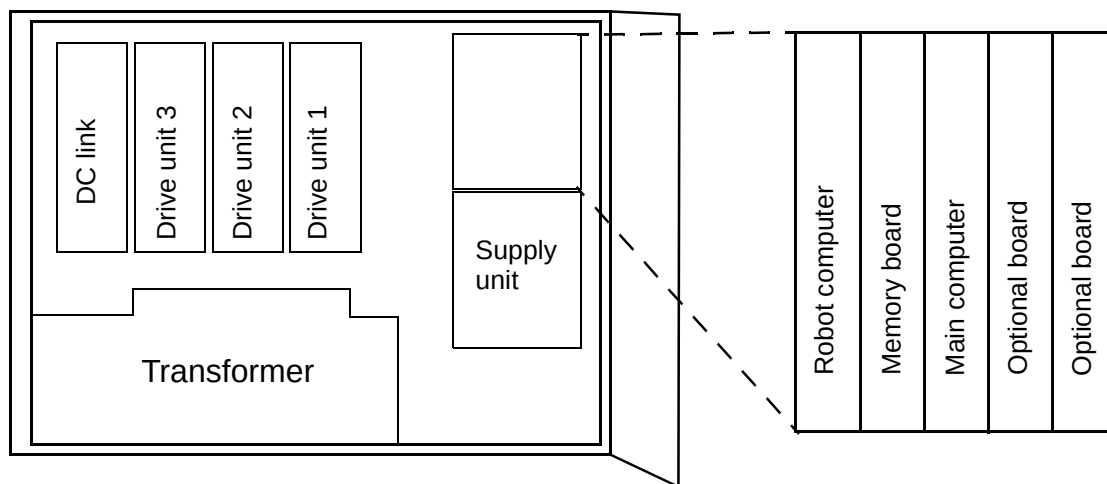


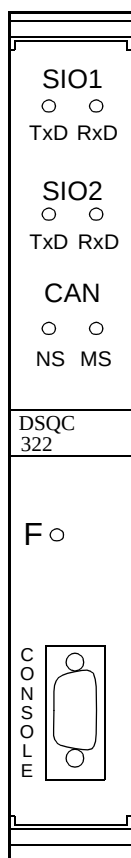
2 Indication LEDs on the Various Units

2.1 Location of units in the cabinet



	IRB 1400	IRB 2400	IRB 4400	IRB 6400	IRB 640	IRB 840/A	IRB 340
Drive unit	Axes	Axes	Axes	Axes	Axes	Axes	Axes
1	1, 2, 4	1, 2, 4	1, 6	1, 6	1, 6	1(X), 6(C)	2, 1
2	3, 5, 6	3, 5, 6	2, 4	2, 4	2, 3	2(Y), 3(Z)	(4), 3
3			3, 5	3, 5			

2.2 Robot computer DSQC 363/373



<u>Designation</u>	<u>Colour</u>	<u>Description/Remedy</u>
F	Red	Turns off when the board approves the initialisation.
TxD	Yellow	See section 2.14.
RxD	Yellow	See section 2.14.
NS	Green/red	See section 2.14.
MS	Green/red	See section 2.14.

2.14 Status LEDs description

Each of the units connected to the CAN bus includes 2 or 4 LED indicators which indicate the condition (health) of the unit and the function of the network communication. These LEDs are:

All units

MS - Module status

NS - Network status

Some units:

CAN Tx - CAN network transmit

CAN Rx - CAN network receive

MS - Module status

This bicolour (green/red) LED provides device status. It indicates whether or not the device has power and is operating properly. The LED is controlled by software. The table below shows the different states of the MS LED.

Description	Remedy / Source of fault
<u>Off</u> No power applied to the device.	Check power supply.
<u>Green</u> Device is operating in a normal condition.	If no light, check other LED modes.
<u>Flashing green</u> Device needs commissioning due to configuration missing, incomplete or incorrect. The device may be in the Stand-by state.	Check system parameters. Check messages.
<u>Flashing red</u> Recoverable minor fault.	Check messages.
<u>Red</u> The device has an unrecoverable fault.	Device may need replacing.
<u>Flashing red/green</u> The device is running self test.	If flashing for more than a few seconds, check hardware.

Troubleshooting Tools

NS - Network status

The bicolour (green/red) LED indicates the status of the communication link. The LED is controlled by software. The table below shows the different states of the NS LED.

Description	Remedy / Source of fault
<u>Off</u> Device has no power or is not on-line. The device has not completed the Dup_MAC_ID test yet.	Check status of MS LED. Check power to affected module.
<u>Flashing green</u> Device is on-line, but has no connections in the established state. The device has passed the Dup_MAC_ID test, is on-line, but has no established connections to other nodes. For a group 2 only device it means that the device is not allocated to a master. For a UCMM capable device it means that the device has no established connections.	Check that other nodes in network are operative. Check parameter to see if module has correct ID.
<u>Green</u> The device is on-line and has connection in the established state. For a group 2 only device it means that the device is allocated to a master. For a UCMM capable device it means that the device has one or more established connections.	If no light, check other LED modes.
<u>Flashing red</u> One or more I/O connections are in the Time-Out state.	Check system messages.
<u>Red</u> Failed communication device. The device has detected an error that has rendered it incapable of communicating on the network. (Duplicate MAC_ID, or Bus-off).	Check system messages and parameters.

Article No Name

3HAC 4047-1 Part List

Item	Qty	Article No	Name of Item	Rem
4	1	3HAC 7216-1	Mounting set I/O pos. 1, 2	
4	1	3HAC 7636-1	Mounting set I/O pos. 1 - 4	

4.9 Computers and Disk Drive

Article No Name

3HAC 4061-1 Part List

Item	Qty	Article No	Name of Item	Rem
2	1	3HAB 5957-1	Memory Expansion DSQC 324	16 MB
2	1	3HAB 5956-1	Memory Expansion DSQC 323	8 MB

Article No Name

3HAC 4664-1 Part List

Item	Qty	Article No	Name of Item	Rem
1	1	3HNE 00001-1	Circuit board NIOC	DSQC 336

Article No Name

3HAC 4568-1 Part List

Item	Qty	Article No	Name of Item	Rem
2	1	3HAC 2424-1	BackPlane	DSQC 369
14	1	3HAC 1620-1	Power supply	DSQC 365
21	1	3HAC 3180-1	Robot Computer	DSQC 373
23	1	3HAC 0373-1	Main Computer	DSQC 361