

## M12 CIRCULAR CONNECTORS

### ● GENERAL FEATURES OF MOULDED CONNECTORS:

**Conductor cross section :**  
0,08(28AWG)...0,75mm<sup>2</sup>(18AWG).

**Contact material and treatment :**  
Brass + Gold flash.

**Protection class :**  
IP67/IP69K.

**Fixing system :**  
M12 coupling nut.

**Housing material :**  
Polyurethane.

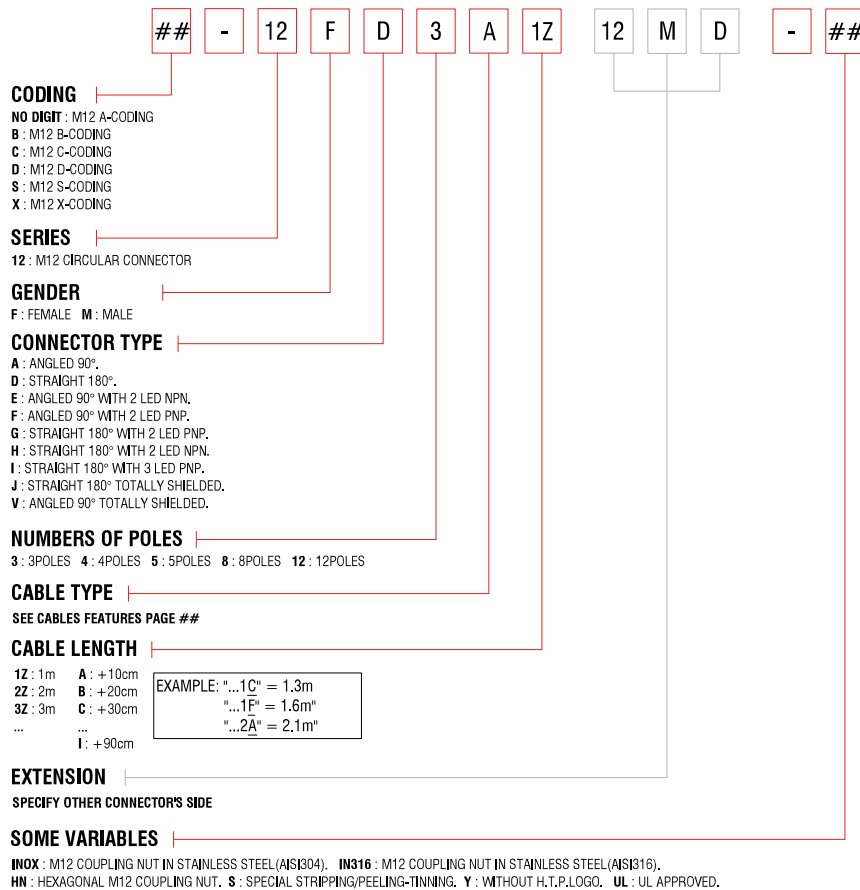
**Operating temperature :**  
-25°C +90°C.

**Max. screw torque IEC60947-1**  
M12 coupling nut torque 0,4N\*m

**Internal core material :**  
PA66.

**Type of terminations :**  
Crimped wires,  
Solder wires (8 poles - 12 poles).

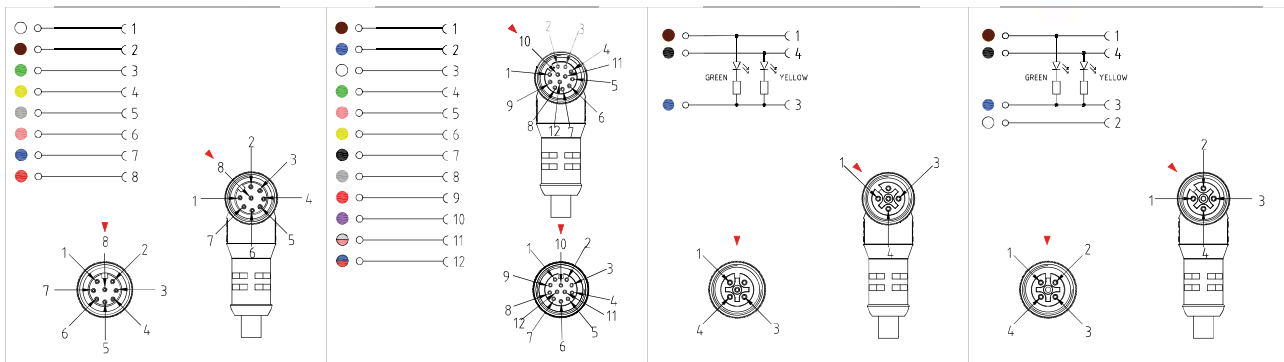
**Coupling nut material :**  
Brass + Nickel plated.  
Stainless steel AISI304 (upon request).  
Stainless steel AISI316 (upon request).



