**HT/EMS2 Bus-Telegram 0x18**

**Message-ID:24\_x\_y**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Byte** | **Value (31 byte)** | **Value (33 byte)** | **Value (43 byte)** | **Meaning/Comment** | **Designation/ID** |
| 0 | 88 | 88 | 88 | Transmitter ID |  |
| 1 | 00 | 00 | 00 | Destination ID |  |
| 2 | 18 | 18 | 18 | Boiler telegram: heater |  |
| 3 | Xy | xy | xy | Telegram-Offset (here 0...25 / 0...26 / 0...37) | 24\_x\_y |
| 4 | Xy | xy | xy | Target Flow temperature | 24\_0\_0 |
| 5 | Hi-Byte | Hi-Byte | Hi-Byte | Actual Flow temperature | 24\_1\_0 |
| 6 | Lo-Byte | Lo-Byte | Lo-Byte |
| 7 | Xy | xy | xy | Maximum boiler output (76/84/100; 100)% | 24\_3\_0 |
| 8 | 0-100 | 0-100 | 0-100 | Current burner output in % | 24\_4\_0 |
| 9 | Bit0...Bit7 | Bitfield | Bitfield | Operating Mode | 24\_5\_y |
| Bit0 | Bit1 | Bit1 | Heating Mode | 24\_5\_0 |
| Bit1 | Bit2 | Bit2 | Warm Water Mode | 24\_5\_1 |
| Bit2 | Bit3:=0 | Bit3:=0 | Service operation status | 24\_5\_2 |
| Bit3 | Bit4 | Bit4 | Burner Flame on | 24\_5\_3 |
| Bit4 | Bit5:=0 | Bit5:=0 | Heating phase of the heat unit | 24\_5\_4 |
| Bit5 | Bit6:=0 | Bit6:=0 | Locking Error | 24\_5\_5 |
| Bit6 | Bit7:=0 | Bit7:=0 | Blocking Error | 24\_5\_6 |
| Bit7 | Bit8:=0 | Bit8:=0 | Maintenance request status | 24\_5\_7 |
| 10 | Bit0...Bit7 | Bit0...Bit7 | Bit0...Bit7 | Heating mode status | 24\_6\_y |
| Bit0 | Bit0 | Bit0 | Heating mode in the bus system | 24\_6\_0 |
| Bit1 | Bit1 | Bit1 | Heat request (by switch) | 24\_6\_1 |
| Bit2 | Bit2 | Bit2 | Heat request for operating mode: frost | 24\_6\_2 |
| Bit3 | Bit3 | Bit3 | Heat request in Warm Water operation | 24\_6\_3 |
| Bit4 | Bit4 | Bit4 | Internal heat request at Warm Water | 24\_6\_4 |
| Bit5 | Bit5 | Bit5 | Heat request by Warm Water detection in the bus system | 24\_6\_5 |
| Bit6 | Bit6 | Bit6 | Heat request | 24\_6\_6 |
| Bit7 | Bit7 | Bit7 | Heat request in test mode | 24\_6\_7 |
| 11 | Bit0...Bit7 | Bit0...Bit7 | Bit0...Bit7 | Operating status | 24\_7\_y |
| Bit0 | Bit0 | Bit0 | Burner on (relay signal first burning level) | 24\_7\_0 |
| Bit1 | Bit1 | Bit1 | Burner on (relay signal second burning level) | 24\_7\_1 |
| Bit2 | Bit2 | Bit2 | Fan on (relay signal from fan) | 24\_7\_2 |
| Bit3 | Bit3 | Bit3 | Ignition on (relay signal from ignition) | 24\_7\_3 |
| Bit4 | Bit4 | Bit4 | Oil preheater on (relay signal from oil preheater) | 24\_7\_4 |
| Bit5 | Bit5 | Bit5 | Heating pump on (relay signal from Heating pump) | 24\_7\_5 |
| Bit6 | Bit6 | Bit6 | 3-way valve for storage charging | 24\_7\_6 |
| Bit7 | Bit7 | Bit7 | Circulation pump on (relay signal for Circulation pump) | 24\_7\_7 |
| 12 | Bit0...Bit7 | Bit0...Bit7 | Bit0...Bit7 | Status1 | 24\_8\_y |
| Bit0 | Bit0 | Bit0 | Exhaust flap signal for oil burner release | 24\_8\_0 |
| Bit1 | Bit1 | Bit1 | Air pressure switch signal | 24\_8\_1 |
| Bit2 | Bit2 | Bit2 | Signal from the Gas burner | 24\_8\_2 |
| Bit3 | Bit3 | Bit3 | Signal from the gas pressure switch | 24\_8\_3 |
| Bit4 | Bit4 | Bit4 | Signal from the external on / off switch | 24\_8\_4 |
