



# MATRIX™ MK II+ E

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Part number: 6011300

**The Matrix is a stand-alone fibre optic multiplexer and control solution. A plug and play interface for remotely operated systems, supporting a large array of sensors and equipment.**

The system consists of a compact, one-atmospheric subsea unit rated for 3000 m, and a 19" rack-mounted topside unit with touch screen featuring status for all channels.



## Key features

- 5 additional 100 Mbps Ethernet
- C1 and C2 now with trigger
- Web based control interface
- Software resettable fuses
- Highly configurable in software

The Matrix's internal control system provides individual 2-pole switching of all power outputs as well as DC power insulation monitoring. The DC power outputs are equipped with software resettable fuses to save operation time. All DC power outputs are equipped with voltage and current monitoring, which is also displayed in the topside controller.

## TOPSIDE

- 7" Linux based touch screen interface for control and diagnostics
- Status for all channels on screen
- Voltage and current monitoring
- Alarm / warning logging
- Operational hours logged
- Web browser based interface for mirrored control
- Ethernet connection for control
- 19" 3U rack mount
- Weight: 8 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
- 2 x 24/48 VDC (6 A), SW switchable
- 1 x 24 VDC (6 A) fixed output. Optional: 48 VDC (3 A)
- 10 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

- 6 x RS232
- 3 x Software switchable RS232 / RS485
- 2 x 1 Gbps Ethernet
- 7 x 100 Mbps Ethernet
- 3 x HD-SDI
- 2 x 5 V trigger
- All serial and trigger interfaces are isolated
- Optional: 3 x analog video instead of 3 x digital video

## MECHANICAL PROPERTIES

- Material: Aluminium 6082-T6, hard anodized or Titanium Grade 5
- Dimensions: Ø 230 mm (223 mm in centre), L 596 mm (Alu) & L 584 mm (Ti)
- Weight Canister: 35 kg (air), 13 kg (sea)
- Depth rating: 3000 msw (Alu) & 5000 msw (Ti)
- Shock and vibration: According to ISO 13628-6

## CONNECTORS

	Type	Communication	Power
C1	5506-2021	1 Gbps Ethernet, RS232, Trigger Ch. 1*, Sync with C2	24 / 48 VDC (6 A) (SW switchable)
C2	5506-2021	1 Gbps Ethernet, RS232, Trigger Ch. 1*, Sync with C1	24 / 48 VDC (6 A) (SW switchable)
C3	5506-2021	2 x 100 Mbps Ethernet, RS232 / RS485 (SW switchable), Trigger Ch. 1*	24 VDC (6 A) Optional: 48 VDC (3 A) (HW switchable)
C4	455-L-FCR-75 Ω	Camera 1 (HD-SDI), RS232	24 VDC (2 A)
C5	455-L-FCR-75 Ω	Camera 2 (HD-SDI), RS232	24 VDC (2 A)
C6	455-L-FCR-75 Ω	Camera 3 (HD-SDI), RS232	24 VDC (2 A)
C7	MCBH8F	100 Mbps Ethernet	24 VDC (2 A)
C8	MCBH8F	100 Mbps Ethernet	24 VDC (2 A)
C9	MCBH8F	100 Mbps Ethernet, Trigger Ch. 2**	24 VDC (2 A)
C10	MCBH8F	100 Mbps Ethernet, Trigger Ch. 2**	24 VDC (2 A)
C11	MCBH8F	100 Mbps Ethernet	24 VDC (2 A)
C12	MCBH6F	RS232	=Input voltage, AC only (2 A)
C13	MCBH8F	RS232 / RS485 (SW switchable)	24 VDC (2 A)
C14	MCBH8F	RS232 / RS485 (SW switchable)	24 VDC (2 A)
Fibre	472-G-BCR, SM (OPT-G4-BCR,SM)	Topside <-> Subsea (Opt. Shilling fibre int.)	
Power	G5506-2006		85-264 VAC (47-63 Hz) 120-300 VDC

\*Trigger Ch. 1 is shared between C1, C2 and C3.

\*\*Trigger Ch. 2 is shared between 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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