



The SPN2 controller is an ECU (Electronic Control Unit) which can handle up to 8 inputs and up to 12 outputs.

It can be implemented in a serial line (RS232) or in a CAN network, as MASTER or SLAVE.

The resources are disposed separately to facilitate the repairs of the utilities and the polyurethane resin case makes the controllers suitable for use on machines that operate in harsh work environments.



TECHNICAL FEATURES

MASTER CODE		SPN2
POWER SUPPLY		9-36 VDC / CURRENT CONSUMPTION 25 mA AT 24 VDC (STAND BY MODE)
INPUT	TOTAL 8	4 UNIVERSAL INPUTS 4 DIGITAL INPUTS
OUTPUT	TOTAL 12	8 PWM / DIGITAL OUTPUTS 4 DIGITAL LOW SIDE OUTPUTS
CAN BUS	1 PORT	2.0B COMPLIANT - (11, 29 BIT) - ISO 11898 - UP TO 1MBIT/S
CAN BUS PROTOCOLS		CAN OPEN (CIA DS401 DEVICE PROFILE FOR GENERIC I/O MODULE, WITH DS306 EDS FILE) ON REQUEST: SAE J1939 - ISO 11783 (ISO BUS) - FMS
SERIAL PORT	1 PORT	RS232
CONNECTIONS PORT	11	2 AMP SUPERSEAL 6 PIN – STANDARD CABLE LENGTH: 40 cm
		9 AMP SUPERSEAL 4 PIN - STANDARD CABLE LENGTH: 40 cm
WORKING TEMPERATURE		-40°C +80°C
CASE		PUR





ELECTRONIC FEATURES

SLAVE USAGE	EDS
MASTER USAGE	STANDARD C PROGRAM LANGUAGE
PROGRAMMING	FIRMWARE UPLOAD BY CAN BUS WITH ALOADER SOFTWARE TOOL
CYCLE TIME	50 ms

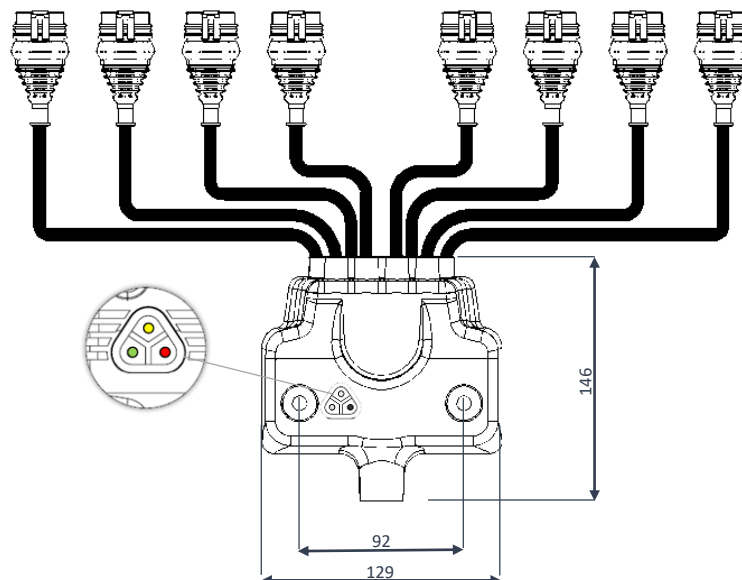
STANDARDS

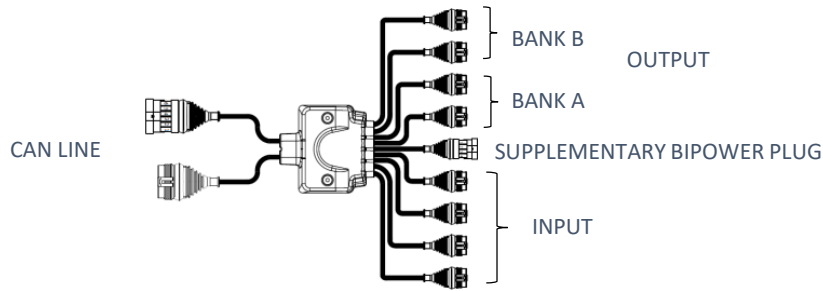
ELECTROMAGNETIC EMISSIONS	EN 61000-6-4// EN 55011 (RF RADIATE)
ELECTROMAGNETIC IMMUNITY	EN 61000-6-2// EN 61000-4-2/3/4/6
IP	BOX: IP68; CONNECTORS: IP67
MTTFd	55,98 YEARS CALCULATED ACCORDING TO THE IEC61709 (SIEMENS SN29500), WITH ENVIRONMENTAL FACTORS 3K7 (IEC60721)
PERFORMANCE AND SAFETY INTEGRITY LEVEL	PLc – SIL1 (SINGLE-CHANNEL INTERNAL SCHEME)

IN ACCORDANCE WITH THE EN50498 THE DEVICE MEETS THE TECHNICAL SPECIFIC REQUIREMENTS OF 2004-104 DIRECTIVE (AUTOMOTIVE). THE DEVICE IS EMC 2004/108 COMPLIANT.

