

Digital Display Unit *dea*

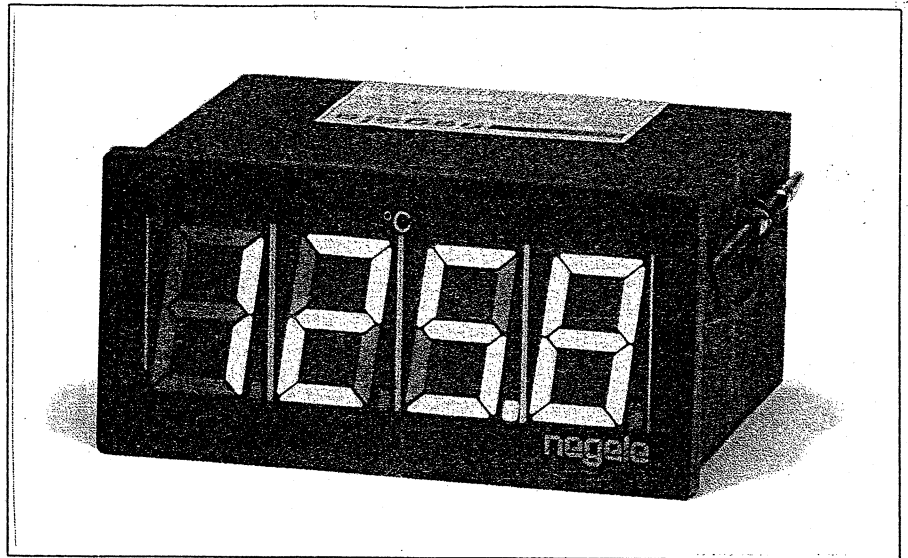
General Function

Digital display units *dea* are designed for measurement and display in an industrial environment.

These units can be adapted to practically any signal input and offer the possibility of operation in conjunction with further units connected to the analog output.

The 3 1/2 digit red 7-segment display is incorporated in a DIN housing and protected by a non-reflective filter window.

The 40 mm tall LED numerals make for easy reading even from afar.



Digital Display Unit *dea*

Features

- analog output 0/4...20mA/0...10V
- adjustable zero
- variable gain
- compatible with 6 different inputs
- supply voltage DC decoupled
- plug-in 13-pin terminal block
- linearization with Pt100 and thermocouple input
- cold junction for thermocouple input
- customized signal unit marking

Specification

Style:	panel insertion casing 144x72x130 mm with 2 side mounting clips panel cutout 138x66mm
Enclosure code:	IP 50 front, IP 20 rear IP 65 front optional
Display:	7-segment LED, red, 3 1/2 digit, 40 mm tall count -1999...1999
Ambient:	operating temp. range 0...+50°C shelf temp. range -20...+70°C humidity 0...95% no condensate
Input:	selectively DC volt/ammeter, AC volt/ammeter Pt100 3-wire, Pt100 4-wire thermocouple, potentiometer, frequency
Sensor voltage	approx. 20V DC/max. 25 mA (pin 5)
Power supply:	24, 110, 230 V AC, 47...63Hz, 15VA

Options

Analog output:	current 0...20mA or 4...20mA, max. 400Ω burden. overcurrent limit <25mA (optional 0/4-20mA) alternatively voltmeter output 0...+10V min load 1 kW (optional 0-10V) accuracy typ. 0.3% of max. output signal
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Availability

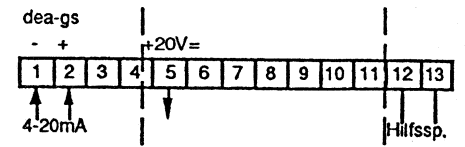
Signal input type **Range** **Accuracy/resolution** **Input impedance**

Pin Assignments

Inputs Outputs supply

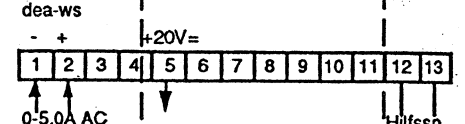
DC ammeter/voltmeter

dea-gs	0...±10 VDC	0.1%±1 digit/10 mV	100kΩ
dea-gs	0...±20 mA DC	10 mA	50Ω
dea-gs	4...20 mA DC	10 mA	50Ω



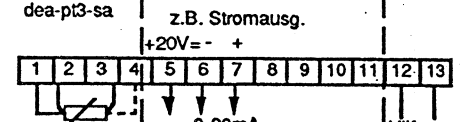
AC ammeter/voltmeter

dea-ws	0..200 V AC	0.5%±1 digit/0.1 mV	1MΩ
dea-ws	0...20 V AC	10 mV	100kΩ
dea-ws	0...1/5A AC	10 mA	0.1Ω



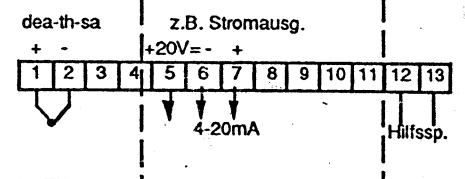
Pt100

dea-pt3(3-wire)	-100...+200°C	1%±1 digit/0.1K	line offset thru 100Ω
dea-pt3	-100...+600°C	1K	thru 100Ω
dea-pt4(4-wire)	-100...+200°C	1%±1 digit/0.1K	line offset thru 100Ω
dea-pt4	-100...+600°C	1K	thru 100Ω



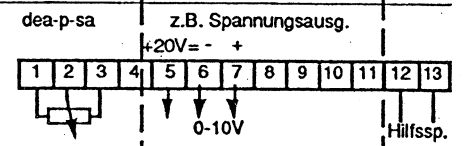
Thermocouple

dea-fk(FeCuNi)	-100...+200°C	1%±1 digit/0.1K	cold junction
dea-fk(FeCuNi)	0...+600°C	1K	
dea-nc(NiCrN)	0...+600°C	1K	
dea-nc(NiCrN)	0...+1200°C	1K	
dea-pr(PtRhPt)	0...+1600°C	1K	



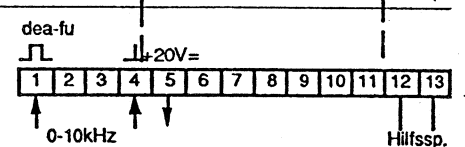
Potentiometer

dea-p	0...200Ω thru 0...10kΩ	1%±1 digit	2.5 VDC supply for pot
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Frequency

dea-fu	0...10kHz	1%±1 digit/10 Hz	
dea-fu	0...100kHz level 2...24V	0.5%±1 digit/100 Hz	



Order Code: You must specify the following when ordering:

Type	Options	Range	Display	Unit on Front	Supply
dea-gs		4-20mA	0...100,0	%	24V AC
dea-ws		0-5A AC	0...19,99	A	24V AC
dea-pt3	-sa 0-10V=0...200°C		-100...+199,9	°C	230V AC
dea-pt4	-sa 4...20mA=0...100°C		0...600	°C	230V AC

Setting Availability

For adapting settings bezel window must be removed.

- Decimal point is set by links DP1...DP3
199.9
19.99
1.999
- Zero trimmer for adapting display zero
- Gain trimmer for adapting display HI to max. ammeter/voltmeter input (20mA and 10 V DC resp.). For other inputs gain can **not** be changed externally with this trimmer

Front view of dea (bezel window removed)