### ANTI-VIBRATION SYSTEM:



## M12 CIRCULAR CONNECTORS









<b>Product description</b>			
Circular connector with moulded cable		Circular connector with moulded cable	
IEC 61076-2-101		IEC 61076-2-101	
M12 A-Coded		M12 A-Coded	
Circular connector M12 series with moulded cable		Circular connector M12 series with moulded cable	
<b>12FD8A1Z</b>	<b>12FA8A1Z</b>	<b>12FD12K1Z</b>	<b>12FA12K1Z</b>
Straight 180°	Angled 90°	Straight 180°	Angled 90°
Moulded cable		Moulded cable	
Female		Female	
8poles		12poles	
Black		Black	
<b>Technical data</b>			
Contacts to solder wires		Contacts to solder wires	
Brass + Gold flash		Brass + Gold flash	
Knurl round		Knurl round	
Brass + Nickel plated		Brass + Nickel plated	
0,4 N*m		0,4 N*m	
30V AC/DC		30V AC/DC	
2A		1,5A	
NBR		NBR	
PVC/PVC CEI2022		PVC/PVC CEI2022	
Black		Black	
8x0,25mm <sup>2</sup>		12x0,14mm <sup>2</sup>	
White;Brown;Green;Yellow;Grey;Pink;Blue;Red		Bn;Bu;Wh;Gn;Pk;Ye;Bk;Gy;Rd;Vt;Pk;Gy;Rd;Bu	
ø6mm (±0,3)		ø6,5mm (±0,3)	
1m		1m	
<b>Packaging</b>			
1 pc / bag		1 pc / bag	
<b>Other accessories options</b>			
See accessories section			
<b>Notes:</b>			
Connectors available with different features: See the general features and codification scheme page See the cables list section			

