SPN2	CONTROLLER

- ECU which can handle up to 8 inputs and up to 12 outputs
- Can be implemented in a CAN-BUS network as SLAVE module
- Implementable in a CAN network, as SLAVE
- Separately disposed resources
- Polyurethane resin case

CE

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
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		ENCAPSULATED IN PUR RESIN - SELF-EXTINGUISHING UL94 (V0)

ELECTRONIC FEATURES	
SLAVE USAGE	EDS
PROGRAMMING	FIRMWARE UPLOAD BY CAN BUS WITH ALOADER SOFTWARE TOOL
CYCLE TIME	50 ms

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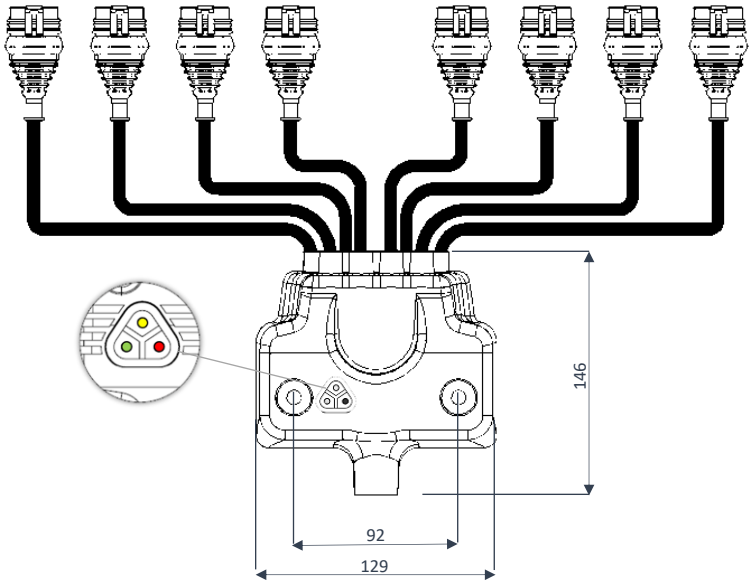
(20/02/2026) - 1

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)



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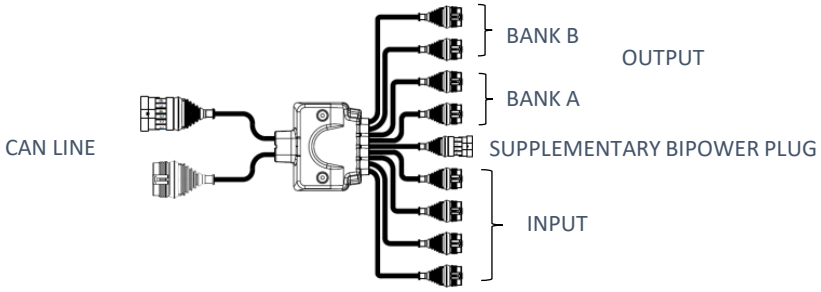
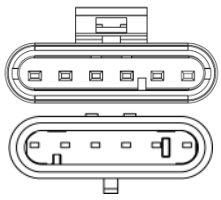


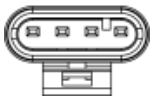
ELECTRICAL FEATURES

INPUT		OUTPUT BANKS POWER CONNECTIONS			OUTPUTS							
		EXTERNAL SUPPLY BY MAIN POSITIVE PIN 1 CAN LINE	EXTERNAL SUPPLY BY SAFETY LINE PIN 6 CAN LINE	OPT 3	8 HIGH SIDE OUTPUTS – IN TWO INDIPENDENT BANKS							
					BANK A				BANK B			
					DIGIT /PWM	RATIO	RELAY	OPT. 1	DIGIT /PWM	RATIO	RELAY	OPT. 2
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	A, B		1	4	0	0	**A**	4	0	0	**A**
			A,B	2	3	0	1	**B**	3	0	1	**B**
		A	B	3	2	1	0	**C**	2	1	0	**C**
					2	0	2	**D**	1	0	2	**D**
					1	1	1	**E**	0	1	1	**E**
	4 DIGITAL INPUTS HIGH SIDE INPUT LOW SIDE INPUTS				0	2	0	**F**	0	2	0	**F**
					0	1	2	**G**	0	1	2	**G**
					HIGH SIDE OUTPUTS							
					SINGLE OUT MAX CURR: 5A				BANK TOTAL CURRENT: 8A			

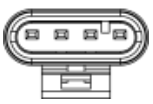
BASIC AND BIPOWER VERSION				**4 SUPPLEMENTARY – LOW SIDE OUTPUTS**	
				SINGLE OUT MAX CURRENT: 4A	BANK TOTAL CURRENT: 8A
BIPOWER VERSION	SUPPLEMENTARY BIPOWER PLUG	**IMPORTANT**: BIPOWER CONNECTION EXCLUDES THE SUPPLY (A/B BANKS) BY DOUBLE CAN LINE (PIN1/6)			
		BANK A BIPOWER – BANK B SUPPLIED BY 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**		



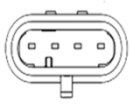
DOUBLE CAN LINE IN/OUT	
PIN	DESCRIPTION
1	POWER SUPPLY
2	LINE H (CANBUS)
3	NEGATIVE
4	LINE L (CAN BUS)
5	SAFETY LINE
6	EXTERNAL SUPPLY BY SAFETY LINE



INPUT	
PIN	DESCRIPTION
1	POSITIVE
2	INPUT (A/D:L-H)
3	GND
4	INPUT (A/D:L-H)



OUTPUT	
PIN	DESCRIPTION
1	OUTPUT (A/D:H)
2	OUTPUT (A/D:H)
3	GND
4	OUTPUT LOW SIDE



SUPPLEMENTARY BIPOWER PLUG	
PIN	DESCRIPTION
1	POWER SUPPLY BANK A
2	GND
3	POWER SUPPLY BANK B
4	GND

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NOTE