Special documentation

Released for customers

System Description

Connected HMI
Status Indicators

TD10018016 EN 01 / Update: 04/2018

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1 Preface/Safety

1.1 Safety

Always remember: safety first!

Before using these instructions, always make sure that you comply with the following requirements:

- Generally valid national occupational health and safety regulations
- Safety instructions of the respective customer
- Documentation for the machine (e.g. operating manual, spare parts documentation, electrical documentation)

1.2 Copyright

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1.3 Target group

This manual is released for the customer.

1.4 Exclusion of liability

If work is carried out on the basis of these instructions by the customer or his agent instead of by KRONES AG personnel, KRONES AG shall not be held liable for repairs or any consequential damages.

1.5 Revision history

Version	Date	Comments
00	09/2017	First issue of document
01	04/2018	The colour definition of the status LED has been revised. Blue: faulty display cable; Magenta: faulty display

2 Overview of the HMI panel

1. NFC tag
2. Pilot lamp
3. RFID transponder, read and write unit
4. Teleservice LED
5. Status LED

2.1 Design of the Clean Design panel

2.2 Design of the installation panel

3 Statuses of the lamps

3.1 Status LED

Status LED	Status of the system	Flashing	Description	Note
White	Sequence 0	Continuously ON	Everything okay	No action required.
OFF	Sequence 1	Continuously OFF	Faulty power supply cable	
Blue	Sequence 2	Flashing 2 times	Faulty display cable	Possible only with Clean Design panel or installation cable with SDL4. Fault at panel PC not possible since no cable connection is checked here.
Magenta	Sequence 3	Flashing 3 times	Faulty display	Possible only with Clean Design panel or installation cable with SDL4. Fault at panel PC not possible since no separate display control is checked here.
Orange	Sequence 4	Flashing 4 times	Faulty computer	

3.1.1 Colours of the status LED

White status LED

Blue status LED

Magenta status LED

Orange status LED

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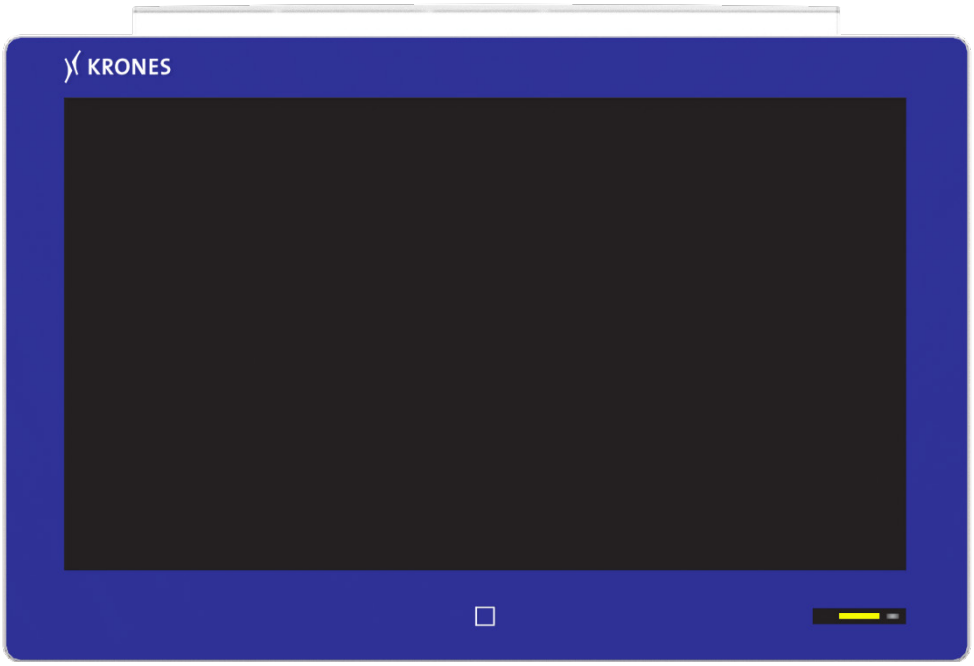
3.2 Teleservice LED

Status of the system	Status of the LED	Colour
Normal (no teleservice active)	Continuously OFF	-
Teleservice	Continuously ON	Yellow



3.2.1 Colours of the teleservice LED

Yellow teleservice LED

4 Error statuses

For all recommended actions, a simultaneous faulty behaviour of the HMI is assumed (e.g. no image on the screen, etc.).

