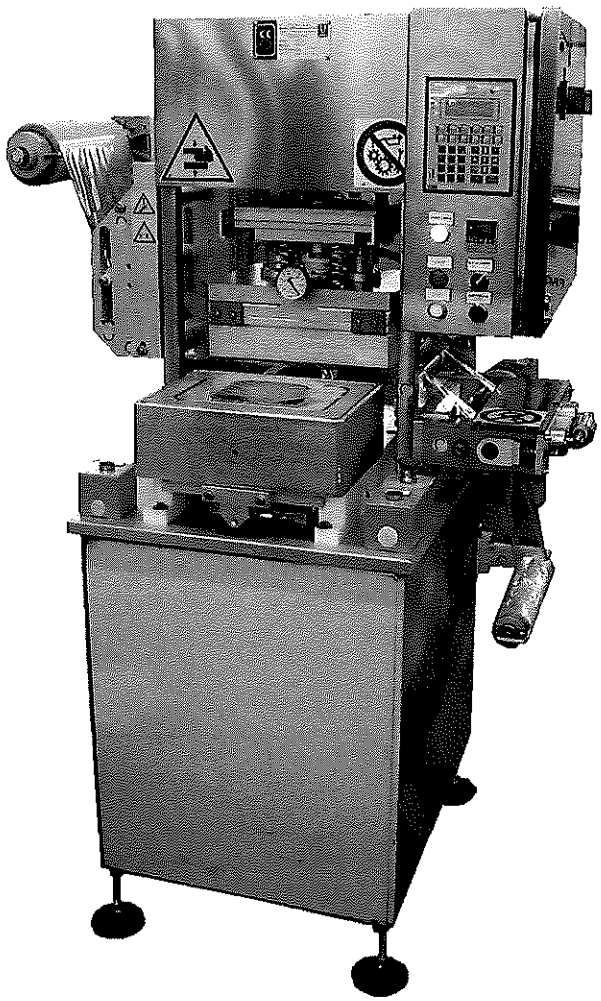
G. MONDINI
DOSATRICI - CONFEZIONATRICI AUTOMATICHE

CE

G. MONDINI S.p.A.
Via Brescia, 5-7
25033 COLOGNE (BS) – ITALIA

CLOSING MACHINE
TYPE CV/VG-S



Electrical Drawings

Construction year: 11/2010

Serial number: A/10/A-00164

G.MONDINI S.p.A.

Fillers – Automatic sealing machines

ELECTRICAL DRAWINGS for MACHINE

A/10/A-00164

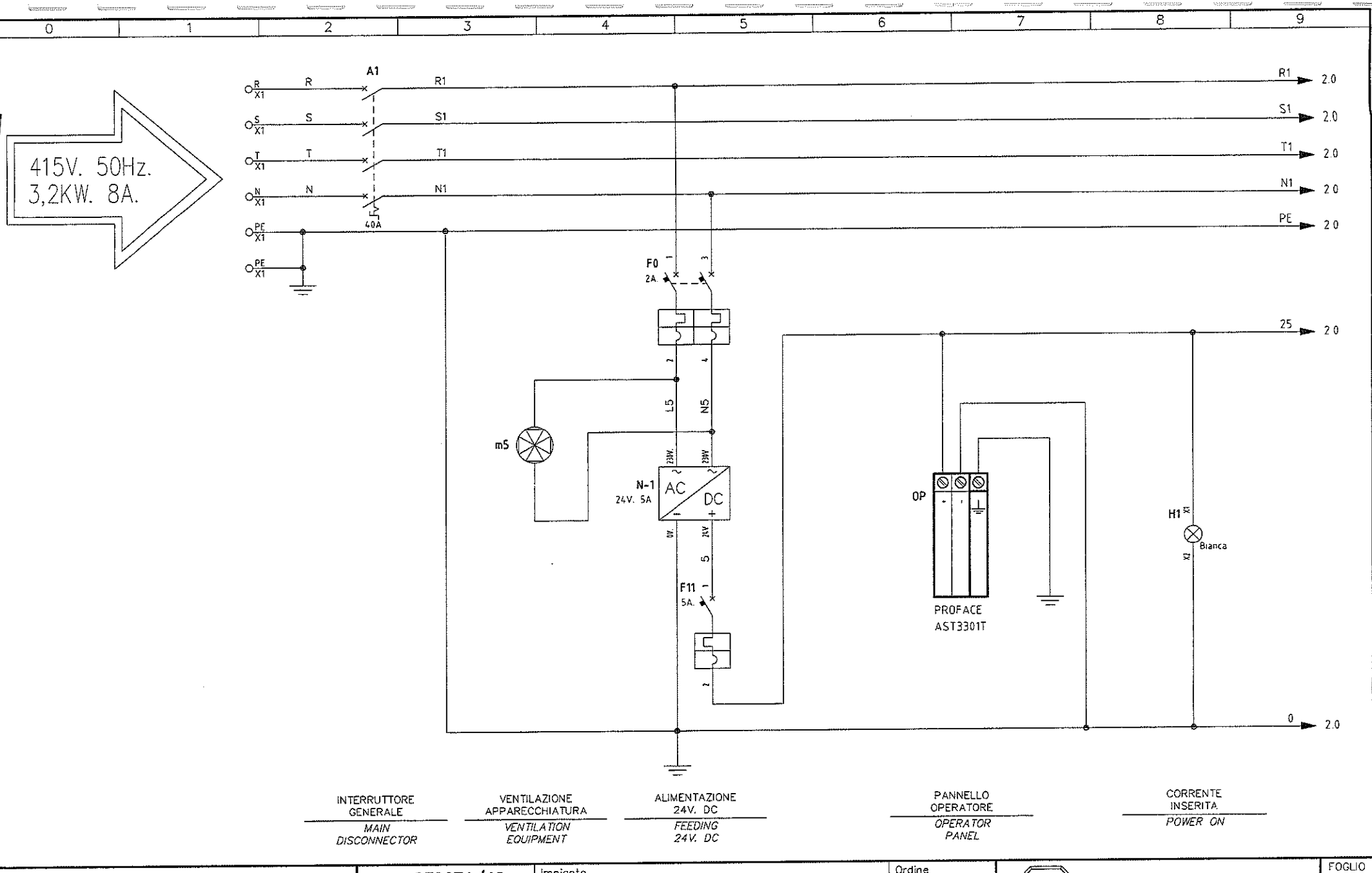
Voltage (V):415

Power installed (KW):3,2

Current absorption (A):8

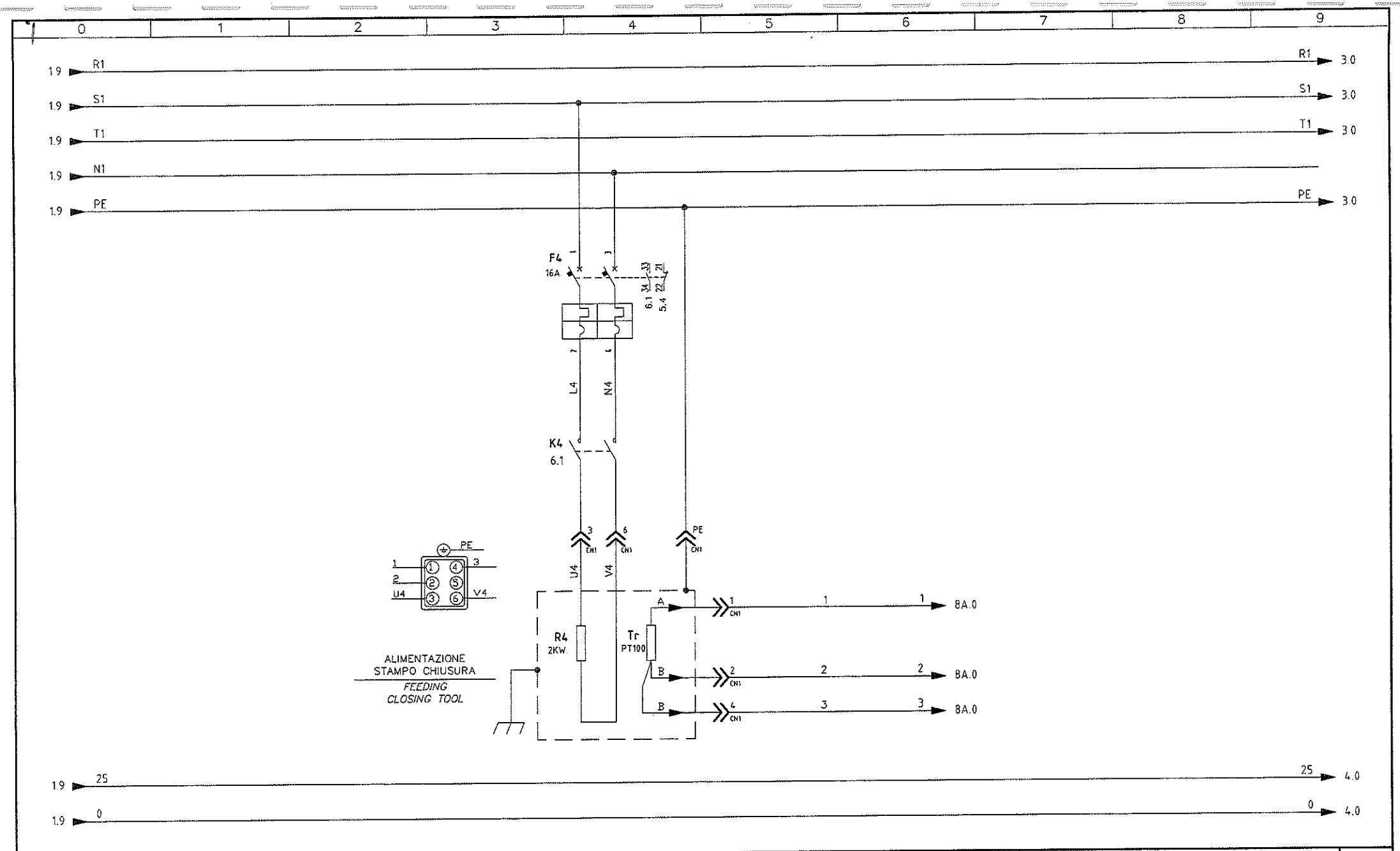
Frequency (Hz):50

G.MONDINI S.p.A.
dosatrici-confezionatrici automatiche
25033 COLOGNE BRESCIANO (Brescia) – Via Brescia – Tel. (030) 70560

