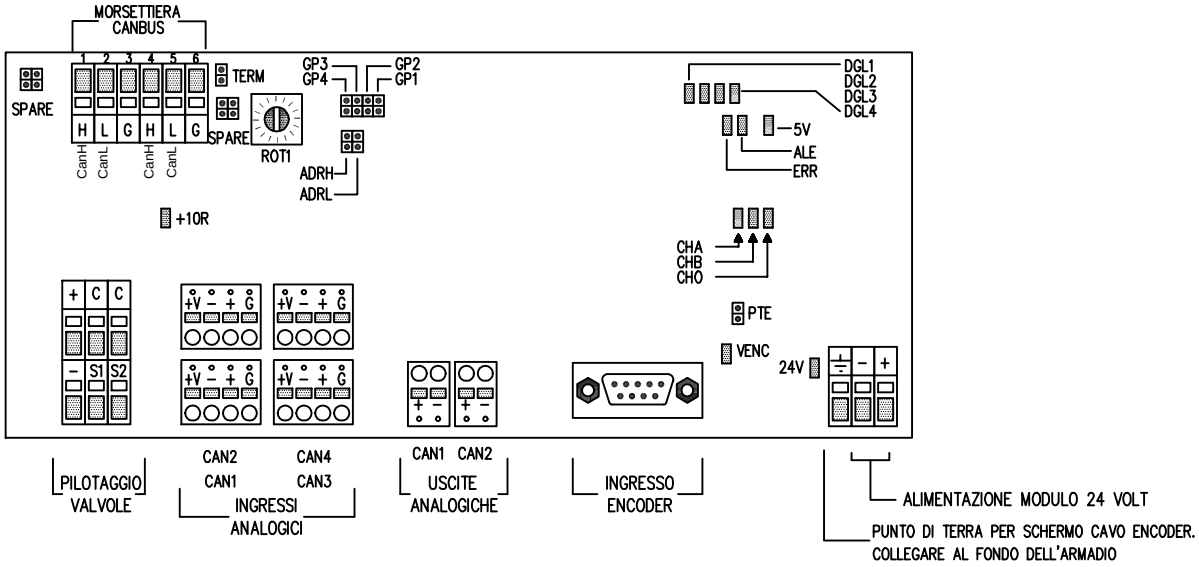
- Note predisposizione scheda -

- SCHEDA CAX4120H.6X0X -



Situazione ponticelli:

GP4 = aperto

Prescrizioni di cablaggio
Per il cablaggio del connettore CanBus consultare il documento RT111055

- Alimentazione modulo 18-36 volt
- Vpwr tensione di alimentazione potenza 18-36V
- Assorbimento modulo Vs 385 mA, max 520 mA
- Ingresso Encoder tipo 5V line driver
- Alimentazione encoder: 5.050V +/- 2.5% 400mA
  5.180V +/- 2.5% 400mA
- Corrente minima d'ingresso encoder: 20 mA
- Corrente dal 10V di rif. per ogni canale : 10 mA
- Tensione uscita analogica: +/- 10 volt
- Carico minimo dell'uscita analogica: 10kohm
- Corrente rms massima di pilotaggio valvole 2.5A per ogni ramo con protezione da corto-circuito.
- Collegare la calza del cavo encoder al guscio conduttivo del connettore utilizzando il fermacavo opportuno.

- Temperatura di funzionamento: 0-55 °C
- Temperatura di stoccaggio: da -20 a +85 °C
- Umidità di stoccaggio: max. 85% (senza condensa)

Terminazione CanBus
chiudere il ponticello TERM se la scheda è agli estremi della linea - DEFAULT aperto

Configurazione indirizzi della scheda																
Ponticelli		Commutatore rotativo ROT1														
ADRH	ADRL	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
aperto	aperto	-	-	2	3	4	5	6	7	8	9	10	11	12	13	14	15
aperto	chiuso	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
chiuso	aperto	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
chiuso	chiuso	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63

Tensione alimentazione encoder	
5.050 volt +/- 2.5% (def.)	5.180 volt +/- 2.5%
PTE chiuso	PTE aperto

