Product Information

ACS
Addressable Compressor Monitoring Unit

The ACS addressable compressor monitoring unit captures up to ten physical parameters that are needed to assess the operating status of stationary pressurization systems.

In the ACS process, output air from the pressurization system is conducted through a sensor unit that measures air temperature, humidity and total air flow. The compressor runtime, operating hours and the 230 V power supply are monitored via two 230 V connections. A readout input for a dry contact is also provided.

Sensors for ambient temperature, compressor temperature and compressor pressure are also available.

All measured parameter can be indicated directly on a LC display.

These readings can be transmitted for analysis to the LANCIER monitoring system via the Lancier Tx-bus or an optional CAN or Mod bus module. The readings allow for the quality monitoring of stationary pressurization systems and determination of the optimal maintenance time for the monitored pressurization system.

LANCIER Monitoring

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Technical Data

Supply voltage	20 .. 72 VDC
Power consumption	< 60 mA typ.
Operating temperature	0 .. 50 °C
Storing temperature	-20 .. 70 °C
Admissible ambient humidity	0 .. 95 % rel. humidity, non-condensing
Admissible operating pressure	1 bar overpressure (oilfree oil-free and solvent-free air, filtered by 5 µm)
Dimensions (H x W x D)	160 x 150 x 90 mm (without connectors)
Weight ACS	approx. 1200 g

Ordering Data

Compressor Monitoring Unit ACS with display and control panel	
ACS 5000-F: Total air flow 0 .. 5000 l/h	**Order-no. 072891.010**
ACS 10000-F: Total air flow 0 .. 10000 l/h	**Order-no. 072891.110**
Accessories	
Pressure sensor 0-10 bar	**Order-no. 073153.000**
Temperature sensor -20 to +80 °C, extern, for ambient temperature	**Order-no. 073154.000**
Temperature sensor -30 to +200 °C, extern, for compressor temperature	**Order-no. 073155.000**
Microfilter, for air input to protect sensors from dust	**Order-no. 073206.000**

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Measurement ranges / Output frequencies Tx-Bus

Integrated sensors		
Contact	Dry contact	
	open	1024 Hz
	closed	1792 Hz
	Address on the Tx-bus	n (n = coded address)
System voltage	115/230 V AC	
	voltage < 50 V AC	1024 Hz
	voltage > 90 V AC	1792 Hz
	Address on the Tx-bus	n + 1 (n = coded address)
Compressor runtime	0 .. 10.000 s (most recent cycle)	
	0 .. 10.000 s	1000 .. 2000 Hz
	Resolution	10 s (1 Hz)
	Address on the Tx-bus	n + 2 (n = coded address)
Compressor operating hours	0 .. 10.000 h	
	0 .. 10.000 h	1000 .. 2000 Hz
	Resolution	10 h (1 Hz)
	Address on the Tx-bus	n + 3 (n = coded address)
Rel. humidity of output air	0 .. 100 % r.h.	
	0 .. 100 % r.h.	1000 .. 2000 Hz
	Resolution	0.1 % r.h. (1 Hz)
	Max. measuring error	± 3.5 % FS (Full scale)
	Address on the Tx-bus	n + 4 (n = coded address)
Temperature of output air	0 .. 50 °C	
	0 .. 50 °C	1000 .. 1500 Hz
	Resolution	0.1 °C (1 Hz)
	Max. measuring error	± 2 °C
	Address on the Tx-bus	n + 5 (n = coded address)
Optional external sensors		
Temperature sensor PT1000	-20 .. +80 °C	
	-20 .. +80 °C	800 .. 1800 Hz
	Resolution	0.1 °C (1 Hz)
	Max. measuring error	± 3 °C
	Address on the Tx-bus	n + 6 (n = coded address)
Temperature sensor PT1000	Maximum temperature since the	
	most recent compressor cycle	-40 .. +200 °C
	-40 .. +200 °C	800 .. 2000 Hz
	Resolution	0.2 °C (1 Hz)
	Max. measuring error	± 5 °C
	Address on the Tx-bus	n + 7 (n = coded address)
Pressure sensor	0 .. 10 bar rel.	
	0 .. 10 bar rel.	1000 .. 2000 Hz
	Resolution	0.01 bar (1 Hz)
	Max. measuring error at 25 °C	±2.5 % FS
	Max. temperature drift	±0.075 % FS/°C
	Temperature range of the medium	0 .. 90 °C
	Address on the Tx-bus	n + 8 (n = coded address)
Flow module F	Total air flow (standard liter: 20 °C)	0 .. 5000 l/h or 0 .. 10000 l/h
	0 .. 5000 l/h / 0 .. 10000 l/h	1000 .. 2000 Hz
	Resolution	5 l/h (1 Hz) or 10 l/h (1 Hz)
	Max. measuring error	± 10 % FS
	Max. overpressure	1 bar
	Address on the Tx-bus	n + 9 (n = coded address)