



# MATRIX™ MK II+

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Part number: 5020410 (Al) & 5020413 (Ti)

**The 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 3000 MSW, and a 19" rack mounted topside unit with touch screen and status for all channels on the screen.



## Key features

- 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 inch 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: 47-63 Hz, 85-264 VAC / 120-370 VDC
- Topside: 90-265 VAC, 47-63 Hz

## POWER OUTPUT

- Software resettable fuses on DC power output
- 2 x 24 VDC / 48 VDC noise attenuated 6A - SW switchable
- 1 x 48 VDC (3A) / 24 (6A) fixed output - HW switchable
- 10 x 24 VDC (2A) outputs 2-pole relay
- 1 x 110 VAC 2-pole relay output (glass fused)
- 1050 W available DC power

## SIGNAL INTERFACE

- 9 x RS232
- 4 x software switchable RS232/RS485
- 2 x Gb Ethernet
- 3 x 100 Mbps Ethernet
- 3 x HD-SDI
- 2 x 5V TTL trigger
- All serial and trigger interfaces are isolated
- Optional: 2 x single direction PECL
- Optional: 3 x analog video instead of 3 x digital video

## CONNECTORS

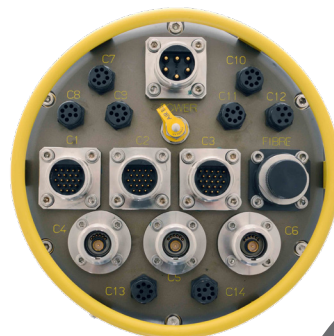
	Type	Communication	Power
C1	5506-2021	1 Gbps Ethernet, RS232, Sync with C2, (optional PECL)	24/48 VDC, (6A) (SW switchable)
C2	5506-2021	1 Gbps Ethernet, RS232, Sync with C1, (optional PECL)	24/48 VDC, (6A) (SW switchable)
C3	5506-2021	2 x 100 Mbps Ethernet, RS232/RS485, 5V TTL(PPS)	24 VDC (6A) Optional: 48 VDC (3A) (HW switchable)
C4	455-L-FCR-75 Ω	Camera 1 (HD-SDI), RS232	24 VDC (2A)
C5	455-L-FCR-75 Ω	Camera 2 (HD-SDI), RS232	24 VDC (2A)
C6	455-L-FCR-75 Ω	Camera 3 (HD-SDI), RS232	24 VDC (2A)
C7	MCBH8F	RS232	24 VDC (2A)
C8	MCBH8F	RS232	24 VDC (2A)
C9	MCBH8F	100 Mbps Ethernet, 5V TTL (PPS)	24 VDC (2A)
C10	MCBH8F	RS232, 5V TTL (PPS)	24 VDC (2A)
C11	MCBH8F	RS232 / RS485	24 VDC (2A)
C12	MCBH6F	RS232	110 / 230 VAC (2A) (= input voltage)
C13	MCBH8F	RS232 / RS485	24 VDC (2A)
C14	MCBH8F	RS232 / RS485	24 VDC (2A)
Fibre	472-G-BCR, SM (OPT-G4-BCR, SM)	Topside<->Subsea (opt. Schilling fibre int.)	
Power	5506-2006		85-264 VAC (47-63 Hz) / 120-300 VDC

## MECHANICAL PROPERTIES

- Aluminium 6082-T6, hard anodized or Titanium Gr. 5
- Dimensions: D 230 mm (223 mm), L 596 mm (Al) & L 584 mm (Ti)
- Weight Canister: 35 kg (air), 13 kg (sea)
- Depth rating: 3000 MSW (Al) & 5000 MSW (Ti)
- Shock and vibration: According to ISO 13628-6

## 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



## CUSTOM BUILDS AVAILABLE ON REQUEST

Last modified: November 22, 2023

Note: We accept no liability for any printing errors or changes in specification.

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