, fine corsa, backard |
| FC com | motore, fine corsa, comune |
| RST up | motore, reostato, terminale superiore |
| RST down | motore, reostato, terminale inferiore |
| RST com | motore, reostato, comune o cursore |
| TP sx + | thermal probe, sinistro, positivo |
| TP sx - | thermal probe, sinistro, negativo |
| TP dx + | thermal probe, destro, positivo |
| TP dx - | thermal probe, destro, negativo |
| Ls | LVDT, secondario |
| Lp | LVDT, primario |
| C + | coil attuatore, positivo |
| C - | coil attuatore, negativo |
| fbk | accelerometro, feedback |
| V _H | Voltmetrico alto |
| V _L | Voltmetrico basso |
| A _H | Amperometrico alto |
| A _L | Amperometrico basso |

LEMO pinout of the main devices

| ACCELEROMETER | |
|---------------|-------------------|
| LEMO contacts | Contact descript. |
| 1 | Lp |
| 2 | Lp |
| 3 | |
| 4 | F1 + |
| 5 | F1 - |
| 6 | F2 + |
| 7 | F2 - |
| 8 | |
| 9 | FC sx |
| 11 | FC dx |
| 10 | FC com |
| 12 | fbk |
| 13 | fbk |
| 14 | |
| 15 | Ls |
| 16 | Ls |
| 17 | |
| 18 | |

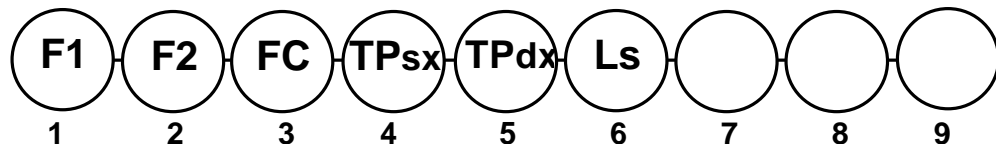
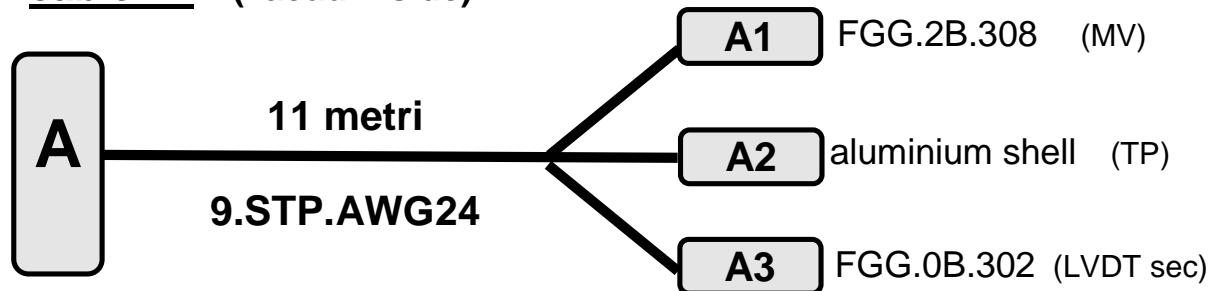
| LVDT | |
|---------------|-------------------|
| LEMO contacts | Contact descript. |
| 1 | Lp + |
| 2 | Lp - |
| 3 | Ls + |
| 4 | Ls - |

| COIL | |
|---------------|-------------------|
| LEMO contacts | Contact descript. |
| 1 | C + |
| 2 | C - |

| MOTOR | | |
|---------------|-------------------|------------------|
| LEMO contacts | Contact descript. | UTG 12p contacts |
| 1 | F1 + | A |
| 2 | F1 - | B |
| 3 | F1 shield | C |
| 3 | F2 + | D |
| 4 | F2 - | E |
| 5 | F2 shield | F |
| 5 | FC fw | G |
| 6 | FC bw | H |
| 7 | FC com | J |
| 8 | n.c. | |

| TILTMETER | | |
|---------------|-------------------|------------------|
| LEMO contacts | Contact descript. | UTG 12p contacts |
| 1 | 1 + | A |
| 2 | 1 - | B |
| 3 | E1 | C |
| 4 | 2 + | D |
| 5 | 2 - | E |
| 6 | E2 | F |
| 7 | n.c. | |
| 8 | n.c. | |

cable A (vacuum side)



| Cutting and Stripping phase |
|-----------------------------|
| Date: 22 may 00 |
| Operator: M. Ceccanti |
| Reel: P |

| Crimping and Labeling phase |
|-----------------------------|
| Date: 22 may 00 |
| Operator: M. Ceccanti |
| Duration (hours): 2.5 |

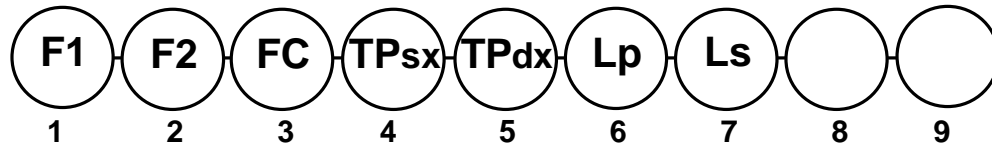
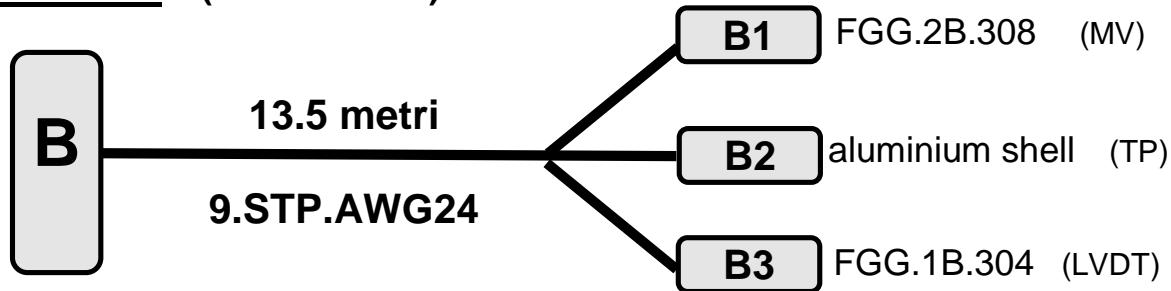
| Quality Control phase |
|-----------------------|
| Date: |
| Operator: |

| Cleaning and Storage phase |
|----------------------------|
| Date: |
| Operator: |

Notes:
Diramare a 60 cm

| MIL-32 contacts | conductors | LEMO contacts | contact description |
|-----------------|------------|---------------|---------------------|
| A | 1.A | A1.1 | F1 + |
| B | 1.B | A1.2 | F1 - |
| C | 1.S | n.c. | |
| D | 2.A | A1.3 | F2 + |
| E | 2.B | A1.4 | F2 - |
| F | 2.S | n.c. | |
| G | 3.A | A1.5 | FC fw |
| H | 3.B | A1.6 | FC bw |
| J | 3.S | A1.7 | FC com |
| K | 4.A | A2 | TP sx + |
| L | 4.B | A2 | TP sx - |
| M | 4.S | n.c. | |
| N | 5.A | A2 | TP dx + |
| P | 5.B | A2 | TP dx - |
| R | 5.S | n.c. | |
| S | 6.A | A3.1 | Ls |
| T | 6.B | A3.2 | Ls |
| U | 6.S | n.c. | |
| V | 7.A | | |
| W | 7.B | | |
| X | 7.S | | |
| Y | 8.A | | |
| Z | 8.B | | |
| a | 8.S | | |
| b | 9.A | | |
| c | 9.B | | |
| d | 9.S | | |

cable B (vacuum side)



| Cutting and Stripping phase |
|-----------------------------|
| Date: 5 may 00 |
| Operator: M. Ceccanti |
| Reel: M |

| Crimping and Labeling phase |
|-----------------------------|
| Date: 5 may 00 |
| Operator: M. Ceccanti |
| Duration (hours): 2.5 |

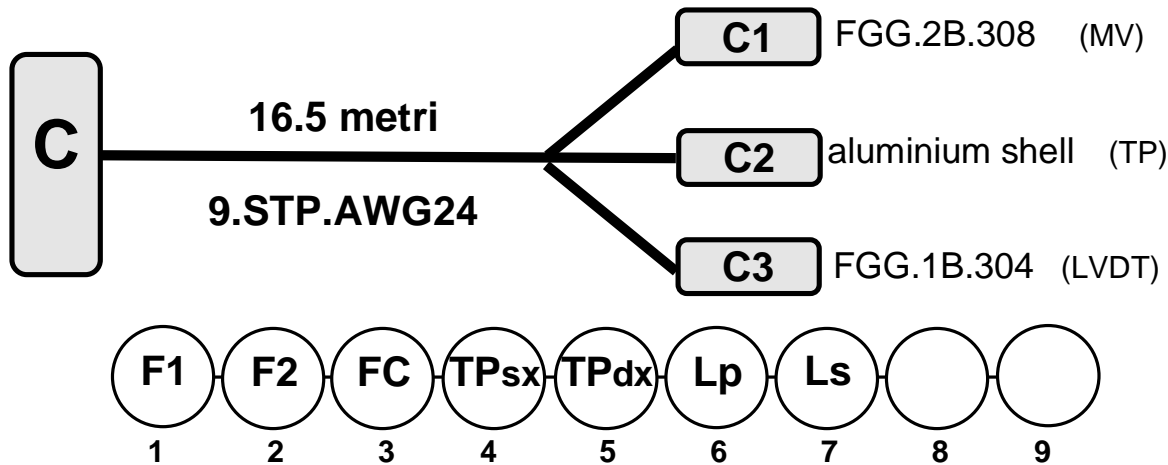
| Quality Control phase |
|-----------------------|
| Date: 5 may 00 |
| Operator: M. Ceccanti |

| Cleaning and Storage phase |
|----------------------------|
| Date: |
| Operator: |

