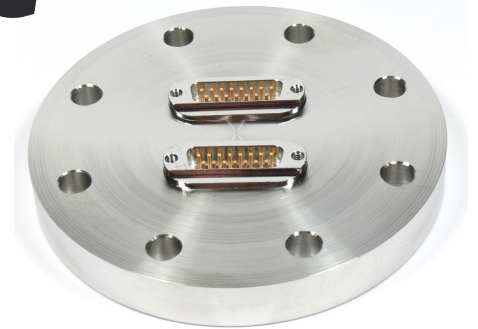


High Current Standard Sub-D Feedthroughs -210-Dxx-Cxx-HC and related products



A new pin technology allows now to use standard Sub-D feedthroughs for significant higher current ratings. The continuous current per pin is doubled: Up to 6A (all pins loaded) is now specified. For short periods, up to 10A per pin can be used.

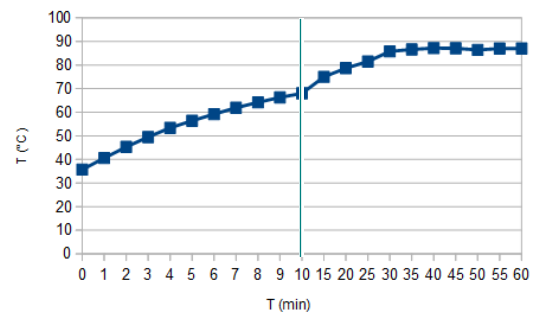
Special Crimp pins and a new, thicker in vacuum cable allow this new feature. So Allectra offers a full solution for multipin feedthroughs up to 6A /10A

Specifications Feedthroughs, connectors and cable

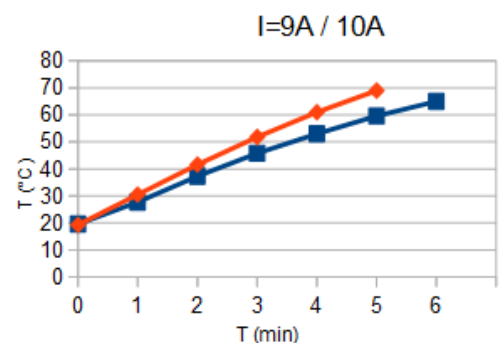
FEEDTHROUGHS	
Versions	Sub-D 9 / 15 /25 /37 50 pin according DIN41652, MIL-C-24308
Vacuum range	UHV, 10^{-10} mbar
Leak rate	5×10^{-10} mbar l/s He (individually tested)
Temp. range	-200°C ... 230°C
Test Voltage	500V DC (individually tested)
Current rating	6A continuous, up to 10A for 5 min. (with HC-Pins and 1.3mm \varnothing cable)
CRIMP PINS	
Art. No.	212-PINF-25-HC (25 off female pins) 212-PINM-25-HC (25 off male pins) (packs with 10 / 15 / 25 pins are available)
Compatible	fit into all vacuum housings
Max. cable diameter	1.3 mm
Type	Crimp pin, solder possible
CABLE	
Art. No.	301-KAPM-130-10M (10m spool) other lengths on request
Conductor	1,3mm \varnothing multi-strand wire (19x0.25mm) Silver plated copper, Kapton insulation
Radiation resistant	YES 10^9 rad
AIR SIDE CONNECTORS	
Rated up to 7.5 A	211-FSxx-AIR-HC (xx= 09/15/25/37/50)

2x High Current (HC) 15-pin Feedthroughs on a 63CF flange

With 30 pins, these feedthroughs can transport 180A continuously or up to 300A for a short time into the vacuum system



Temperature measured on a 25-pin Sub-D HC f/t at 7A (all pins loaded, so 175A in total). The max. reached temperature stays below 90°C.



Temperature versus time with 9 A (blue) and 10A (red) current per pin, all pins loaded.

All tests were done at room temperature of ~20°C

Cable and crimp pins can be used with standard feedthroughs as well without problem!

File: 210-Sub-D-HC Last revised 2024-04-04
All data given in this sheet are carefully checked but subject to change at any time.



Short form product list

All components are available on KF / ISO Flanges as well.
More versions are available, please ask for a quote.

Art. Nr.	Description	
FEEDTHROUGHS		
210-D09-C40-HC	9 pin Sub-D HC feedthrough on DN40 CF Flange	
210-D15-C40-HC	15 pin Sub-D HC feedthrough on DN40 CF Flange	
210-D25-C63-HC	25 pin Sub-D HC feedthrough on DN63 CF Flange	
210-D50-C63-HC	50 pin Sub-D HC feedthrough on DN63 CF Flange	
210-D37-C100-HC	37 pin Sub-D HC feedthrough on DN100 CF Flange	
210-D50-C100-HC	50 pin Sub-D HC feedthrough on DN100 CF Flange	
PINS		
212-PINF-10-HC	10 off female crimp pins for up to 1.3mm ø cable	
212-PINF-25-HC	25 off female crimp pins for up to 1.3mm ø cable	
212-PINM-10-HC	10 off male crimp pins for up to 1.3mm ø cable	
212-PINM-25-HC	25 off male crimp pins for up to 1.3mm ø cable	
Housings PEEK (for other materials see catalogue)		
211-FS09-PK	9 pin Sub-D UHV PEEK connector	
211-FS15-PK	15 pin Sub-D UHV PEEK connector	
211-FS25-PK	25 pin Sub-D UHV PEEK connector	
211-FS37-PK	37 pin Sub-D UHV PEEK connector	
211-FS50-PK	50 pin Sub-D UHV PEEK connector	
WIRE		
301-KAPM-130-5m	1.3mm ø multistrand silver plated copper wire, Kapton insulated, radiation resistant up to 10 ⁹ rad, 5m spool	
301-KAPM-130-10m	as above, 10m spool	
AIR SIDE CONNECTORS 7.5A		
211-FS09-AIR-HC	9-pin Sub-D air side connector, solder pins, rated to 7.5A	
211-FS15-AIR-HC	15-pin Sub-D air side connector, solder pins, rated to 7.5A	
211-FS25-AIR-HC	25-pin Sub-D air side connector, solder pins, rated to 7.5A	
211-FS37-AIR-HC	37-pin Sub-D air side connector, solder pins, rated to 7.5A	
211-FS50-AIR-HC	50-pin Sub-D air side connector, solder pins, rated to 7.5A	