

Navigator connection box

Intelligent node



The intelligent connection node connects all parts of the Völkkel Navigator. All machine-specific settings are saved in the node. This makes it easy to change the Navigator from machine to machine.

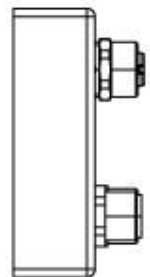
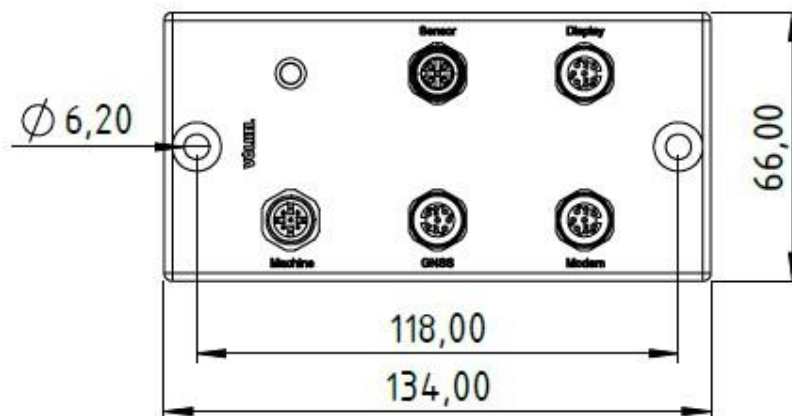
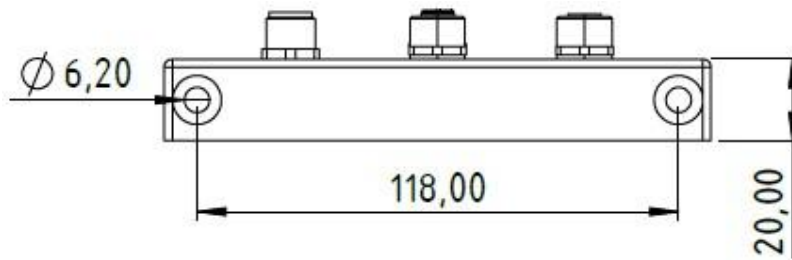
Connections:

- Machine power supply and CAN interface
- Sensors
- GNSS receiver
- Navigator display
- LTE modem

Technical data:

Dimensions	(B/H/T) 134mm x 66mm x 20mm
Housing	Clear anodized aluminium, encapsulated
Protection class	IP68
Weight	approx. 400 g
Connections	M12x1 – Plug for power supply and CAN machine M12x1 – Socket for sensor M12x1 – Socket for GNSS M12x1 – Socket for display M12x1 – Socket for modem
Power supply	8 ... 32V, approx. 30mA at 12V (without external peripherals)
Operating temperature	-40 ... 85° C (housing temperature)
Sensor	Position sensor X, Y, Z
Signal	1 optical signal (LED)
Inputs	1x activation input Optional: 1x switching input with 4.5 kW pull-down with adjustable switching thresholds 1x frequency input, fmax = 10 kHz Switching with adjustable switching threshold
Outputs	1x switched supply voltage for sensor 1x switched 12 V supply voltage for GNSS 2x outputs for activating display or modem
Interfaces	4x CAN 2.0 B, maximum baud rate: 1 Mbit/s (machine CAN optional; Display- and modem-bus combined) 4x RS232, maximum baud rate: 115 kBaud
EMC	Road vehicles: ISO 10605, ISO 7637-1, ISO 7637-2, ISO 7637-3 Construction machinery: DIN EN ISO 13309 Agricultural and forestry machinery: DIN EN ISO 14982 Industrial use: DIN EN 61000-6-2, DIN EN 61000-6-4
Mechanical, climatic resilience	Cold: DIN EN 60068-2-1 Dry heat: DIN EN 60068-2-2 Vibration: DIN EN 60068-2-6 Temperature changes: DIN EN 60068-2-14 Shock: DIN EN 60068-2-27 Moist heat: DIN EN 60068-2-30 Free fall: DIN EN 60068-2-31

Housing dimensions:



Pin assignment, 5 pin M12 plug „Machine“:

Pin-No.	Labelling	Description
1	AKT	Activation signal
2	UB	Power supply
3	DG	Ground
4	SE / CH1	Digital input / CAN line H1
5	FQ / CL1	Frequency input / CAN line L1

Pin assignment, 5 pin M12 socket „Sensor“:

Pin-No.	Labelling	Description
1	SG	Signal ground
2	US1	Sensor supply
3	DG	Ground
4	CH2	CAN line H2
5	CL2	CAN line L2

Pin assignment, 8 pin M12 socket „GNSS“:

Pin-No.	Labelling	Description
1	US2	GNSS supply
2	DG	Ground
3	RXD2	RS232 TX 2
4	CH3	CAN line H3
5	CL3	CAN line L3
6	RXD1	RS232 RX 1
7	TXD1	RS232 TX 1
8	TXD2	RS232 TX 2

Pin assignment, 8 pin M12 socket „Display“:

Pin-No.	Labelling	Description
1	US3	Display supply
2	DG	Ground
3	AKT1	Activation Display
4	CH4	CAN line H4
5	CL4	CAN line L4
6	RXD4	RS232 RX 4
7	TXD4	RS232 TX 4
8	SHLD	Shield

Pin assignment, 8 pin M12 socket „Modem“:

Pin-No.	Labelling	Description
1	US4	Modem supply
2	DG	Ground
3	AKT2	Activation Modem
4	CH4	CAN line H4
5	CL4	CAN line L4
6	RXD3	RS232 RX 3
7	TXD3	RS232 TX 3
8	SHLD	Shield