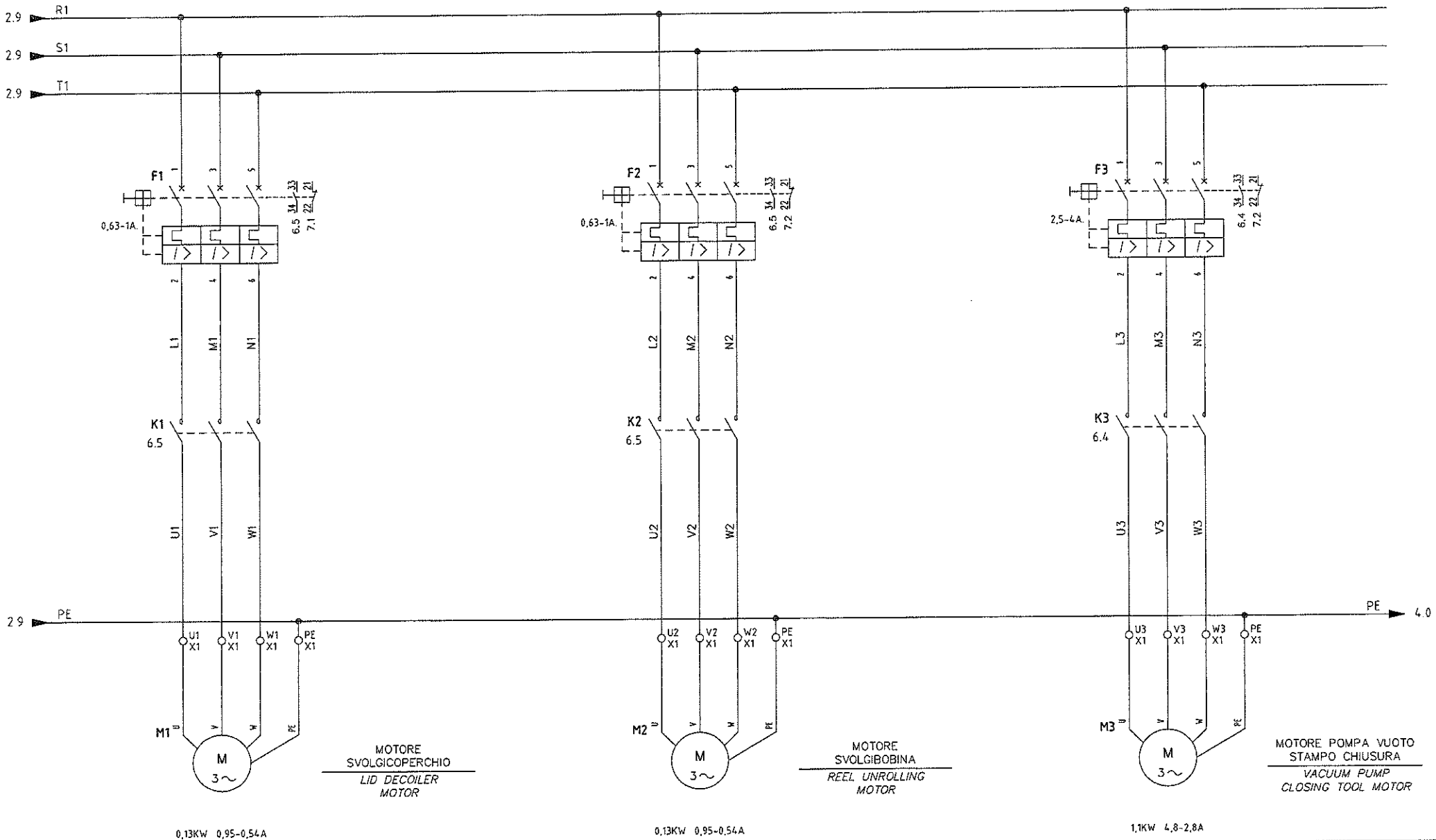


	Dis. N. SE2671/40	Impianto CV/VG-S	Ordine	FOGLIO 1
	CAD SPAC		Commessa A/10/A-00164	SEGUE 2
	Nome File A_10_A-00164-01	Denominazione Alimentazione FEEDING	Esecutore Pagani M.	
	Data 02/11/2010			

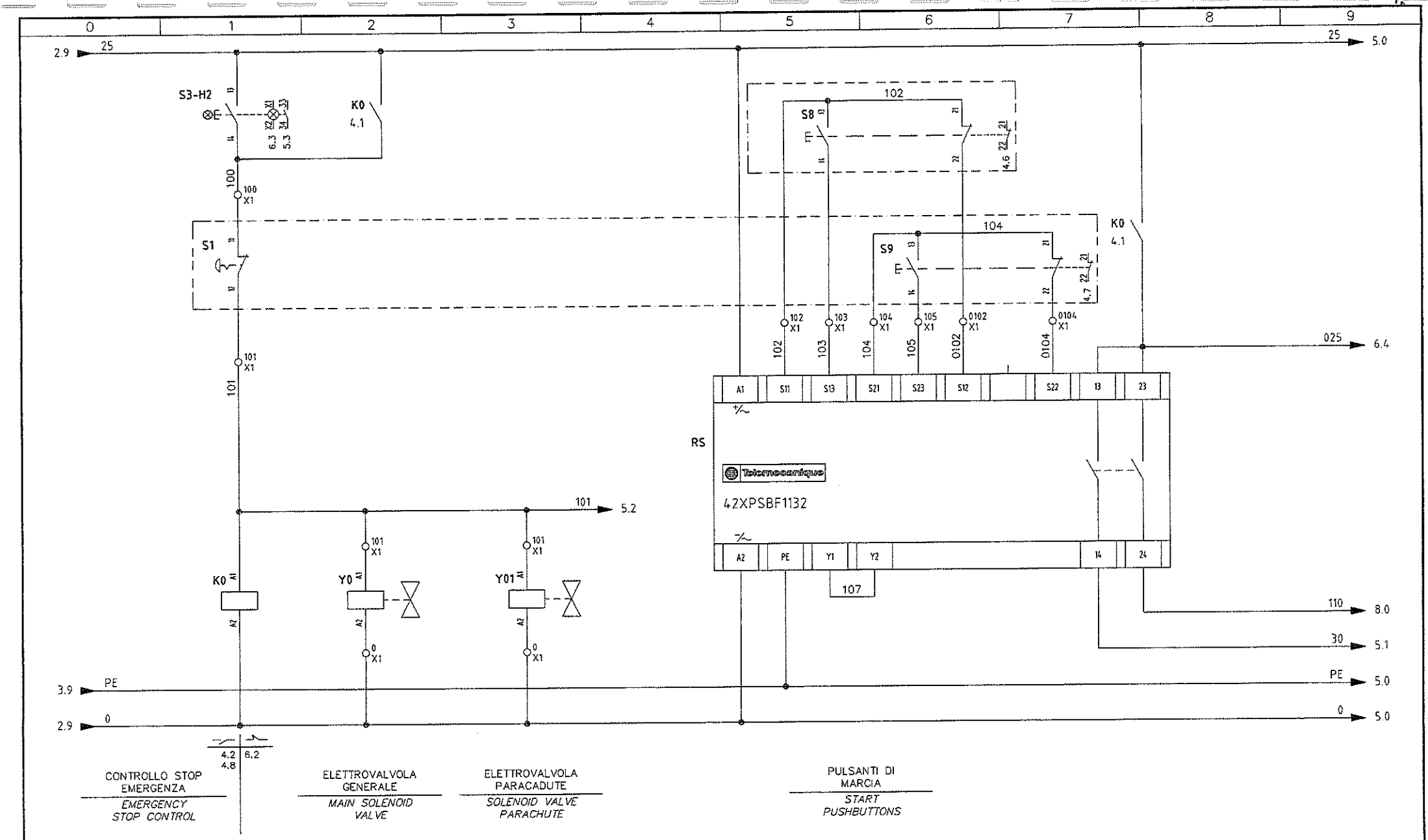
G. MONDINI SPA.
Via Brescia 5-7 25033 COLOGNE (BS) Italia Tel.+39(30)7056250
Tel. +39(30)705600 Fax +39(30)7056250 e-mail: info@gmondini.com



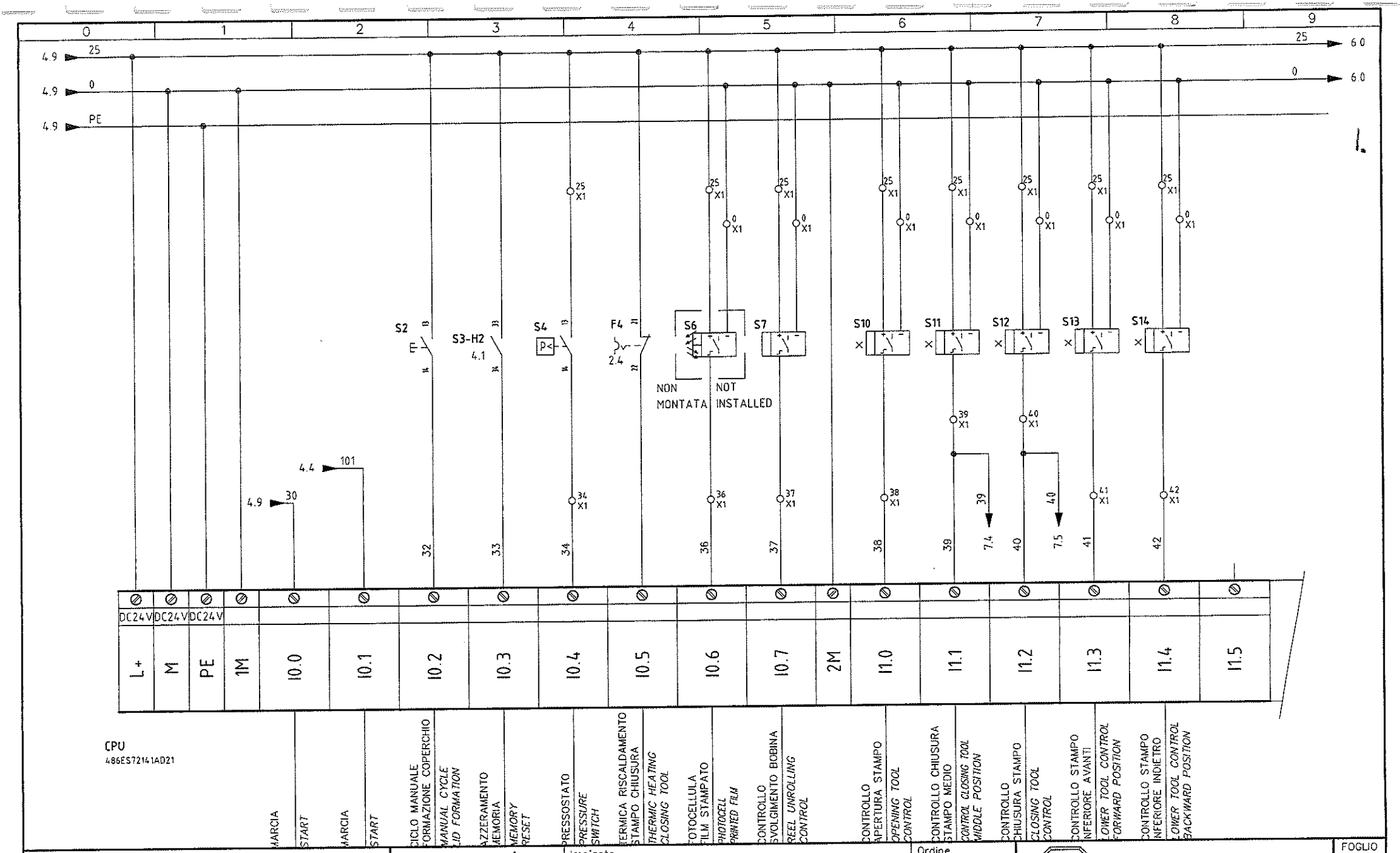
DISEGNO DI NOSTRA PROPRIETA--VIETATA LA RIPRODUZIONE AI SENSI DI LEGGE	Dis. N. SE2671/40 CAD SPAC Nome File A_10_A-00164-01 Data 02/11/2010	Impianto CV/VG-S Denominazione Riscaldamento stampo TOOL HEATING	Ordine Commessa A/10/A-00164 Esecutore Pagani M.	G. MONDINI SPA. Via Brescia 5-7 25033 COLOGNE (BS) Italia Tel.+39(30)7056250 Tel. +39(30)705600 Fax +39(30)7056250 e-mail: info@gmondini.com	FOGLIO 2 SEGUE 3



