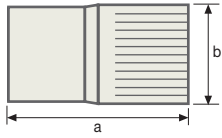


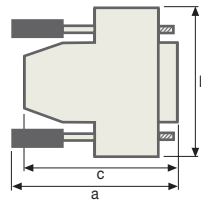
# Linear Feedback Connection Elements

Fagor Automation offers you solutions beyond this sample of cables and extensions of 1, 3, 6, 9 and 12 meters for connecting to electronic equipment. Contact us for other possibilities. All the models may be supplied protected with a plastic sheath or without it. In that case, add "N" to the model.

CIRCULAR 9/12



SUB-D 15 MALE  
SUB-D 15 HD MALE



Type of Connector	a		b		c	
	mm	inches	mm	inches	mm	inches
CIRCULAR 9 / 12	70	2.75	25	1		
SUB D 15	40	1.6	42	1.7	33	1.3
SUB D 15HD	53	2	31	1.2	38	1.5

## Specific cables for direct connection to FAGOR systems

**EC...T-D Cable** For non-differential TTL signals

**Applications:** Digital Readouts FAGOR NV, NVP and FAGOR Innova.

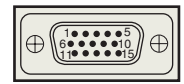
**Type of linear encoder:** MT, MOT, CT, COT, FT and FOT.

<b>Signal</b>	A	B	/Io	+5V	0V	Ground	Ground
<b>Pin</b>	1	3	5	9	11	15	Housing
<b>Colour</b>	Green	Brown	Grey	Yellow	White	Shield	Shield

EC...T-D



SUB-D 15HD MALE



Front view

**EC...P-D Cable** For 1Vpp and differential TTL signals

**Applications:** FAGOR 8070 CNC, AXD Drive and Digital Readouts FAGOR NV, NVP and FAGOR Innova.

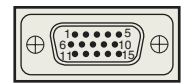
**Type of linear encoder:** MX, MOX, CX, COX, FX, MP, MOP, CP, COP, FP, FOP, SX, SOX, GX, GOX, LX, LOX, SP, SOP, GP, GOP, LP and LOP.

<b>Signal</b>	A	/A	B	/B	Io	/Io	+5V	0V	Ground	Ground
<b>Pin</b>	1	2	3	4	5	6	9	11	15	Housing
<b>Colour</b>	Green	Yellow	Blue	Red	Grey	Pink	Brown	White	Shield	Shield

EC...P-D



SUB-D 15HD MALE



Front view

## Extension cables for direct connection to FAGOR systems (5, 10, 15, 20 and 25 m)

Total lengths greater than 12 m, require the use of extension cables.

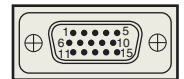
EC...A-C1



XC-C2-...-D



SUB-D 15HD MALE



Front view

### Conector XC-C2-...-D-SUB-D15HD MALE

<b>Signal</b>	A	/A	B	/B	Io	/Io	Alarm	+5V	0V	Ground	0V sensor	5V sensor
<b>Pin</b>	1	2	3	4	5	6	8	9	11	Housing	11	9
<b>Colour</b>	Brown	Green	Grey	Pink	Red	Black	Violet	Brown/ Green	White/ Green	Shield	White	Blue

**Note:** If a particular total length requires the use of an extension cable, FAGOR recommends using an EC cable no longer than 3 m plus an XC cable

## Cables for other connections

### EC...A-C1 Cable

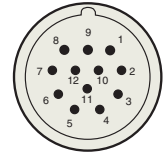
Applications: Without a connector with **CIRCULAR 12**.

Type of linear encoder: MX, MOX, CX, COX, FX, FOX, SX, SOX, GX, GOX, LX, LOX, MP, MOP, CP, COP, FP, FOP, SP, SOP, GP, GOP, LP and LOP.

EC-...A-C1



**CIRCULAR 12 MALE**



Front view

Signal	/B	+5V sensor	I <sub>o</sub>	/I <sub>o</sub>	A	/A	/Alarm	B	0V	0V sensor	+ 5V	Ground
Pin	1	2	3	4	5	6	7	8	10	11	12	Housing
Colour	Red	Jumpered to pin 12	Grey	Pink	Green	Yellow	Purple	Blue	White	Jumpered to pin 10	Brown	Shield

### EC...AS-H Cable

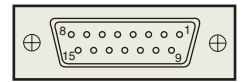
Applications: Without a connector with **SUB-D 15 Female**.

Type of linear encoder: MP, MOP, CP, COP, FP, FOP, SP, SOP, GP, GOP, LP and LOP.

EC-...AS-H



**SUB-D 15 FEMALE**



Front view

Signal	+5V	0V	A	/A	B	/B	5V sensor	I <sub>o</sub>	0V sensor	/I <sub>o</sub>	Ground
Pin	1	2	3	4	6	7	9	10	11	12	Housing
Colour	Brown	White	Green	Yellow	Blue	Red	Purple	Grey	Black	Pink	Shield

### EC...AS-O Cable

Applications: Others.

Type of linear encoder: MX, MOX, CX, COX, FX, FOX, SX, SOX, GX, GOX, LX, LOX, MP, MOP, CP, COP, FP, FOP, SP, SOP, GP, GOP, LP and LOP.



Signal	A	/A	B	/B	I <sub>o</sub>	/I <sub>o</sub>	+5V	0V	Shield	0V sensor	5V sensor
Colour	Green	Yellow	Blue	Red	Grey	Pink	Brown	White	Shield	Black	Purple

## Extension cables for other connections (5, 10, 15, 20 and 25 m)

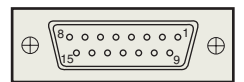
Total lengths greater than 12 m, require the use of extension cables.

EC-...A-C1



XC-C2...H

**SUB-D 15 FEMALE**



Front view

### Connector XC-C2-...-H SUB-D15 FEMALE

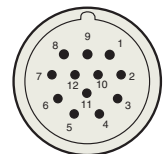
Signal	+5V	0V	A	/A	B	/B	5V sensor	I <sub>o</sub>	0V sensor	/I <sub>o</sub>	Ground
Pin	1	2	3	4	6	7	9	10	11	12	Housing
Colour	Brown/ Green	White/ Green	Brown	Green	Grey	Pink	Blue	Red	White	Black	Shield

EC-...A-C1



XC-C2...C1

**CIRCULAR 12 MALE**



Front view

### Connector XC-C2-...C1 CIRCULAR 12 MALE

Signal	/B	+5V sensor	I <sub>o</sub>	/I <sub>o</sub>	A	/A	/Alarm	B	0V	0V sensor	+ 5V	Ground
Pin	1	2	3	4	5	6	7	8	10	11	12	Housing
Colour	Pink	Blue	Red	Black	Brown	Green	Violet	Grey	White/ Green	White	Brown/ Green	Shield