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TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

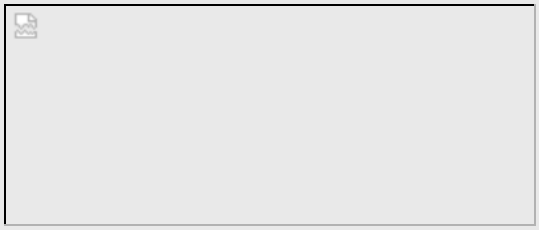
- Critical and expedited services
- In stock / Ready-to-ship
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- ITAR-certified secure asset solutions

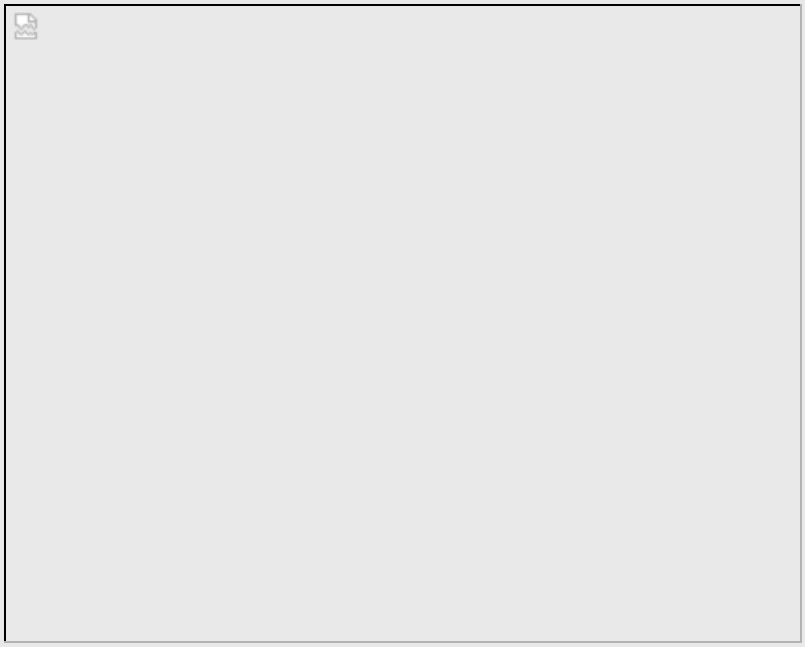
Expert team | Trust guarantee | 100% satisfaction

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Find the *Leybold Thermovac TM 20* at our website: *Click HERE*

THERMOVAC TM 20 / TM 21 / TM 22 / TM 23





Dimensional drawing and panel cut-out for the THERMOVAC TM 20 (top) and TM 21/TM 22/TM 23 (bottom)

Technical Data		TM 20	TM 21	TM 22	TM 23
Measurement channels		1	1	2	3
Display range	mbar (Torr)	10^{-3} to 1000 (10^{-3} to 750)	5×10^{-4} to 1000 (3.75×10^{-4} to 750)		
Unit of measurement (selectable)		mbar, Torr, Pa, Micron			
Display		Digital, 7 segment LCD,	Digital, 7 segment-LCD, analog, LCD bar graph		
(TM 21/22 back-lit)		Analog, LCD bar graph	with logarithmic divisions (selectable)		
Type of gas (selectable)			Air, N2, Ar		
Measurement uncertainty with THERMOVAC sensors (after warming up)		< 20 % of the meas. value in the range 10^{-3} to 10^{-2} mbar, <15 % v. of the meas. value in the range 10^{-2} to 102 mbar			
Switching thresholds		–	2 floating changeover contacts per measurement channel		
Operating mode		–	single, interval		
Adjustment range for the switching thresholds	mbar (Torr)	–	5×10^{-3} to 500 (3.75×10^{-3} to 375)		
Hysteresis for the switching relay		–	standard 10 % of trigger value, free adjustable		
Ready relay		–	Contact closed when ready		
Rating of the relay contacts		–	AC 240 V/5 A (resistive load),		
			DC 60 V/0.7 A (resistive load)		
Contact life at 5 A		–	> 6 x 104 cycles		

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Chart recorder output (Ra > 2.5 kW)		0 to 10 V, logarithmic divisions: 1.67 V/decade	0 to 10 V, selectable: logarithmic/linear; logarithmic divisions: 1.67 V/decade, linearly adjustable over 3 decades; 0 V corresponds to 10-3 mbar, 10.5 V for faults		
Main connection 50/60 Hz (selectable)	V	90 to 130 / 180 to 250	100/120/200/230, +10/-15 %		
Power consumption	VA	9	12		14
Storage temperature range	°C	-40 to +60			
Nominal temperature range	°C	0 to 40			
Max. rel. humidity	% n.c.	80			
Weight, approx.	kg (lbs)	2 (4.4)			
Dimensions (W x H x D)	mm	106.5 x 128.5 x 172	106.5 x 128.5 x 282		
Cable length, max.	m	5	100 with cable length alignment		
			(automatic cable length alignment for sensors TR 211/TR 212 and 216)		
Interface		–	RS 232 C		–
Sensors		TR 211, TR 212, TR 216			

Ordering Informatio	**TM 20**	**TM 21**	**TM 22**	**TM 23**
Complete measurement system, with 2 m long main cord, TR 211 sensor and 5 m long sensor cable, 230 V AC	**Cat. No. 157 81**	**–**	**–**	**–**
Euro model, with 2 m long main cord, mbar readout, 230 V AC	**–**	**Cat. No. 157 83**	**Cat. No. 157 84**	**Cat. No. 157 98**
DKD calibration	**Cat. No. 157 12**			
Options				
19" installation frame	**Cat. No. 161 00**			
1/4 19" blank panel	**Cat. No. 161 02**			
THERMOVAC sensors				
TR 211, DN 16 KF	**Included with the instrument**	**Cat. No. 157 85**		
Replacement sensing cell for TR 211, DN 16 KF	**Cat. No. 157 75**			
TR 211, 1/8" NPT	**Cat. No. 896 33**			
Replacement sensing cell for TR 211, 1/8" NPT	**Cat. No. 896 34**			
TR 212, DN 16 KF	**Cat. No. 158 52**			
TR 212, DN 16 CF	**Cat. No. 158 86**			
Replacement sensing cell for TR 212, DN 16 KF	**Cat. No. 157 53**			
TR 216, DN 16 KF	**Cat. No. 157 87**			
Replacement sensing cell for TR 216, DN 16 KF	**Cat. No. 157 77**			
Sensor cables				
05 m	**Included with the instrument**	**Cat. No. 162 26**		
10 m	**–**	**Cat. No. 162 27**		
20 m	**–**	**Cat. No. 162 28**		
Longer cable runs (max. 100 m)	**upon request**	**upon request**		
Extension cable 20 m	**–**	**Cat. No. 160 77**		

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Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

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