Data sheet

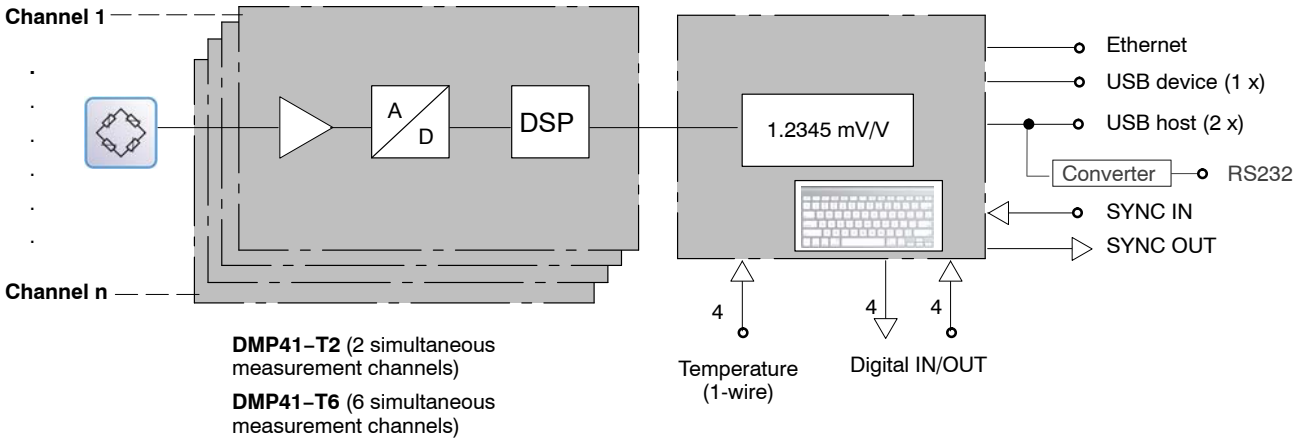
DMP41

Digital precision measuring devices

Special features

- **Accuracy class 0.0005**
- **Simultaneous measurement with optional 2 or 6 channels**
- **Resolution of measured signals up to the physical limit**
  > 1,000,000 d
- **Individual linearization**
- **Powerful digital filters**
- **Background calibration**
- **Operation via touchscreen, keyboard or computer**
- **Improved temperature and EMC behavior**
- **LAN/USB as required**

Working method of the devices



DMP41–T2 (2 simultaneous measurement channels)

DMP41–T6 (6 simultaneous measurement channels)

Specifications

Type		DMP41–T2	DMP41–T6
Accuracy class		0.0005[1)]	
Number of amplifiers		2	6
Transducers that can be connected		2 SG full bridges	6 SG full bridges
Excitation voltage (–) U_b	V	2.5; 5; 10	
Carrier frequency	Hz	225 ±100ppm	
Transducer resistance per amplifier			
at U_b = 2.5V	Ω	75 … 4,000	
at 5V	Ω	150 … 4,000	
at U_b = 10V	Ω	300 … 4,000	
Length of transducer cable	m	< 200	
Measuring ranges	mV/V	±2.5; ±5, ±10	
Digital filter (6th order)	Hz	40...0.01 (15 steps)	
Display resolution	digit	> 1,000,000	
Common-mode rejection	dB	> 120	
Input resistance	MΩ	> 100	
Sampling rate, per amplifier	1/s	1 … 450	
Taring range/Zeroing range		Total display range	
Linearization of transducer characteristic curve		2...11 points	
Non-linearity			
rel. to full scale value	%	< 0.0005	
Temperature effect per 10 K in nominal (rated) temperature range			
on zero point (rel. to full scale value)	%	< 0.0002	
on sensitivity (rel. to actual value)	%	< 0.0005	
Short-term drift over 5 min, from 2 h after switch-on	ppm	max. ±2, typ. ±1	
Long-term drift over 24 h, from 2 h after switch-on	ppm	max. ±5, typ. ±2	
Nominal (rated) temperature range	°C	10...+40	
Operating temperature range	°C	10...+50	
Storage temperature range	°C	-10...+60	
Operating voltage (mains voltage)	V	85 … 264 (50...60 Hz)	
Power consumption	W	approx. 35	approx. 45
Weight, (net weight)	kg	approx. 9	approx. 9,5
Dimensions (W x H x D)	mm	458 x 171 x 367	
Connections for			
SD transducer in six-wire configuration		2 x D-SUB-15 2 x Amphenol	6 x D-SUB-15 6 x Amphenol
Temperature sensor (1-wire), max. 4 sensors		RJ45	
Digital inputs and outputs		D-SUB-15	
Computer interface Ethernet		RJ45	
Computer interface USB		USB device	
USB host interface		2 x USB Host	
Computer interface serial (optional)		Adapter D-SUB-9	
Range of use		Indoor	
Altitude, max.	m	2000	
Protection class		I	
Overvoltage category		II	
Permitted degree of contamination		2	
Rel. air humidity, max.		80 % at 31 oC, decreasing linearly to 50% at 40°C	
Degree of protection		IP 20 per DIN EN 60529	

