

## 220-M12 feedthroughs

(preliminary version of data sheet)



M12 connectors are very common for industrial automation and sensor applications.

Allectra offers this type now as a UHV feedthrough including UHV compatible connector. For less demanding applications, HV and standard connectors can be used on both sides.



Complete Set: UHV connector, feedthrough on CF16 flange and air side connector

### Specifications

Feedthrough	Value
Number of Pins	4
Voltage rating	250V
Test Voltage	500V DC (Pin to Ground)
Max current	3A
Vacuum	UHV ( $10^{-10}$ mbar and below)
Temp.	-200° ... +230°C
UHV connector	Value
Materials	SS, PEEK, Alu with Gold plated CuBe Pins
Cable connection	Crimp, max. $\varnothing$ 1.0mm
Temp.	-200° ... +230°C
Dimensions	15.5mm $\varnothing$ , 16mm long
HV connector	Value
Materials	Ni plated Zinc diecast, PA
Cable connection	Screw, max. 0.75mm <sup>2</sup>
Temp.	-25° ... +85°C
Vacuum range	$\sim 10^{-6}$ mbar
Dimensions	20mm $\varnothing$ , 58mm long

Additional notes:

For air side use, Allectra offers Quick Disconnect cables, which need only a 90° turn of the nut to be secured.

Allectra recommends the shielded double twisted pair wire 311-KAPM-060-PAIR2 to be used with this feedthrough



M12 feedthrough, seen from the vacuum side, with connectors. The UHV connector has a reduced OD, so it fits through a DN16 flange



Connector for High Vacuum use, down to  $10^{-6}$  mbar

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All data given in this sheet are carefully checked but subject to change at any time.

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Part codes:

<b>Feedthrough Type</b>	<b>Part Code</b>
1x M12 on DN16CF	220-M12x4-C16
1x M12 on DN40CF	220-M12x4-C40
2x M12 on 40CF	220-M12x4-C40-2
1x M12 on 25KF	220-M12x4-K25
1x M12 on 40KF	220-M12x4-K40
2x M12 on 50KF	220-M12x4-K50-2
Other versions available on request, including combinations with other feedthrough types	
<b>Connectors</b>	<b>Part Code</b>
UHV connector	220-CON-M12x4-UHV
HV connector	220-CON-M12x4-HV
Quick Disconnect connector, straight, with 5m of cable	220-CAB-M12X4-AIR-5M
Quick Disconnect connector, 90°, with 5m of cable	220-CAB-M12X4-AIR90-5M
<b>SETS</b>	<b>Part Code</b>
Straight air side cable, CF16 f/t, UHV connector	220-M12x4-SET-C16
90° air side cable, CF16 f/t, UHV connector	220-M12x4-SET90-C16
Straight air side cable, KF25 f/t, HV connector	220-M12x4-SET-K25
90° air side cable, KF25 f/t, HV connector	220-M12x4-SET90-K25

Allectra offers also ready made cables according your requirements. Depending on the application, either 4 discrete wires (e.g. 311-KAPM-075), 4-wire ribbon cable (311-KAP-RIB4) or shielded 2x twisted pair cable (311-KAPM-060-PAIR2) can be used.