Notes:
Diramare a 60 cm

| MIL-32 contacts | conductors | LEMO contacts | contact description |
|-----------------|------------|---------------|---------------------|
| A | 1.A | B1.1 | F1 + |
| B | 1.B | B1.2 | F1 - |
| C | 1.S | n.c. | |
| D | 2.A | B1.3 | F2 + |
| E | 2.B | B1.4 | F2 - |
| F | 2.S | n.c. | |
| G | 3.A | B1.5 | FC fw |
| H | 3.B | B1.6 | FC bw |
| J | 3.S | B1.7 | FC com |
| K | 4.A | B2 | TP sx + |
| L | 4.B | B2 | TP sx - |
| M | 4.S | n.c. | |
| N | 5.A | B2 | TP dx + |
| P | 5.B | B2 | TP dx - |
| R | 5.S | n.c. | |
| S | 6.A | B3.1 | Lp |
| T | 6.B | B3.2 | Lp |
| U | 6.S | n.c. | |
| V | 7.A | B3.3 | Ls |
| W | 7.B | B3.4 | Ls |
| X | 7.S | n.c. | |
| Y | 8.A | | |
| Z | 8.B | | |
| a | 8.S | | |
| b | 9.A | | |
| c | 9.B | | |
| d | 9.S | | |

cable C (vacuum side)



| Cutting and Stripping phase |
|-----------------------------|
| Date: 8 may 00 |
| Operator: M. Ceccanti |
| Reel: P |

| Crimping and Labeling phase |
|-----------------------------|
| Date: 8 may 00 |
| Operator: M. Ceccanti |
| Duration (hours): 3 |

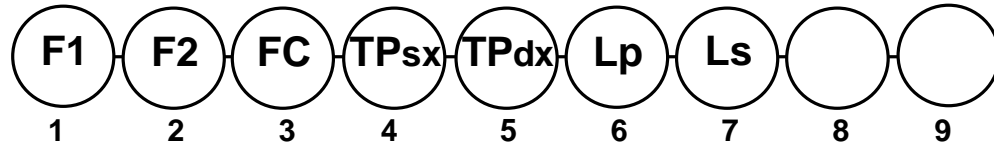
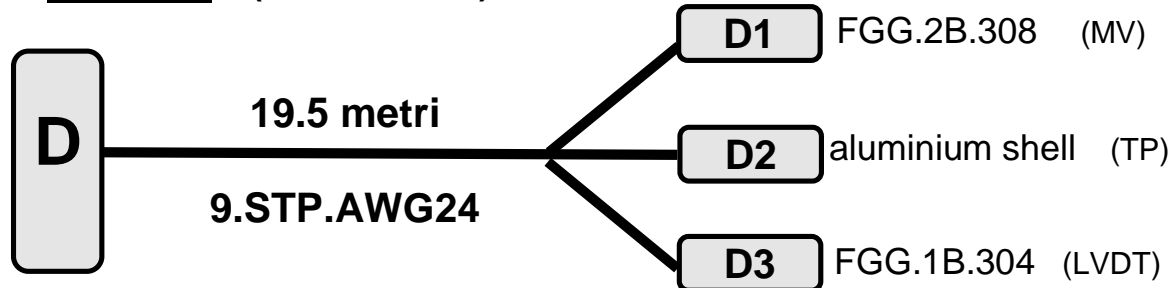
| Quality Control phase |
|-----------------------|
| Date: 8 may 00 |
| Operator: M. Ceccanti |

| Cleaning and Storage phase |
|----------------------------|
| Date: |
| Operator: |

Notes:
Diramare a 60 cm

| MIL-32 contacts | conductors | LEMO contacts | contact description |
|-----------------|------------|---------------|---------------------|
| A | 1.A | C1.1 | F1 + |
| B | 1.B | C1.2 | F1 - |
| C | 1.S | n.c. | |
| D | 2.A | C1.3 | F2 + |
| E | 2.B | C1.4 | F2 - |
| F | 2.S | n.c. | |
| G | 3.A | C1.5 | FC fw |
| H | 3.B | C1.6 | FC bw |
| J | 3.S | C1.7 | FC com |
| K | 4.A | C2 | TP sx + |
| L | 4.B | C2 | TP sx - |
| M | 4.S | n.c. | |
| N | 5.A | C2 | TP dx + |
| P | 5.B | C2 | TP dx - |
| R | 5.S | n.c. | |
| S | 6.A | C3.1 | Lp |
| T | 6.B | C3.2 | Lp |
| U | 6.S | n.c. | |
| V | 7.A | C3.3 | Ls |
| W | 7.B | C3.4 | Ls |
| X | 7.S | n.c. | |
| Y | 8.A | | |
| Z | 8.B | | |
| a | 8.S | | |
| b | 9.A | | |
| c | 9.B | | |
| d | 9.S | | |

cable D (vacuum side)



| Cutting and Stripping phase |
|-----------------------------|
| Date: 8 may 00 |
| Operator: M. Ceccanti |
| Reel: 0 |

| Crimping and Labeling phase |
|-----------------------------|
| Date: 8 may 00 |
| Operator: M. Ceccanti |
| Duration (hours): 2.5 |

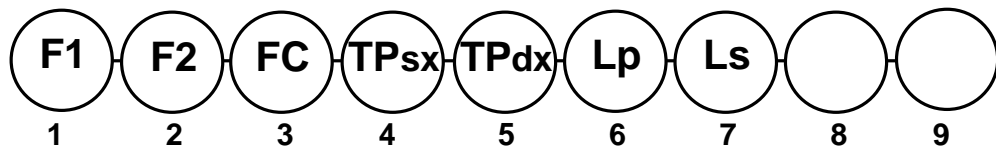
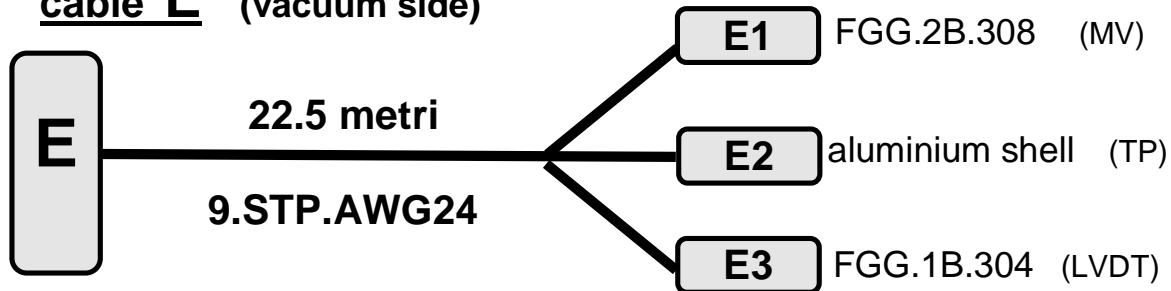
| Quality Control phase |
|-----------------------|
| Date: 8 may 00 |
| Operator: M. Ceccanti |

| Cleaning and Storage phase |
|----------------------------|
| Date: |
| Operator: |

Notes:
Diramare a 60 cm

| MIL-32 contacts | conductors | LEMO contacts | contact description |
|-----------------|------------|---------------|---------------------|
| A | 1.A | D1.1 | F1 + |
| B | 1.B | D1.2 | F1 - |
| C | 1.S | n.c. | |
| D | 2.A | D1.3 | F2 + |
| E | 2.B | D1.4 | F2 - |
| F | 2.S | n.c. | |
| G | 3.A | D1.5 | FC fw |
| H | 3.B | D1.6 | FC bw |
| J | 3.S | D1.7 | FC com |
| K | 4.A | D2 | TP sx + |
| L | 4.B | D2 | TP sx - |
| M | 4.S | n.c. | |
| N | 5.A | D2 | TP dx + |
| P | 5.B | D2 | TP dx - |
| R | 5.S | n.c. | |
| S | 6.A | D3.1 | Lp |
| T | 6.B | D3.2 | Lp |
| U | 6.S | n.c. | |
| V | 7.A | D3.3 | Ls |
| W | 7.B | D3.4 | Ls |
| X | 7.S | n.c. | |
| Y | 8.A | | |
| Z | 8.B | | |
| a | 8.S | | |
| b | 9.A | | |
| c | 9.B | | |
| d | 9.S | | |

cable E (vacuum side)



| Cutting and Stripping phase |
|-----------------------------|
| Date: 22 may 00 |
| Operator: M. Ceccanti |
| Reel: P |

| Crimping and Labeling phase |
|-----------------------------|
| Date: 22 may 00 |
| Operator: M. Ceccanti |
| Duration (hours): 2.5 |

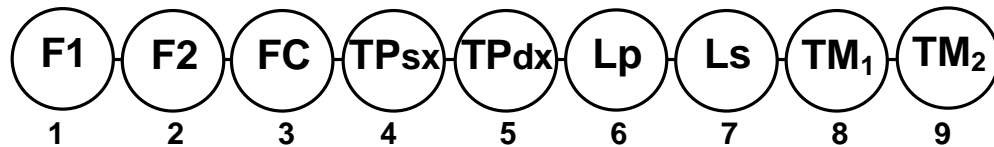
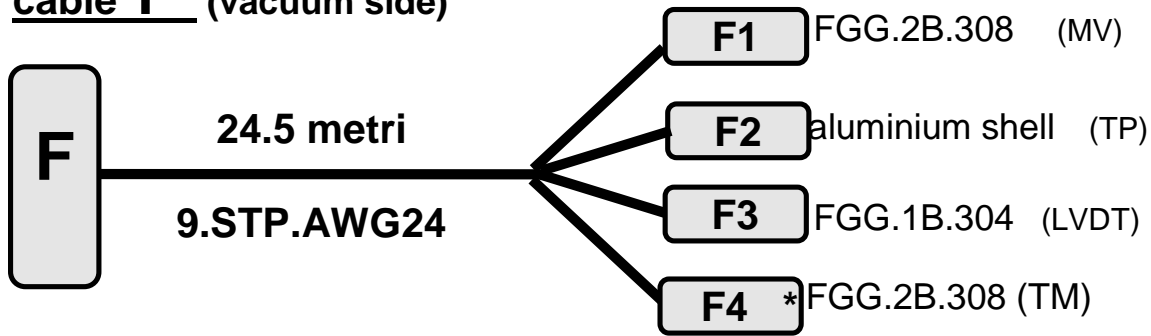
| Quality Control phase |
|-----------------------|
| Date: |
| Operator: |

| Cleaning and Storage phase |
|----------------------------|
| Date: |
| Operator: |

