

A6370 Overspeed Protection Monitor

The A6370 Monitor is part of the AMS 6300 SIS Overspeed protection system and is mounted in a 19" rack (84HP width and 3RU height) in combination with the A6371 system backplane. One AMS 6300 SIS consists of three Protection monitors (A6370) and one backplane (A6371).

The system is designed for use with Eddy-Current sensors, Hall- Element sensors and Magnetic (VR) Sensors.

Sensor Voltage Supply		
Nominal Supply Voltage	-24.5 V $\pm$ 1.5V DC	Short-circuit proof, galvanically separated
Max. Current	35 mA	
Signal Input, Eddy Current & Hall Element Sensors		
Input Signal Voltage Range	0 V to 26 V (+/-)	Protected against reverse polarity
Limit Range	$\pm$ 48 V	
Frequency Range	0 to 20 kHz	
Input Resistance	Typical 100 k Ω	
Signal Input, Magnetic (VR) Sensors		
Input Signal Voltage Range	Min. 1 Vpp, max. 30 V RMS	
Frequency Range	0 to 20 kHz	
Input Resistance	Typical 18 k Ω	
Digital Input (Backplane)		
Number of Inputs	4 (Galvanically separated with common ground of all digital inputs)	(Test Value 1, Test Value 2, Enable Test Values, Reset Latch)
Logic Low Level	0 V to 5 V	
Logic High Level	13 V to 31 V, open	
Input Resistance	Typical 6.8 k Ω	
Current Output (Backplane)		
Number of Outputs	2	Electrically isolated with common ground
Range	0/4 to 20 mA or 20 to 4/0 mA	
Accuracy	$\pm$ 1% of full scale	
Maximum Load	<500 Ω	
Max. Output Current	20 mA	



A6370D/DP Monitor "Profibus"



Digital Output (Backplane)		
Number of Outputs	7 (Short-circuit proof)	Out 1 to Out 6, Channel Ok (COK)
Logic Low Level	< 100 mV	
Logic High Level	-2 V	System Supply Voltage
Max. Current	25 mA	
Pulse Output (Backplane)		
Number of Outputs	3	Open-Collector-Emitter, Current limited, galvanically separated
Max. Voltage	31.2 V	
Max. Current	16 mA @ 24 V	
Frequency Range	0 to 20 kHz	
Pulse Output (Front Panel)		
Number of Outputs	1 (Short-circuit-proof)	
Voltage	0 to 5 V	TTL- Signal
Frequency Range	0 to 20 kHz	
Output Impedance	Typical 10 kΩ	
Sens. Output (Front Panel)		
Number of Outputs	1 (Short-circuit-proof)	
Voltage	0 to 3.9 V	Factor 0.15 ± 3%
Frequency Range	0 to 20 kHz	
Output Impedance	Typical 10 kΩ	
Communication		
USB	Configuration Interface, USB type B	
RS 485	Max. 32 devices Baud Rate: 38400, 57600, 115200 Baud	
Profibus DP (A6370D/DP only)	Max. 31 devices Data transmission rate: up to 12 Mbit/s	
Reaction Time		
Speed	< Measuring Time + 8 ms	
Typical Reaction Time Speed at 3000 min-1	Mode “1x per revolution”: 35 ms Mode “Automatically”: 12.5ms	
Rotational Direction	< 3 * Period time of input signal + 8 ms	

Environmental, General		
Protection Class	IP20	According to IEC 60529 rack mounted, otherwise IP00
Conformal Coating	Airborne contaminants resistance	ISA-S71.04-1985 airborne contaminants class G3
	Material: HumiSeal® 1B31 EPA	According to IPC-CC-830B and IPC-A 610
Operating Temperature	-20°C to +65°C (-4°F to 149°F)	
Storage Temperature	-40°C to +70°C (-40°F to 158°F)	
Relative Humidity	5 to 95%	Non-condensing
Vibration	0.15mm (0.591in) 20 m/s ²	58 to 62Hz to 150Hz according to IEC 60068-2-6
Shock	100 m/s ² , 6ms	According to IEC 60068-2-27
Operating Altitude	<5000 m	Above sea level
Connector Card Slot	Type F48 female	According to IEC 60603-2
Screw Terminals	0.2 to 2.5 mm ²	Flexible cable
	Max. 4 mm ²	Rigid cable
SUB-D Connector	SUB-D 9 and SUB-D 25	Shielded, UNC 4-40 screw lock
Dimensions	3RU/42HP (WxHxD) 211 x 130 x 43 mm (WxHxD) (8.31 x 5.12 x 1.70 in)	Conform to IEC 60297
Weight	App 490g (1.080 lbs)	Exclusive packaging

Compliance and Certifications

CE	2014/30/EU 2014/34/EU 2006/42/EG EN 61326-1 DIN EN 50581 DIN EN 62061
CSA	CAN/CSA-C22.2 NO. 61010-1-04 UL 61010-1 (2nd Edition)
TÜV NORD	IEC 61508:2010; capable up to SIL 3 DIN EN 62061:2005; capable up to SILCL 3 DIN EN 61511:2005; capable up to SIL 3

Ordering Information

Model Number	Product Description
A6370D	AMS 6300 SIS - MONITOR, 1 CH SPEED, DISPLAY
A6370D/DP	AMS 6300 SIS - MONITOR, 1 CH SPEED, DISPLAY, PROFIBUS

Product Accessories

Model Number	Product Description
A6363	AMS 6300 SIS - CONNECTION CABLE, PROFIBUS, 4M
A6910	CONFIGURATION KIT

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