	Dis. N. SE2671/40	Impianto CV/VG-S	Ordine	G. MONDINI SPA.	FOGLIO 3
	CAD SPAC		Commessa A/10/A-00164	Via Brescia 5-7 25033 COLOGNE (BS) Italia Tel.+39(30)7056250	SEGUE 4
	Nome File A_10_A-00164-01	Denominazione Alimentazioni motori / MOTORS FEEDING	Esecutore Pagani M.	Tel. +39(30)705600 Fax +39(30)7056250 e-mail: info@gmondini.com	
	Data 02/11/2010				



Dis. N. SE2671/40	Impianto CV/VG-S	Ordine	G. MONDINI SPA.	FOGLIO 4
CAD SPAC		Commessa A/10/A-00164	Via Brescia 5-7 25033 COLOGNE (BS) Italia Tel.+39(30)7056250	SEGUE 5
Nome File A_10_A-00164-01	Denominazione Marcia ed emergenze / Start and emergency stop	Esecutore Pagani M.	Tel. +39(30)705600 Fax +39(30)7056250 e-mail: info@gmondini.com	
Data 02/11/2010				



Dis. N. SE2671/40	Impianto CV/VG-S	Ordine	FOGLIO 5
CAD SPAC		Commessa A/10/A-00164	SEGUE 6
Nome File A_10_A-00164-01	Denominazione Ingressi PLC / PLC INPUT	Esecutore Pagani M.	
Data 02/11/2010			

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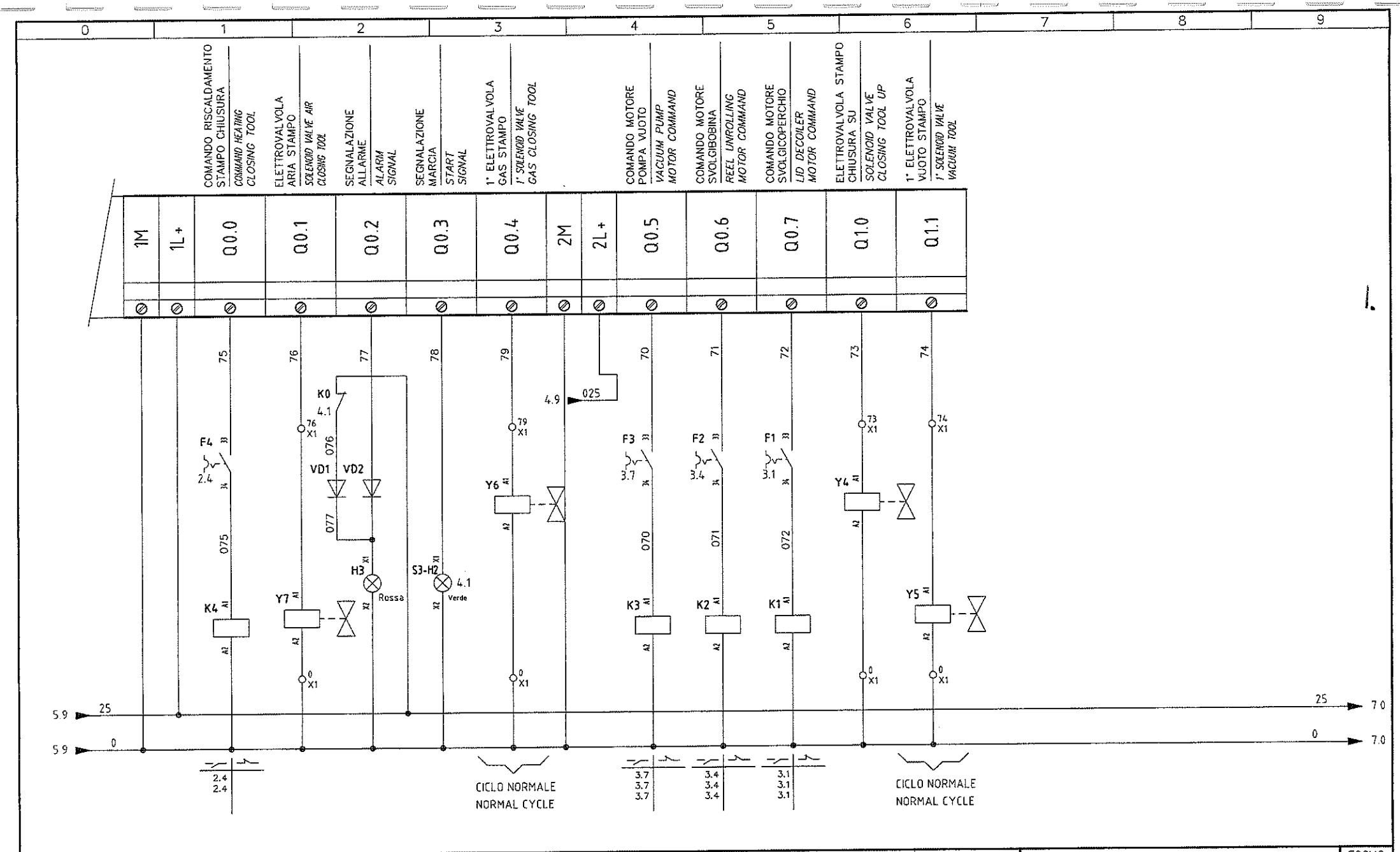

DISEGNO DI NOSTRA PROPRIETA–VIETATA LA RIPRODUZIONE AI SENSI DI LEGGE

Dis. N. SE2671/40	Impianto CV/VG–S	Ordine	FOGLIO 6
CAD SPAC		Commessa A/10/A–00164	SEGUE 7
Nome File A_10_A–00164–01	Denominazione Uscite PLC / PLC OUTPUT	Esecutore Pagani M.	
Data 02/11/2010			