Notes:
Diramare a 60 cm

| MIL-32 contacts | conductors | LEMO contacts | contact description |
|-----------------|------------|---------------|---------------------|
| A | 1.A | E1.1 | F1 + |
| B | 1.B | E1.2 | F1 - |
| C | 1.S | n.c. | |
| D | 2.A | E1.3 | F2 + |
| E | 2.B | E1.4 | F2 - |
| F | 2.S | n.c. | |
| G | 3.A | E1.5 | FC fw |
| H | 3.B | E1.6 | FC bw |
| J | 3.S | E1.7 | FC com |
| K | 4.A | E2 | TP sx + |
| L | 4.B | E2 | TP sx - |
| M | 4.S | n.c. | |
| N | 5.A | E2 | TP dx + |
| P | 5.B | E2 | TP dx - |
| R | 5.S | n.c. | |
| S | 6.A | E3.1 | Lp |
| T | 6.B | E3.2 | Lp |
| U | 6.S | n.c. | |
| V | 7.A | E3.3 | Ls |
| W | 7.B | E3.4 | Ls |
| X | 7.S | n.c. | |
| Y | 8.A | | |
| Z | 8.B | | |
| a | 8.S | | |
| b | 9.A | | |
| c | 9.B | | |
| d | 9.S | | |

cable F (vacuum side)



| Cutting and Stripping phase |
|-----------------------------|
| Date: 22 may 00 |
| Operator: M. Ceccanti |
| Reel: R |

| Crimping and Labeling phase |
|-----------------------------|
| Date: 22 may 00 |
| Operator: M. Ceccanti |
| Duration (hours): 2.5 |

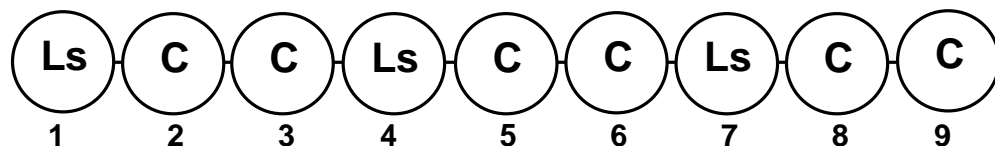
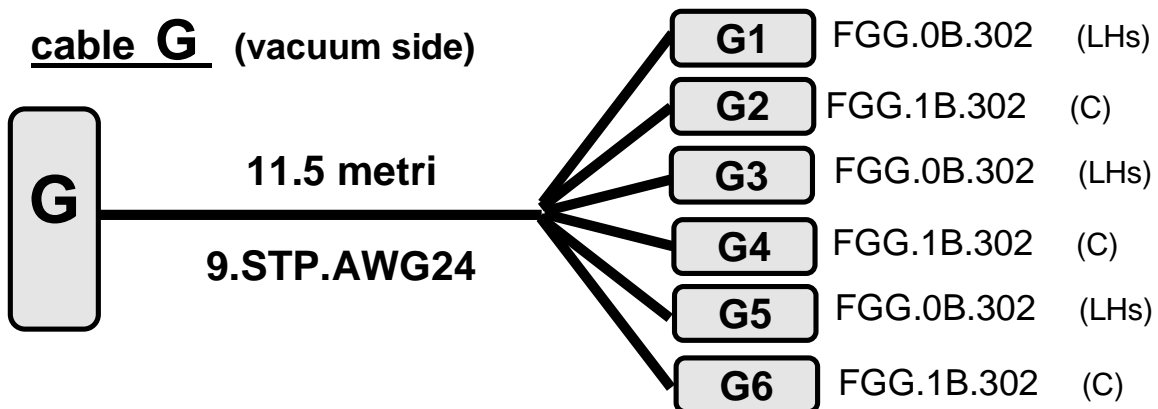
| Quality Control phase |
|-----------------------|
| Date: |
| Operator: M. Ceccanti |

| Cleaning and Storage phase |
|----------------------------|
| Date: |
| Operator: M. Ceccanti |

| Notes: |
|---|
| Diramare a 60 cm |
| ATTENZIONE: non testare mai il tiltometro con il multimetro (si danneggia!!) |
| * upgraded during June 2003 (by Nenci) |

| MIL-32 contacts | conductors | LEMO contacts | contact description |
|-----------------|------------|---------------|---------------------|
| A | 1.A | F1.1 | F1 + |
| B | 1.B | F1.2 | F1 - |
| C | 1.S | n.c. | |
| D | 2.A | F1.3 | F2 + |
| E | 2.B | F1.4 | F2 - |
| F | 2.S | n.c. | |
| G | 3.A | F1.5 | FC fw |
| H | 3.B | F1.6 | FC bw |
| J | 3.S | F1.7 | FC com |
| K | 4.A | F2 | TP sx + |
| L | 4.B | F2 | TP sx - |
| M | 4.S | n.c. | |
| N | 5.A | F2 | TP dx + |
| P | 5.B | F2 | TP dx - |
| R | 5.S | n.c. | |
| S | 6.A | F3.1 | Lp |
| T | 6.B | F3.2 | Lp |
| U | 6.S | n.c. | |
| V | 7.A | F3.3 | Ls |
| W | 7.B | F3.4 | Ls |
| X | 7.S | n.c. | |
| Y | 8.A | F4.1 | 1+ * |
| Z | 8.B | F4.2 | 1- * |
| a | 8.S | F4.3 | E1 * |
| b | 9.A | F4.4 | 2+ * |
| c | 9.B | F4.5 | 2- * |
| d | 9.S | F4.6 | E2 * |

cable G (vacuum side)



| Cutting and Stripping phase |
|-----------------------------|
| Date: 1 jun 00 |
| Operator: M. Ceccanti |
| Reel: R |

| Crimping and Labeling phase |
|-----------------------------|
| Date: 1 jun 00 |
| Operator: M. Ceccanti |
| Duration (hours): 2.5 |

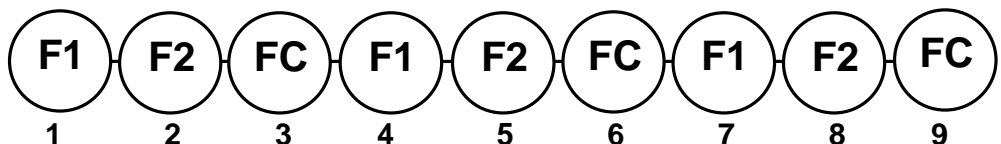
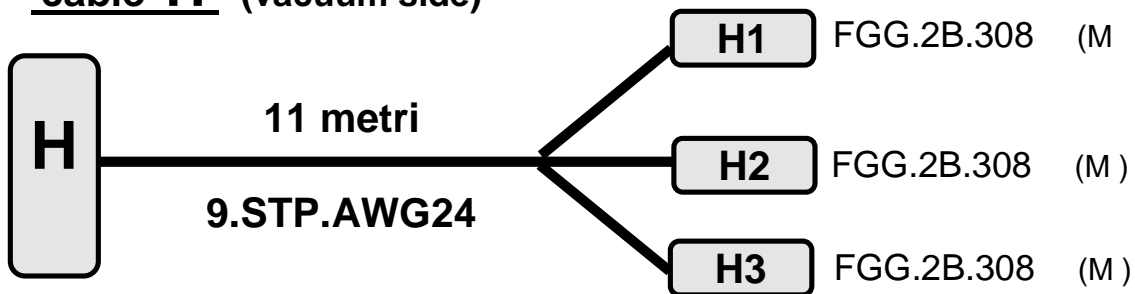
| Quality Control phase |
|-----------------------|
| Date: |
| Operator: |

| Cleaning and Storage phase |
|----------------------------|
| Date: |
| Operator: |

Notes:
 Diramare a gruppi (G1+G2, G3+G4, G5+G6) di 2,5 metri;
 Scorciare G3+G4 di 1.5 metri rispetto ai 11.5 metri totali;
 Ponticelli su MIL-32.

| MIL-32 contacts | conductors | LEMO contacts | contact description |
|-----------------|------------|---------------|---------------------|
| A | 1.A | G1.1 | Ls |
| B | 1.B | G1.2 | Ls |
| C | 1.S | n.c. | |
| D | 2.A | G2.1 | C + |
| E | 2.B | G2.2 | C - |
| F | 2.S | n.c. | |
| G | 3.A | G2.1 | C + |
| H | 3.B | G2.2 | C - |
| J | 3.S | n.c. | |
| K | 4.A | G3.1 | Ls |
| L | 4.B | G3.2 | Ls |
| M | 4.S | n.c. | |
| N | 5.A | G4.1 | C + |
| P | 5.B | G4.2 | C - |
| R | 5.S | n.c. | |
| S | 6.A | G4.1 | C + |
| T | 6.B | G4.2 | C - |
| U | 6.S | n.c. | |
| V | 7.A | G5.1 | Ls |
| W | 7.B | G5.2 | Ls |
| X | 7.S | n.c. | |
| Y | 8.A | G6.1 | C + |
| Z | 8.B | G6.2 | C - |
| a | 8.S | n.c. | |
| b | 9.A | G6.1 | C + |
| c | 9.B | G6.2 | C - |
| d | 9.S | n.c. | |

cable H (vacuum side)



| Cutting and Stripping phase |
|-----------------------------|
| Date: 31 may 00 |
| Operator: M. Ceccanti |
| Reel: R |

| Crimping and Labeling phase |
|-----------------------------|
| Date: 31 may 00 |
| Operator: M. Ceccanti |
| Duration (hours): 3 |

