



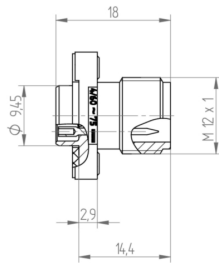
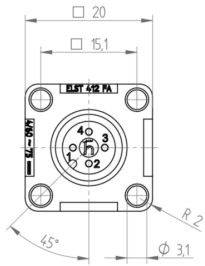
**Product:** [ECM 412 FA](#)

M12 Standard Sensor/Actuator Receptacle Connector: Male, flange mount, M12 - mating side, solder contacts - connecting side, 4-pin, A-coded, unshielded, grey body, 150 V AC/DC, 4 A

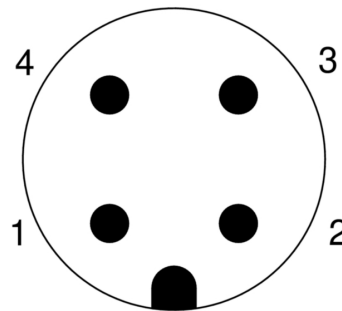
### Product Description

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### Technical Drawing



Male



### Technical Specifications

#### Technical Data

Product Family:	Sensor / Actuator Connectors
Product Sub Family:	M12 Standard
Mating Side:	M12
Connecting Side:	Solder Contacts
Brand:	Hirschmann
Connector Type:	Receptacle
Type of Contact / Gender:	Male
Connector Design:	Flange Mount
Number of Pins:	4
Coding:	A
Attachment Type:	Screw-Locking
Rated Voltage:	150 V
Rated Impulse Voltage:	1.5 kV
Operating Voltage:	150 V AC/DC
Rated Current*:	4 A
Contact Resistance:	≤ 10 mOhm
Insulation Resistance:	> 10 <sup>9</sup> Ohm
Mating Cycles:	≤ 100
Type of Connection:	Solder

Suitable Conductor Cross Section:	Solid wires: 0.22 mm <sup>2</sup> to 0.5 mm <sup>2</sup> / Standed wires: 0.22 mm <sup>2</sup> to 0.38 mm <sup>2</sup>
Ambient Temperature (Operation)*:	- 25 °C - + 90 °C
Protection Degree / IP Rating**:	IP65, IP67, IP68 (1 m / 24 h)
Design Standard:	In style of IEC 61076-2-101
Pollution Degree:	3 acc. to DIN EN 60664-1 (VDE 0110-1)
Clearance / Creepage Distance:	DIN EN 60664-1 (2008/01); VDE 0110-1
Overvoltage Category:	II acc. to DIN EN 60664-1 (VDE 0110-1)

## Materials

Contact Base Material:	CuZn
Contact Plating:	Cu/Au
Contact Bearer Material:	PA
Contact Bearer Color:	Grey
Flammability Class (Contact Bearer):	UL 94 V-2
Potted:	No
Attachment Material:	PA
O-Ring Material:	NBR

## Additional Technical Data

Fastening Torque (Attachment):	M 12x1: (50-60) Ncm, hand-tight
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## Safety & Environmental Compliance

RoHS Compliant:	yes
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## Notes

Note Derating:	* Notice derating
Protection Degree / IP Rating Note:	* only if mounted and locked in combination with Hirschmann / Lumberg connector. On the installation side tightness has to be assured by taking proper measures.
Note:	The receptacle connector is constructively intended for usage in IP67 and IP68-products. To realise this protection class, the estimated location has to be designed accordingly. Further details see IEC 61076-2-101.

## Variants

Item #	Item Description
934164106	ECM 412 FA

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