Engineering Specifications

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Barth/DMA-20	0.1	3	R. Kleemann		J. Schorowski	07.11.16	Elektronik GmbH

Communication DMA-20

1 Overview

The communication between STG-800/STG-810/ STG-820 and DMA-20 is made via a CAN bus with a baud rate of 250 kBit/s.

The internally filter will only process CAN messages that have the ID 0x7FD.

Pressing a displayed button causes a CAN message to be sent on ID 0x7FC.

2 CAN-Message (DMA-20 receive)

2.1 Message format

ID 0x7FB DLC: 8 Byte

Format: Intel (Byte 0 = LSB)

Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
U16 P-ID		l32 Value					U8 Visible
		Char 0	Char 1	Char 2	Char 3	Char 4	U8 Visible

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2.2 Message content

P-ID	Data type	Description
0	U32	Activate Template:
		0: Template 0 - "Intro Screen"
		• 1: Template 1 - "1V"
		• 2: Template 2 - "1V_BAR"
		• 3: Template 3 - "7V"
		• 4: Template 4 - "TXT"
1	U32 or 4x Char	Parameter 0 or Char 0 Char 4 ¹
2	U32 or 4x Char	Parameter 1 or Char 5 Char 9 ²
3	U32 or 4x Char	Parameter 2 or Char 0 Char 4 ²
4	U32 or 4x Char	Parameter 3 or Char 5 Char 9 ²
	U32 or 4x Char	Parameter or Char ²
Max.	U32	Parameter max.

3 CAN-Message (DMA-20 transmit)

ID 0x7FC DLC: 8 Byte

Format: Intel (Byte 0 = LSB)

Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
U16		132		0x00	0x00		
Template n	umber	Pressed but	tton as bit				

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4 Templates

4.1 Template 0 - "Intro Screen"

DMA-20			

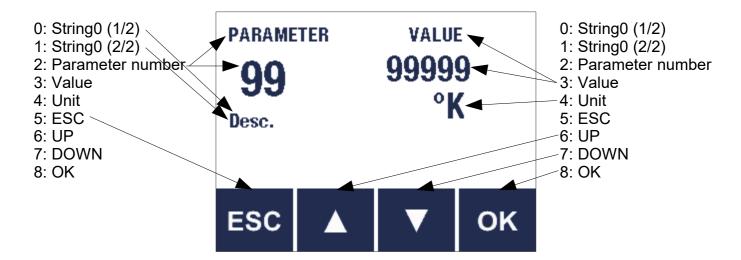
This screen is displayed after power on until a CAN message with the ID 0x7FD is received.

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4.2 Template 1 - ,,1V"

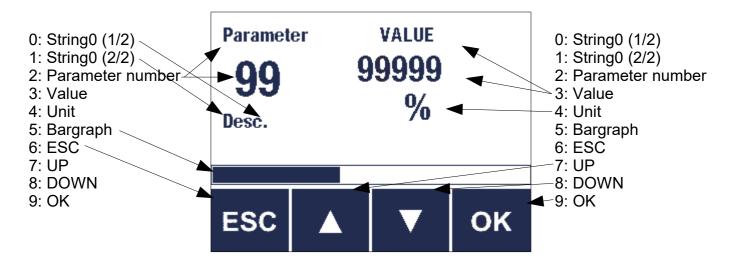
Displays the controls and values (See XXXXXX):



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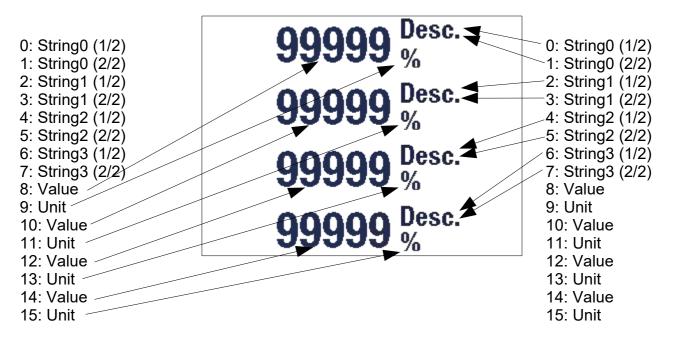
4.3 Template 2 - ,,1V Bar"



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4.4 Template 3 - "7V"



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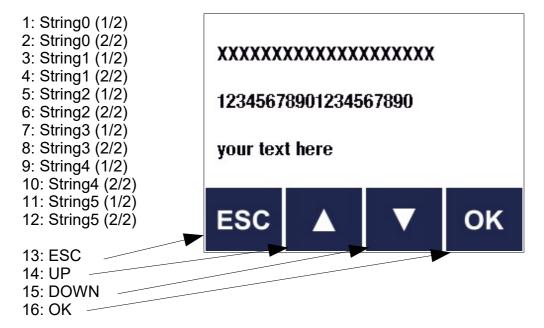
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4.5 Template 4 - "TXT"

This page contains three free to defined strings up to 20 chars (4x5).

- 1. First line contain complete String0 and String1.
- 2. The second line contain string2 and string3.
- 3. The third line contain string4 and string5.

P-ID: description



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5 Samples

For sample code see programming example "DMA-20_ByCAN".