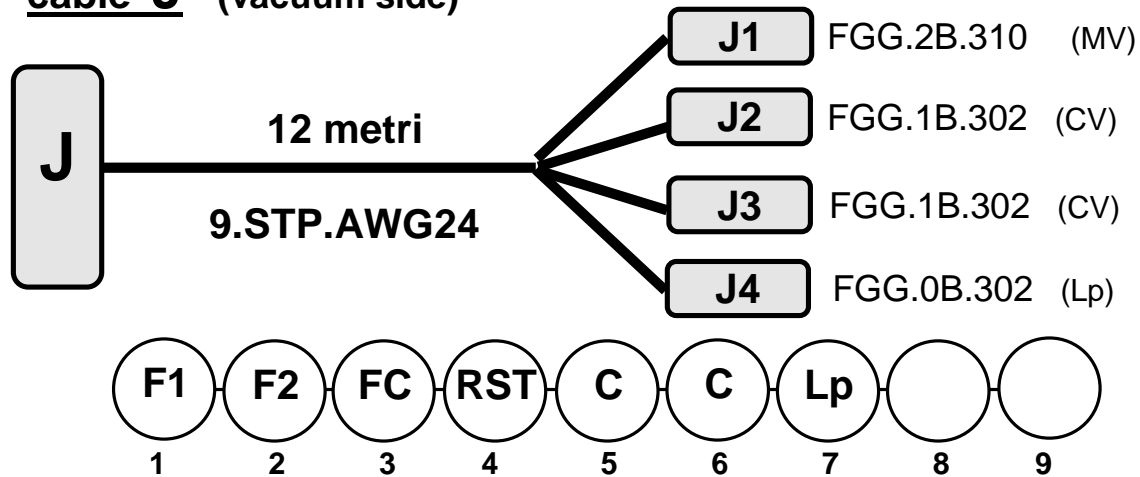
| Quality Control phase |
|-----------------------|
| Date: |
| Operator: |

| Cleaning and Storage phase |
|----------------------------|
| Date: |
| Operator: |

Notes:
 Diramare di 2,5 metri;
 Scorciare H2 di 1.5 metri.

| MIL-32 contacts | conductors | LEMO contacts | contact description |
|-----------------|------------|---------------|---------------------|
| A | 1.A | H1.1 | F1 + |
| B | 1.B | H1.2 | F1 - |
| C | 1.S | n.c. | |
| D | 2.A | H1.3 | F2 + |
| E | 2.B | H1.4 | F2 - |
| F | 2.S | n.c. | |
| G | 3.A | H1.5 | FC fw |
| H | 3.B | H1.6 | FC bw |
| J | 3.S | H1.7 | FC com |
| K | 4.A | H2.1 | F1 + |
| L | 4.B | H2.2 | F1 - |
| M | 4.S | n.c. | |
| N | 5.A | H2.3 | F2 + |
| P | 5.B | H2.4 | F2 - |
| H | 5.S | n.c. | |
| S | 6.A | H2.5 | FC fw |
| T | 6.B | H2.6 | FC bw |
| U | 6.S | H2.7 | FC com |
| V | 7.A | H3.1 | F1 + |
| W | 7.B | H3.2 | F1 - |
| X | 7.S | n.c. | |
| Y | 8.A | H3.3 | F2 + |
| Z | 8.B | H3.4 | F2 - |
| a | 8.S | n.c. | |
| b | 9.A | H3.5 | FC fw |
| c | 9.B | H3.6 | FC bw |
| d | 9.S | H3.7 | FC com |

cable J (vacuum side)



| Cutting and Stripping phase |
|-----------------------------|
| Date: 4 may 00 |
| Operator: M. Ceccanti |
| Reel: 0 |

| Crimping and Labeling phase |
|-----------------------------|
| Date: 4 may 00 |
| Operator: M. Ceccanti |
| Duration (hours): 3 |

| Quality Control phase |
|-----------------------|
| Date: 4 may 00 |
| Operator: M. Ceccanti |

| Cleaning and Storage phase |
|----------------------------|
| Date: |
| Operator: |

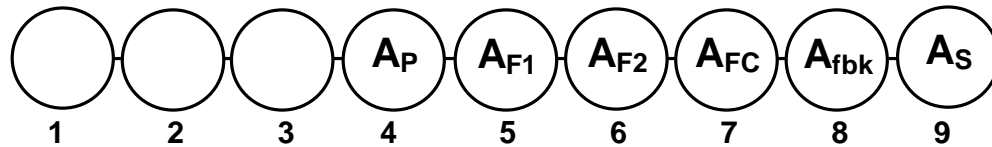
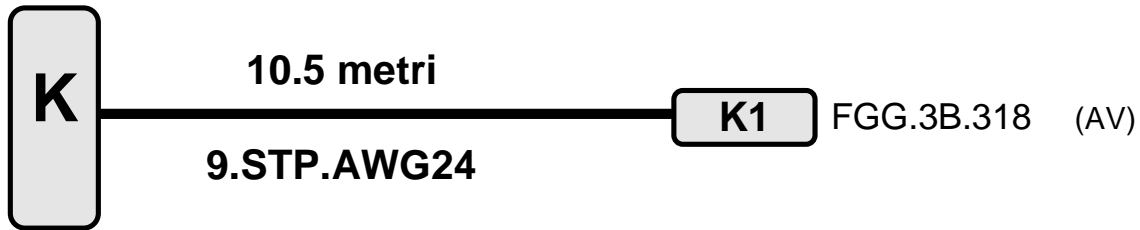
Notes:

Diramare a 120 cm tra J2 e J3;
 Diramare J3 e J4 di 25 cm;
 Scorciare J1 di 120 cm;
 Scorciare J2 di 20 cm.

RST e' il reostato, usato come sensore di posizione dell'hoist.

| MIL-32 contacts | conductors | LEMO contacts | contact description |
|-----------------|------------|---------------|---------------------|
| A | 1.A | J1.1 | F1 + |
| B | 1.B | J1.2 | F1 - |
| C | 1.S | n.c. | |
| D | 2.A | J1.3 | F2 + |
| E | 2.B | J1.4 | F2 - |
| F | 2.S | n.c. | |
| G | 3.A | J1.5 | FC fw |
| H | 3.B | J1.6 | FC bw |
| J | 3.S | J1.7 | FC com |
| K | 4.A | J1.8 | RST |
| L | 4.B | J1.9 | RST |
| M | 4.S | J1.10 | RST com |
| N | 5.A | J2.1 | C+ |
| P | 5.B | J2.2 | C- |
| R | 5.S | n.c. | |
| S | 6.A | J3.1 | C+ |
| T | 6.B | J3.2 | C- |
| U | 6.S | n.c. | |
| V | 7.A | J4.1 | Lp |
| W | 7.B | J4.2 | Lp |
| X | 7.S | n.c. | |
| Y | 8.A | | |
| Z | 8.B | | |
| a | 8.S | | |
| b | 9.A | | |
| c | 9.B | | |
| d | 9.S | | |

cable K (vacuum side)



| Cutting and Stripping phase |
|-----------------------------|
| Date: 22 may 00 |
| Operator: M. Ceccanti |
| Reel: P |

| Crimping and Labeling phase |
|-----------------------------|
| Date: 22 may 00 |
| Operator: M. Ceccanti |
| Duration (hours): 2.5 |

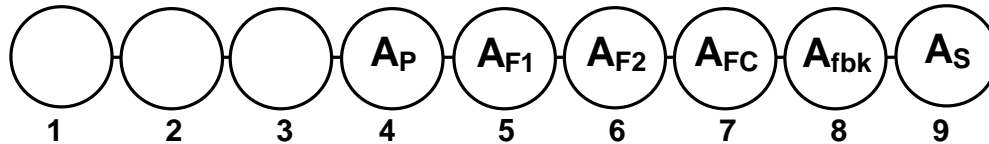
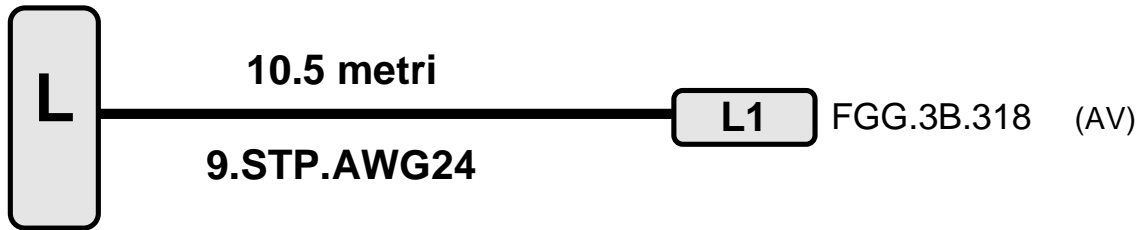
| Quality Control phase |
|-----------------------|
| Date: |
| Operator: |

| Cleaning and Storage phase |
|----------------------------|
| Date: |
| Operator: |

