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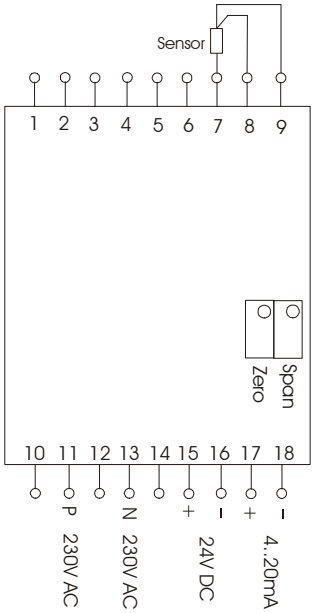
LKM453 INSTRUCTION FOR USE

The LKM 453 is an analogue transducer for Pt100/Pt1000 sensors acc. DIN EN 60751. The temperature sensitive resistance will be transformed into an extreme precise, temperature-linear current output of 4..20mA.
For models with other resistance sensors please ask. The LKM 453 has been tuned ex works according to the customized requires. Further fine-tuning can be arranged by span and zero controller.
If the LKM453 operated in 3-wire connection the resistance of the leads does not affect the results measured, if the input leads are of equal length and are made of the same conducting material. You can use the supply unit independent of the transducer or it can active supplying the transducer.

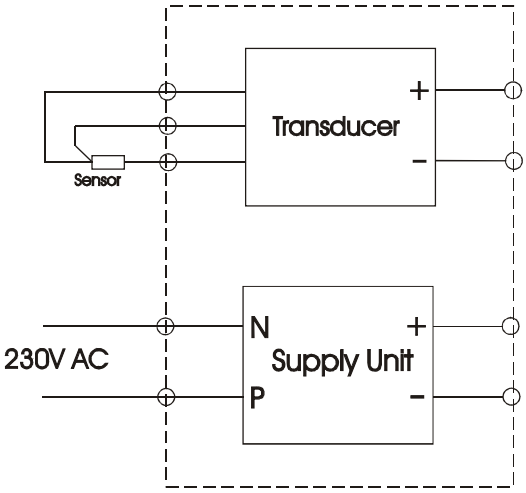
TERMINAL ASSIGNMENT



TECHNICAL DATA (TRANSDUCER):

Input:	*Pt100/Pt1000*	*2-/3-wire connection*
Measurement current:	*0,8..1mA*	*depended of sensor resistance*
Zero point:	*-200..600°C*	
Range:	*20..850°C*	
Linearity error:	*<0.1% FS*	
Supply voltage:	*10..35V DC*	*with security against polarity reversal*
Permissible ripple:	*<10%*	
Output:	*4..20mA*	*current loop*
Sensing element fracture:	*>20mA*	
Sensor short circuit:	*<4mA*	
Reaction time:	*<0.1s*	
Temp. coefficient:	*<100ppm/°C*	

PRINCIPAL CIRCUIT



TECHNICAL DATA (SUPPLY UNIT):

Input:		
Input voltage:	*230VAC / version 115 VAC is possible*	
Frequency:	*50..60Hz*	
Fuse:	*100mA fast*	*extern*
Output:		
Output voltage:	*24VDC*	
Nominal current:	*50mA*	
max. contin. efficiency:	*1,2VA*	
Ripple:	*< 10mV*	
Stability:	*< 1% (Vollast)*	
Other:		
Transformator:	*VDE 0551, EN60742*	
Test voltage:	*5000V~*	
Terminal type:	*screw terminals*	
Clamping area:	*0,2..2,5mm²*	
Operating temp. range:	*0..70°C*	
Storage temp. range:	*-20..+80°C*	
Protection system:	*IP20*	
Case:	*Unbreakable polyamide*	
Mounting:	*EN-rails*	*35mm*
Weight:	*ca. 100g*	