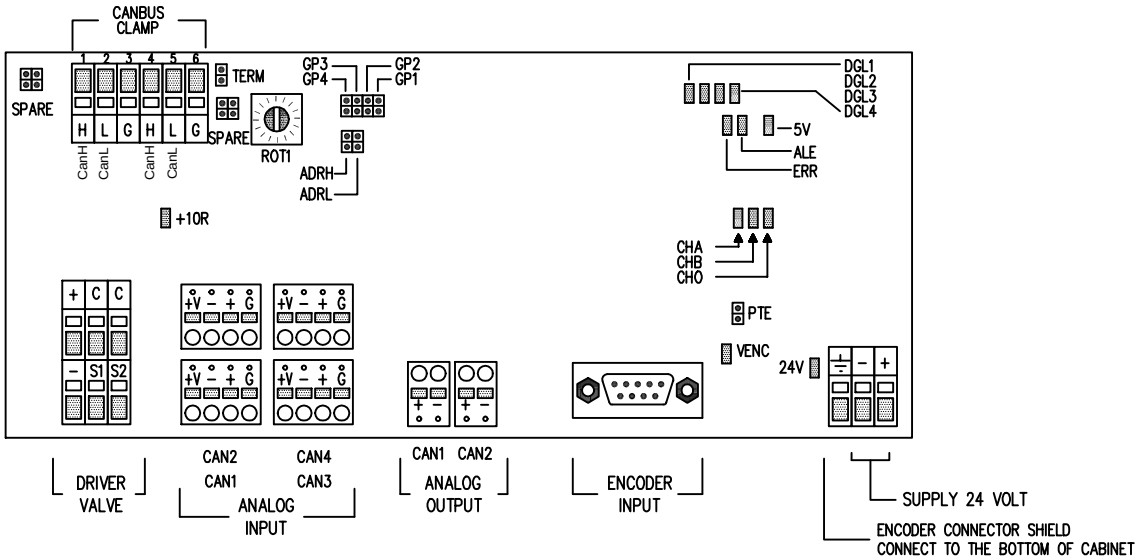
Allarme segnali e conteggio encoder	
attiivo (default)	**disabilitato**
GP3 aperto	**GP3 chiuso**

Baud-rate CanBus		
GP2	**GP1**	**velocità**
aperto	**aperto**	**500 Kbps (default)**
aperto	**chiuso**	**1 Mbps**
chiuso	**aperto**	**250 Kbps**
chiuso	**chiuso**	**125 Kbps**

Led di diagnostica	
5V on 5 volt scheda ok	+10R on 10 volt scheda ok
24V on 24 volt ok	VENC on 5 volt encoder ok
CHA on Fase A attiva	ERR blk modulo in allarme
CHB on Fase B attiva	ALE blk cpu running
CH0 on Zero attivo	

- Board setting note -

- BOARD CAX4120H.6X0X -



Jumper setting:

GP4 = open

Board address configuration																
Jumper		Rotary switch ROT1														
ADRH	ADRL	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
open	open	-	-	2	3	4	5	6	7	8	9	10	11	12	13	14	15
open	close	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
close	open	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
close	close	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63

Supply encoder	
5.050 volt +/- 2.5% (def.)	5.180 volt +/- 2.5%
PTE close	PTE open

Signal and counting alarm	
enabled (default)	disabled
GP3 open	GP3 close

Baud-rate CanBus		
GP2	GP1	speed
open	open	500 Kbps (default)
open	close	1 Mbps
close	open	250 Kbps
close	close	125 Kbps

Wiring limitation

Refer to RT111055 for CanBus connector cabling

- Module supply 18-36 volt
- Vpwr power supply 18-36 volt
- Current supply at 24 Vs, 385 mA, max 520 mA
- Encoder input type: 5V line driver
- Encoder supply: 5.050V +/- 2.5% 400mA
  5.180V +/- 2.5% 400mA
- Load current from encoder input: 20 mA min
- Supply current from 10 volt rif. : 10 mA
- Analog output range: +/- 10 volt
- Analog output minimun load: 10kohm
- Current from every line of valve output: 2.5A rms with protection from short-circuit.
- Connect the shield of the encoder cable to the conductive connector shell with internal clamp

- Working temperature: 0-55 ℃
- Storing temperature: from -20℃ to +85℃
- Storing humidity: max. 85% (not condensing)

CanBus termination

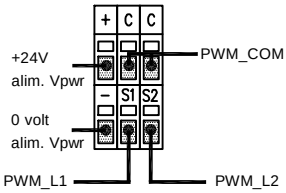
Close TERM if the board is at the end of the line - DEFAULT: open

Diagnostic led

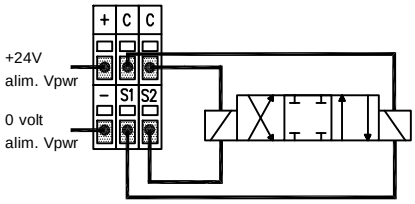
5V	on	5 volt module ok	+10R	on	10 volt module ok
24V	on	24 volt ok	VENC	on	5 volt encoder ok
CHA	on	Phase A active	ERR	blk	module error
CHB	on	Phase B active	ALE	blk	cpu running
CH0	on	Zero active			

- Note predisposizione scheda -
- SCHEDA CAX4120H.6X0X -

ESEMPI DI CONNESSIONE PILOTAGGIO VALVOLE

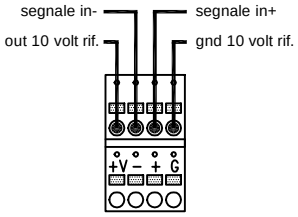


layout morsetto

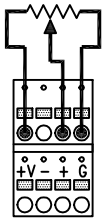


- Protetto internamente contro:
  inversione alimentazione
  cortocircuito su linee pilotaggio valvole
- Corrente rms massima per ogni uscita: 2.5A