Notes:

| MIL-32 contacts | conductors | LEMO contacts | contact description |
|-----------------|------------|---------------|---------------------|
| A | 1.A | | |
| B | 1.B | | |
| C | 1.S | | |
| D | 2.A | | |
| E | 2.B | | |
| F | 2.S | | |
| G | 3.A | | |
| H | 3.B | | |
| J | 3.S | | |
| K | 4.A | K1.1 | Lp |
| L | 4.B | K1.2 | Lp |
| M | 4.S | K1.3 | |
| N | 5.A | K1.4 | F1 + |
| P | 5.B | K1.5 | F1 - |
| R | 5.S | K1.8 | |
| S | 6.A | K1.6 | F2 + |
| T | 6.B | K1.7 | F2 - |
| U | 6.S | K1.18 | |
| V | 7.A | K1.9 | FC sx |
| W | 7.B | K1.11 | FC dx |
| X | 7.S | K1.10 | FC com |
| Y | 8.A | K1.12 | fbk |
| Z | 8.B | K1.13 | fbk |
| a | 8.S | K1.14 | |
| b | 9.A | K1.15 | Ls |
| c | 9.B | K1.16 | Ls |
| d | 9.S | K1.17 | |

cable L (vacuum side)



| Cutting and Stripping phase |
|-----------------------------|
| Date: 30 may 00 |
| Operator: M. Ceccanti |
| Reel: R |

| Crimping and Labeling phase |
|-----------------------------|
| Date: 30 may 00 |
| Operator: M. Ceccanti |
| Duration (hours): 2.5 |

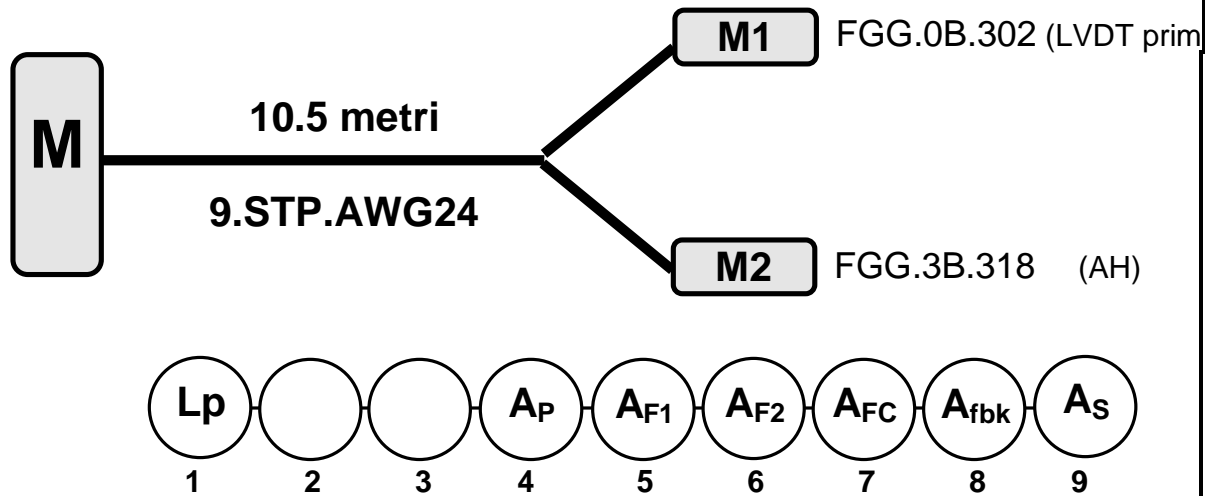
| Quality Control phase |
|-----------------------|
| Date: |
| Operator: |

| Cleaning and Storage phase |
|----------------------------|
| Date: |
| Operator: |

Notes:

| MIL-32 contacts | conductors | LEMO contacts | contact description |
|-----------------|------------|---------------|---------------------|
| A | 1.A | | |
| B | 1.B | | |
| C | 1.S | | |
| D | 2.A | | |
| E | 2.B | | |
| F | 2.S | | |
| G | 3.A | | |
| H | 3.B | | |
| J | 3.S | | |
| K | 4.A | L1.1 | Lp |
| L | 4.B | L1.2 | Lp |
| M | 4.S | L1.3 | |
| N | 5.A | L1.4 | F1 + |
| P | 5.B | L1.5 | F1 - |
| R | 5.S | L1.8 | |
| S | 6.A | L1.6 | F2 + |
| T | 6.B | L1.7 | F2 - |
| U | 6.S | L1.18 | |
| V | 7.A | L1.9 | FC sx |
| W | 7.B | L1.11 | FC dx |
| X | 7.S | L1.10 | FC com |
| Y | 8.A | L1.12 | fbk |
| Z | 8.B | L1.13 | fbk |
| a | 8.S | L1.14 | |
| b | 9.A | L1.15 | Ls |
| c | 9.B | L1.16 | Ls |
| d | 9.S | L1.17 | |

cable M (vacuum side)



| Cutting and Stripping phase |
|-----------------------------|
| Date: 30 may 00 |
| Operator: M. Ceccanti |
| Reel: N |

| Crimping and Labeling phase |
|-----------------------------|
| Date: 30 may 00 |
| Operator: M. Ceccanti |
| Duration (hours): 2.5 |

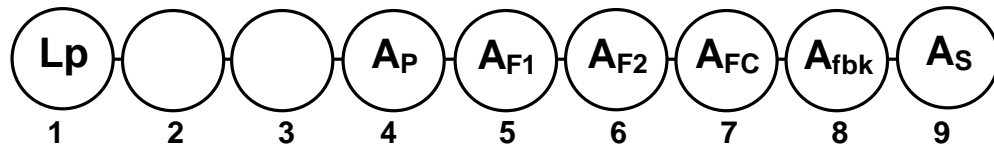
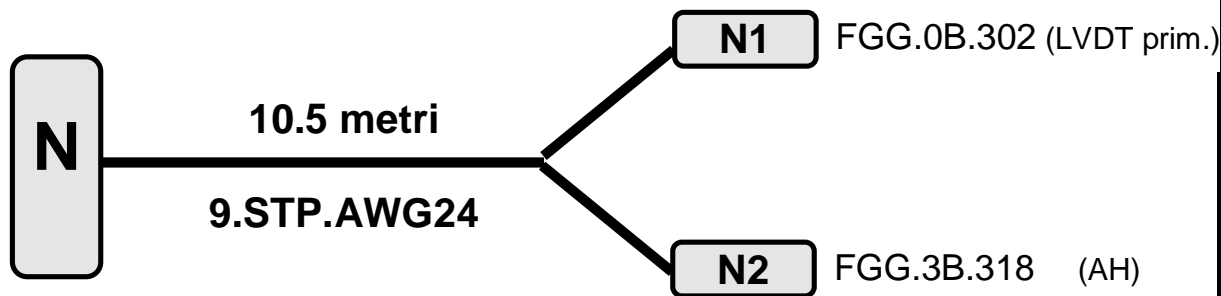
| Quality Control phase |
|-----------------------|
| Date: |
| Operator: |

| Cleaning and Storage phase |
|----------------------------|
| Date: |
| Operator: |

Notes:
Diramare a 60 cm

| MIL-32 contacts | conductors | LEMO contacts | contact description |
|-----------------|------------|---------------|---------------------|
| A | 1.A | M1.1 | Lp |
| B | 1.B | M1.2 | Lp |
| C | 1.S | n.c. | |
| D | 2.A | | |
| E | 2.B | | |
| F | 2.S | | |
| G | 3.A | | |
| H | 3.B | | |
| J | 3.S | | |
| K | 4.A | M2.1 | Lp |
| L | 4.B | M2.2 | Lp |
| M | 4.S | M2.3 | |
| N | 5.A | M2.4 | F1 + |
| P | 5.B | M2.5 | F1 - |
| R | 5.S | M2.8 | |
| S | 6.A | M2.6 | F2 + |
| T | 6.B | M2.7 | F2 - |
| U | 6.S | M2.18 | |
| V | 7.A | M2.9 | FC sx |
| W | 7.B | M2.11 | FC dx |
| X | 7.S | M2.10 | FC com |
| Y | 8.A | M2.12 | fbk |
| Z | 8.B | M2.13 | fbk |
| a | 8.S | M2.14 | |
| b | 9.A | M2.15 | Ls |
| c | 9.B | M2.16 | Ls |
| d | 9.S | M2.17 | |

cable N (vacuum side)



| Cutting and Stripping phase |
|-----------------------------|
| Date: 30 may 00 |
| Operator: M. Ceccanti |
| Reel: N |

| Crimping and Labeling phase |
|-----------------------------|
| Date: 30 may 00 |
| Operator: M. Ceccanti |
| Duration (hours): 2.5 |

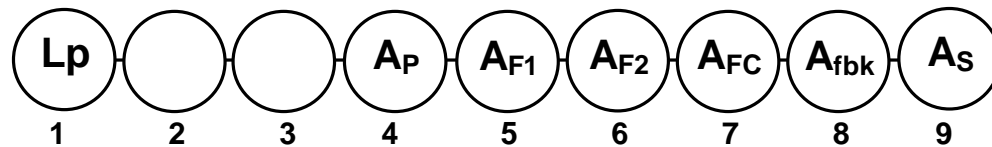
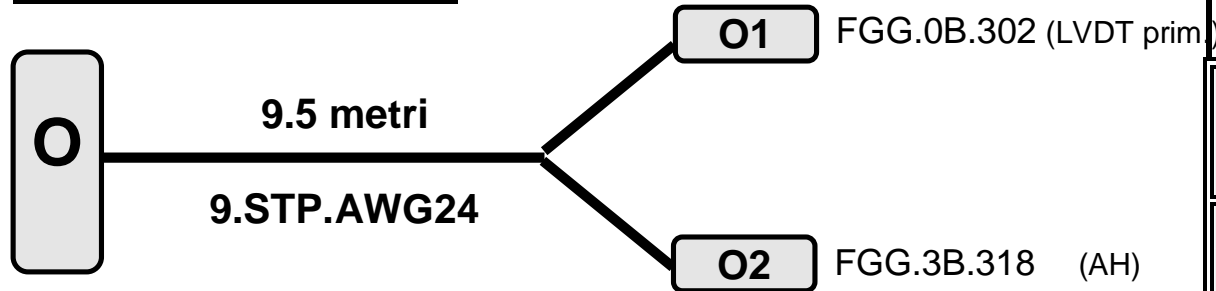
| Quality Control phase |
|-----------------------|
| Date: |
| Operator: |

| Cleaning and Storage phase |
|----------------------------|
| Date: |
| Operator: |

