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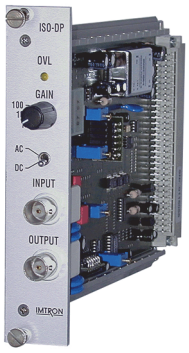
ASK-DP 140, DP 200



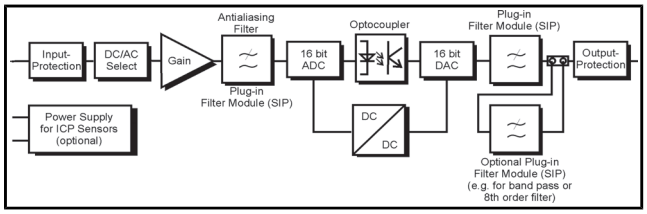
Characteristics

The ***DP Cards*** offers digitized electrical isolation of signals. The signal is digitized by a 16 bit AD converter, then isolated by a fast optocoupler, and finally transformed back to its analog value with a 16 bit DA converter. Internal sample rates are 140 resp. 200 kHz. This technology assures extremely good characteristic values with regard to offset and accuracy drift, signal-to-noise ratio, and harmonic distortion factor. AD and DA converter pulses of several cards can be synchronized with a central clock on a master card version.

Technical Data

	DP 140	DP 200
Supply voltage	**± 15 V DC ± 10 %**	
Power consumption (without sensor / without load) ISO-DP ISO-DP Master	 + 100 / - 70 mA + 130 / - 75 mA	 + 125 / -90 mA + 135 / -90 mA
Electrical isolation DC AC Isolation resistance	 500 V 350 V > 1 x 10^{12} Ω	
Accuracy (typical)	0.03 %	
Cut-off frequency (Standard / maximum)	10 kHz / 20 kHz	27 kHz / 50 kHz
Linearity (typical)	< 0.05 %	
Input Voltage optional current Resistance AC coupling (lower f_g)	 ± 10 V ± 20 mA 20 MΩ 0.1 Hz	 ± 11 V ± 20 mA 20 MΩ 0.1 Hz
Ranges/ Gain factors selectable with rotary switch on front panel	10 mV V = 100 1,0 V V = 10 10 V V = 1	
Output Voltage range Reverse voltage up to Load current (short proof) Offset DC Offset drift (V=1) FSR/°C Gain drift (V=1) FSR/°C	 ± 10 V ± 20 V ± 12 mA < 7 mV 4 ppm 9 ppm	 ± 11 V ± 20 V ± 12 mA < 7 mV 6 ppm 32 ppm
Residual ripple @ V=1 f_g = 10 kHz f_g = 20 kHz	 < 0.5 mV_{eff}	 < 0.5 mV_{eff}
Signal-to-noise-ratio V=1, 10 V=100	> 90 dB > 80 dB	> 90 dB > 77 dB
Crosstalk	> 120 dB	
Harmonic distortion (< 22 kHz)	< 0.1 %	
Environmental temperature	0..50 °C	
Plug-in filter Standard frequencies in Hz	10, 30, 50, 100, 300, 500, 1 k, 3 k, 5 k, 10 k, 20 k, 30 k, 50 k	

Block Diagram



Dimensions

19“ Unit, 3 U, 5 U, depth 160 mm

Ordering Codes

ASK-DP - [1.] - [2.] - [3.] - [4.] / [5.]

1.	**Sample rate**	
	140	Sample rate 140 kHz
	200	Sample rate 200 kHz
2.	**Type Synchronization**	
	M	Master for synchronization
3.	**Input**	
	V1	± 10 V (standard)
	A1	± 20 mA
4.	**Output filter frequency (Hz)**	
	XXX	Enter standard value:10, 30, 50, 100, 300, 500,1k, 3k, 5k, 10k, 30k, 50k
		Enter non-standard value: 1..50k
5.	**Filter characteristics**	
	BW	Butterworth 4th order
	BS	Bessel 4th order

Example: ASK-DP-200-V1-30k BS