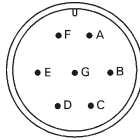


**Connettore MIL da pannello 7 poli MS3102A 16S-1P
MIL panel connector 7 pins MS3102A 16S-1P**

TYPE "A"

ELETRONICHE - OUTPUT
NPN - PNP OPEN COLLECTOR - PUSH-PULL
(S, OC, P, OP, PP2)



Connessioni - Connections **S07 ; L07**

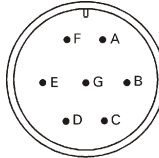
PIN A	0 Volt	Nero	Black
PIN B	Case		
PIN C	Out 1 (CH A)	Verde	Green
PIN D	Out Z (CH Z)	Blu	Blue
PIN E	Out 2 (CH B)	Giallo	Yellow
PIN F	+ Vcc	Rosso	Red
PIN G	N.C.		

**Connettore MIL da pannello 7 poli MS3102A 16S-1P
MIL panel connector 7 pins MS3102A 16S-1P**

TYPE "B"

ELETRONICHE
PUSH-PULL - LINE DRIVER
VERSIONE:
MONODIREZIONALE,
MONODIREZIONALE + ZERO,
BIDIREZIONALE (LD2, LD)

OUTPUT
PUSH-PULL - LINE DRIVER
VERSIONE:
UNIDIRECTIONAL,
UNIDIRECTIONAL+ZERO,
BIDIRECTIONAL (LD2, LD)



Connessioni - Connections **S07 ; L07**

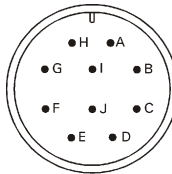
MONODIR. E BIDIREZIONALE UNIDIR. AND BIDIRECTIONAL			MONODIREZIONALE + ZERO UNIDIR. + ZERO INDEX			
PIN A	Out 1 (CH A)	Verde	Green	Out 1 (CH A)	Verde	Green
PIN B	Out 2 (CH B)	Giallo	Yellow	Out Z (CH Z)	Blu	Blue
PIN C	Out $\bar{1}$ (CH \bar{A})	Marrone	Brown	Out $\bar{1}$ (CH \bar{A})	Marrone	Brown
PIN D	+ Vcc	Rosso	Red	+ Vcc	Rosso	Red
PIN E	Out $\bar{2}$ (CH \bar{B})	Rosa	Pink	Out $\bar{2}$ (CH \bar{Z})	Bianco	White
PIN F	0 Volt	Nero	Black	0 Volt	Nero	Black
PIN G	Case	Case	Case	Case	Case	Case

**Connettore MIL da pannello 10 poli MS3102A 18-1P
MIL panel connector 10 pins MS3102A 18-1P**

TYPE "C"

ELETRONICHE
LINE DRIVER
VERSIONE: BIDIREZIONALE + ZERO
(LD2 - LD)

OUTPUT
LINE DRIVER
VERSION: (LD - LD2)
BIDIRECTIONAL+ZERO



Connessioni - Connections **S10 ; L10**

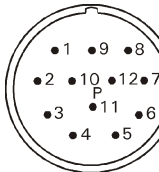
PIN A	Out 1 (CH A)	Verde	Green
PIN B	Out 2 (CH B)	Giallo	Yellow
PIN C	Out Z (CH Z)	Blu	Blue
PIN D	+ Vcc	Rosso	Red
PIN E	+ Vcc		
PIN F	0 Volt	Nero	Black
PIN G	Out $\bar{1}$ (CH \bar{A})	Marrone	Brown
PIN H	Out $\bar{2}$ (CH \bar{B})	Rosa	Pink
PIN I	Out \bar{Z} (CH \bar{Z})	Bianco	White
PIN J	Case		

**Connettore da pannello 12 poli tipo "CONTACT"
Panel connector 12 pins type "CONTACT"**

TYPE "D"

