

Datasheet

Supply and Display Unit

ValueView S-01

Detection of torque or force



(old device designation 291-1)

- Resolution 24 bit
- Sampling rate up to 50 measurements / s
- Permanent min / max display
- tare function
- Sensor supply
- +/- full scale input
- Peak value measurement

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

Power supply				
Supply Voltage	100-240 V / 50-60 Hz, $\pm 10\%$ (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
	$\pm 10\text{ V}$	10 M Ω	0,01	± 1
	$\pm 5\text{ V}$	10 M Ω	0,02	± 1
Measurement time	Voltage	0,02 to 10,00 second		
Measuring principle	Sigma / Delta			
Resolution	24 Bit			
Memory				
Memory	Parameter memory EEPROM			
Data retention	≥ 100 Years at 25 °C			
RS485				
	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 $\leq 75\%$ 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			
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 $\approx 98\%$; 100 ms $\approx 90\%$ (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: (7-pin)	backside by round plug			

Dimensions	185 x 87 x 208 mm (width x height x depth)
Weight	approx. 1100 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

Connections on the back of the device Standard S-01



Available accessories:

Measuring cable,
Torque transducer

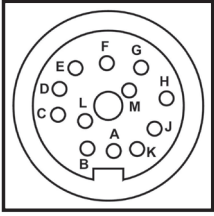
Ordering code/ variants

	ValueView -
Standard single device ⇒ Torque display Active input $\pm 5V$ or $\pm 10V$ External control of control and taring Outputs: torque signal untared Speed signal from the sensor looped through	S-01
Standard + Variant ⇒ RS232 for torque signal	S-02
Standard + Variant ⇒ four potential-free changeover contacts for limit value outputs	S-03
Standard + Variant ⇒ Switch on the back for 2nd measuring range DRDL torque sensors	S-04
Standard + Variant ⇒ Sensor supply by button 12V / 15V switchable on the back	S-05
Standard + Variant ⇒ Angle signal looped through from the sensor	S-06
Standard + Custom Variant ⇒ Description of the desired function	S-XX

Connection pinout standard

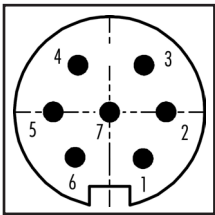
(Looking at the soldering connections of the mating connector)

12-pin round socket



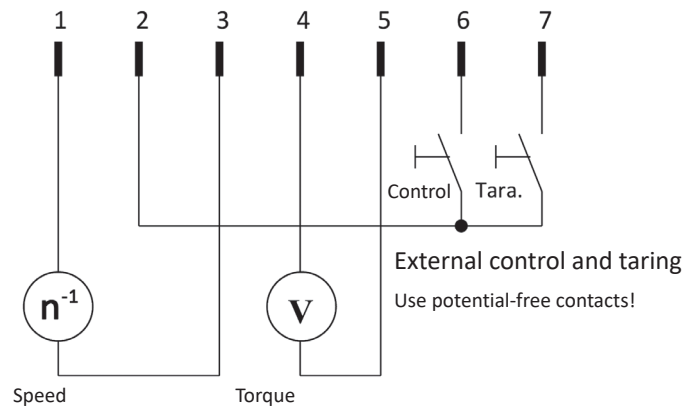
Pin	Assignment
A	NC
B	Angle track B
C	moment
D	moment mass
E	Supply + angular ground
F	Supply 12 V
G	Angle track A
H	NC (reserved)
J	NC (reserved)
K	Control
L	NC (reserved)
M	NC (reserved)

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

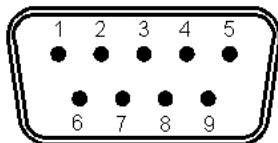
Analog output for torque, direct output from the torque sensor, untared.



Assignment variants

ValueView-S-02

Sub-D connector (male) 9 pins

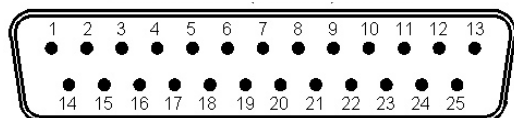


(View of the plug contacts)

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)

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
13-25	NC

Contact load: max 30V DC/AC 1A