

## Pressure transmitters

AKS 32, AKS 33, AKS 32R, AKS 2050



### Introduction

AKS 32 and AKS 33 are pressure transmitters that measure a pressure and convert the measured value to a standard signal:

- 1 → 5 V DC for AKS 32
- 4 → 20 mA for AKS 33

AKS 32R and AKS 2050 are ratiometric pressure transmitters that convert the measured pressure to a linear output signal. The minimum value of the output signal is 10% of the actual supply voltage. The maximum value is 90% of the actual supply voltage.

With a supply voltage of 5 V, this yields a linear output signal with a value of:

- 0.5 V at the minimum pressure of the pressure transmitter;
- 4.5 V at the maximum pressure of the pressure transmitter.

### Application

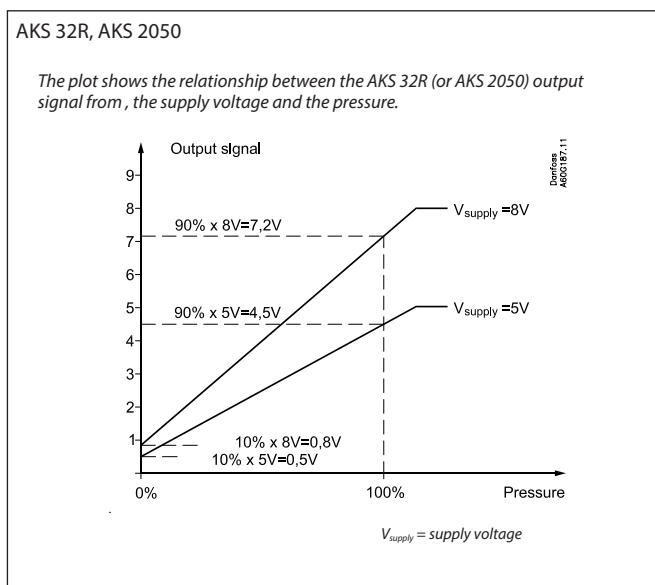
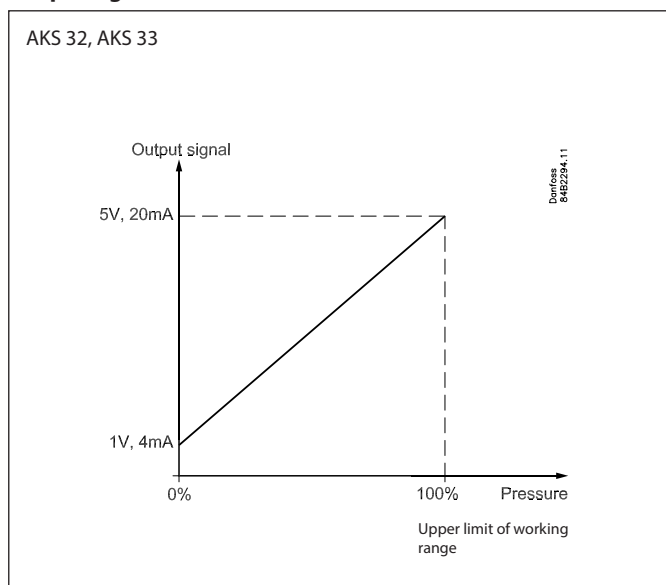
- A/C systems
- Refrigeration systems
- Process control
- Laboratories

### Advantages

- Advanced sensor technology enables high pressure control accuracy, which essential for precise and energy-efficient capacity regulation in refrigeration systems
- Temperature compensation for low-pressure and high-pressure pressure transmitters specifically designed for refrigeration systems:
  - Low pressure: -30 – 40 °C ( $\leq 16$  bar)
  - High pressure: 0 – 80 °C ( $> 16$  bar)
- Compatible with all refrigerants, including ammonia, for reduced parts inventory and greater application flexibility
- Effective moisture protection allows the sensors to be used in very harsh environments, such as a suction line surrounded by ice
- Robust construction provides protection against mechanical factors as shock, vibration, and pressure surges. AKS sensors can be fitted directly on the system components
- No adjustment is necessary. Thanks to the advanced sensor technology and sealed gauge construction, the accuracy of the factory calibration is maintained regardless of changes in ambient temperature and atmospheric pressure. This is essential for reliable control of evaporating pressure in air conditioning and refrigeration systems
- Built-in voltage regulator
- EMC protection compliant with the EU EMC Directive (CE marking)
- UL approved

