

## Datasheet

### Supply and Display Unit

# ValueView D-01

for active torque transducers  
with torque and speed display



- 24 bit resolution
- up to 50 measurements per second
- permanent min/max-display
- Tara-function
- Sensorfeeding
- +/- Fullscale-input
- Peak value measurement
- Speed measurement up to 10.000 rpm with 1 decimal place  
over 10.000 U/min without decimal place

The supply and display unit ValueView gives you in connection with ETH-torque transducers a possibility to show torque values in various manner for a reasonable price. In the standard operating mode "momentary value" you can read the last measured value alternatively the display can be set to "maximum value" or "minimum value". The time of taking a reading and the time of the display-cycle can be programmed. On all operating modes a tara-function is available with the +/- full-scale-input it is also possible to

show the direction of the measured torque. On displaying of four programmable switching points you can supervise the compliance of set threshold values. Special versions for passive transducers and for display of speed are available on demand.

## Technical Specifications

|  |   |                      |   |         |
|--|---|----------------------|---|---------|
| <b>Power supply</b>                          |   |                      |   |         |
| Supply Voltage                               | 100-240 V / 50-60 Hz, $\pm 10\%$ (max. 35 VA) via IEC connector<br>other voltages on request<br>(For D-versions only 230V status 03.2021) |                      |   |         |
| <b>Sensor feeding for torque transducers</b> |   |                      |   |         |
|  | 12V DC / 500 mA   |                      |   |         |
| Input voltage                                | Measurement range   | R1                   | measuring fault<br>Tu=20 to 40°C (%) MB | Digit   |
|  | $\pm 10\text{ V}$   | 10 M $\Omega$        | 0,01                                    | $\pm 1$ |
|  | $\pm 5\text{ V}$  | 10 M $\Omega$        | 0,02                                    | $\pm 1$ |
| Measurement time                             | Voltage   | 0,02 to 10,00 second |   |         |
| Measuring principle                          | Sigma / Delta   |                      |   |         |
| Resolution                                   | 24 Bit  |                      |   |         |
| <b>Memory</b>                                |   |                      |   |         |
| Memory                                       | Parameter memory EEPROM   |                      |   |         |
| Data retention                               | $\geq 100$ Years at 25 °C   |                      |   |         |
| <b>RS485</b>                                 |   |                      |   |         |
|  | 9600 Baud, No parity, 8 Databit, 1 Stopbit  |                      |   |         |
| Cable length                                 | max. 1000 m   |                      |   |         |
| <b>Ambient conditions</b>                    |   |                      |   |         |
| Working temperature                          | 0 to 50 °C  |                      |   |         |
| Storage temperature:                         | -20 to 80 °C  |                      |   |         |
| Climatic resistance                          | Relative humidity $\leq 75\%$ as an annual mean without condensation  |                      |   |         |
| Internal protection                          | IP30  |                      |   |         |
| EMV  | DIN 61326   |                      |   |         |
| CE-Sign                                      | Conformity according to directive 2004/108/EG   |                      |   |         |
| Security standard                            | according to the low voltage directive 2006/95/EG; EN61010; EN60664-1   |                      |   |         |
| <b>Signal processing</b>                     |   |                      |   |         |
| Measuring time                               | 0,02 - 10,00 sec  |                      |   |         |
| Measuring rate                               | max. 50 measurements / second   |                      |   |         |
| Rise time 0 - 100 %                          | 0,5 ms  |                      |   |         |
| Peak value measurement by pulse extension:   | 20 ms $\approx 98\%$ ; 100 ms $\approx 90\%$<br>(with two consecutive 5 ms pulses)  |                      |   |         |
| Delay to output „0“:                         | 100 - 0 % max. 3 s  |                      |   |         |
| <b>Signal output</b>                         |   |                      |   |         |
| Torque                                       | looped through transducer   |                      |   |         |
| Speed  | looped through transducer   |                      |   |         |
| <b>Limit value outputs</b>                   | change-over contact 30 VDC / 2 A at ohm load  |                      |   |         |
| <b>Connection</b>                            |   |                      |   |         |
| Input: (12 pin)                              | backside by round plug  |                      |   |         |
| Output: (7pin)                               | backside by round plug  |                      |   |         |

|                   |   |
|-------------------|---|
| Dimensions        | 185 x 148 x 208 mm (width x height x depth)     |
| Weight            | approx. 1620 g                                  |
| Display           | seven segment LED, digit height 14 mm, 5 digits |
| Segmentcolour     | red   |
| Display area      | -9999 to 99999 (Freely selectable comma)        |
| Switching points: | 4 switching points with 1 LED                   |
| Overflow          | horizontal bars above                           |
| Underflow         | horizontal bars below                           |
| Display time      | 0,1 to 10 seconds                               |

|   |  |
|---|--|
| Output (option)                         |  |
| Relais                                  | Changeover contact 30 V DC / 5 A with resistive load   |
| Switching cycles                        | 0,5 x 10 <sup>5</sup> at max. contact load<br>5 x 10 <sup>6</sup> mechanical<br>Separation according to DIN EN 50178 / characteristic values according to DIN EN 60255 |
| Interface (option)                      |  |
| RS232<br>(optional galvanisch getrennt) | 9600 Baud, No parity, 8 Databit, 1 Stopbit   |
| Cable length                            | max. 3m  |
| Protokol                                | manufacturer-specific ASCII  |

