MARPOSS

ASC LINE

EASY INTEGRATION OF MEASUREMENTS IN A PLC

Interface Boxes for Data Acquisition

ASC™ (Automation Signal Controller) is a Line of interface boxes designed to integrate transducer values and measurements via Industrial Network Protocols and RS-232 interface into PLC and keep your production continuously under control.

ASC2/ASC4

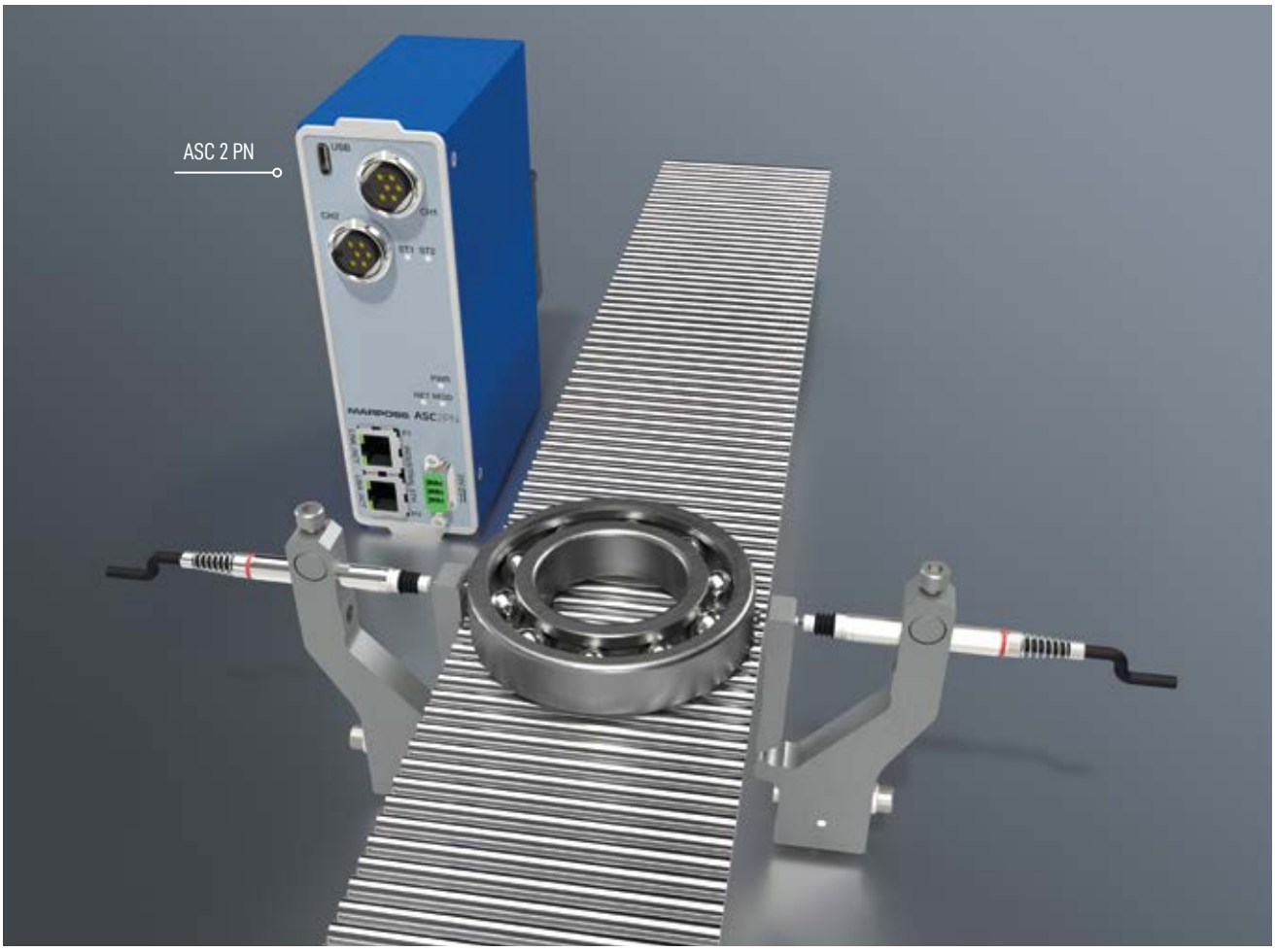
232: Delivers the transducer signal value via serial protocol. It is available with 2 and 4 channels and two different default baud rate (9600 and 115200). It is a plug&play product.

ASC2PN/ASC4PN

PN: Delivers the transducer signal or the measurement value via Profinet protocol. It is available with 2 and 4 channels.
The Industrial Ethernet connection allows a fast connection with machine PLC. ASC Tool allows to configure the ASC and in few steps to get the measure.

Don't hesitate to contact Marposs for any other Industrial Ethernet connection not reported in these pages.

Application examples



Product **features**

ASC Line is perfect for the automation needs; it can interface 2 or 4 sensors to PC or PLC. Available in many different models, depending on the number and the type of transducers, it's ready to be connected as a plug and play device.
The measure can be collected through Profinet or the RS-232 port using simple ASCII serial protocol commands.
Compact, robust and equipped with DIN rail mounting accessories, it is suitable for cabinet and automation applications layout in general.

Sensor compatibility

Both LVDT (full bridge) and HBT (half bridge with LVDT pinout) sensors can be connected to ASC. Analog (REDCrown2™) or digital (DIGICrown2™) pencil probes with ±0,5mm, ±1mm, ±2mm, ±2,5mm, ±5mm and ±10mm measuring range can be managed.