G. MONDINI SPA.
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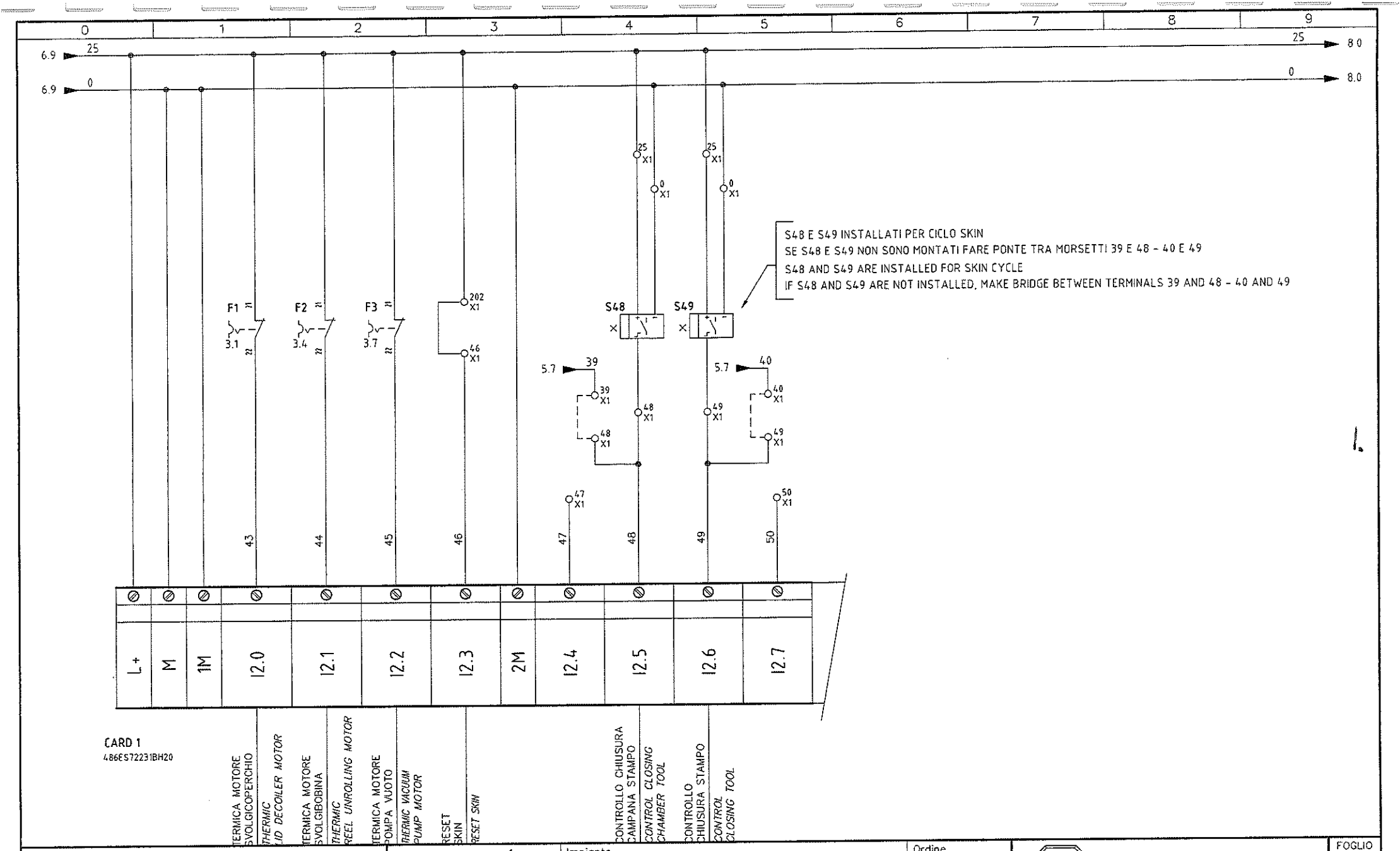
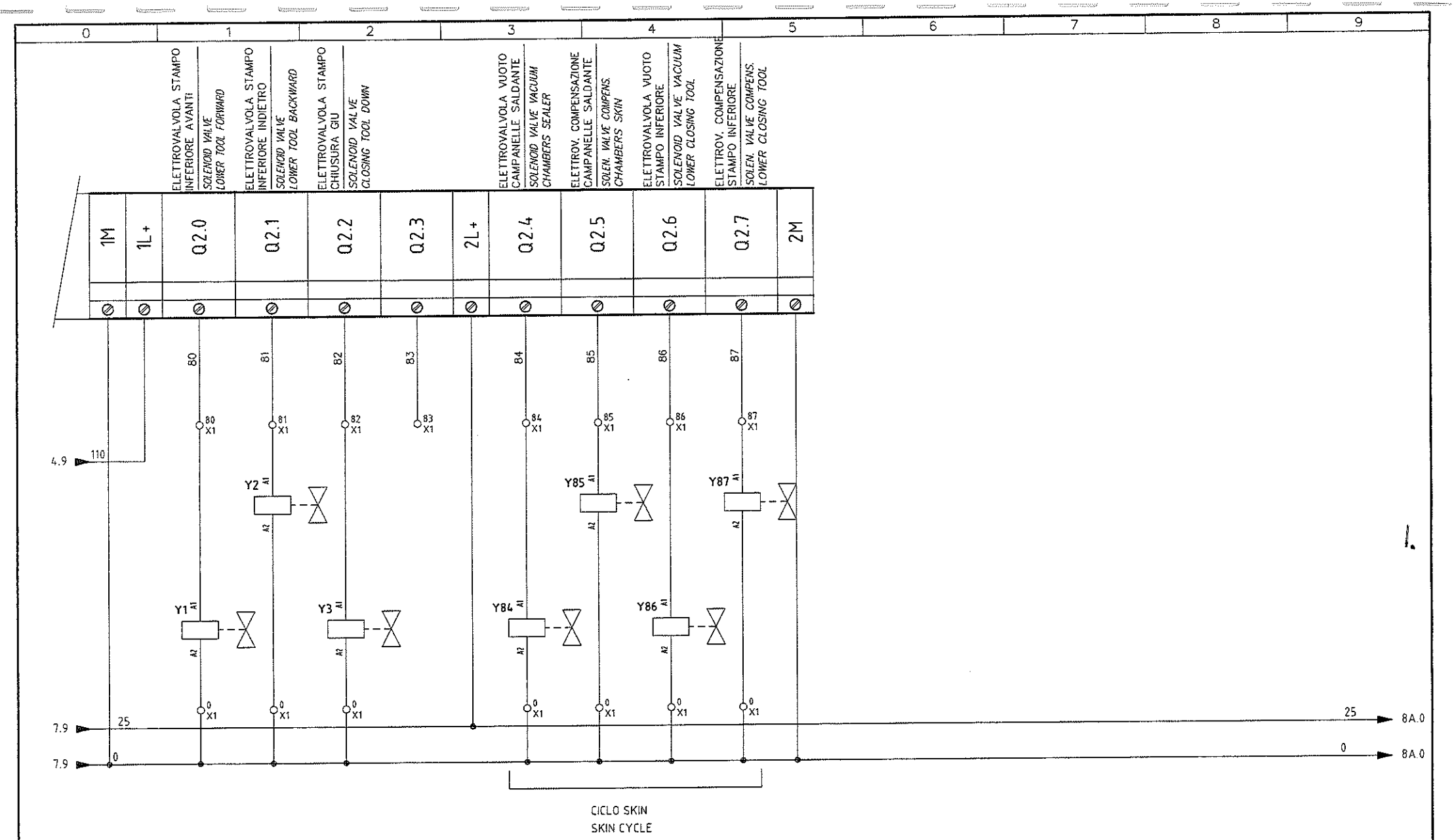


Dis. N. SE2671/40	Impianto CV/VG-S	Ordine	FOGLIO 7
CAD SPAC		Commessa A/10/A-00164	SEGUE 8
Nome File A_10_A-00164-01	Denominazione Ingressi PLC / PLC INPUT	Esecutore Pagani M.	
Data 02/11/2010			

G. MONDINI SPA.
Via Brescia 5-7 25033 COLOGNE (BS) Italia Tel.+39(30)7056250
Tel. +39(30)705600 Fax +39(30)7056250 e-mail: info@gmondini.com



DISEGNO DI NOSTRA PROPRIETA-VIETATA LA RIPRODUZIONE AI SENSI DI LEGGE

Dis. N.	SE2671/40
CAD	SPAC
Nome File	A_10_A-00164-01
Data	02/11/2010
Impianto	CV/VG-S
Denominazione	Uscite PLC PLC OUTPUT
Ordine	
Commessa	A/10/A-00164
Esecutore	Pagani M.

G. MONDINI SPA.
Via Brescia 5-7 25033 COLOGNE (BS) Italia Tel.+39(30)7056250
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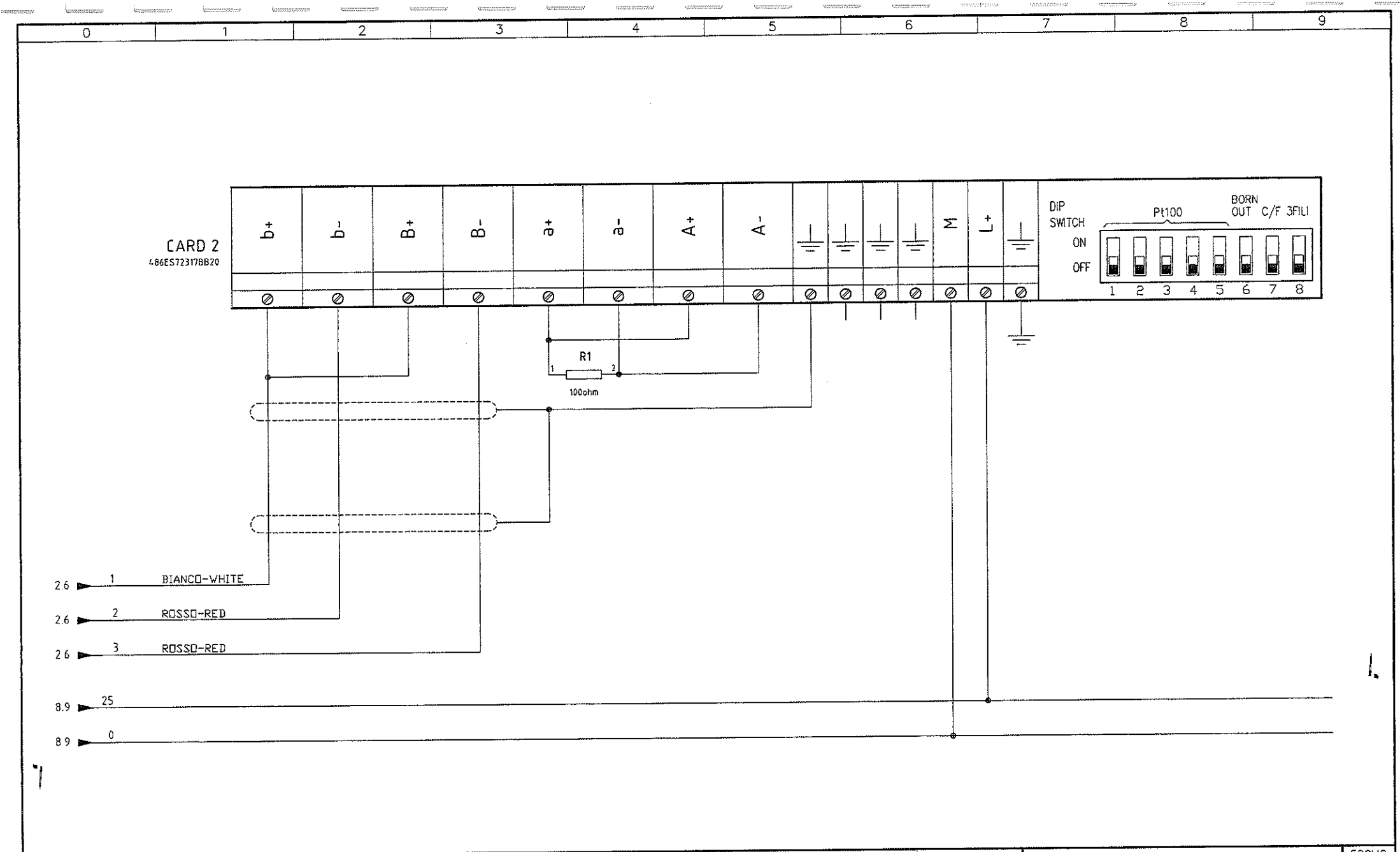
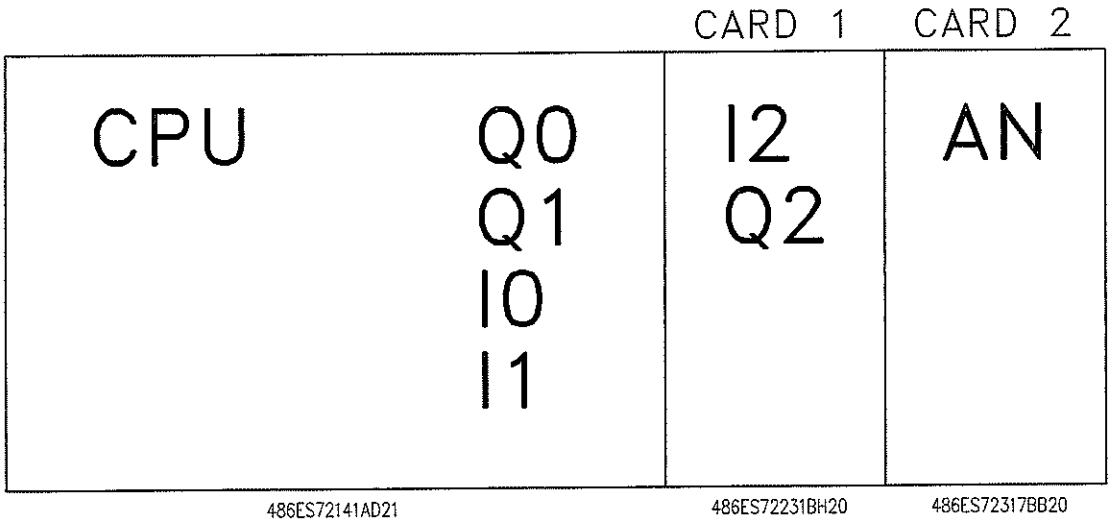
FOGLIO	8
SEGUE	8A