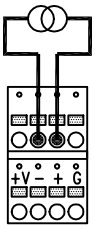
ESEMPI DI CONNESSIONE INGRESSI ANALOGICI



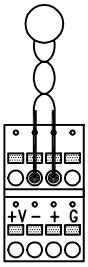
layout morsetto



potenziometro



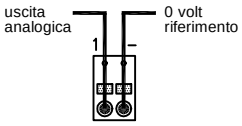
corrente



trasd. differenziale

- Convertitore ADC a 12 bit
- Tensione di riferimento 10 volt +/-5%
- Potenziometro: resistenza minima 1K
- Ingresso tipo differenziale: range +/-10 volt
  oppure 0/10 volt
- Resistenza ingresso differenziale: 20 Kohm
- Ingresso in corrente: range 0-20mA o 4-20 mA
- Resistenza serie ing. in corrente: 500 ohm
- **Solo gli ingressi 1 e 2 sono disponibili anche in corrente**

ESEMPI DI CONNESSIONE USCITE ANALOGICHE



layout morsetto

- Convertitore DAC a 12 bit
- Tensione uscita analogica +/-10 volt
- Resistenza di carico minima 10K

CONNETTORE INGRESSO ENCODER

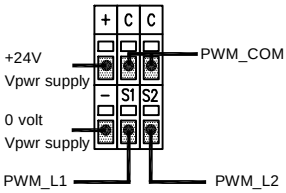
PIN	SEGNALE	DIR	DESCRIZIONE
1	+5V ext	> out	+V alimentazione per encoder
2	CH0+	< in	Positivo CH0
3	CHB+	< in	Positivo CHB
4	CHA+	< in	Positivo CHA
5	-V in	< in	N.C.
6	0V ext	> out	-V alimentazione per encoder
7	CH0-	< in	Negativo CH0
8	CHB-	< in	Negativo CHB
9	CHA-	< in	Negativo CHA

- Ingresso encoder tipo 5V line driver inc.
- Alimentazione encoder:
  5.050V +/- 2.5%, 400mA max
  5.180V +/- 2.5%, 400mA max
- Corrente ingressi encoder: min. 20mA

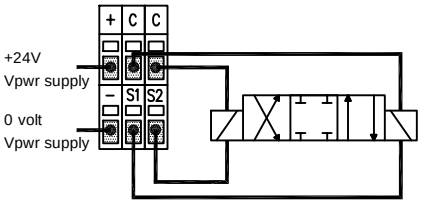
- Board setting note -

- BOARD CAX4120H.6X0X -

EXAMPLE OF VALVE DRIVER CONNECTION

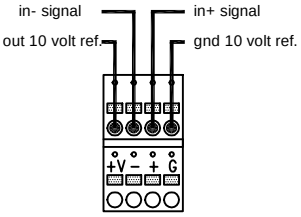


layout connector

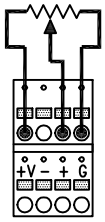


- Protections:
  reverse supply
  short circuit on driver line
- Max rms current from every output: 2.5 A

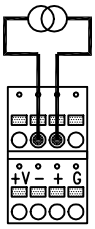
EXAMPLE OF ANALOG INPUT CONNECTION



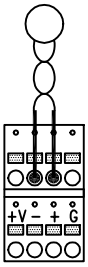
connector layout



potentiometer



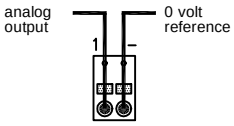
current



differential trasd.

- ADC resolution 12 bit
- Voltage reference 10 volt +/-5%
- Potentiometer: minimum resistence 1K
- Differential input: range +/-10 volt or 0-10 volt
- Differential input resistence: 20 Kohm
- Analog input current range: 0-20 mA or 4-20 mA
- Resistence inside the input current: 500 ohm
- **Only the input 1 e 2 are available in input corrent mode**

EXAMPLE OF ANALOG OUTPUT CONNECTION



layout connector

- DAC resolution 12 bit
- Analog output range: +/-10 volt
- Minimum resistence load: 10K

ENCODER CONNECTOR LAYOUT

PIN	SIGNAL	DIR	DESCRIPTION
1	+5V ext	> out	+V encoder supply
2	CH0+	< in	Positive CH0
3	CHB+	< in	Positive CHB
4	CHA+	< in	Positive CHA
5	-V in	< in	N.C.
6	0V ext	> out	-V encoder supply
7	CH0-	< in	Negative CH0
8	CHB-	< in	Negative CHB
9	CHA-	< in	Negative CHA

- Encoder input for 5V line driver
- Encoder supply:
  5.050V +/- 2.5%, 400mA max
  5.180V +/- 2.5%, 400mA max
- Load current from encoder input: 20mA min