1) With supply voltage 10V; Measuring range 2.5 mV/V; Transducer resistance 350 Ω; Cable length <10m

Specifications (continued)

Scope of delivery

Article	Order No.
Network cable (Ethernet cable CAT5+), 1 piece	1-KAB239-2
Network cable IEC 320 C13, 1 piece Please enter the land in which the cable is to be used in the order (various versions: DE/CH/GB/IT/USA)	1-KAB274- . . .
Synchronization cable for synchronization between 2 DMP41 devices (can be used for both DMP41-T2 and DMP41-T6)	1-KAB261-2
Operating manuals, 2 copies	-
1 pc USB cable, 2.0 (DMP41 - PC-connection)	3-3301.0127
Synchronization cable for synchronization between a DMP40 (can be used for both DMP40 and DMP40-S2) and DMP41 devices (can be used for both DMP41-T2 and DMP41-T6)	1-KAB298-0.5
Synchronization cable for synchronization between a DMP41 device and a MGCplus device	1-KAB299-1
USB-RS232 adapter (from the new USB interface of the DMP41 to the RS232 interface previously present on the DMP40)	1-KAB297
Cable RS232	1-KAB2114-3

Accessories (not included among the items supplied)

	Order No.
Temperature sensor (1-wire); with open ends; 1 sensor per temperature channel	available from www.wiregate.de
RJ45 connector for tool-free fitting	1-RJ45-EMV