DISEGNO DI NOSTRA PROPRIETA-VIETATA LA RIPRODUZIONE AI SENSI DI LEGGE	Dis. N. SE2671/40	Impianto CV/VG-S	Ordine	G. MONDINI SPA.	FOGLIO 8A
	CAD SPAC		Commesso A/10/A-00164	Via Brescia 5-7 25033 COLOGNE (BS) Italia Tel.+39(30)7056250	SEGUE 9
	Nome File A_10_A-00164-01	Denominazione Scheda per PT100 / Card for PT100	Esecutore Pagani M.	Tel. +39(30)705600 Fax +39(30)7056250 e-mail: info@gmondini.com	
	Data 02/11/2010				



DISEGNO DI NOSTRA PROPRIETA–VIETATA LA RIPRODUZIONE AI SENSI DI LEGGE	Dis. N. SE2671/40	Impianto CV/VG–S	Ordine	FOGLIO 9
	CAD SPAC		Commessa A/10/A–00164	SEGUE 10
	Nome File A_10_A–00164–01	Denominazione Disposizione PLC / PLC DISPOSITION	Esecutore Pagani M.	
	Data 02/11/2010			

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QUADRO QG - CONNETTORE CN1
Connettore alimentazione stampo chiusura
Connector feeding closing tool

DISEGNO DI NOSTRA PROPRIETA-VIETATA LA RIPRODUZIONE AI SENSI DI LEGGE	Dis. N. SE2671/40	Impianto CV/VG-S	Ordine	G. MONDINI SPA. Via Brescia 5-7 25033 COLOGNE (BS) Italia Tel.+39(30)7056250 Tel. +39(30)705600 Fax +39(30)7056250 e-mail: info@gmondini.com	FOGLIO 10
	CAD SPAC		Commessa A/10/A-00164		SEGUE 11
	Nome File A_10_A-00164-01	Denominazione Connettori / CONNECTORS	Esecutore Pagani M.		
	Data 02/11/2010				

QUADRO QG - MORSETTIERA X1

X1	4		0	8.4
X1	4		0	8.4
X1	4		0	8.3
X1	4		0	5.6
X1	4		0	5.5
X1	4		0	5.5
X1	4		0	5.6
X1	4		0	5.8
X1	4		0	5.7
X1	4		0	5.8
X1	4		0	8.2
X1	4		0	8.1
X1	4		0	8.1
X1	4		0	4.2
X1	4		0	4.3
X1	4		0	7.4
X1	4		0	7.5
X1	4		0	6.3
X1	4		0	8.5
X1	4		0	6.6
X1	4		0	6.6
X1	4		0	6.2
X1	4		N	1.1
X1	4		R	1.1
X1	4		S	1.1
X1	4		T	1.1
X1	4		U1	3.1
X1	4		V1	3.1
X1	4		W1	3.1
X1	4		U2	3.4
X1	4		V2	3.4
X1	4		W2	3.5
X1	4		U3	3.7
X1	4		V3	3.8
X1	4		W3	3.8
X1	4		25	5.4
X1	4		25	5.5
X1	4		25	5.5
X1	4		25	5.6
X1	4		25	5.7

X1	4		25	5.6
X1	4		25	5.7
X1	4		25	5.8
X1	4		25	7.4
X1	4		25	7.5
X1	4		34	5.4
X1	4		36	5.5
X1	4		37	5.5
X1	4		38	5.6
X1	4		39	5.6
X1	4		39	7.4
X1	4		40	5.7
X1	4		40	7.5
X1	4		41	5.7
X1	4		42	5.8
X1	4		46	7.3
X1	4		47	7.4
X1	4		48	7.4
X1	4		48	7.4
X1	4		49	7.5
X1	4		49	7.5
X1	4		50	7.5
X1	4		73	6.6
X1	4		74	6.6
X1	4		76	6.2
X1	4		79	6.3
X1	4		80	8.1
X1	4		81	8.1
X1	4		82	8.2
X1	4		83	8.2
X1	4		84	8.3
X1	4		85	8.4
X1	4		86	8.4
X1	4		87	8.5
X1	4		100	4.1
X1	4		101	4.2
X1	4		101	4.3
X1	4		101	4.1
X1	4		102	4.5
X1	4		0102	4.6

Dis. N. SE2671/40
CAD SPAC
Nome File A_10_A-00164-01
Data 02/11/2010

Impianto CV/VG-S
Denominazione Morsettiera
TERMINAL STRIP

Ordine
Commessa A/10/A-00164
Esecutore Pagani M.

G. MONDINI SPA.
Via Brescia 5-7 25033 COLOGNE (BS) Italia Tel.+39(30)7056250
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FOGLIO 11
SEGUE 11A

0	1	2	3	4	5	6	7	8	9

X1	4	O	103	4.5
X1	4	O	104	4.6
X1	4	O	0104	4.7
X1	4	O	105	4.6
X1	4	O	202	7.3
X1	2.5	O	PE	1.1
X1	2.5	O	PE	1.1
X1	2.5	O	PE	3.8
X1	2.5	O	PE	3.2
X1	2.5	O	PE	3.5

Dis. N. SE2671/40
CAD SPAC
Nome File A_10_A-00164-01
Data 02/11/2010

Impianto CV/VG–S
Denominazione Morsettiera
TERMINAL STRIP

Ordine
Commessa A/10/A-00164
Esecutore Pagani M.

G. MONDINI SPA.
Via Brescia 5-7 25033 COLOGNE (BS) Italia Tel.+39(30)7056250
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FOGLIO 11A
SEGUE 12

Nome/Item	Cod. int./Internal code	Cod. costr./Marke code	Descrizione/Description	Costruttore/Marke	Quadro/Board	Fg/Sh
M1	SEE MECHANICAL MANUAL		Motore asincrono trifase		BM	3
M2	SEE MECHANICAL MANUAL		Motore asincrono trifase		BM	3
M3	SEE MECHANICAL MANUAL		Motore asincrono trifase		BM	3
R4	SEE MECHANICAL MANUAL		Resistore		BM	2
S1	42ZB4BS844		Pulsante di emergenza a posizione stabile NC	Telemecanique	BM	4
	42ZB4BZ102		Contatti	Telemecanique		
S4	44XMLA020A2S		Comandato dalla pressione pressostato NO	Telemecanique	BM	5
S6	45S3RD12		Fotocellula emettitore-ricevitore NO alimentazione DC	Datasensor	BM	5
	48XZCP1141L5		Cavo di collegamento	Telemecanique		
S7	42XS1D18PA140D		Proximity NO	Telemecanique	BM	5
	48XZCP1141L5		Cavo di collegamento	Telemecanique		
S10	SEE MECHANICAL MANUAL		Proximity NO		BM	5
S11	SEE MECHANICAL MANUAL		Proximity NO		BM	5
S12	SEE MECHANICAL MANUAL		Proximity NO		BM	5
S13	SEE MECHANICAL MANUAL		Proximity NO		BM	5
S14	SEE MECHANICAL MANUAL		Proximity NO		BM	5
S48	SEE MECHANICAL MANUAL		Proximity NO		BM	7
S49	SEE MECHANICAL MANUAL		Proximity NO		BM	7
Tr	46PT100		Termoresistenza		BM	2
Y0	SEE MECHANICAL MANUAL		Elettrovalvola aperta (in chiusura)		BM	4
Y1	SEE MECHANICAL MANUAL		Elettrovalvola aperta (in chiusura)		BM	8
Y2	SEE MECHANICAL MANUAL		Elettrovalvola aperta (in chiusura)		BM	8
Y3	SEE MECHANICAL MANUAL		Elettrovalvola aperta (in chiusura)		BM	8
Y4	SEE MECHANICAL MANUAL		Elettrovalvola aperta (in chiusura)		BM	6
Y5	SEE MECHANICAL MANUAL		Elettrovalvola aperta (in chiusura)		BM	6
Y6	SEE MECHANICAL MANUAL		Elettrovalvola aperta (in chiusura)		BM	6
Y7	SEE MECHANICAL MANUAL		Elettrovalvola aperta (in chiusura)		BM	6
Y01	SEE MECHANICAL MANUAL		Elettrovalvola aperta (in chiusura)		BM	4
Y84	SEE MECHANICAL MANUAL		Elettrovalvola aperta (in chiusura)		BM	8
Y85	SEE MECHANICAL MANUAL		Elettrovalvola aperta (in chiusura)		BM	8
Y86	SEE MECHANICAL MANUAL		Elettrovalvola aperta (in chiusura)		BM	8
Y87	SEE MECHANICAL MANUAL		Elettrovalvola aperta (in chiusura)		BM	8
A1	44V0		Interruttore di potenza tripolare	Square-D	QG	1
	44VZ17		Interruttore di potenza tripolare	Square-D		
	44VZ11		Interruttore di potenza tripolare	Square-D		
	44KCD1Y		Interruttore di potenza tripolare	Square-D		
	44KZ32		Interruttore di potenza tripolare	Square-D		
CARD 1	486ES72231BH20		Unita centrale	Siemens	QG	7
CARD 2	486ES72317BB20		Etichetta attributi	Siemens	QG	8A
CPU	486ES72141AD21		Unita centrale	Siemens	QG	5
F0	445SY42027		Int. aut. magnetotermico bipolare	Siemens	QG	1
F1	42GV2ME05		Interruttore automatico tripolare con protezione massima corrente e termica	Telemecanique	QG	3
	42GVAN11		Contatti ausiliari	Telemecanique		
F2	42GV2ME05		Interruttore automatico tripolare con protezione massima corrente e termica	Telemecanique	QG	3

Dis. N. SE2671/40
CAD SPAC
Nome File A_10_A-00164-01
Data 02/11/2010

Impianto CV/VG-S
Denominazione Distinta materiali
MATERIAL LIST

Ordine
Commessa A/10/A-00164
Esecutore Pagani M.

