



Ocean MATRIX™

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Part number: 1080191

The Ocean Matrix is a stand-alone fibre optic multiplexer and control solution, providing a simple, plug and play interface for a large array of sensors and equipment to any remotely operated system.

The system consists of a compact, one-atmospheric subsea unit rated for 4000 m, and a 19" rack-mounted topside unit.



Key features

- Web based control interface
- Software resettable fuses
- Highly configurable in software

The Ocean Matrix's internal control system provides individual 2-pole switching of all power outputs as well as DC power insulation monitoring. 10 out of 11 DC power outputs are equipped with software resettable fuses to save operation time, as well as voltage and current monitoring.

TOPSIDE

- Voltage and current monitoring
- Alarm / warning logging
- Operational hours logged
- Web browser based interface for mirrored control
- Ethernet connection for control
- 19" 4U rack mount
- Weight: 6.5 kg



POWER INPUT

Subsea:

- 85 - 264 VAC / 120 - 300 VDC
- 47 - 63 Hz

Topside:

- 90 - 265 VAC
- 47 - 63 Hz

POWER OUTPUT

- Software resettable fuses on DC power output (excl. C4)
- 2 x 24/48 VDC (6 A) - SW switchable
- 1 x 24 VDC (6 A) fixed output. Optional: 48 VDC (3 A)
- 1 x 24 VDC (6 A) fixed output (glass fused)
- 7 x 24 VDC (2 A) outputs 2-pole relay
- 1 x 110 VAC 2-pole relay output (glass fused)
- 1050 W available DC power

SIGNAL INTERFACE

- 7 x RS232
- 4 x Software switchable RS232 / RS485
- 3 x 1 Gbps Ethernet
- 3 x 100 Mbps Ethernet
- 2 x 5 V trigger
- All serial and trigger interfaces are isolated

MECHANICAL PROPERTIES

- Material: Aluminium 6082-T6, hard anodized
- Dimensions: Ø 245 mm (240 mm in centre), L 596 mm
- Weight Canister: 42 kg (air), 17 kg (sea)
- Depth rating: 4000 msw

CONNECTORS

	Type	Communication	Power
C1	5506-2021	1 Gbps Ethernet, RS232	24 / 48 VDC (6 A) (SW switchable)
C2	5506-2021	1 Gbps Ethernet, RS232	24 / 48 VDC (6 A) (SW switchable)
C3	5506-2021	2 x 100 Mbps Eth, RS232 / RS485, Trigger Ch. 2	24 VDC (6 A) Optional: 48 VDC (3 A) (HW switchable)
C4	5506-2021	1 Gbps Ethernet, RS232, Trigger Ch. 1*	24 VDC (6 A)
C7	MCBH8F	RS232	24 VDC (2 A)
C8	MCBH8F	RS232	24 VDC (2 A)
C9	MCBH8F	100 Mbps Ethernet, Trigger Ch. 1*	24 VDC (2 A)
C10	MCBH8F	RS232 Trigger Ch. 1*	24 VDC (2 A)
C11	MCBH8F	RS232 / RS485	24 VDC (2 A)
C12	MCBH6F	RS232	= input voltage AC only (2 A)
C13	MCBH8F	RS232 / RS485	24 VDC (2 A)
C14	MCBH8F	RS232 / RS485	24 VDC (2 A)
Fibre	472-F-BCR, SM	Topside-<->Subsea Single mode	
Power	G5506-2006		85-264 VAC (47-63 Hz) / 120-300 VDC

*Trigger Ch. 1 is shared between C4, C9 and C10

OTHER

- Two-stage noise attenuation filter on power input
- Humidity sensor subsea
- Temperature sensor topside and subsea
- DC ground fault detection system
- Fibre and SFP diagnostics
- Control board diagnostics
- Water ingress detection



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