## CABLE LIST

Code	Material	Type of cable	Colour	Section	No.core	Cable g mm $\pm 0.3$	Temperature range °C	Form A - B	Form C
01	PVC/PVC	IEC332-1 H03VVF	Black	0.50mm <sup>2</sup>	3	ø5mm	-20°C / +80°C	●	●
A1	PVC/PVC	IEC332-1 H03VVF	Black	0.50mm <sup>2</sup>	2	ø5mm	-20°C / +80°C	●	●
B1	PVC/PVC	IEC332-1 H03VVF	Black	0.50mm <sup>2</sup>	4	ø6mm	-20°C / +80°C	●	●
02	PVC/PVC	IEC332-1 H05VVF	Black	0.75mm <sup>2</sup>	3	ø6,7mm	-20°C / +80°C	●	
A2	PVC/PVC	IEC332-1 H05VVF	Black	0.75mm <sup>2</sup>	2	ø6mm	-20°C / +80°C	●	
B2	PVC/PVC	IEC332-1 H05VVF	Black	0.75mm <sup>2</sup>	4	ø7mm	-20°C / +80°C	●	
C2	PVC/PVC	IEC332-1 H05VVF	Black	0.75mm <sup>2</sup>	5	ø8,3mm	-20°C / +80°C	●	
03	PVC/PVC	CEI2022 II F.R.O.R.	Grey RAL7032	0.75mm <sup>2</sup>	3	ø5,5mm	-20°C / +80°C	●	
A3	PVC/PVC	CEI2022 II F.R.O.R.	Grey RAL7032	0.75mm <sup>2</sup>	2	ø6mm	-20°C / +80°C	●	
04	PVC/PVC	CEI2022 II F.R.O.R.	Grey RAL7032	0.50mm <sup>2</sup>	3	ø5mm	-20°C / +80°C	●	●
A4	PVC/PVC	CEI2022 II F.R.O.R.	Grey RAL7032	0.50mm <sup>2</sup>	2	ø5mm	-20°C / +80°C	●	●
B4	PVC/PVC	CEI2022 II F.R.O.R.	Grey RAL7032	0.50mm <sup>2</sup>	4	ø6mm	-20°C / +80°C	●	●
05	PVC/PVC	CEI2022 II F.R.O.R.	Grey RAL7032	0.75mm <sup>2</sup>	4	ø7mm	-20°C / +80°C	●	
C5	PVC/PVC	CEI2022 II F.R.O.R.	Grey RAL7032	0.75mm <sup>2</sup>	5	ø8,3mm	-20°C / +80°C	●	
06	PVC/PVC	CEI2022 II F.R.O.R.	Grey RAL7032	1mm <sup>2</sup>	3	ø6,7mm	-20°C / +80°C	●	
A6*	PVC/PVC	CEI2022 II F.R.O.R.	Grey RAL7032	1mm <sup>2</sup>	2	ø6,7mm	-20°C / +80°C	●	
B6*	PVC/PVC	CEI2022 II F.R.O.R.	Grey RAL7032	1mm <sup>2</sup>	4	ø7,2mm	-20°C / +80°C	●	
07*	PVC/PVC	CEI2022 II F.R.O.R. SHIELDED	Grey RAL7032	1mm <sup>2</sup>	3	ø7,2mm	-20°C / +80°C	●	
A7*	PVC/PVC	CEI2022 II F.R.O.R. SHIELDED	Grey RAL7032	1mm <sup>2</sup>	2	ø6,7mm	-20°C / +80°C	●	
B7*	PVC/PVC	CEI2022 II F.R.O.R. SHIELDED	Grey RAL7032	1mm <sup>2</sup>	4	ø8,3mm	-20°C / +80°C	●	
08*	PUR/PVC		Black	0.50mm <sup>2</sup>	3	ø5mm	-40°C / +80°C	●	●
A8*	PUR/PVC		Black	0.50mm <sup>2</sup>	2	ø5mm	-40°C / +80°C	●	●
B8*	PUR/PVC		Black	0.50mm <sup>2</sup>	4	ø6mm	-40°C / +80°C	●	●
C8*	PUR/PVC		Black	0.50mm <sup>2</sup>	5	ø6,5mm	-40°C / +80°C	●	
09*	PUR/PVC		Black	0.75mm <sup>2</sup>	3	ø6mm	-40°C / +80°C	●	
A9	PUR/PVC		Black	0.75mm <sup>2</sup>	2	ø6mm	-40°C / +80°C	●	
B9*	PUR/PVC		Black	0.75mm <sup>2</sup>	4	ø7,2mm	-40°C / +80°C	●	
10*	PUR/PUR	Li-YY11Y	Black	0.50mm <sup>2</sup>	3	ø5mm	-40°C / +80°C	●	●
AA*	PUR/PUR	Li-YY11Y	Black	0.50mm <sup>2</sup>	2	ø5mm	-40°C / +80°C	●	●
AB*	PUR/PUR	Li-YY11Y	Black	0.50mm <sup>2</sup>	4	ø6,7mm	-40°C / +80°C	●	●
11*	PUR/PUR	Li-YY11Y	Black	0.75mm <sup>2</sup>	3	ø6,7mm	-40°C / +80°C	●	
BA*	PUR/PUR	Li-YY11Y	Black	0.75mm <sup>2</sup>	2	ø6,5mm	-40°C / +80°C	●	
BB*	PUR/PUR	Li-YY11Y	Black	0.75mm <sup>2</sup>	4	ø7,2mm	-40°C / +80°C	●	
13*	PVC/PVC	IEC332-1 H03VVF	Black	1mm <sup>2</sup>	2	ø6mm	-20°C / +80°C	●	
14*	PVC/PVC	CEI2022 II F.R.O.R.	Black	1mm <sup>2</sup>	3	ø6,7mm	-20°C / +80°C	●	
16*	PVC/PVC	UL style 21179	Black	18 AWG	3	ø6,7mm	-20°C / +105°C	●	