SIZE (mm)

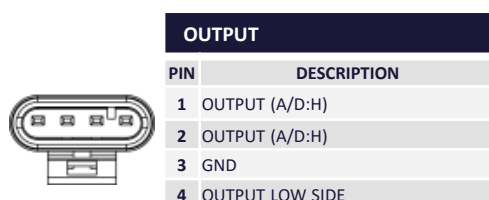
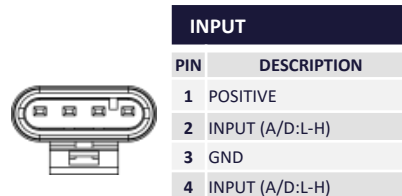
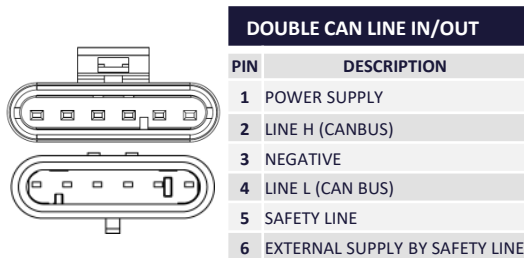
- BOARD / APPLICATION STATUS
- CAN STATUS
- BOARD DIAGNOSTIC (256 DISPOSABLE CODE MANAGE FROM PLC)





ELECTRICAL FEATURES

INPUT		OUTPUT BANKS POWER CONNECTIONS			OUTPUTS								
BASIC VERSION	4 UNIVERSAL INPUT 4÷20 mA (0÷25 mA) 0÷5 V 0÷10 V 0÷40 V HIGH SIDE INPUT LOW SIDE INPUT 4 DIGITAL INPUTS HIGH SIDE INPUT LOW SIDE INPUTS	EXTERNAL SUPPLY BY MAIN POSITIVE PIN 1 CAN LINE A, B	EXTERNAL SUPPLY BY SAFETY LINE PIN 6 CAN LINE A, B	OPT 3	8 HIGH SIDE OUTPUTS – IN TWO INDEPENDENT BANKS								
						BANK A				BANK B			
						DIGIT /PWM	RATI O	RELA Y	OPT. 1	DIGIT /PWM	RATI O	RELA Y	OPT. 2
			A	B	3	4	0	0	A	4	0	0	A
						3	0	1	B	3	0	1	B
						2	1	0	C	2	1	0	C
						2	0	2	D	1	0	2	D
						1	1	1	E	0	1	1	E
						0	2	0	F	0	2	0	F
						0	1	2	G	0	1	2	G
BASIC AND BIPOWER VERSION					HIGH SIDE OUTPUTS								
					SINGLE OUT MAX CURR: 5A				BANK TOTAL CURRENT: 8A				
					4 SUPPLEMENTARY – LOW SIDE OUTPUTS								
					SINGLE OUT MAX CURRENT: 4A				BANK TOTAL CURRENT: 8A				
BIPOWER VERSION	SUPPLEMENTARY BIPOWER PLUG	IMPORTANT: BIPOWER CONNECTION EXCLUDES THE SUPPLY (A/B BANKS) BY DOUBLE CAN LINE (PIN1/6)											
		BANK A BIPOWER – BANK B SUPPLIED BY PIN 1 CAN LINE			1P1								
		BANK A BIPOWER – BANK B SUPPLIED BY PIN 6 CAN LINE			1P2								
		BANK B BIPOWER – BANK B SUPPLIED BY PIN 1 CAN LINE			2P1								
		BANK B BIPOWER – BANK B SUPPLIED BY PIN 6 CAN LINE			2P2	SINGLE OUT MAX CURR: 5A				BANK TOTAL CURRENT: 16A			
		BANK A AND B BIPOWER			3P								





ALMEC
MECHATRONICS

NOTE