Output **signal**

Transducer values are continuously available through Profinet or RS-232 interface.

Power supply

ASC requires +24 V_{DC} nominal value with an allowed voltage input range of -15/+20 %.

HOW TO ORDER

ORDER CODES - RS-232 OUTPUT (default baud rate 9600 bps)

MEASURING RANGE	mm	±0,5	±1	±2	±2,5	±5	±10
ANALOG LVDT	2 CHANNELS	B768231AL00	B768231AL20		B768231AL40	B768231AL60	B768231AL80
	4 CHANNELS	B768232AL00	B768232AL20		B768232AL40	B768232AL60	B768232AL80
DIGITAL LVDT/HBT	2 CHANNELS	B768231DL00					
	4 CHANNELS	B768232DL00					

ORDER CODES - RS-232 OUTPUT (default baud rate 115200 bps)

MEASURING RANGE	mm	±0,5	±1	±2	±2,5	±5	±10
ANALOG LVDT	2 CHANNELS	B768231AL01	B768231AL21		B768231AL41	B768231AL61	B768231AL81
	4 CHANNELS	B768232AL01	B768232AL21		B768232AL41	B768232AL61	B768232AL81
DIGITAL LVDT/HBT	2 CHANNELS	B768231DL01					
	4 CHANNELS	B768232DL01					

ORDER CODES - Profinet OUTPUT

MEASURING RANGE	mm	±0,5	±1	±2	±2,5	±5	±10
ANALOG LVDT	2 CHANNELS	B768PN1AL00	B768PN1AL20		B768PN1AL40	B768PN1AL60	B768PN1AL80
	4 CHANNELS	B768PN2AL00	B768PN2AL20		B768PN2AL40	B768PN2AL60	B768PN2AL80
DIGITAL LVDT/HBT	2 CHANNELS	B768PN1DL00					
	4 CHANNELS	B768PN2DL00					

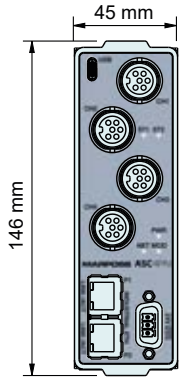
Technical Specifications							
Type	analog	LVDT (Marposs Standard)					
	digital	LVDT/HBT (pinout LVDT)					
Measuring range	[mm]	±0,5	±1	±2	±2,5	±5	±10
Resolution	[µm]	0,05		0,2	0,2	0,2	0,5
Sensitivity	[mV/V/mm]	230			115		23
Accuracy pencil probes (*)	REDCrown2 [µm]	±MAX(0,5 + 2*|K|; 7*|K|)	±(0,3 + 5*|K|)	±(0,3 + 7*|K|)	±MIN(0,3 + 10*|K|; 11 + 2*|K|)	±MAX(5,0 + 2*|K|;7*|K|)	±MAX(10 + 2*|K|;7*|K|)
	DIGICrown2 [µm]	±(0,2+K*1)	±(0,2+K*1)	±(0,3+|7*K|)	±(0,6+K*2)	±(0,6+K*2)	±(1,2+K*2)
Accuracy - ASC (*)	[µm]	±[0,1+0,2*K]	±[0,2+0,2*K]	±[0,4+0,2*K]	±[0,5+0,2*K]	±[1+0,2*K]	±[2+0,2*K]

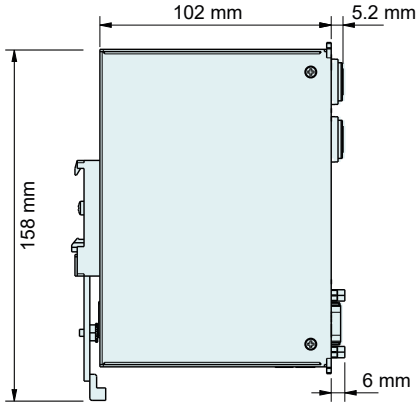
NOTE: K= Reading [mm]

ASC Serial RS-232 specifications	
Power supply [V_{DC}]	Nominal value +24 ; Input range -15/+20 %
Output type	1 RS-232 channel, full duplex; hardware handshake (RTS/CTS)
Baudrate [bps]	9600 / 19200 / 38400 / 57600 / 115200
Data bit	8
Stop bit	1
Parity	even
Sampling rate [sample/s]	up to 400 (depending on net configuration)
Electrical absorption [mA]	ASC 2: 90 ; ASC 4: 200
Protection degree	IP40
Storage temperature [°C]	-20 to 70
Operating temperature [°C]	0 to 55
Weight [g]	555

ASC Profinet specifications		
Power supply [V_{DC}]	Nominal value +24 ; Input range -15/+20 %	
Conformance Class	B	
Number of Connections	2	
Compliant Protocol	SNMP, LLDP, DCP	
Minimum update time [ms]	1	
Profinet Version	Profinet RT	
Device Type	Data I/O Communication Record Data Communication	
GSDML Version	2.41	
Profinet Device Connectors Type	2x RJ-45, 100 Mbit/s ports, available simultaneously	
Netload Class	III	
Ethernet features	Device configuration via Ethernet Secure Firmware update via Ethernet IT functions web server	
Electrical absorption [W]	ASC2 PN	P(typ) = 1.40 [W] P(max) = 2.35 [W]
	ASC4 PN	P(typ) = 2.30 [W] P(max) = 3.40 [W]
Protection degree	IP20	
Storage temperature [°C]	-20 to 70	
Operating temperature [°C]	0 to 55	
Weight [g]	ASC2 PN: 585 ASC4 PN: 603	

DIMENSIONS





The dimensions are the same for all versions.