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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 diplay-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 passivee transducers and for display of speed are available on demand.

Technical Specifications

Power supply				
Supply Voltage	100-240 V / 50-60 Hz, ± 10 % (max. 35 VA) via IEC connector other voltages on request (For D-versions only 230V status 03.2021)			
Sensor feeding for torque transducers	12V DC / 500 mA			
Input voltage	Measurement range	R1	measuring fault Tu=20 to 40°C (%) MB	Digit
	±10 V	10 MΩ	0,01	± 1
	± 5 V	10 MΩ	0,02	± 1
Measurement time	Voltage	0,02 to 10,00 second		
Measuring principle	Sigma / Delta			
Resolution	24 Bit			
Memory	Parameter memory EEPROM			
Data retention	≥ 100 Years at 25 °C			
RS485 (Option)	9600 Baud, No parity, 8 Databit, 1 Stopbit			
Cable length	max. 1000 m			
Ambient conditions				
Working temperature	0 to 50 °C			
Storage temperature:	-20 to 80 °C			
Climatic resistance	Relative humidity ≤ 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			
Signal processing				
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 ≈ 98 % ; 100 ms ≈ 90 % (with two consecutive 5 ms pulses)			
Delay to output „0“:	100 - 0 % max. 3 s			
Signal output				
Torque	looped through transducer			
Speed	looped through transducer			
Limit value outputs	change-over contact 30 VDC / 2 A at ohm load			
Connection				
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	appox. 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 10^5 at max. contact load 5 x 10^6 mechanical Separation according to DIN EN 50178 / characteristic values according to DIN EN 60255
Interface (option)	
RS232 (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 ± 5 V or ± 10 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:

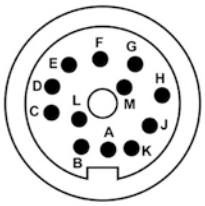
Cables,
Torques

Further options on request!

Connection pinout standard

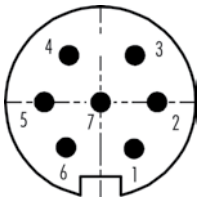
(Looking at the soldering connections of the mating connector)

12-pin round socket



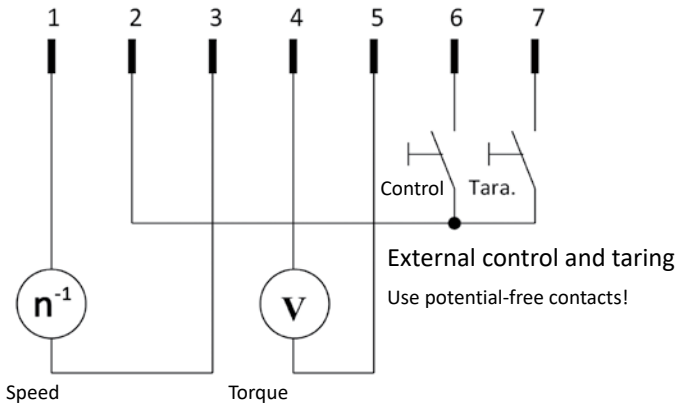
Pin	Assignment
A	NC
B	Angle track B
C	moment
D	moment mass
E	Supply + angular ground
F	Supply 12 V
G	Angle track A
H	NC (reserved)
J	NC (reserved)
K	Control
L	NC (reserved)
M	NC (reserved)

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

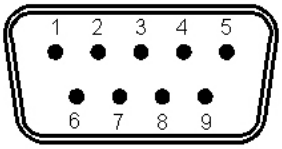
Analog output for torque,
direct output from the torque sensor,
untared.



Assignment variants

ValueView-S-02

Sub-D connector (male) 9 pins

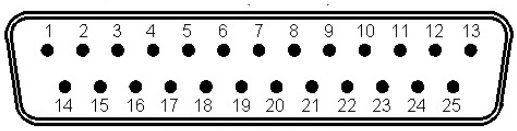


(View of the plug contacts)

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