

220-M12 feedthroughs



M12 connectors are very common for industrial automation and sensor applications. The type is standardized by DIN EN 61076-101

Allectra offers this type now as a UHV feedthrough including UHV compatible connectors. 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, Gold plated CuBe Pins
Cable connection	Crimp, max. \varnothing 1.0mm (solder possible)
Temp.	-200° ... +230°C
Dimensions	15.5mm \varnothing , 16mm long
Pin Type used	220-CM-PINF-10 (4 off included)
HV connector	Value
Materials	Ni plated Zinc diecast, PA
Cable connection	Screw, max. 0.75mm ²
Temp.	-25° ... +85°C
Vacuum range	$\sim 10^{-6}$ mbar
Dimensions	20mm \varnothing , 58mm long



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

Additional notes:

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

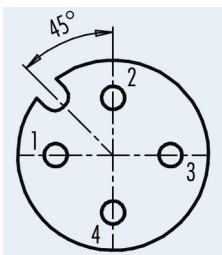
Allectra recommends the shielded double twisted pair wire 301-KAPM-060-PAIR2 to be used with this feedthrough. All other types up to 1mm \varnothing can be used as well.

File: 220-M12-E Last revised 2020-05-12
All data given in this sheet are carefully checked but subject to change at any time.

Part codes:

Feedthrough Type	Part Code
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	
Connectors	Part Code
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
Spare pins, female, pack of 10	220-CM-PINF-10
SETS	Part Code
Straight air side cable 5m, CF16 f/t, UHV connector	220-M12x4-SET-C16
90° air side cable 5m, CF16 f/t, UHV connector	220-M12x4-SET90-C16
Straight air side cable 5m, KF25 f/t, HV connector	220-M12x4-SET-K25
90° air side cable 5m, 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.



Allectra offers as standard the A-coded version. For other coding please contact our office