Example of the back



## Ordering code/ variants

### ValueView -

- D-01** **Standard: two devices (D = double)**
  - ⇒ for positive and negative peak value measurement or
  - ⇒ Tracking and peak value measurement (Selection can be freely parameterized)
  - Active input  $\pm 5\text{ V}$  or  $\pm 10\text{ V}$
  - External control and taring
  - Outputs: torque signal untared
  - Speed signal from the sensor looped through
- D-02** Standard + Variant
  - ⇒ Torque and speed measurement
- D-03** Standard + Variant
  - ⇒ Eight potential-free changeover contacts limit value outputs, four for torque and four for speed
- D-XX** Standard + custom Variant
  - ⇒ Description of the desired functions

## Available options:

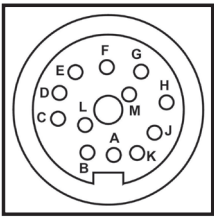
Cables,  
Torques

Further options on request!

# Connection pinout standard

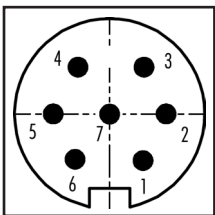
(Looking at the soldering connections of the mating connector)

## 12-pin round socket



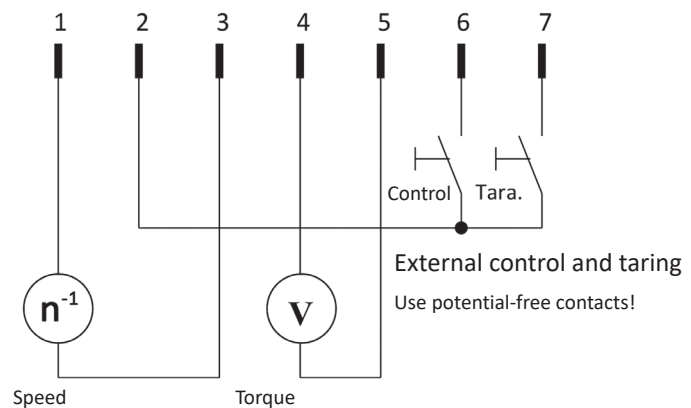
| Pin | Assignment              |
|-----|-------------------------|
| A   | NC                      |
| B   | Angle track B           |
| C   | moment                  |
| D   | moment mass             |
| E   | Supply + angular ground |
| F   | Supply 12 V             |
| G   | Angle track A           |
| H   | NC (reserved)           |
| J   | NC (reserved)           |
| K   | Control                 |
| L   | NC (reserved)           |
| M   | NC (reserved)           |

## 7-pin round socket



| Pin | Assignment                    |
|-----|-------------------------------|
| 1   | Speed output (looped through) |
| 2   | +12 V                         |
| 3   | Mass speed                    |
| 4   | Moment exit                   |
| 5   | Moment mass                   |
| 6   | Control                       |
| 7   | Tare                          |

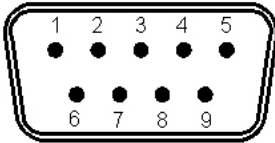
Analog output for torque, direct output from the torque sensor, untared.



## Assignment variants

### ValueView-S-02

Sub-D connector (male) 9 pins

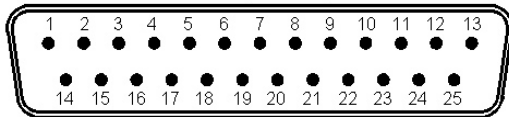


(View of the plug contacts)

| Pin | Sub D 9-pin |
|-----|-------------|
| 1   | NC          |
| 2   | RXD         |
| 3   | TXD         |
| 4   | NC          |
| 5   | GND         |
| 6   | NC          |
| 7   | NC          |
| 8   | NC          |
| 9   | NC          |

### ValueView-S-03

Sub-D connector (male) 25 pins



(View of the plug contacts)

Contact load: max 30V DC/AC 1A

### Upper built-in instrument

| Pin | Sub D 25-p |
|-----|------------|
| 1   | Opener     |
| 2   | Closer     |
| 3   | Changer    |
| 4   | Opener     |
| 5   | Closer     |
| 6   | Changer    |
| 7   | Opener     |
| 8   | Closer     |
| 9   | Changer    |
| 10  | Opener     |
| 11  | Closer     |
| 12  | Changer    |

### Lower built-in instrument

| Pin | Sub D 25-p |
|-----|------------|
| 1   | Opener     |
| 2   | Closer     |
| 3   | Changer    |
| 4   | Opener     |
| 5   | Closer     |
| 6   | Changer    |
| 7   | Opener     |
| 8   | Closer     |
| 9   | Changer    |
| 10  | Opener     |
| 11  | Closer     |
| 12  | Changer    |