ELETRONICHE NPN - PNP - OPEN
COLLECTOR - PUSH-PULL CON O
SENZA PROTEZIONE AL CORTO
CIRCUITO - PUSH-PULL
COMPLEMENTATO - LINE DRIVER
(S, OC, P, OP, PP2, LD2, LD)

NPN PNP - OPEN COLLECTOR
PUSH-PULL WITH OR WITHOUT
SHORT CIRCUIT PROTECTION
PUSH-PULL COMPLEMENTARY
LINE DRIVER OUTPUT
(S, OC, P, OP, PP2, LD2, LD)



Versione antioraria (standard) ed oraria (a richiesta), stessa assegnazione dei segnali
CCW (standard) and CW (option) version same signals

Connessioni - Connections **S1 ; R1**

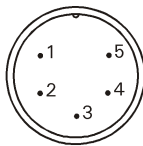
PIN 1	Out $\bar{2}$ (CH \bar{B})	Rosa	Pink
PIN 2	N.C.		
PIN 3	Out Z (CH Z)	Blu	Blue
PIN 4	Out \bar{Z} (CH \bar{Z})	Bianco	White
PIN 5	Out 1 (CH A)	Verde	Green
PIN 6	Out $\bar{1}$ (CH \bar{A})	Marrone	Brown
PIN 7	N.C.		
PIN 8	Out 2 (CH B)	Giallo	Yellow
PIN 9	Case		
PIN 10	0 Volt	Nero	Black
PIN 11	N.C.		
PIN 12	+ Vcc	Rosso	Red

**Connettore da pannello 5 poli tipo "LUMBERG"
Panel connector 5 pins type "LUMBERG"**

TYPE "E"

ELETRONICHE: (S, OC, P, OP, PP2)
NPN - PNP - OPEN COLLECTOR
PUSH-PULL CON O SENZA
PROTEZIONE AL CORTO CIRCUITO

OUTPUT: (S, OC, P, OP, PP2)
NPN PNP - OPEN COLLECTOR
PUSH-PULL WITH OR WITHOUT
SHORT CIRCUIT PROTECTION



Connessioni - Connections **S05 ; L05**

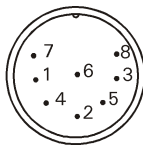
PIN 1	0 Volt	Nero	Black
PIN 2	+ Vcc	Rosso	Red
PIN 3	Out 1 (CH A)	Verde	Green
PIN 4	Out 2 (CH B)	Giallo	Yellow
PIN 5	Out Z (CH Z)	Blu	Blue

**Connettore da pannello 8 poli tipo "LUMBERG"
Panel connector 8 pins type "LUMBERG"**

TYPE "F"

ELETRONICHE:
LINE DRIVER (LD2, LD)
VERSIONE: BIDIREZIONALE + ZERO

OUTPUT:
LINE DRIVER VERSION
BIDIRECTIONAL+ZERO



Connessioni - Connections **S08 ; L08**

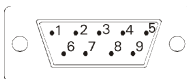
PIN 1	0 Volt	Nero	Black
PIN 2	+ Vcc	Rosso	Red
PIN 3	Out 1 (CH A)	Verde	Green
PIN 4	Out 2 (CH B)	Giallo	Yellow
PIN 5	Out $\bar{1}$ (CH \bar{A})	Marrone	Brown
PIN 6	Out $\bar{2}$ (CH \bar{B})	Rosa	Pink
PIN 7	Out Z (CH Z)	Blu	Blue
PIN 8	Out \bar{Z} (CH \bar{Z})	Bianco	White

**Connettore da pannello DB 9 poli
Panel connector DB 9 pins**

TYPE "G"

ELETRONICHE:
NPN - PNP OPEN COLLECTOR -
PUSH-PULL CON O
SENZA PROTEZIONE AL CORTO
CIRCUITO - LINE DRIVER
(S, OC, P, OP, PP2, LD2, LD)