Notes:
Diramare a 60 cm

| MIL-32 contacts | conductors | LEMO contacts | contact description |
|-----------------|------------|---------------|---------------------|
| A | 1.A | N1.1 | Lp |
| B | 1.B | N1.2 | Lp |
| C | 1.S | n.c. | |
| D | 2.A | | |
| E | 2.B | | |
| F | 2.S | | |
| G | 3.A | | |
| H | 3.B | | |
| J | 3.S | | |
| K | 4.A | N2.1 | Lp |
| L | 4.B | N2.2 | Lp |
| M | 4.S | N2.3 | |
| N | 5.A | N2.4 | F1 + |
| P | 5.B | N2.5 | F1 - |
| R | 5.S | N2.8 | |
| S | 6.A | N2.6 | F2 + |
| T | 6.B | N2.7 | F2 - |
| U | 6.S | N2.18 | |
| V | 7.A | N2.9 | FC sx |
| W | 7.B | N2.11 | FC dx |
| X | 7.S | N2.10 | FC com |
| Y | 8.A | N2.12 | fbk |
| Z | 8.B | N2.13 | fbk |
| a | 8.S | N2.14 | |
| b | 9.A | N2.15 | Ls |
| c | 9.B | N2.16 | Ls |
| d | 9.S | N2.17 | |

cable O (vacuum side)



| Cutting and Stripping phase |
|-----------------------------|
| Date: 30 may 00 |
| Operator: M. Ceccanti |
| Reel: N |

| Crimping and Labeling phase |
|-----------------------------|
| Date: 30 may 00 |
| Operator: M. Ceccanti |
| Duration (hours): 2.5 |

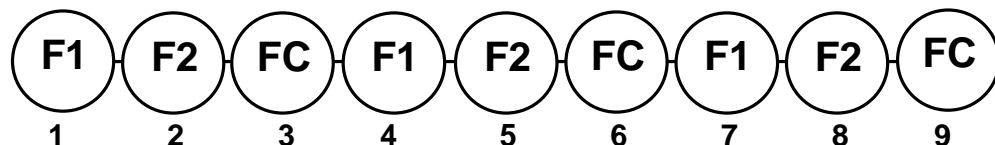
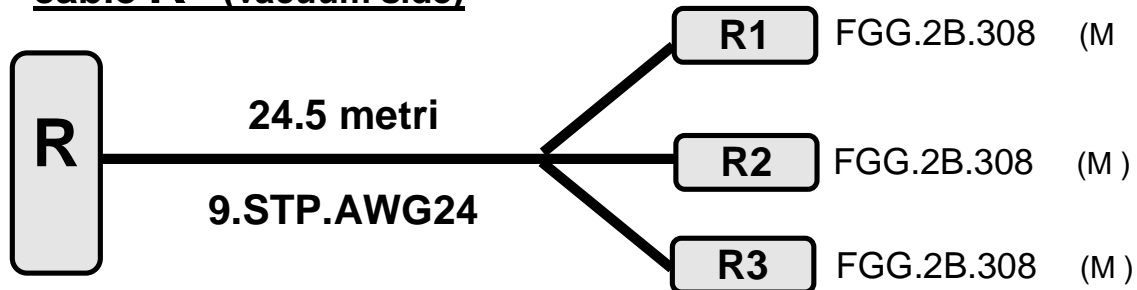
| Quality Control phase |
|-----------------------|
| Date: |
| Operator: |

| Cleaning and Storage phase |
|----------------------------|
| Date: |
| Operator: |

Notes:
Diramare a 60 cm

| MIL-32 contacts | conductors | LEMO contacts | contact description |
|-----------------|------------|---------------|---------------------|
| A | 1.A | O1.1 | Lp |
| B | 1.B | O1.2 | Lp |
| C | 1.S | n.c. | |
| D | 2.A | | |
| E | 2.B | | |
| F | 2.S | | |
| G | 3.A | | |
| H | 3.B | | |
| J | 3.S | | |
| K | 4.A | O2.1 | Lp |
| L | 4.B | O2.2 | Lp |
| M | 4.S | O2.3 | |
| N | 5.A | O2.4 | F1 + |
| P | 5.B | O2.5 | F1 - |
| R | 5.S | O2.8 | |
| S | 6.A | O2.6 | F2 + |
| T | 6.B | O2.7 | F2 - |
| U | 6.S | O2.18 | |
| V | 7.A | O2.9 | FC sx |
| W | 7.B | O2.11 | FC dx |
| X | 7.S | O2.10 | FC com |
| Y | 8.A | O2.12 | fbk |
| Z | 8.B | O2.13 | fbk |
| a | 8.S | O2.14 | |
| b | 9.A | O2.15 | Ls |
| c | 9.B | O2.16 | Ls |
| d | 9.S | O2.17 | |

cable R (vacuum side)



| Cutting and Stripping phase | |
|-----------------------------|-------------|
| Date: | 31 may 00 |
| Operator: | M. Ceccanti |
| Reel: | R |

| Crimping and Labeling phase | |
|-----------------------------|-------------|
| Date: | 31 may 00 |
| Operator: | M. Ceccanti |
| Duration (hours): | 2.5 |

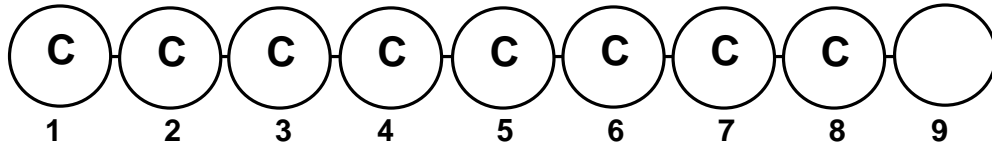
| Quality Control phase | |
|-----------------------|--|
| Date: | |
| Operator: | |

| Cleaning and Storage phase | |
|----------------------------|--|
| Date: | |
| Operator: | |

Notes:
Diramare a 80 cm

| MIL-32 contacts | conductors | LEMO contacts | contact description |
|-----------------|------------|---------------|---------------------|
| A | 1.A | R1.1 | F1 + |
| B | 1.B | R1.2 | F1 - |
| C | 1.S | n.c. | |
| D | 2.A | R1.3 | F2 + |
| E | 2.B | R1.4 | F2 - |
| F | 2.S | n.c. | |
| G | 3.A | R1.5 | FC fw |
| H | 3.B | R1.6 | FC bw |
| J | 3.S | R1.7 | FC com |
| K | 4.A | R2.1 | F1 + |
| L | 4.B | R2.2 | F1 - |
| M | 4.S | n.c. | |
| N | 5.A | R2.3 | F2 + |
| P | 5.B | R2.4 | F2 - |
| R | 5.S | n.c. | |
| S | 6.A | R2.5 | FC fw |
| T | 6.B | R2.6 | FC bw |
| U | 6.S | R2.7 | FC com |
| V | 7.A | R3.1 | F1 + |
| W | 7.B | R3.2 | F1 - |
| X | 7.S | n.c. | |
| Y | 8.A | R3.3 | F2 + |
| Z | 8.B | R3.4 | F2 - |
| a | 8.S | n.c. | |
| b | 9.A | R3.5 | FC fw |
| c | 9.B | R3.6 | FC bw |
| d | 9.S | R3.7 | FC com |

cable S (vacuum side)



| Cutting and Stripping phase | |
|-----------------------------|-------------|
| Date: | 10 april 00 |
| Operator: | M. Ceccanti |
| Reel: | P |

| Crimping and Labeling phase | |
|-----------------------------|-------------|
| Date: | 10 april 00 |
| Operator: | M. Ceccanti |
| Duration (hours): | 3 |

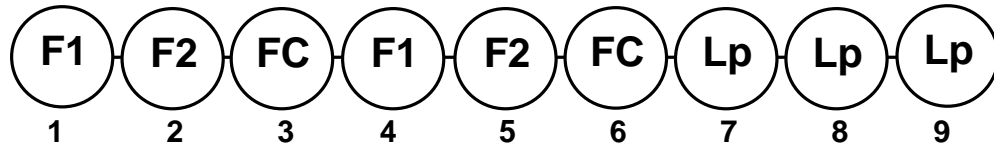
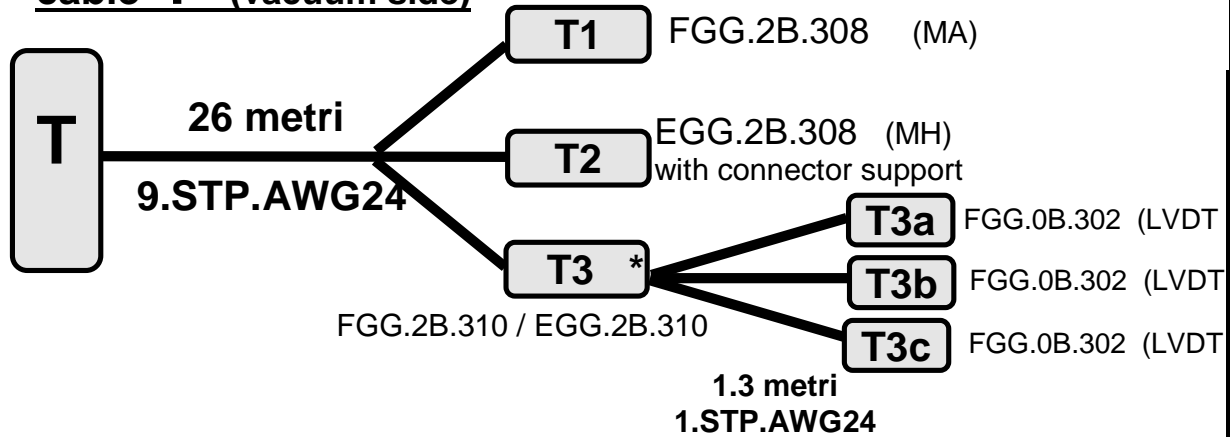
| Quality Control phase | |
|-----------------------|-------------|
| Date: | 10 april 00 |
| Operator: | M. Ceccanti |

| Cleaning and Storage phase | |
|----------------------------|--|
| Date: | |
| Operator: | |