| Bit5 | Bit5 | Bit5 | Digital input signal | 24\_8\_5 |
| Bit6 | Bit6 | Bit6 | Signal from the safety temperature limiter | 24\_8\_6 |
| Bit7 | Bit7 | Bit7 | Signal from the room thermostat | 24\_8\_7 |
| 13 | Hi-Byte | Hi-Byte | Hi-Byte | Warm water temperature storage tank sensor 1 (0x8300: = not available) | 24\_9\_0 |
| 14 | Lo-Byte | Lo-Byte | Lo-Byte |
| 15 | Hi-Byte | Hi-Byte | Hi-Byte | Warm water temperature storage tank sensor 2 (0x8000 | 0x7D00: = not available) | 24\_11\_0 |
| 16 | Lo-Byte | Lo-Byte | Lo-Byte |
| 17 | Hi-Byte | Hi-Byte | Hi-Byte | Boiler return temperature (0x8000 | 0x7D00: = not available) | 24\_13\_0 |
| 18 | Lo-Byte | Lo-Byte | Lo-Byte |
| 19 | Hi-Byte | Hi-Byte | Hi-Byte | Ionization current | 24\_15\_0 |
| 20 | Lo-Byte | Lo-Byte | Lo-Byte |
| 21 | FF | FF | FF | System pressure on the heat unit | 24\_17\_0 |
| 22 | Hi-Byte | Hi-Byte | Hi-Byte | Display code (ASCII) | 24\_18\_0 |
| 23 | Lo-Byte | Lo-Byte | Lo-Byte |
| 24 | Hi-Byte | Hi-Byte | Hi-Byte | Cause Code | 24\_20\_0 |
| 25 | Lo-Byte | Lo-Byte | Lo-Byte |
| 26 | 00 | FF | FF | Hot water flow rate (FF: = invalid) | 24\_22\_0 |
| 27 | Bit0...Bit7 | Bit0...Bit7 | Bit0...Bit7 | Status2 | 24\_23\_y |
| Bit0 | Bit0 | Bit0 | Status of store charging pump (SP) | 24\_23\_0 |
| Bit1 | Bit1 | Bit1 | LPG valve on | 24\_23\_1 |
| Bit2 | Bit2 | Bit2 | Gas heat pump status | 24\_23\_2 |
| Bit3 | Bit3 | Bit3 | Status of the relay in the UM10 switching module | 24\_23\_3 |
| Bit4 | Bit4 | Bit4 | Circulation pump on (relay signal from Circulation pump) | 24\_23\_4 |
| Bit5 | Bit5 | Bit5 | Burner relay status | 24\_23\_5 |
| Bit6 | Bit6 | Bit6 | Reserved bit | 24\_23\_6 |
| Bit7 | Bit7 | Bit7 | Reserved bit | 24\_23\_7 |
| 28 | Bit0...Bit7 | Bit0...Bit7 | Bit0...Bit7 | Status3 | 24\_24\_y |
| Bit0 | Bit0 | Bit0 | Status of the fill function | 24\_24\_0 |
| Bit1 | Bit1 | Bit1 | Status switching module UM10 | 24\_24\_1 |
| Bit2 | Bit2 | Bit2 | UM10 signal for burner blocking | 24\_24\_2 |
| Bit3 | Bit3 | Bit3 | Burner release by switching module | 24\_24\_3 |
| Bit4 | Bit4 | Bit4 | Burner start-up status in the switching module | 24\_24\_4 |
| Bit5 | Bit5 | Bit5 | Heating mode blocked with Heatronic III | 24\_24\_5 |
| Bit6 | Bit6 | Bit6 | STB test active | 24\_24\_6 |
| Bit7 | Bit7 | Bit7 | Key lock on | 24\_24\_7 |
| 29 | <CRC> | Hi-Byte | Hi-Byte | Intake air temperature | 24\_25\_0 |
| 30 | <END> | Lo-Byte | Lo-Byte |
| 31 |  | <CRC> | Hi-Byte | Fan speed | 24\_27\_0 |
| 32 | <END> | Lo-Byte |
| 33 |  | Hi-Byte | Current fan speed | 24\_29\_0 |
| 34 | Lo-Byte |
| 35 | xy | Current PWM signal from the fan | 24\_31\_0 |
| 36 | Hi-Byte | Integral value | 24\_32\_0 |
| 37 | Lo-Byte |
| 38 | xy | Setpoint for the integral | 24\_34\_0 |
| 39 | Bit0...Bit3 | Facilities error | 24\_35\_y |
| Bit0 | Air temperature sensor defect | 24\_35\_0 |
| Bit1 | Boiler stays cold | 24\_35\_1 |
| Bit2 | Oil heater short | 24\_35\_2 |
| Bit3 | Oil heater broke | 24\_35\_3 |
| 40 | xy | Digital input signal 2 | 24\_36\_0 |
| 41 | <CRC> |  |  |
| 42 | <END> |  |  |