Product	Status LED	Status of the system	Step	Recommendation for action	Next step, as far as it is fully met	Next step, as far as it is not fully met	Possible fault image
Clean Design 21.5 in panel	OFF	Sequence 1	1.0	Check the power supply for the Clean Design panel via Status LED: a) Panel is properly supplied with power *Assessment*: LED is lit or flashing.	8.0	1.1	Status LED is not lit since the Clean Design panel is not properly supplied with power or the panel is faulty.
Clean Design 21.5 in panel	OFF	Sequence 1	1.1	Check the power supply for the Clean Design panel: a) Check the plug-in connection M12 L-coded. Assessment: Plug-in connector is plugged in and screwed in tightly. b) Measure the power supply on the cable. *Assessment*: +24VDC ±20%	8.0	The customer is responsible for solving the problem	Status LED is not lit since the Clean Design panel is not properly supplied with power or the power supply of the panel is faulty.
Installation 21.5 in panel as PPC	OFF	Sequence 1	2.0.0	Check the power supply of the panel PC via the "POWER" LED: a) Check the power supply for the PPC unit. *Assessment*: LED is lit.	2.1.0	2.0.1	Status LED is not lit since the panel PC is not properly supplied with power or the panel PC controller unit is faulty.
Installation 21.5 in panel as PPC	OFF	Sequence 1	2.0.1	Check the power supply for the panel PC: a) Check the plug-in connection. Assessment: Plug-in connector is plugged in straight and screwed in tightly. b) Measure the power supply on the cable. *Assessment*: +24VDC ±20%	9.2	The customer is responsible for solving the problem	Status LED is not lit since the Clean Design panel is not properly supplied with power.
Installation 21.5 in panel as PPC	OFF	Sequence 1	2.1.0	Check the system status of the panel PC via the "POWER" LED: a) System is not in the power-saving or standby mode. Assessment: LED is lit green (not red). b) There is no fault on the BIOS, MTCX or I/O FPGA. *Assessment*: LED is lit green (not flashing red and green).	9.0	8.1	Status LED is not lit since there is a fault between the controller unit and panel or there is a faulty controller unit or panel.
Installation 21.5 in panel with SDL4	OFF	Sequence 1	3.0	Check the power supply of the SDL4 receivers via the "status" LED: a) Check the power supply for the receiver. *Assessment*: LED is lit or flashing.	9.0	3.1	Status LED is not lit since the SDL4 receiver is not properly supplied with power or the panel is faulty.

Product	Status LED	Status of the system	Step	Recommendation for action	Next step, as far as it is fully met	Next step, as far as it is not fully met	Possible fault image
Installation 21.5 in panel with SDL4	OFF	Sequence 1	3.1	Check the power supply for the SDL4 receiver of the panel: a) Check the plug-in connection. Assessment: Plug-in connector is plugged in straight and tight and screwed in tightly. b) Measure the power supply on the cable. *Assessment*: +24VDC ±20%	9.2	The customer is responsible for solving the problem.	Status LED is not lit since the SDL4 receiver of the panel is not properly supplied with power or the SDL4 receiver is faulty.
Clean Design 21.5 in panel OR Installation 21.5 in panel with SDL4	Blue	Sequence 2	4.0.0	Check the power supply of the APC3100 or PPC3100 with SDL4 with transmitter via the "POWER" LED on APC3100 or PPC3100: a) APC or PPC must be supplied with power properly. *Assessment*: "POWER" LED is lit red or green (not flashing and not OFF).	4.1	4.0.1	SDL4 remote station not functional.
Clean Design 21.5 in panel OR Installation 21.5 in panel with SDL4	Blue	Sequence 2	4.0.1	Check the power supply of the APC3100 or PPC3100 with SDL4 transmitter: a) Check the plug-in connection. Assessment: Plug-in connector is plugged in straight and tight and screwed in tightly. b) Measure the power supply on the cable. *Assessment*: +24VDC ±20%	9.3	The customer is responsible for solving the problem.	SDL4 remote station not functional.
Clean Design 21.5 in panel OR Installation 21.5 in panel with SDL4	Blue	Sequence 2	4.1	Check the SDL4 connection: a) Check the plug-in connection on the panel. Assessment: Plug-in connector is plugged in straight and screwed in tightly or locked (RJ45 connector). b) Check the plug-in connection on the SDL4 remote station. *Assessment*: Plug-in connector is plugged in straight and locked in the bush of the APC or PPC.	Display cable is faulty, cable must be replaced.	The customer is responsible for solving the problem.	Problem with the plug-in connection of the SDL4 cable or faulty cable.
Clean Design 21.5 in panel	Magenta	Sequence 3	5.0	Perform RESET: a) Isolate the panel for 3 seconds from the power supply and resupply it again. Assessment: Status LED should switch to "white".	Report to B&R support	8.0	Initialisation fault on the panel electronics
Installation 21.5 in panel with SDL4	Magenta	Sequence 3	6.0	Perform RESET: a) Isolate the panel for 3 seconds from the power supply and resupply it again. *Assessment*: Status LED should switch to "magenta".	Report to B&R support	9.2	Initialisation fault on the panel electronics or faulty controller unit