OUTPUT:
NPN - PNP - OPEN COLLECTOR
PUSH-PULL WITH OR WITHOUT
SHORT CIRCUIT PROTECTION
LINE DRIVER
(S, OC, P, OP, PP2, LD2, LD)



Connessioni - Connections **D09**

PIN 1	0 Volt	Nero	Black
PIN 2	+ Vcc	Rosso	Red
PIN 3	Out 1 (CH A)	Verde	Green
PIN 4	Out 2 (CH B)	Giallo	Yellow
PIN 5	Out $\bar{1}$ (CH \bar{A})	Marrone	Brown
PIN 6	Out $\bar{2}$ (CH \bar{B})	Rosa	Pink
PIN 7	Out Z (CH Z)	Blu	Blue
PIN 8	Out \bar{Z} (CH \bar{Z})	Bianco	White
PIN 9	N.C.		

I valori sono validi all'interno dell'intervallo di frequenza e di temperatura definito per ogni singolo prodotto
The values are valid inner the interval of frequency and temperature defined for every single product

Si richiede cavo schermato 80% min.; Screened cable shielded 80% min is requested.

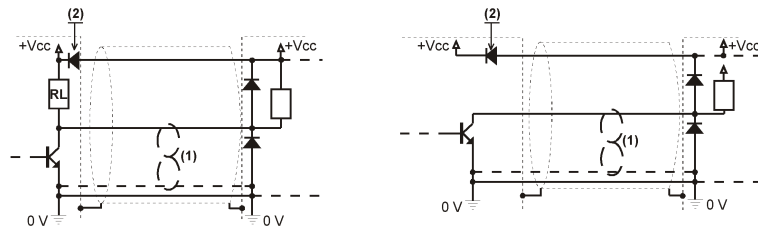
V_{cc} = tensione di alimentazione; *voltage supply*
V_{c out} = tensione di uscita; *output voltage*
I_{c out} = corrente di uscita; *output current*
RL = resistenza di carico interna; *load resistance*

(1) Protezione contro inversione di polarità non disponibile con tensione di alimentazione uguale a 5 V_{cc} e 5/30V_{cc}
 (1) Reverse polarity protection not available with 5 V_{dc} and 5/30 V_{dc} voltage supply.

(2) Per versione TI44/TK25 si ha RL= 3,3 kW per V_{cc}=11/30 V
 (2) Version TI44/TK25: RL= 3,3 kW for V_{cc}=11/30 V

V _{cc} (V)	RL (k) (2)
5 (1)	0,68
11+30	4,7

S = NPN **OC = NPN Open collector**



Lunghezza cavo max 6 mt a 50 kHz - Max. length of cable 6 m at 50 KHz
 Tensione di alimentazione: 5 - 11+30 V_{cc} ove possibile - Voltage supply: V_{cc} 5 - 11+30 where available

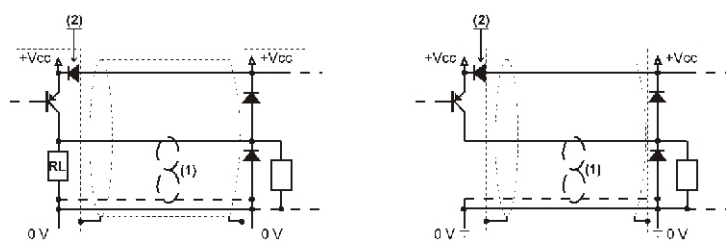
NPN

I out	V out	
	Logic "Low"	Logic "High"
≤50mA	≤0,6 V	=V _{cc}

OC

I out	V out	
	Logic "Low"	Logic "High"
≤50mA	≤0,6 V	open collector

P = PNP **OP = PNP Open collector**



Lunghezza cavo max 6 mt a 50 kHz - Max. length of cable 6 m at 50 KHz
 Tensione di alimentazione: 5 - 11+30 V_{cc} ove possibile - Voltage supply: V_{cc} 5 - 11+30 where available