**\* = Cables with minimum quantity required.**

## CABLE LIST

Code	Material	Type of cable	Colour	Section	No.core	Cable $\varnothing$ mm $\pm 0.3$	Temperature range °C	M8	M12	M9	M8 	M12 
<b>K</b>	PVC/PVC	CEI2022	Black	0,14mm <sup>2</sup>	3 *	$\varnothing 2.6$ mm	-20°C / +80°C	●	●			
					12	$\varnothing 6.5$ mm	-20°C / +80°C		●			
<b>A</b>	PVC/PVC	CEI2022	Black	0,25mm <sup>2</sup>	2 *	$\varnothing 3.5$ mm	-20°C / +80°C	●	●			
					3	$\varnothing 4$ mm	-20°C / +80°C	●	●			
					4	$\varnothing 4.4$ mm	-20°C / +80°C	●	●			
					5	$\varnothing 4.7$ mm	-20°C / +80°C		●			
					8	$\varnothing 6$ mm	-20°C / +80°C		●			
<b>B</b>	PVC/PVC	CEI2022	Black	0,34mm <sup>2</sup>	2 *	$\varnothing 4.8$ mm	-20°C / +80°C	●	●			
					3 *	$\varnothing 4.8$ mm	-20°C / +80°C	●	●			
					4	$\varnothing 5.2$ mm	-20°C / +80°C	●	●			
					5 *	$\varnothing 5.5$ mm	-20°C / +80°C		●			
<b>N</b>	PVC/PVC	CEI2022	Grey RAL7032	0,25mm <sup>2</sup>	2	$\varnothing 3.5$ mm	-20°C / +80°C	●	●			
					3	$\varnothing 4$ mm	-20°C / +80°C	●	●			
					4	$\varnothing 4.4$ mm	-20°C / +80°C	●	●			
					5 *	$\varnothing 4.7$ mm	-20°C / +80°C		●			
<b>L</b>	PVC/PVC	CEI2022	Grey RAL7032	0,34mm <sup>2</sup>	2 *	$\varnothing 4.8$ mm	-20°C / +80°C	●	●			
					3	$\varnothing 4.8$ mm	-20°C / +80°C	●	●			
					4	$\varnothing 5.2$ mm	-20°C / +80°C	●	●			
					5	$\varnothing 5.5$ mm	-20°C / +80°C		●			
<b>H</b>	PUR/PUR		Black	0,14mm <sup>2</sup>	3 *	$\varnothing 2.6$ mm	-40°C / +80°C	●	●			
					12 *	$\varnothing 6$ mm	-40°C / +80°C		●			
<b>C</b>	PUR/PUR		Black	0,25mm <sup>2</sup>	2 *	$\varnothing 3.5$ mm	-40°C / +80°C	●	●			
					3 *	$\varnothing 4$ mm	-40°C / +80°C	●	●			
					4 *	$\varnothing 4.4$ mm	-40°C / +80°C	●	●			
					5 *	$\varnothing 4.7$ mm	-40°C / +80°C		●			
					8 *	$\varnothing 6$ mm	-40°C / +80°C		●			
<b>C-K6-IS</b>	PUR/TPO	 	Black	0,25mm <sup>2</sup>	3	$\varnothing 4.1$ mm	-30°C / +80°C	●	●		●	
					4	$\varnothing 4.7$ mm	-30°C / +80°C	●	●			
					5	$\varnothing 5.1$ mm	-30°C / +80°C		●			
					8	$\varnothing 6.3$ mm	-30°C / +80°C		●			●
<b>D</b>	PUR/PUR		Black	0,34mm <sup>2</sup>	2 *	$\varnothing 4.8$ mm	-40°C / +80°C	●	●			
					3 *	$\varnothing 4.8$ mm	-40°C / +80°C	●	●			
					4 *	$\varnothing 5.2$ mm	-40°C / +80°C		●			
					5 *	$\varnothing 5.5$ mm	-40°C / +80°C		●			
					8 *	$\varnothing 6.5$ mm	-40°C / +80°C		●			