Notes:
 Diramare a 180 cm;
 Ponticelli su MIL-32.

| MIL-32 contacts | conductors | LEMO contacts | contact description |
|-----------------|------------|---------------|---------------------|
| A ← | 1.A | S1.1 | C + |
| B ← | 1.B | S1.2 | C - |
| C ← | 1.S | n.c. | |
| D ← | 2.A | S1.1 | C + |
| E ← | 2.B | S1.2 | C - |
| F ← | 2.S | n.c. | |
| G ← | 3.A | S2.1 | C + |
| H ← | 3.B | S2.2 | C - |
| J ← | 3.S | n.c. | |
| K ← | 4.A | S2.1 | C + |
| L ← | 4.B | S2.2 | C - |
| M ← | 4.S | n.c. | |
| N ← | 5.A | S3.1 | C + |
| P ← | 5.B | S3.2 | C - |
| R ← | 5.S | n.c. | |
| S ← | 6.A | S3.1 | C + |
| T ← | 6.B | S3.2 | C - |
| U ← | 6.S | n.c. | |
| V ← | 7.A | S4.1 | C + |
| W ← | 7.B | S4.2 | C - |
| X ← | 7.S | n.c. | |
| Y ← | 8.A | S4.1 | C + |
| Z ← | 8.B | S4.2 | C - |
| a | 8.S | n.c. | |
| b | 9.A | | |
| c | 9.B | | |
| d | 9.S | | |

cable T (vacuum side)



| Cutting and Stripping phase |
|------------------------------|
| Date: 10 april 00 |
| Operator: <i>M. Ceccanti</i> |
| Reel: O |

| Crimping and Labeling phase |
|------------------------------|
| Date: 10 april 00 |
| Operator: <i>M. Ceccanti</i> |
| Duration (hours): 2.5 |

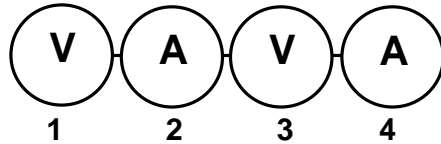
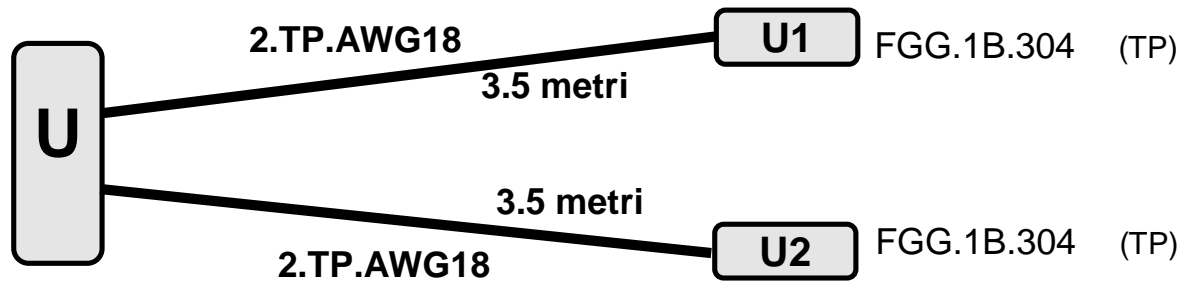
| Quality Control phase |
|------------------------------|
| Date: 10 april 00 |
| Operator: <i>M. Ceccanti</i> |

| Cleaning and Storage phase |
|------------------------------|
| Date: |
| Operator: <i>M. Ceccanti</i> |

| Notes: |
|-------------------------------------|
| Diramare a 30 cm |
| * Updated during June 03 (by Nenci) |

| MIL-32 contacts | conductors | LEMO contacts | contact description | |
|-----------------|------------|---------------|---------------------|------|
| A | 1.A | T1.1 | F1 + | |
| B | 1.B | T1.2 | F1 - | |
| C | 1.S | n.c. | | |
| D | 2.A | T1.3 | F2 + | |
| E | 2.B | T1.4 | F2 - | |
| F | 2.S | n.c. | | |
| G | 3.A | T1.5 | FC fw | |
| H | 3.B | T1.6 | FC bw | |
| J | 3.S | T1.7 | FC com | |
| K | 4.A | T2.1 | F1 + | |
| L | 4.B | T2.2 | F1 - | |
| M | 4.S | n.c. | | |
| N | 5.A | T2.3 | F2 + | |
| P | 5.B | T2.4 | F2 - | |
| R | 5.S | n.c. | | |
| S | 6.A | T2.5 | FC fw | |
| T | 6.B | T2.6 | FC bw | |
| U | 6.S | T2.7 | FC com | |
| V | 7.A | T3.1 | T3a.1 | Lp * |
| W | 7.B | T3.2 | T3a.2 | Lp * |
| X | 7.S | T3.3 | | |
| Y | 8.A | T3.4 | T3b.1 | Lp * |
| Z | 8.B | T3.5 | T3b.2 | Lp * |
| a | 8.S | T3.6 | | |
| b | 9.A | T3.7 | T3c.1 | Lp * |
| c | 9.B | T3.8 | T3c.2 | Lp * |
| d | 9.S | T3.9 | | |

cable U (vacuum side)



| Cutting and Stripping phase |
|--------------------------------------|
| Date: |
| Operator: <i>Dattilo, Gherardini</i> |
| Reel: |

| Crimping and Labeling phase |
|--------------------------------------|
| Date: <i>24-feb 2010, 4 mar 2010</i> |
| Operator: <i>Gherardini, Dattilo</i> |
| Duration (hours): |

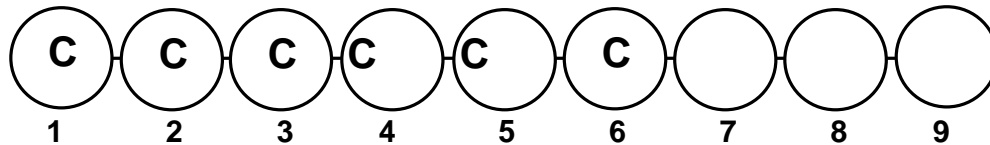
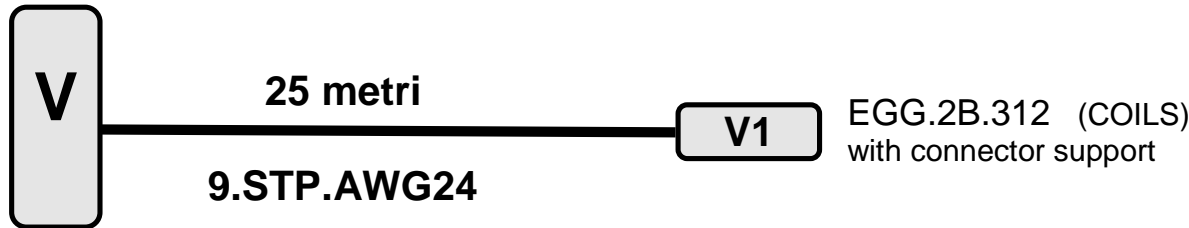
| Quality Control phase |
|--------------------------------------|
| Date: <i>4 mar 2010</i> |
| Operator: <i>Dattilo, Gherardini</i> |

| Cleaning and Storage phase |
|-----------------------------|
| Date: <i>4 mar 2010</i> |
| Operator: <i>Gherardini</i> |

Notes:
 Cavo in Pyre-ML
 V_H = Voltmetric High, A_H = Amperometric High, etc.

| MIL-32 contacts | conductors | LEMO contacts | contact description |
|-----------------|------------|---------------|---------------------|
| A | 1.A | U1.1 | V _H |
| B | 1.B | U1.2 | V _L |
| C | 2.A | U1.3 | A _L |
| D | 2.B | U1.4 | A _H |
| E | 3.A | U2.1 | V _H |
| F | 3.B | U2.2 | V _L |
| G | 4.A | U2.3 | A _L |
| H | 4.B | U2.4 | A _H |
| I | | | |
| J | | | |
| K | | | |
| L | | | |
| M | | | |
| N | | | |
| P | | | |
| Q | | | |
| R | | | |
| S | | | |
| T | | | |
| U | | | |
| V | | | |
| W | | | |
| X | | | |
| Y | | | |
| Z | | | |
| A | | | |
| b | | | |
| c | | | |
| d | | | |

cable V (vacuum side)



| Cutting and Stripping phase |
|------------------------------|
| Date: 10 april 00 |
| Operator: <i>M. Ceccanti</i> |
| Reel: <i>P</i> |

| Crimping and Labeling phase |
|------------------------------|
| Date: 10 april 00 |
| Operator: <i>M. Ceccanti</i> |
| Duration (hours): 2.5 |