G. MONDINI SPA.
Via Brescia 5-7 25033 COLOGNE (BS) Italia Tel.+39(30)7056250
Tel. +39(30)705600 Fax +39(30)7056250 e-mail: info@gmondini.com

FOGLIO 12
SEGUE 13

Nome/Item	Cod. int./Internal code	Cod. costr./Marke code	Descrizione/Description	Costruttore/Marke	Quadro/Board	Fg/Sh
F2	42GVAN11		Contatti ausiliari	Telemecanique		
F3	42GV2ME08		Interruttore automatico tripolare con protezione massima corrente e termica	Telemecanique	QG	3
	42GVAN11		Contatti ausiliari	Telemecanique		
F4	445SY42167		Interruttore automatico magnetotermico bipolare	Siemens	QG	2
F11	44GB2CB10		Interruttore automatico magnetotermico unipolare	Telemecanique	QG	1
H1	42XB4BVB1		Segnalazione luminosa	Telemecanique	QG	1
H3	42XB4BVB4		Segnalazione luminosa	Telemecanique	QG	6
K0	42LC1D09BL		Bobina contattore	Telemecanique	QG	4
	42LADN11		Contatti ausiliari	Telemecanique		
K1	42LC1D09BL		Bobina contattore	Telemecanique	QG	6
K2	42LC1D09BL		Bobina contattore	Telemecanique	QG	6
K3	42LC1D09BL		Bobina contattore	Telemecanique	QG	6
K4	42LC1D09BL		Bobina contattore	Telemecanique	QG	6
mS	49VH6500		Ventilatore	Ceb	QG	1
N-1	49ET4065		Convertitore di corrente AC-DC monofase	Eurotek	QG	1
OP	48AST3301T		Pannello Operatore	Proface	QG	1
	48CA3ADPCOM01		Adattatore	Proface		
	48CA3ADPSEI01		Adattatore	Proface		
R1	46RES100/5W		Resistore		QG	8A
RS	42XPSBF1132		Modulo di sicurezza Preventa Mod. XPS-BF	TELEMECANIQUE	QG	4
S2	42ZB4BA2		Comando a Pulsante NO	Telemecanique	QG	5
	42ZB4BZ101		Comando a Pulsante NO	Telemecanique		
S3-H2	42ZB4BW333		Pulsante luminoso	Telemecanique	QG	4
	42ZB4BW0B31		Lampada	Telemecanique		
	42ZB4BE101		Contatti	Telemecanique		
S8	42ZB4BA2		Comando a Pulsante NO	Telemecanique	QG	4
	42ZB4BZ101		Contatti	Telemecanique		
	42ZB4BE101		Contatti	Telemecanique		
S9	42ZB4BA2		Comando a Pulsante NO	Telemecanique	QG	4
	42ZB4BZ101		Contatti	Telemecanique		
	42ZB4BE101		Inglese	Telemecanique		
VD1			Diodo		QG	6
VD2			Diodo		QG	6
CN1	6 POLI + PE		Connettore 6 poli + PE	ILME	QG	
X1	USLK G4		Morsetto di terra da 2.5 mm per barra Din	PHOENIX	QG	
	UK5		Morsetto da 4 mm per barra Din	PHOENIX	QG	
	UKK5		Morsetto doppio da 4 mm per barra Din	PHOENIX	QG	

Dis. N. SE2671/40
CAD SPAC
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Impianto CV/VG-S
Denominazione Distinta materiali
MATERIAL LIST

Ordine
Commessa A/10/A-00164
Esecutore Pagani M.

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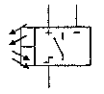
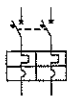
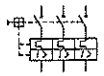
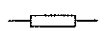
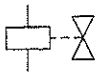
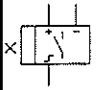
Tel. +39(30)705600 Fax +39(30)7056250 e-mail: info@gmondini.com

Sim.\Sym.	File	Descrizione\Description
	B16A	Fotocellula emettitore-ricevitore NO alimentazione DC
	G1	Convertitore di corrente AC-DC monofase
	H5	Segnalazione luminosa
	M2	Motore asincrono trifase
	Q9	Int aut. magnetotermico unipolare
	Q10	Int. aut. magnetotermico bipolare
	Q23	Int. aut. tripolare con prot. max corrente e termica
	R1	Resistore
	R10	Resistore
	S2	Comando a Pulsante NO
	S9	Comandato dalla pressione (pressostato) NO

Sim.\Sym.	File	Descrizione\Description
	S24C	Pulsante di emergenza a posizione stabile NC
	S56	Proximity NO
	S75	Pulsante con lampada di segnalazione incorporata NO
	V1	Diodo
	Y1	Elettrovalvola aperta (in chiusura)
	KM1	Bobina contattore
	BLK4	Termoresistenza
	BLK6	Ventilatore
	BLK29	Proximity NO
	BLK56	Interruttore di potenza tripolare
	T_PLC0	Alimentazione PLC e Pannello Operatore

Dis. N. SE2671/40
CAD SPAC
Nome File A_10_A-00164-01
Data 02/11/2010

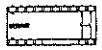
Impianto CV/VG-S
Denominazione Componenti impianto
COMPONENTS PLANT

Ordine
Commessa A/10/A-00164
Esecutore Pagani M.

G. MONDINI SPA.
Via Brescia 5-7 25033 COLOGNE (BS) Italia Tel.+39(30)7056250
Tel. +39(30)705600 Fax +39(30)7056250 e-mail: info@gmondini.com

FOGLIO 14
SEGUE 15

0	1	2	3	4	5	6	7	8	9

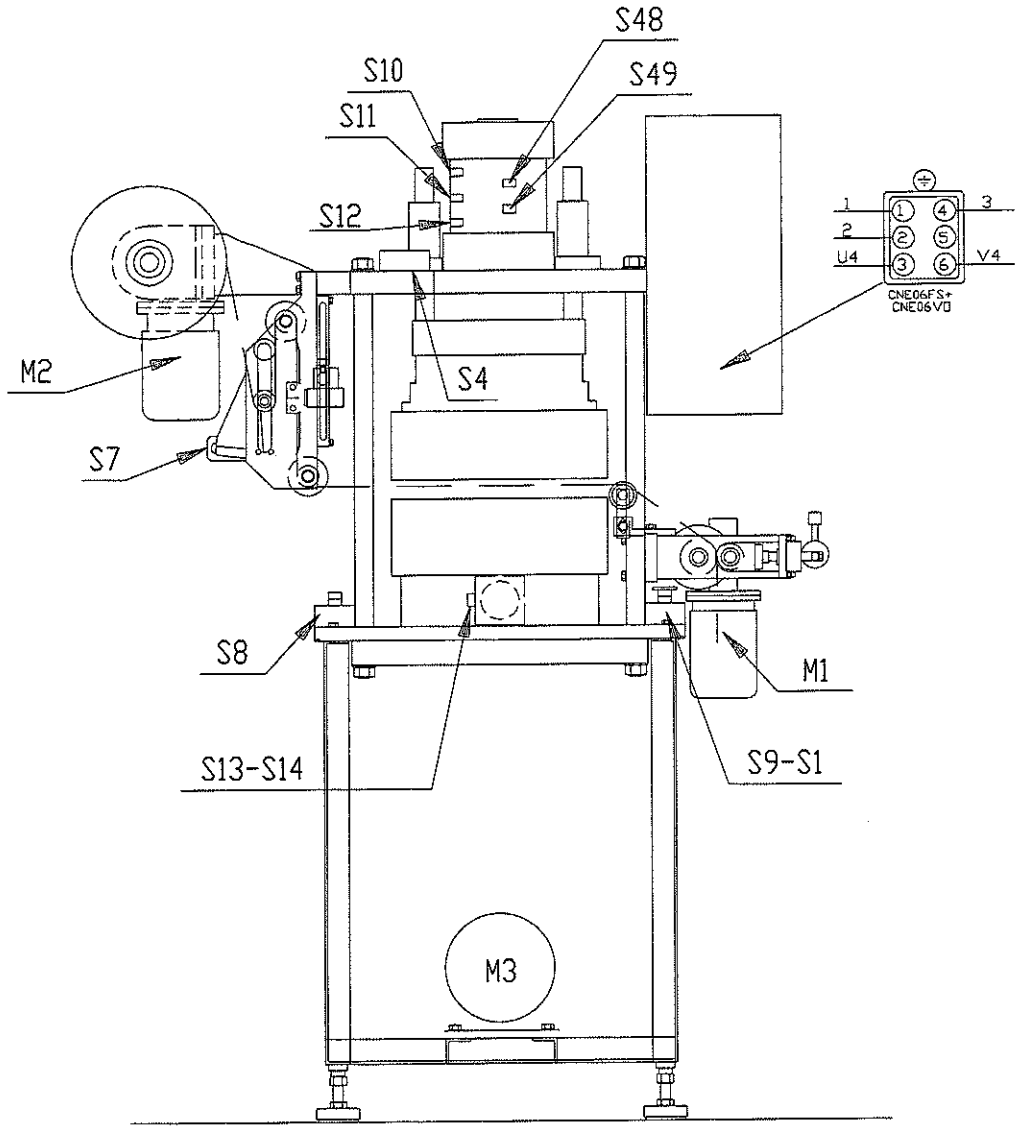
Sim.\Sym.	File	Descrizione\Description
	XPS-AS	Modulo di sicurezza Preventa Mod. XPS-AS

Sim.\Sym.	File	Descrizione\Description

DISEGNO DI NOSTRA PROPRIETA—VIETATA LA RIPRODUZIONE AI SENSI DI LEGGE

Dis. N. SE2671/40	Impianto CV/VG-S	Ordine	FOGLIO 15
CAD SPAC		Commessa A/10/A-00164	SEGUE 16
Nome File A_10_A-00164-01	Denominazione Componenti impianto	Esecutore Pagani M.	
Data 02/11/2010	COMPONENTS PLANT		

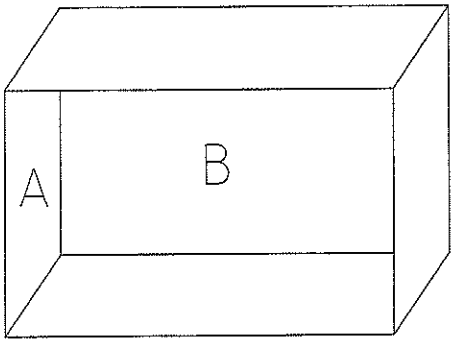
G. MONDINI SPA.
Via Brescia 5-7 25033 COLOGNE (BS) Italia Tel.+39(30)7056250
Tel. +39(30)705600 Fax +39(30)7056250 e-mail: info@gmondini.com