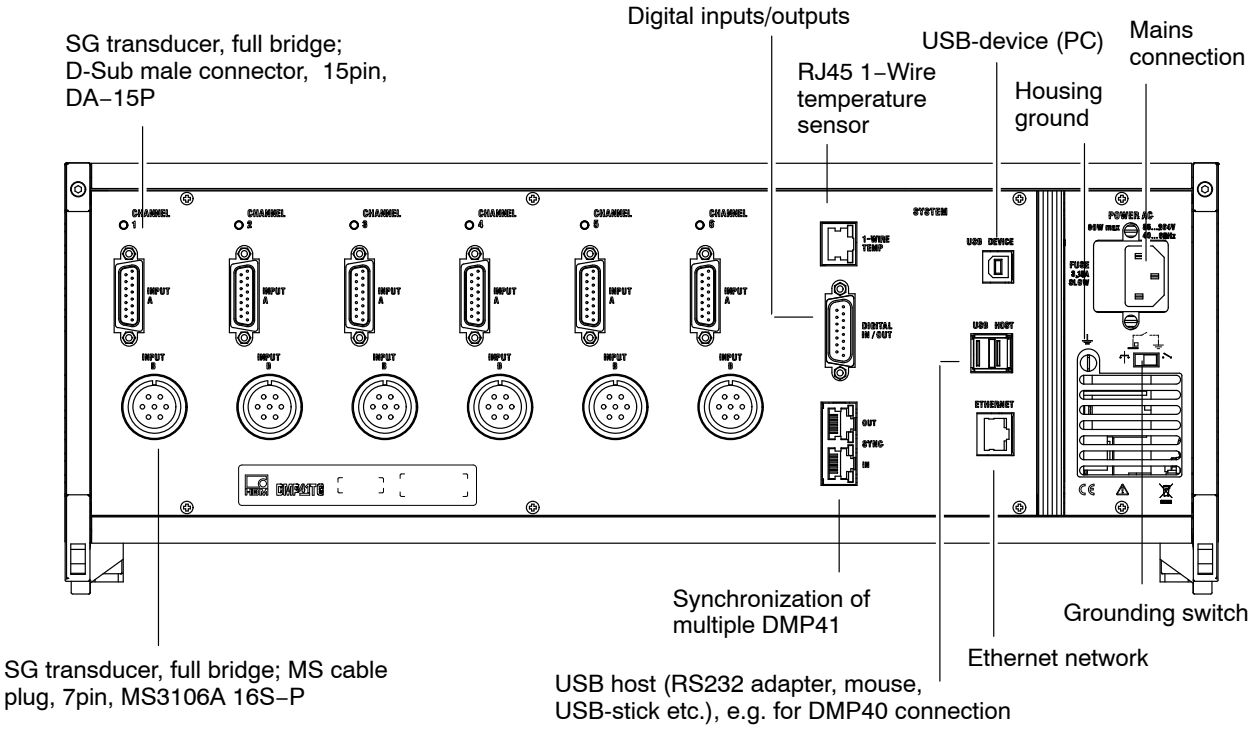
Application areas

- Calibration measurements within scope of quality management for compliance with DIN-ISO 9000, particularly for comparison measurements of comparison standards / test piece.
- Measurements under adverse conditions, extreme interference signal suppression.
- Precision measurement with SG transducers.

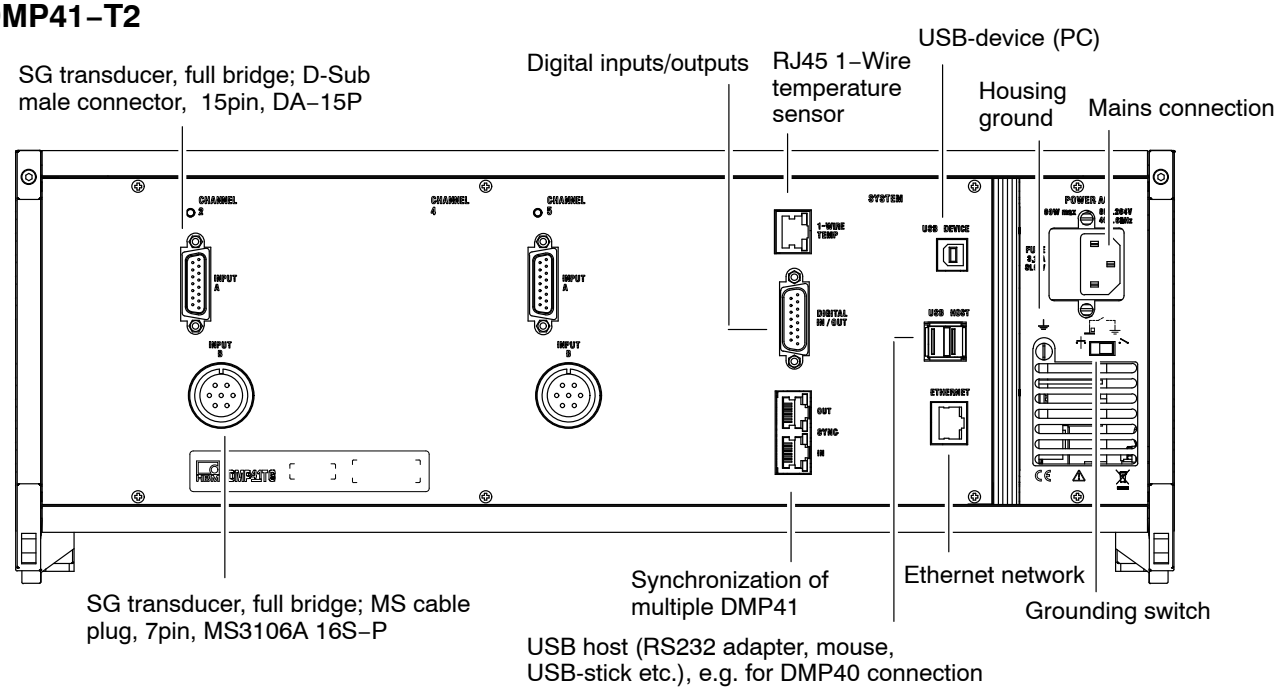
Specifications (continued)

Housing rears

DMP41–T6



DMP41–T2



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