bürkert
FLUID CONTROL SYSTEMS

Type 8741, 8742, 8746
MFC / MFM

Description to the display of the device status
for the different software versions.

Beschreibung zur Anzeige des Gerätezustands
für die unterschiedlichen Software-Versionen.

Supplement to the Operating Instructions

Ergänzung zur Bedienungsanleitung

MAN 1000278635 EN Version: B Status: RL (released | freigegeben) printed: 31.05.2016

We reserve the right to make technical changes without notice.
Technische Änderungen vorbehalten.
Sous réserve de modifications techniques.

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Supplement to the Operating Instructions 1605/01_EU-ML_00810500 / Original DE

MAN 1000278635 EN Version: B Status: RL (released | freigegeben) printed: 31.05.2016

Supplement to Operating Instructions

This instructions describes the change of the color assignment of the device status LED.

For following software versions:

- up to and including version A.07
  The color assignment based partly on Namur NE 107.
- version A.08 and higher.
  The color assignment is compliant with Namur NE 107.

The MFM/MFC has an LED to display the device status, the color and status change accordingly to the device status.
If more than one device status exists simultaneously, the device status with the highest priority is displayed.

Color code overview

Color	Color code Hex/Dec		
	Lit	Blinking	Flashing
White	0/0	10/16	20/32
Green	1/1	11/17	21/33
Blue	2/2	12/18	22/34
Yellow	3/3	13/19	23/35
Orange	4/4	14/20	24/36
Red	5/5	15/21	25/37

Tab. 1: Color code Hex/Dec

Display of the device status – up to and including software version A.07

The color assignment based partly on Namur NE 107.

LED	Color code Hex/Dec			Description	Description of device status		What to do?
	Lit	Blinking	Flashing				
No color	–	–	–	–	The device is not energized.		Energize the device.
All colors	0...9/0...9			Device is in AUTOMATIC operating state	The device is using the standard set-point value for control.		–
			20...29/ 32...41	Identification: Device connected to the network.	Identifies a device on the büS network. „Flashing“ status is started when the device is selected in the „Bürkert Communicator“ software.		After 10 seconds, the device automatically returns to the previous status („lit“ or „blinking“).
White	0/0	10/16	20/32	Normal operation	Device is in AUTOMATIC operating state.		–
				Normal operation	büS	Control loop disabled, direct specification of the variable to the valve.	–
						Setpoint source is manual set-point value specification.	–
					CANopen	The device is in the “Pre-operational” state.	–
Green	1/1	–	21/33	Diagnostics active	*AUTOTUNE* active		–
					SYSTEM ANALYSIS function active		–

LED	Color code Hex/Dec			Description	Description of device status	What to do?
	Lit	Blinking	Flashing			
Blue	2/2	–	22/34	Maintenance required	Memory error. Error detected in the calibration curve.	Maintenance is needed – Contact the manufacturer.
Yellow	3/3	–	23/35	Out of specification	*AUTOTUNE* defective and aborted.	Restart *AUTOTUNE*.
Orange	4/4		24/36	Warning	Device is in AUTOMATIC operating state.	–
					Medium or device temperature out of specification, potential destruction of the sensor or device.	Operate the device within the specifications.
					The control variable for the proportional valve has been (almost) 100% reached. The set-point value cannot be attained.	Increase the operating pressure (observe the maximum permissible supply pressure). Check the pressure drop in the pipe and reduce it if necessary. Check the dimensions of the installation. Check the filters installed in the pipe and clean them if necessary.

LED	Color code Hex/Dec			Description	Description of device status	What to do?
	Lit	Blinking	Flashing			
Orange		14/20		Warning	Calibration activated	–
					The device is in MANUAL operating state. The control variable for the proportional valve has been (almost) 100% reached. The set-point value cannot be attained.	Increase the operating pressure (observe the maximum permissible supply pressure). Check the pressure drop in the pipe and reduce it if necessary. Check the dimensions of the installation. Check the filters installed in the pipe and clean them if necessary.
					Search for büS participants is active. Mode will exit after a few seconds.	–
Red	5/5	–	25/37	Error	Sensor defect.	Maintenance is needed – Contact the manufacturer.
					Memory defect.	
					Device defect.	
					Device cannot find the assigned büS participant.	Review the allocation of the büS participant in the affected device. Review the assigned büS participant and the their büS participant allocation.
					Bus error (e.g. short circuit).	Check the wiring.

Tab. 2: LED display of the device status and measures – up to and including software version A.07

Display of the device status – software version A.08 and higher

The color assignment is compliant with Namur NE 107.

LED compliant with NAMUR NE 107	Color code Hex/Dec		Description according NAMUR NE 107	Description of device status	What to do?
	Lit	Flashing			
No color	–	–	–	The device is not energized.	Energize the device.
All colors		20...29/ 32...41	–	Device is selected using the „Bürkert Communicator“ software.	–
Green	1/1	21/33	Diagnostics active	The device is supplied with power.	The device is in AUTOMATIC operating state or *STORED SETPOINT*.
Blue	2/2	22/34	Maintenance required	Memory error. Error detected in the calibration curve.	Maintenance is needed – Contact the manufacturer.

LED compliant with NAMUR NE 107	Color code Hex/Dec		Description according NAMUR NE 107	Description of device status	What to do?
	Lit	Flashing			
Yellow	3/3	23/35	Out of specification	Medium temperature or device temperature or supply voltage out of specification, potential destruction of the sensor or device.	Operate the device within the specifications.
				The control variable for the proportional valve has been (almost) 100% reached. The set-point value cannot be attained.	Increase the operating pressure (observe the maximum permissible supply pressure). Check the pressure drop in the pipe and reduce it if necessary. Check the dimensions of the installation. Check the filters installed in the pipe and clean them if necessary.
				Another fieldbus participant uses the same node ID.	Assign a different node ID.

LED compliant with NAMUR NE 107	Color code Hex/Dec		Description according NAMUR NE 107	Description of device status	What to do?
	Lit	Flashing			
Orange	4/4	24/36	Check function	*AUTOTUNE* active	–
				Calibration active	–
				Control loop disabled, direct specification of the variable to the valve.	–
				Setpoint source is *MANUAL SETPOINT* or *OPEN-LOOP-CONTROL* specification.	–
				SYSTEM ANALYSIS function active	–
				büS mode only: Device searches for allocated participant.	–
				büS mode only: Invalid producer mapping	Search may take up to one minute.

LED compliant with NAMUR NE 107	Color code Hex/Dec		Description according NAMUR NE 107	Description of device status	What to do?	
	Lit	Flashing				
Red	5/5	25/37	Failure	*AUTOTUNE* defective and aborted.	Restart *AUTOTUNE*.	
				Sensor defect.	Maintenance is needed – Contact the manufacturer.	
				Internal memory defect.	Maintenance is needed – Contact the manufacturer.	
				Device defect.	Maintenance is needed – Contact the manufacturer.	
				Supply voltage out of specified error limits, potential destruction of the device.	Operate the device within the specifications.	
				Bus error (e.g. short Circuit).	Check the wiring.	
				büS mode only: Device cannot find other büS participants.	Check the wiring. Operate device with other büS devices.	
				büS mode only: Device cannot find the allocated process value.	Review the allocation of the process value.	
					Allocated büS participant doesn't send cyclic data.	Review the assigned büS participant for a defect.

Tab. 3: LED display of the device status and measures – software version A.08 and higher

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