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Product	Status LED	Status of the system	Step	Recommendation for action	Next step, as far as it is fully met	Next step, as far as it is not fully met	Possible fault image
Clean Design 21.5 in panel OR Installation 21.5 in panel with SDL4	Orange	Sequence 4	7.0	Check the status LEDs of the APC or PPC with SDL4 transmitter: a) Check the "POWER" LED for the PPC unit. *Assessment*: LED is lit green.	7.1	9.4	Faulty storage medium, software installation or power supply unit
Clean Design 21.5 in panel OR Installation 21.5 in panel with SDL4	Orange	Sequence 4	7.1	Check the installation of the storage medium of the APC or PPC with SDL4 transmitter: a) Check if the operating system is booting properly.	7.2	The customer is responsible for solving the problem (recover software).	Faulty storage medium or software installation
Clean Design 21.5 in panel OR Installation 21.5 in panel with SDL4 OR Installation 21.5 in as PPC	Orange	Sequence 4	7.2	Check the RAM storage of the APC or PPC with SDL4 transmitter: a) Replace the RAM storage according to the specifications of the user manual. *Assessment*: Reboot the system after the replacement of the RAM storage.	-	9.4	Faulty RAM storage
Clean Design 21.5 in panel	OFF Blue Magenta Orange	Sequence 1 Sequence 2 Sequence 3 Sequence 4	8.0	a) Dismantle the Clean Design panel and return it to B&R for repairs. b) Install the new or repaired panel.	-	-	Faulty panel
Installation 21.5 in panel as PPC OR Installation 21.5 in panel with SDL4	OFF Blue Magenta Orange	Sequence 1 Sequence 2 Sequence 3 Sequence 4	9.0	Faulty panel a) Remove the controller unit (panel PC or SDL4 receiver) from the panel and send the panel to B&R for repairs. b) Install the controller unit (panel PC or SDL4 receiver) on the new or repaired panel and start it again.	-	-	
Installation 21.5 in panel as PPC OR Installation 21.5 in panel with SDL4	OFF Blue Magenta Orange	Sequence 1 Sequence 2 Sequence 3 Sequence 4	9.1	Troubleshooting on controller unit (panel PC or SDL4 receiver) required.	-	-	

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Product	Status LED	Status of the system	Step	Recommendation for action	Next step, as far as it is fully met	Next step, as far as it is not fully met	Possible fault image
Installation 21.5 in panel as PPC OR Installation 21.5 in panel with SDL4	OFF Blue Magenta Orange	Sequence 1 Sequence 2 Sequence 3 Sequence 4	9.2	Faulty controller unit (panel PC or SDL4 receiver) a) Dismantle the controller unit from the panel and send the controller unit to B&R for repairs. b) Install the new or repaired controller unit on the panel and start it.	-	-	
Clean Design 21.5 in panel OR Installation 21.5 in panel with SDL4	OFF Blue Magenta Orange	Sequence 1 Sequence 2 Sequence 3 Sequence 4	9.3	Perform a start-up or troubleshooting SDL4 remote station (APC3100 or PPC3100).	-	-	
Clean Design 21.5 in panel OR Installation 21.5 in panel with SDL4 OR Installation 21.5 in as PPC	OFF Blue Magenta Orange	Sequence 1 Sequence 2 Sequence 3 Sequence 4	9.4	Faulty PC unit (APC3100 or Panel PC) a) Dismount PPC3100 from the panel and send it to B&R for repairs OR send APC3100 to B&R for repairs.	-	-	

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