

# Analog measurement technology

## Analog interface module

# AKB

without electrical isolation



### Application:

The Wieland interface modules AKB and AKT are used to transfer an analog measured value from one signal format to another.

### Analog interface module without electrical isolation

Approvals: , CSA

Dimensions (mm) W x H x D  
16.5 x 60.5 x 90.5

Box Qty	Part No.	Part No.	Part No.	Part No.
1	-10...+10 V	-	-	-
1	0...10 V	-	57806.0053.0	57806.1553.0
1	0...20 mA	-	57806.0253.0	-
1	4...20 mA	-	57806.0353.0	-
	<b>Output</b>	<b>-10...10 V</b>	<b>0...10 V</b>	<b>0...20 mA</b>
				<b>4...20 mA</b>
<b>Other signals on request</b>	<b>Ordering example:</b> AKB 20 mA / 10 V 57806.0253.0			
<b>Wiring diagram, sample application</b>	<b>See page 510</b>			
<b>Technical data</b>				
Operating voltage	24 V DC $\pm$ 20%, polarised			
Typical power consumption (Output signal 20 mA)				
at 19 V DC				
at 24 V DC	ca. 12 mA + output current			
at 29 V DC				
<b>Input</b>				
Input resistance:				
for standard voltage	> 1 M			
for standard current	49.9			
Maximum permitted input signal				
for standard voltage	60 V			
for standard current	70 mA (3,5 V)			
Voltage drop at 20 mA	1 V			
Input protection against voltage peaks	LC-Filter			
<b>Output</b>				
Internal resistance:				
for standard voltage	100			
for standard current	$\geq$ 5 M			
Output load:				
for maximum standard voltage	5 mA ( $R_L \geq 100 \text{ k} \Omega$ , see $R_i$ )			
for standard current	0...500 (load)			
Maximum load error (adjustment at 100 $\Omega$ )	0.02 % / 100			
Output protection against external voltage	Z-Diode			
<b>Transfer procedure</b>				
Static transmission error at 20 °C	< 0.2 % v. E.			
Temperature coefficient	< 0.015 %/K			
Effect of load impedance at current output	0.02 % / 100			
Limit frequency: (sinus 100%)				
at sinus 100%	20 kHz			
at $\pm$ 10 V	10 kHz			
Typical effect of frequency on transfer	1 % / kHz; 2°el / kHz			
<b>Isolation</b>				
All terminals to earth	2 kV <sub>eff</sub>			
<b>Temperature range</b>				
Operating temperature range for series connection at 24 V				
vertical installation without space	0 ...50 °C			
vertical installation with spacing of 20 mm	0 ...60 °C			
Wire range	-40...+85 °C			