CLAIMS

1. Elbow connector (2) for pluggable interconnection of an electrical cable to a mating connector (1), the elbow connector (2) including a casing (4) comprising a plug portion (14) and a separable elbow portion (16), a connection terminal assembly (12) mounted in the casing (4) comprising a plurality of electrical terminals supported by a terminal housing (28) mounted fixedly in the plug portion (14), and a keying arrangement (8) complementary to a keying arrangement of said mating connector for angular orientation of the connection terminal assembly (12) about a plugging axis (A) relative to the mating connector, the elbow portion comprising a cable receiving cavity (17) extending from a cable receiving end of the elbow portion (16) to the plug portion (14) through a bend, characterized in that the plug portion (14) and elbow portion (16) each comprise inter-engaging orientation elements (44a, 44b) configured to allow the elbow (16) to be positioned at different discrete angular orientations about the plugging axis (A) relative to the plug portion (14), the casing further comprising a fastener (18), configured for locking the plug portion (14) to the elbow portion (16) such that the chosen angular orientation of the elbow portion (16) relative to the plug portion (14) is locked.

2. Elbow connector according to claim 1, wherein the cable receiving cavity (17) in the elbow portion (16) bends through 90°.

3. Elbow connector according to any preceding claim, wherein the orientation elements (44a, 44b) comprise at least one protuberance or recess on one of the plug portion (14) and elbow portion (16) and a plurality of complementary recesses or protuberances on the other of the plug portion (14) and elbow portion (16).

4. Elbow connector according to any of the preceding claims, wherein the orientation elements (44a, 44b) are arranged such that the angular orientation of the elbow portion (16) relative to the plug portion (14) consists of discrete angular positions separated by at most 120°, preferably at most 90° and at least 5°.

5. Elbow connector according to any of the preceding claims, wherein the orientation elements (44a, 44b) are arranged such that the angular orientation of the elbow portion (16) relative to the plug portion (14) consists of discrete angular positions separated by at most 60° and at least 15°.

6. Elbow connector according to any of the preceding claims, wherein the orientation elements (44a, 44b) are arranged such that the angular orientation of the elbow portion (16) relative to the plug portion (14) consists of discrete angular positions separated by 45° or 30°.

7. Elbow connector according to any preceding claim, wherein the plug portion (14) comprises a latching mechanism (32) configured for latching the plug portion (14) to the mating connector, the latching mechanism comprising at least one spring arm (34) with at least one latching protuberance (36), the elbow connector further comprising an unlocking member (6) in the form of a tubular sleeve mounted around the plug portion (16) and movable from a locking position to an unlocking position configured to actuate the spring arm to release the latching protuberance (36) to enable unplugging of the elbow connector from the mating connector.

8. Elbow connector according to any of the preceding claims, wherein the keying arrangement comprises a protuberance or groove in the plug portion (14), or in an unlocking member mounted around plug portion (14), engageable with a complementary groove or protuberance on the mating connector.

9. Elbow connector according to any of the preceding claims further comprising a cable clamping mechanism (10) comprising a collet (22) inserted in the cable receiving cavity (17) of the elbow portion (16), and a collet nut (24) engaging clamp arms (56) of the collet (22) to tighten the clamp arms around an outer sheath of the cable to secure the cable to the elbow connector.

10. Elbow connector according to the preceding claim, wherein the collet (22) comprises an anti-rotation window (64) and the elbow portion comprises an anti-rotation lug (42) deformed into anti-rotation window (64) when the collet (22) is assembled in the elbow portion (16), the anti-rotation lug (42) being in an undeformed state allowing insertion of the collet in the cable receiving cavity prior to assembly.

11. Elbow connector according to the preceding claim, wherein the anti-rotation lug (42) is in a form of a tab integrally formed and partially cut out of a side wall of the elbow portion (16).

12. Elbow connector according to any of the preceding claims, wherein the orientation elements (44a, 44b) comprise teeth and complementary recesses extending in the direction of

the plugging axis (A) from respective interfaces (19) of the plug portion (14) and elbow portion (16).

13. Elbow connector according to any of the preceding claims, wherein the fastener (18) is in the form of a nut comprising a thread (38) engageable with a complementary thread provided on the elbow portion (16) and a shoulder (48) engaging a complementary shoulder on the plug portion (14) of the casing.

14. Elbow connector according to any of the preceding claims, wherein the plug portion (14) comprises an essentially cylindrical or tubular shape.