



15 Joule Direct Buried Microduct Connector/Fittings 2019

Data Sheet



PRODUCT DESCRIPTION

A range of 15 Joule (J) Direct Buried (DB) push fit straight connectors, reducers and end stops produced by Caladen Ltd, that utilise a black polycarbonate body strengthened by both vertical and horizontal ribs.

These features enable the fittings to exceed both a 15J impact and 450N crush test.

These 15J DB fittings are ergonomically designed to join microduct by being pushed onto a clean cut duct/tube end. A seal is made with internal O-rings.

The design of the connectors, which incorporates internal stainless steel grip rings, prevents accidental separation of the connector from the microduct once installed.

A 'positive click' collet in trademark Caladen green ensures hassle free interaction between microduct and the Caladen 15J DB fitting.

Security is further enhanced by the installation of removable locking clips specifically designed to avoid the unintentional removal of the duct from the fitting in service.

Removal of the duct is achieved by pushing the green collet inwards after the locking clip has been removed. No tools are required for the insertion or removal of the Caladen 15J DB fittings from the duct.

CONNECTOR RANGE

Caladen Part Number	15j Straight connectors (same duct each end) mm	Bore Size Straight Connectors mm
15004	4	2.1
15005	5	2.1
15006	6	3
15007	7	3.5
15008	8	4
15010	10	6
15012	12	8
15014	14	10
15016	16	12
15018	18	14
15020	20	16
Caladen Part Number	15j Reducer connectors (to connect unequal duct sizes) mm	Bore Size Reducer Connectors mm
155040	5x4	2.1
158070	8x7	3.5

Caladen Part Number	15j End Stops mm
15304	4
15305	5
15306	6
15307	7
15308	8
15310	10
15312	12
15314	14
15316	16
15318	18



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DIRECT BURY PERFORMANCE

This product is suitable for direct burying in correctly prepared ground (free from stones and sharp edged materials) to the following impact level:

Test	Performance Level
IEC 60794-1-21 E4 (Impact)	To IEC 60794-5-10&20 15J level with 300mm radius striker/1hr recovery

MATERIALS

Component	Material
Body	Black PC
Collet	POM
Grip Ring	Stainless Steel
O-Ring	Nitrile Rubber

TEMPERATURE IN OPERATION



Minimum: -40°C
 Maximum: +65°C
 to BS-EN 50411-2-8:2009

PRESSURE IN OPERATION



Continuous up to 16 bar
 Burst Pressure exceeds 25 bar

LEAKAGE UNDER PRESSURE

16 bar: 1 ml/minute or better
 0.4 bar: 0.01 ml/minute or better

WATER INGRESS

Zero ingress after 15 mins @ 40kpa water over pressure @ 23°C. EN 61300-2-38 Method A Rated @ IP68

INSERTION FORCE

12mm and below 50N
 14mm and above 120N

to BS EN 50411-2-8:2009

RETENTION FORCE

3mm: 25N
 5mm: 55N
 8mm to 16mm: 125N
 to BS EN 50411-2-8:2009

Summary Results of Testing to BS EN 50411-2-8:2009

Test	Result
Vibration (sinusoidal)	PASS visual and sealing performance test
Microduct Retention	PASS visual and sealing performance test
Microduct Bending	PASS visual and sealing performance test
Torsion	PASS visual and sealing performance test
Crush Resistance	PASS visual and sealing performance test
Microduct Re-Entry	PASS visual and sealing performance test
Temperature Cycling	PASS visual and sealing performance test
Salt Mist	PASS visual and sealing performance test
Insertion Force	PASS visual and sealing performance test

