



DEEP SEA ELECTRONICS

DSE124 INSTALLATION INSTRUCTIONS

NOTE! This document is supplied as a 'short form' installation instruction sheet. For full specification and operation of the DSE124 consult the operator manual - DSE Part 057-116.

DSE124 is a CAN bus extender. It can be used to:

- Extend the MSC bus of DSE Synchronising and Load Sharing controllers beyond the maximum 250m normally specified.
- Extend the CAN connection from DSE controller to Engine ECU.

MODEL VARIANTS

DSE124-01

NOTE! DSE124-01 is EN60825-1 classification 'Class 1 LED Device'

Model DSE124-01 Includes interfaces for both copper and fibre connections and is used to extend the connection using either copper or fibre.

DSE124-02

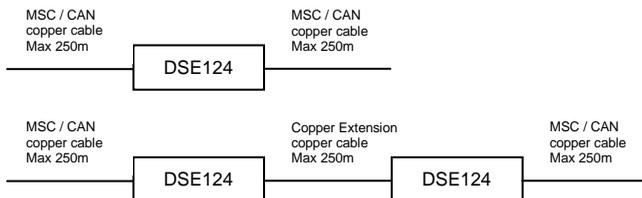
Model DSE124-02 includes interfaces for copper only.

TYPICAL USAGE

For additional usage examples see DSE124 operator manual - DSE Part 057-116.

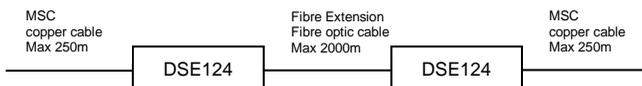
COPPER CABLE EXPANSION

This facility is available with either **DSE124-01** or **DSE124-02**



FIBRE OPTIC EXPANSION

This facility is only available with **DSE124-01**



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INSTALLATION

Overall size	133.9mm x 76.4mm x 48.9mm (5.3" x 3.0" x 1.9")
Mounting type	DIN rail or direct to chassis.
DIN rail type	EN 50022 35mm type only
Mounting holes	M4 clearance, centres at 122.5mm x 64.5mm (1/8" clearance, centres at 4.8" x 2.5")

FIBRE OPTIC CABLE SPECIFICATIONS

NOTE! Fibre optic specifications are applicable only to model DSE124-01

NOTE! 200µm cable must not be connected as this could potentially cause injury by increasing the power of the fibre output to 'Class 3A LED'.

Fibre optic connector type	'ST type' bayonet connectors for both transmit and receive
Recommended Fibre optic cable	OM1 glass fibre cable (62/125µm) to ISO/IEC 11801 – 2000m (3333yds)
Optical power budget	8dB for OM1 fibre

For alternative fibre cable options (shorter max distance) see DSE124 operator manual - DSE Part 057-116

COPPER CABLE SPECIFICATIONS

Copper connector type	Screw terminal, rising clamp, no internal spring
Recommended copper cable type	Belden 9841 (DSE Part number 016-030)

CONFIGURATION SWITCH SETTINGS

NOTE! Where no 'bus tie' breaker is used, select Switch Position 0

Switch Position	Operating mode	Bus tie location	Digital input polarity
0	MSC bus extender	None	
1	MSC bus extender	CAN port 1	Closed for bus tie closed
2	MSC bus extender	CAN port 1	Open for bus tie closed
3	MSC bus extender	Fibre port	Closed for bus tie closed
4	MSC bus extender	Fibre port	Open for bus tie closed
5	Engine ECU (J1939) bus extender		
6-9	Reserved		

TYPICAL WIRING DIAGRAM

NOTE:- Ensure 120Ω termination resistor is correctly fitted at both ends of the copper cable as per CAN specification.