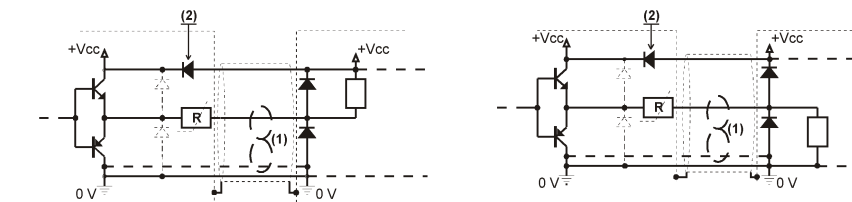
P

I out	V out	
	Logic "Low"	Logic "High"
≤50mA	0 V	V _{cc} -1V

OP

I out	V out	
	Logic "Low"	Logic "High"
≤50mA	open collector	V _{cc} -1V

PP2 = Push-pull con protezione attiva al corto circuito
PP2 = Push-pull with short circuit active protection



Lunghezza cavo max 6 mt a 50 kHz - Max. length of cable 6 m at 50 KHz
 Tensione di alimentazione: 5 - 11+30 V_{cc} ove possibile - Voltage supply: V_{cc} 5 - 11+30 where available

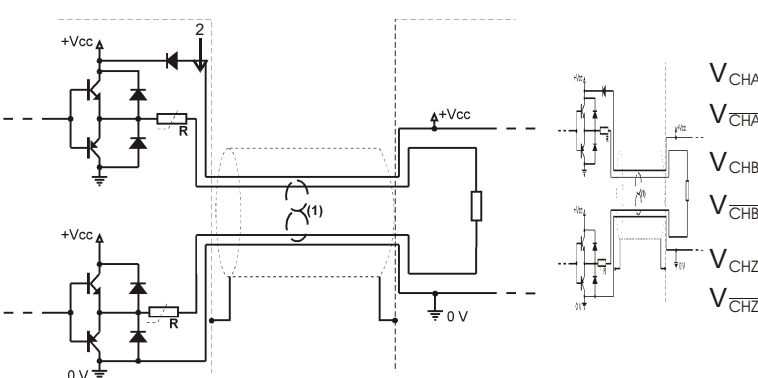
PP

I out	V out	
	Logic "Low"	Logic "High"
≤50mA	≤1 V	=V _{cc} - 2V

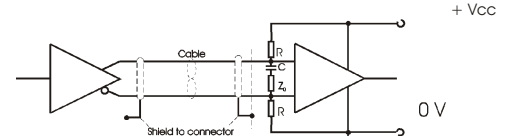
PP2

I out	V out	
	Logic "Low"	Logic "High"
≤35mA	≤ 1,5V	=V _{cc} -2V

LD2 = Line Driver con protezione attiva al corto circuito
LD2 = Line Driver with short circuit active protection



LD = Line Driver senza protezione al corto circuito
LD = Line Driver without short circuit protection



Valori suggeriti per tensione di alimentazione 5 V_{cc}: C = 10nF - Z_o = 150Ohm - R = 4,7 kW
 Line driver usato:
 - Alimentazione 5 V_{cc} o 24-5 V_{cc}: 26LS31 - I out = 20 mA max
 - Alimentazione 11 - 30 V_{cc}: MM88C30 - I out = 40 mA max
 Line receiver raccomandato, rispettivamente: 26LS32 o MM88C20
 Lunghezza cavo max 100 m a 100 kHz

Suggested value for 5 V_{dc} voltage supply: C = 10 nF - Z_o = 150 Ohm - R = 4K7 Ohm
 Used line driver:
 Power supply 5 V_{dc} or 24-5 V_{dc}: 26LS31 I OUT = 20 mA max
 Power supply 11 - 30 V_{dc}: MM88C30 - I OUT = 40 mA max
 Recommended line receiver respectively: 26LS32 or MM88C20
 Maximum cable length: 100m at 100 KHz