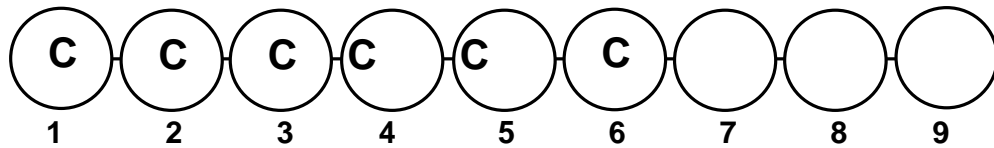
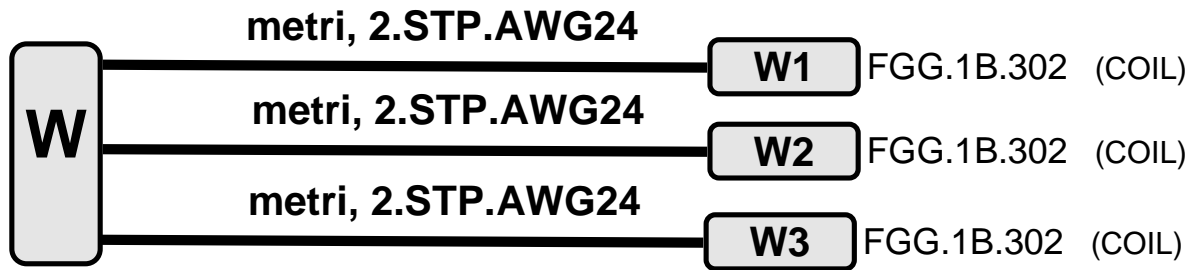
| Quality Control phase |
|------------------------------|
| Date: 10 april 00 |
| Operator: <i>M. Ceccanti</i> |

| Cleaning and Storage phase |
|----------------------------|
| Date: |
| Operator: |

Notes:

| MIL-32 contacts | conductors | LEMO contacts | contact description |
|-----------------|------------|---------------|---------------------|
| A | 1.A | V1.1 | C + |
| B | 1.B | V1.2 | C - |
| C | 1.S | n.c. | |
| D | 2.A | V1.3 | C + |
| E | 2.B | V1.4 | C - |
| F | 2.S | n.c. | |
| G | 3.A | V1.5 | C + |
| H | 3.B | V1.6 | C - |
| J | 3.S | n.c. | |
| K | 4.A | V1.7 | C + |
| L | 4.B | V1.8 | C - |
| M | 4.S | n.c. | |
| N | 5.A | V1.9 | C + |
| P | 5.B | V1.10 | C - |
| R | 5.S | n.c. | |
| S | 6.A | V1.11 | C + |
| T | 6.B | V1.12 | C - |
| U | 6.S | n.c. | |
| V | 7.A | | |
| W | 7.B | | |
| X | 7.S | | |
| Y | 8.A | | |
| Z | 8.B | | |
| a | 8.S | | |
| b | 9.A | | |
| c | 9.B | | |
| d | 9.S | | |

cable W (vacuum side)



| Cutting and Stripping phase |
|-----------------------------|
| Date: <i>June . 03</i> |
| Operator: <i>Nenci</i> |
| Reel: |

| Crimping and Labeling phase |
|-----------------------------|
| Date: <i>June 03</i> |
| Operator: <i>Nenci</i> |
| Duration (hours): |

| Quality Control phase |
|------------------------|
| Date: <i>June . 03</i> |
| Operator: <i>Nenci</i> |

| Cleaning and Storage phase |
|----------------------------|
| Date: |
| Operator: |

| Notes: |
|-----------------------|
| Ponticelli su MIL-32. |

| MIL-32 contacts | conductors | LEMO contacts | contact description |
|-----------------|------------|---------------|---------------------|
| A ← | 1.A | W1.1 | C + |
| B ← | 1.B | W1.2 | C - |
| C ← | 1.S | n.c. | |
| D ← | 2.A | W1.1 | C + |
| E ← | 2.B | W1.2 | C - |
| F ← | 2.S | n.c. | |
| G ← | 3.A | W2.1 | C + |
| H ← | 3.B | W2.2 | C - |
| J ← | 3.S | n.c. | |
| K ← | 4.A | W2.1 | C + |
| L ← | 4.B | W2.2 | C - |
| M ← | 4.S | n.c. | |
| N ← | 5.A | W3.1 | C + |
| P ← | 5.B | W3.2 | C - |
| R ← | 5.S | n.c. | |
| S ← | 6.A | W3.1 | C + |
| T ← | 6.B | W3.2 | C - |
| U ← | 6.S | n.c. | |
| V | | | |
| W | | | |
| X | | | |
| Y | | | |
| Z | | | |
| a | | | |
| b | | | |
| c | | | |
| d | | | |

cable X (vacuum side)



| Cutting and Stripping phase |
|--------------------------------------|
| Date: |
| Operator: <i>Dattilo, Gherardini</i> |
| Reel: |

| Crimping and Labeling phase |
|--------------------------------------|
| Date: |
| Operator: <i>Dattilo, Gherardini</i> |
| Duration (hours): |

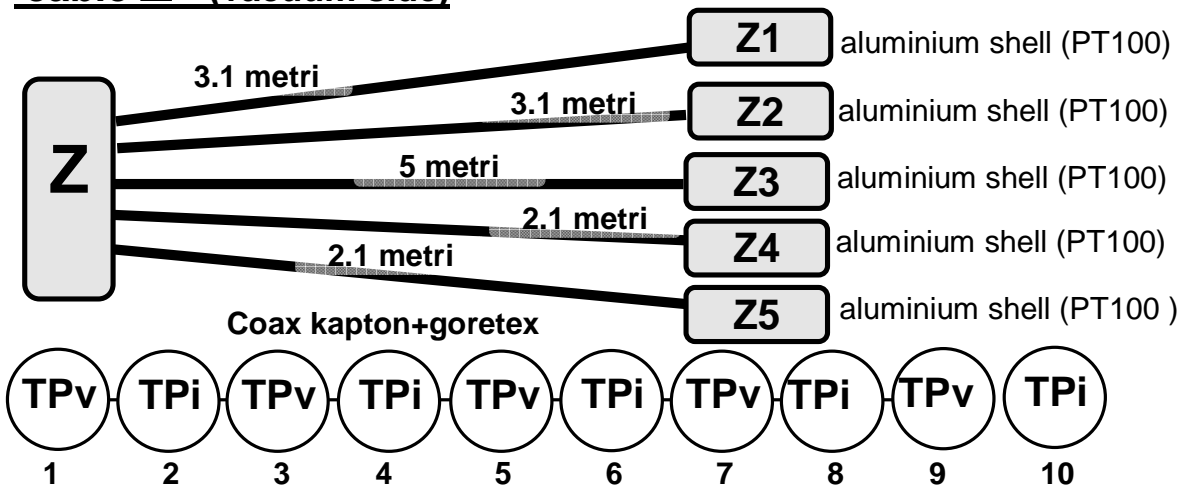
| Quality Control phase |
|--------------------------------------|
| Date: |
| Operator: <i>Dattilo, Gherardini</i> |

| Cleaning and Storage phase |
|--------------------------------------|
| Date: |
| Operator: <i>Dattilo, Gherardini</i> |

Notes:
 I conduttori dei cavi TP e TT vanno identificati utilizzando il tester

| MIL-32 contacts | conductors | LEMO contacts | contact description |
|-----------------|------------|---------------|---------------------|
| A | 1.A | X1.1 | F1 + |
| B | 1.B | X1.2 | F1 - |
| C | 2.A | X1.3 | F2 + |
| D | 2.B | X1.4 | F2 - |
| E | 3.A | X1.5 | FC fw |
| F | 3.B | X1.6 | FC bw |
| G | 3.C | X1.7 | FC com |
| H | 4.A | X2.1 | F1 + |
| J | 4.B | X2.2 | F1 - |
| K | 5.A | X2.3 | F2 + |
| L | 5.B | X2.4 | F2 - |
| M | 6.A | X2.5 | FC fw |
| N | 6.B | X2.6 | FC bw |
| P | 6.C | X2.7 | FC com |
| R | 7.A | X3.1 | F1 + |
| S | 7.B | X3.2 | F1 - |
| T | 8.A | X3.3 | F2 + |
| U | 8.B | X3.4 | F2 - |
| V | 9.A | X3.5 | FC fw |
| W | 9.B | X3.6 | FC bw |
| X | 9.C | X3.7 | FC com |
| Y | | | |
| Z | | | |
| a | | | |
| b | | | |
| c | | | |
| d | | | |

cable Z (vacuum side)



| Cutting and Stripping phase |
|-----------------------------|
| Date: 11 oct 00 |
| Operator: M. Ceccanti |
| Reel: |

| Crimping and Labeling phase |
|-----------------------------|
| Date: 11 oct 00 |
| Operator: M. Ceccanti |
| Duration (hours): 2 |

| Quality Control phase |
|-----------------------------------|
| Date: 11 oct 00, 17 oct 00 |
| Operator: M. Ceccanti, V. Dattilo |

| Cleaning and Storage phase |
|----------------------------|
| Date: 11 oct 00 |
| Operator: M. Ceccanti |

Notes:
 Per questo cavo si intende come conduttore A il centrale (core) del coassiale e per conduttore B la calza (shield) del coassiale; quindi il conduttore S non esiste per il cavo in vuoto, ma solo per quello in aria.

Pinout

A_H — V_H — [PT100] — V_L — A_L

| MIL-32 contacts | conductors | TP package | contact description |
|-----------------|-------------------|------------|---------------------|
| A | 1.A (coax core) | Z1 | V _H |
| B | 1.B (coax shield) | Z1 | V _L |
| C | | n.c. | A _H |
| D | | n.c. | A _L |
| E | 2.A (coax core) | Z2 | V _H |
| F | 2.B (coax shield) | Z2 | V _L |
| G | | n.c. | A _H |
| H | | n.c. | A _L |
| J | 3.A (coax core) | Z3 | V _H |
| K | 3.B (coax shield) | Z3 | V _L |
| L | | n.c. | A _H |
| M | | n.c. | A _L |
| N | 4.A (coax core) | Z4 | V _H |
| P | 4.B (coax shield) | Z4 | V _L |
| R | | Z4 | A _H |
| S | | Z4 | A _L |
| T | 5.A (coax core) | Z5 | V _H |
| U | 5.B (coax shield) | Z5 | V _L |
| V | | Z5 | A _H |
| W | | Z5 | A _L |
| X | | | |
| Y | | | |
| Z | | | |
| a | | | |
| b | | | |
| c | | | |
| d | | | |