## Pressure transmitters, types AKS 32, AKS 33, AKS 32R, AKS 2050

### Output signal



### Ordering data

#### AKS 32, version 1 – 5 V

	Operating range [bar]	Allowable working pressure PB [bar]	Compensated temperature range [°C]	Code no.		
				EN 175301-803 plug Pg 9		
				¼ NPT <sup>1)</sup>	G ¾ A <sup>2)</sup>	¼ flare <sup>3)</sup>
	-1 – 6	33	-30 – 40	<b>060G2000</b>	<b>060G2004</b>	<b>060G2068</b>
	-1 – 12	33	-30 – 40	<b>060G2001</b>	<b>060G2005</b>	<b>060G2069</b>
	-1 – 20	40	0 – 80	<b>060G2002</b>	<b>060G2006</b>	<b>060G2070</b>
	-1 – 34	55	0 – 80	<b>060G2003</b>	<b>060G2007</b>	<b>060G2071</b>
	-1 – 50	100	0 – 80			<b>060G2155</b>

#### AKS 33, version 4 – 20 mA

	Operating range [bar]	Allowable working pressure PB [bar]	Compensated temperature range [°C]	Code no.					
				EN 175301-803 plug Pg 9			Cable		
				¼ NPT <sup>1)</sup>	G ¾ A <sup>2)</sup>	¼ flare <sup>3)</sup>	¼ NPT <sup>1)</sup>	G ¾ A <sup>2)</sup>	¼ flare <sup>3)</sup>
	-1 – 5	33	-30 – 40	<b>060G2112</b>	<b>060G2108</b>	<b>060G2047</b>			
	-1 – 6	33	-30 – 40	<b>060G2100</b>	<b>060G2104</b>	<b>060G2048</b>		<b>060G2120</b>	
	-1 – 9	33	-30 – 40	<b>060G2113</b>	<b>060G2111</b>	<b>060G2044</b>			<b>060G2062</b>
	-1 – 12	33	-30 – 40	<b>060G2101</b>	<b>060G2105</b>	<b>060G2049</b>	<b>060G2117</b>		
	-1 – 20	40	0 – 80	<b>060G2102</b>	<b>060G2106</b>	<b>060G2050</b>	<b>060G2118</b>		
	-1 – 34	55	0 – 80	<b>060G2103</b>	<b>060G2107</b>	<b>060G2051</b>	<b>060G2119</b>		<b>060G2065</b>
	0 – 16	40	0 – 80	<b>060G2114</b>	<b>060G2109</b>				
	0 – 25	40	0 – 80	<b>060G2115</b>	<b>060G2110</b>	<b>060G2045</b>		<b>060G2127</b>	<b>060G2067</b>

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### AKS 32R, AKS 2050

	Type	Operating range [bar]	Allowable working pressure PB [bar]	Compensated temperature range [°C]	Code no.				
					¼ NPT <sup>1)</sup>	G ¾ A <sup>2)</sup>	¼ flare <sup>3)</sup>	¾ solder	¼ female flare <sup>4)</sup>
	AKS 32R	-1 – 12	33	-30 – 40	<b>060G1037</b>	<b>060G1038</b>	<b>060G1036</b>	<b>060G3551</b>	<b>060G6323</b>
		-1 – 34	55	0 – 80			<b>060G0090</b>	<b>060G3552</b>	<b>060G6341</b>
	AKS 2050	-1 – 59	100	-30 – 40	<b>060G6342</b>	<b>060G5750</b>		<b>060G6408</b>	
		-1 – 99	150	-30 – 40	<b>060G6343</b>	<b>060G5751</b>			
		-1 – 159	250	0 – 80	<b>060G6344</b>	<b>060G5752</b>			
	Mating plug with 5 m cable (rated IP 67 when fitted to pressure transmitter)				<b>060G1034</b>				
	Plug Pg 9				<b>060G0008</b>				

1) ¼ – 18 NPT.

2) Thread ISO 228/1 - G ¾ A (BSP).

3) ¾ – 20 UNF.

4) With depressor pin for Schraeder valve. ¾ – 20 UNF.