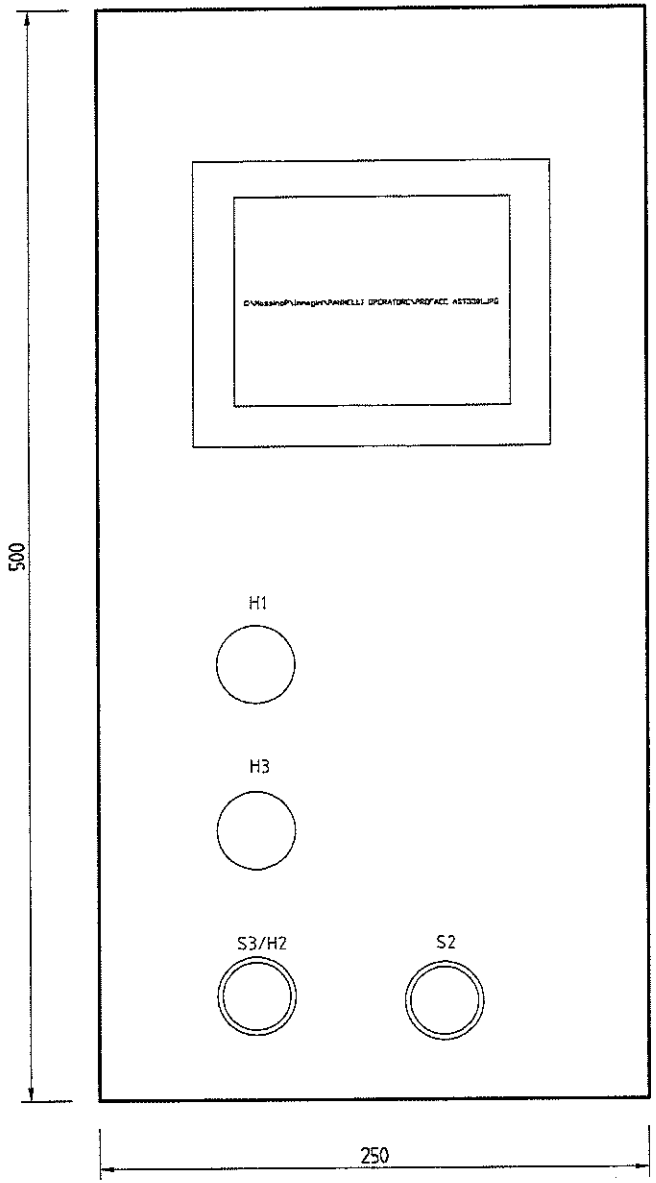
DISEGNO DI NOSTRA PROPRIETA–VIETATA LA RIPRODUZIONE AI SENSI DI LEGGE

Dis. N. SE2671/40	Impianto CV/VG–S	Ordine	FOGLIO 16
CAD SPAC		Commessa A/10/A–00164	SEGUE 17
Nome File A_10_A–00164–01	Denominazione Disposizione componenti	Esecutore Pagani M.	
Data 02/11/2010	COMPONENTS DISPOSITION		

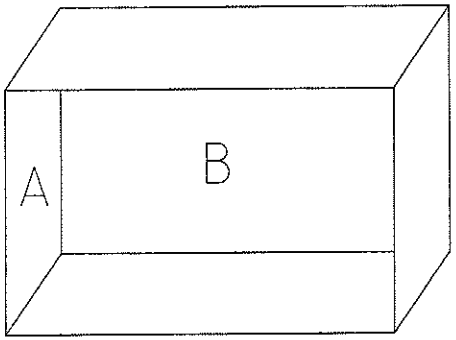
G. MONDINI SPA.
Via Brescia 5-7 25033 COLOGNE (BS) Italia Tel.+39(30)7056250
Tel. +39(30)705600 Fax +39(30)7056250 e-mail: info@gmondini.com



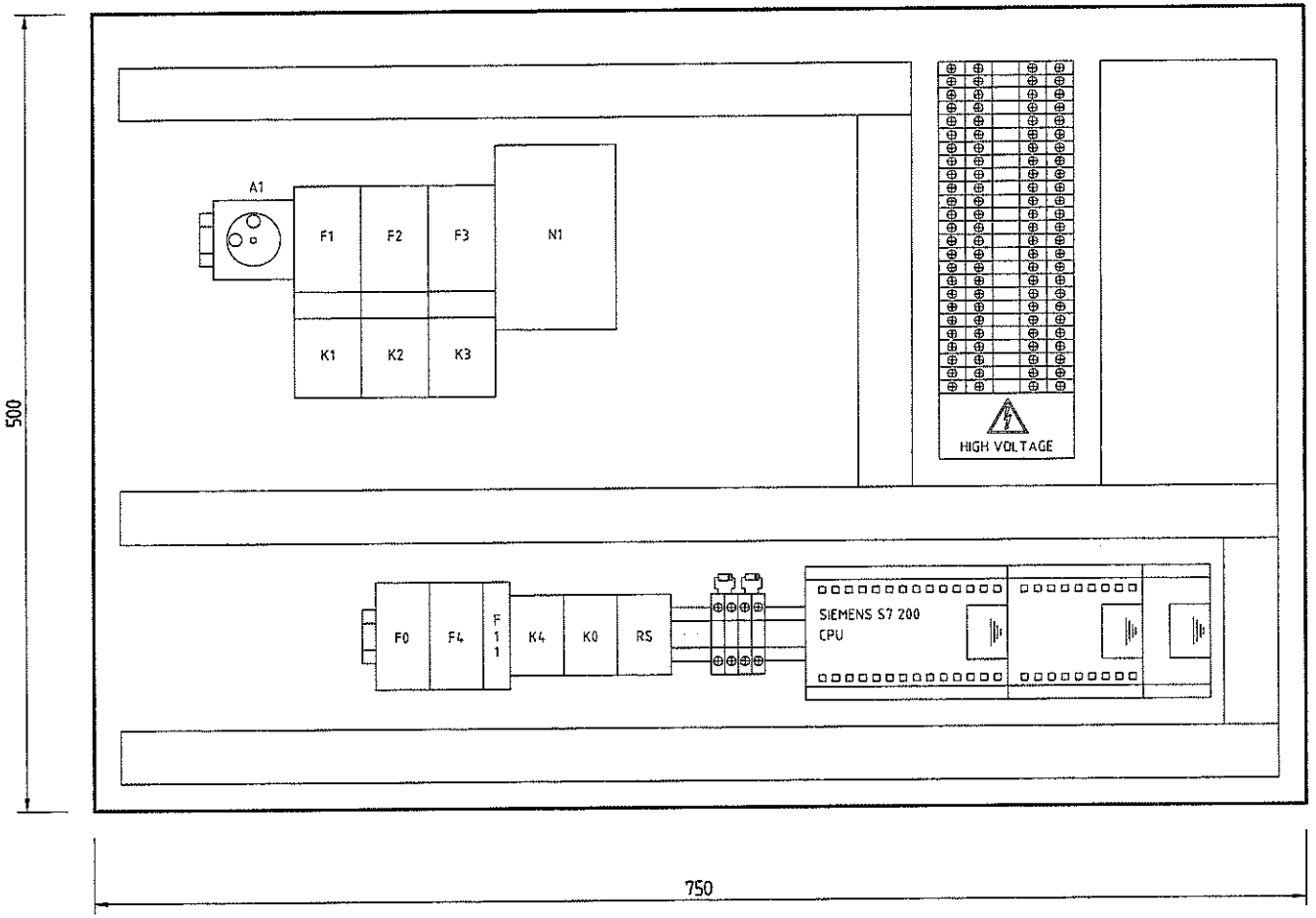
LATO A
SIDE A



DISEGNO DI NOSTRA PROPRIETA-VIETATA LA RIPRODUZIONE AI SENSI DI LEGGE	Dis. N. SE2671/40	Impianto CV/VG-S	Ordine	G. MONDINI SPA. Via Brescia 5-7 25033 COLOGNE (BS) Italia Tel.+39(30)7056250 Tel. +39(30)705600 Fax +39(30)7056250 e-mail: info@gmondini.com	FOGLIO 17
	CAD SPAC		Commessa A/10/A-00164		SEGUE 18
	Nome File A_10_A-00164-01	Denominazione Esterno quadro elettrico lato A			
	Data 02/11/2010	OUTSIDE ELECTRICAL PANEL SIDE A	Esecutore Pagani M.		



LATO B
SIDE B



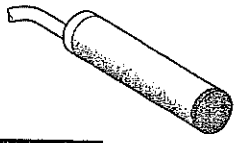
DISEGNO DI NOSTRA PROPRIETA–VIETATA LA RIPRODUZIONE AI SENSI DI LEGGE	Dis. N. SE2671/40 CAD SPAC Nome File A_10_A-00164-01 Data 02/11/2010	Impianto CV/VG-S Denominazione Interno quadro elettrico lato B Inside electrical panel side B	Ordine Commessa A/10/A-00164 Esecutore Pagani M.	G. MONDINI SPA. Via Brescia 5-7 25033 COLOGNE (BS) Italia Tel.+39(30)7056250 Tel. +39(30)705600 Fax +39(30)7056250 e-mail: info@gmondini.com	FOGLIO 18 SEGUE 19

XS1-L/D/M / XS2-D

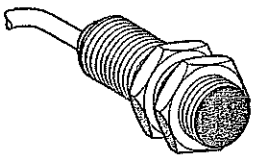
Telemecanique

Inductive proximity sensors
Détecteurs de proximité inductifs
Induktive Näherungsschalter
Detectores de proximidad inductivos
Interruttori di prossimità induttivi
Detectores de proximidade indutivos

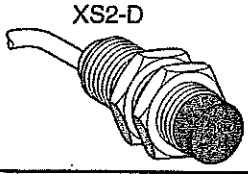
XS1-L



XS1-D/M



XS2-D



Listing :
Applicable on proximity switches bearing the UL Listing mark only.
Enclosure : Type 1

Overcurrent protection *

Conductor size AWG	mm²	Maximum Ampere rating
22	0.34	3
27	0.11	1

* Required on AC products

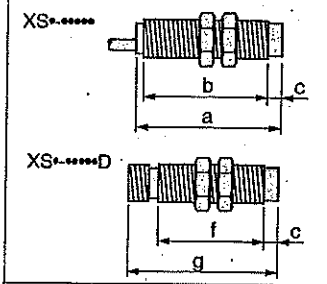
IEC947-5-2 CE

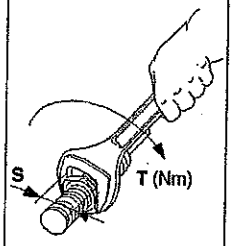
UL LISTED 8L08 IND. CONT. EQ.

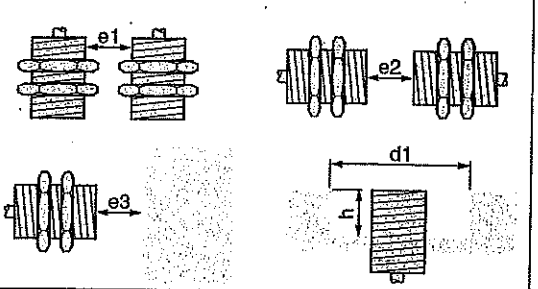
⚠ DANGER / PELIGRO / DANGER

HAZARDOUS VOLTAGE	TENSION PELIGROSA	TENSION DANGEREUSE
Disconnect all power before servicing equipment. Electric shock will result in death or serious injury.	Desenergice el equipo antes de realizarle servicio. Una descarga eléctrica podrá causar la muerte o lesiones serias.	Couper l'alimentation avant de travailler sur cet appareil. Une électrocution entraînera la mort ou des blessures graves.