### Compact pressure transmitter for CO<sub>2</sub>

#### Advantage:

- Designed for CO<sub>2</sub> plants
- Compact design
- High accuracy

Additional information available:  
Technical brochure: IC.PD.P21.I

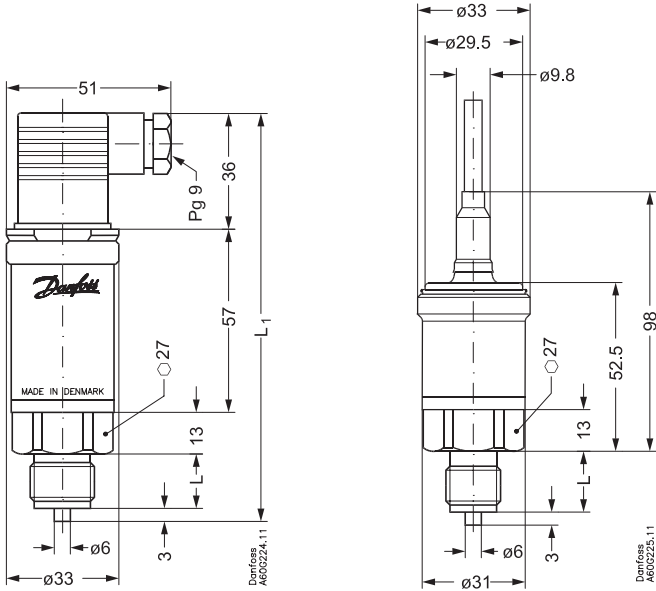
MBS 8250 	Operating range [bar]	Allowable working pressure PB [bar]	Compensated temperature range [°C]	Signal	Code no.
					¼ NPT <sup>1)</sup>
	-1 – 159	250	-20 – 100	Ratiometric	<b>064G1131</b>
				4 – 20 mA	<b>064G1132</b>
Round Packard Metri-Pack. Connection plug with 10 m cable					<b>064G0910</b>

**Dimensions and weights**

**AKS 32, AKS 33**

Version with EN 175301-803 plug Pg 9

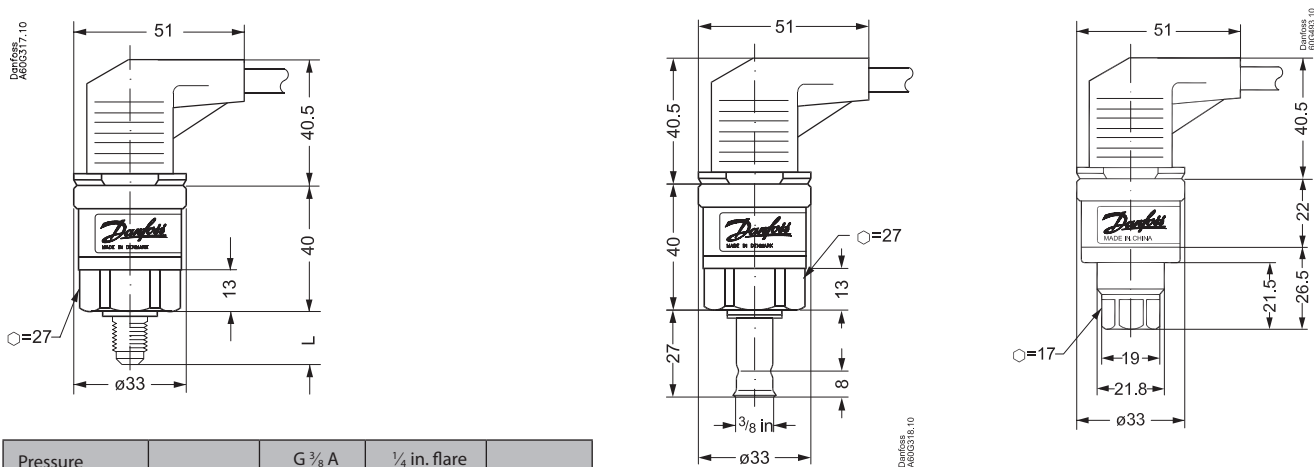
Cable version



Pressure connection	¼ - 18 NPT	G ¾ A ISO 228/1	¼ in. flare 7/16 - 20 UNF
L <sub>1</sub> [mm]	122	127	122.5
L [mm]	16	18	16.5

Weight approx. 0.3 kg

**AKS 32R, AKS 2050**



Pressure connection	¼ - 18 NPT	G ¾ A ISO 228/1	¼ in. flare 7/16 - 20 UNF	¾ Solder
L [mm]	16	21	16.5	30

Weight approx. 0.15 kg

Additional information available: MBS 8250  
 AKS 32 and AKS 33 Technical brochure: IC.PD.P21.I  
 AKS 32R and AKS 2050 Technical brochure: IC.PD.P21.Z  
 Technical brochure: IC.PD.P20.W

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