Mechanical installation
Mise en œuvre mécanique
Mechanische Installation
Instalación mecánica
Messa in opera meccanica
Instalação mecânica



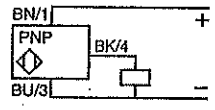




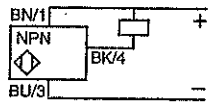
	(mm) Sn	a	b	c	g	f	S	T (Nm)	e1 ≥	e2 ≥	e3 ≥	d1 ≥	h ≥
	XS1L 1,5	42	0	0	–	–	–	–	3	18	4,5	8	0
	XS1D08 1,5	42	40,6	0	61,4	39,6	13	5	3	18	4,5	8	0
	XS1D12 2	42,2	40	0	53	39,6	17	15	4	24	6	12	0
	XS1D18 5	52,2	49,6	0	64	49,7	24	35	10	60	15	18	0
	XS1D30 10	52,2	49,6	0	64	49,7	36	50	20	120	30	30	0
	XS1M12 2	59	57,5	0	-	-	17	15	4	24	6	12	0
	XS1M18 5	59	57,5	0	-	-	24	35	10	60	15	18	0
	XS1M30 10	59	57,5	0	-	-	36	50	20	120	30	30	0
	XS2D12 4	42,2	35,2	5	53	34,6	17	15	16	48	12	36	8
	XS2D18 8	52,2	41,6	8	64	41,7	24	35	32	96	24	54	16
	XS2D30 15	52,2	36,6	13	64	36,7	36	50	60	180	45	90	30

Electrical installation
Mise en œuvre électrique
Elektrische Installation
Instalación eléctrica
Messa in opera elettrica
Instalação eléctrica

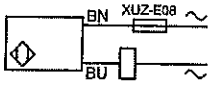
XS1-L/D••PA140•, XS2-D••PA140•



XS1-L/D••NA140•, XS2-D••NA140•



XS1-M••FA264



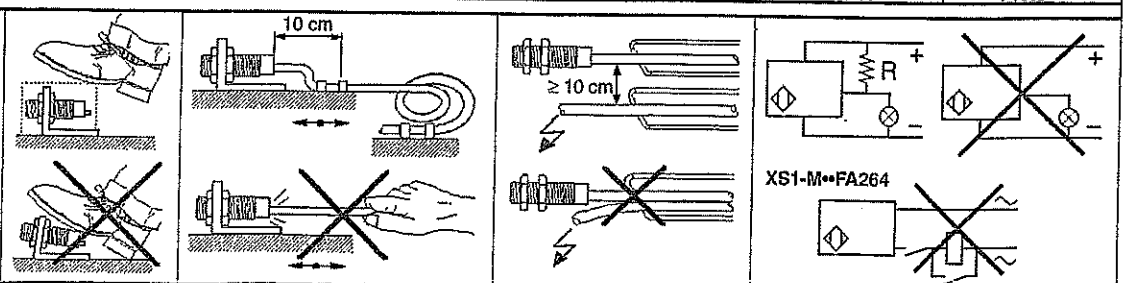
Without short circuit protection
Non protégés contre les courts-circuits
Ohne Kurzschlußschutz
No protección corto-circuito
Non protetto corto-circuito
Não protegidos contra curto-circuitos

Voltage limits (1)	⎓ 10...30 V	∼ 20...264 V
Load switching capacity (2)	0...100 mA, 0...50 mA (L06/M08)	5...300 mA, 5...200mA (M12)
Voltage drop (3)	≤ 3 V	≤ 7 V(M12), ≤ 4,5 V (M18/30)
Leakage current (4)	–	≤ 1,5 mA
Current consumption (5)	≤ 10 mA	–

(1) Limite de tension / Betriebsspannung / Límites de tensión / Limiti di tensione / Limites de tensão
(2) Courant commuté / Schaltstrom / Intensidad conmutada / Corrente commuta / Corrente comutada
(3) Tension de déchet / Spannungsfall (Ausgang durchgesteuert) / Tensión residual / Caduta di tensione / Tensão de defeito
(4) Courant résiduel / Reststrom (Ausgang gesperrt) / Intensidad residual / Corrente residual / Corrente residual
(5) Courant consommé / Leerlaufstrom / Intensidad consumida / Corrente consumata / Corrente consumida

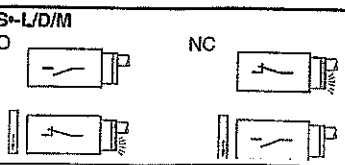
BN	Brown	Brun	Braun	Marrón	Marron	Castanho
BU	Blue	Bleu	Blau	Azul	Blu	Azul
BK	Black	Noir	Schwarz	Negro	Nero	Preto

Installation precautions
Précautions de mise en œuvre
Vorsicht bei der Inbetriebnhame
Precautión de instalatión
Consigli di messa in opera
Precaução de instalação



Indication
Signalisation
Funktionsanzeige
Señalización
Segnalazione
Sinalização

XS•-L/D/M



DATASENSOR

TLμ SERIES
INSTRUCTION MANUAL

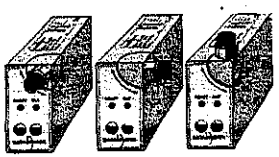
CONTROLS

OUTPUT LED
The red LED indicates the output status.

READY LED
During functioning, the green LED permanently ON indicates a normal operating condition; fast blinking indicates an output overload condition. See the "SETTING" paragraph for setup procedure indications.

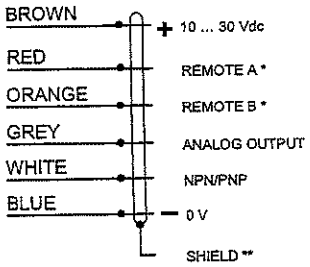
MARK / BKGD PUSHBUTTON
The pushbutton activates the setup procedure.

INSTALLATION



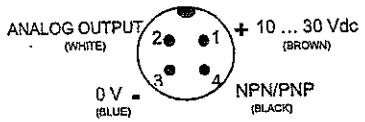
Operating distance is rated starting from the lens front face. The M12 connector or cable exit can be rotated in three positions by loosening the locking screw. Tighten the locking screw when finished.
The beam direction may be changed swapping the cap and the lens.
Detecting marks on a reflective surface is improved adjusting the beam direction to 5° ... 20° from surface axis.

CONNECTIONS

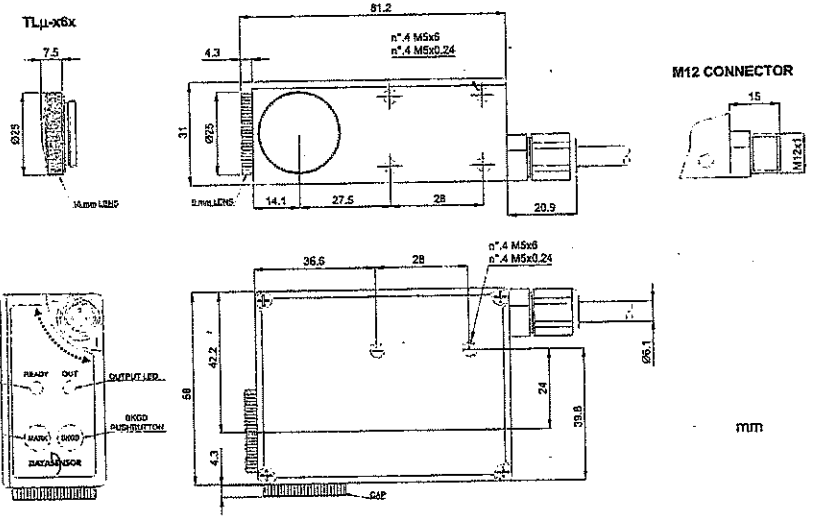


* = Connect the unused REMOTE wires to 0 V.
** = The cable shield is insulated from the sensor housing; it is recommended to connect the shield to 0 V.

M12 CONNECTOR



DIMENSIONS

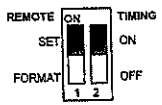


TECHNICAL DATA

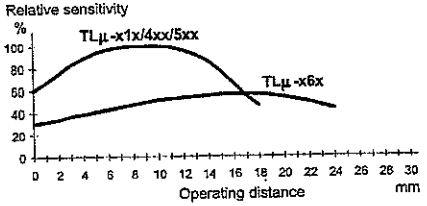
Power supply:	10 ... 30 Vdc limit values; reverse polarity protection
Ripple:	2 Vpp max.
Current consumption (output current excluded):	80 mA max.
Output:	NPN or PNP, pull down/up resistance 10 kΩ (short-circuit protection)
Output current:	200 mA max.
Analog output:	0 ... 2 V ± 10% (white 90%); 5.5 V max.; ripple 40 mVpp max.; output resistance 2.2 kΩ
Output saturation voltage:	1V max. NPN versions / 2V max PNP versions
Response time:	50 μs max. / 25 μs max. (TLμ-4xx/5xx)
Switching frequency:	10 kHz max. / 20 kHz max. (TLμ-4xx/5xx)
Timing function:	20 ms minimum output ON
Indicators:	OUTPUT LED (RED) / READY LED (GREEN)
Setting:	by pushbuttons / by wires; 4 settings storage cable version
Retention data:	non volatile EEPROM memory
Operating temperature:	-10 ... 55 °C
Storage temperature:	-20 ... 70 °C
Electric shock protection:	Class 1
Operating distance:	9 mm (TLμ-x1x/4xx/5xx) / 16 mm (TLμ-x6x)
Minimum spot dimension:	1.5 x 5 mm (TLμ-x1x) / 2 x 7 mm (TLμ-x6x) / Ø 3 mm (TLμ-4xx/5xx)
Depth of field:	± 3 mm (TLμ-x1x/4xx/5xx) / ± 4 mm (TLμ-x6x)
Emission type:	green (526 nm) / red (630 nm) with automatic selection or white (400-700 nm)
Ambient light rejection:	according to EN 60947-5-2
Vibration:	0.5 mm amplitude, 10 ... 55 Hz frequency, in every axis (EN60068-2-6)
Shock resistance:	11 ms (approx. 30 G) 6 shock in every axis (EN60068-2-27)
DARK/LIGHT selection:	teach-in procedure
Housing:	ZAMA
Protection class:	IP67
Connections:	3 m shielded cable Ø 6.1 mm / M12 4-pole connector
Weight:	450 g. max. cable versions / 310 g. max. connector versions

CONFIGURATION

A double selector and a switch are available removing the sensor side cover. The selector allows to enable the output timing function and choose the pushbuttons and REMOTE inputs operating mode; the switch allows to select the output type (NPN or PNP).



DETECTION DIAGRAM



FUNCTION SELECTION

When **FORMAT** is selected (configuration selector section 1), the MARK and BKGD puskbuttons are enabled and connecting the REMOTE inputs (TLμ-xx1) to the power supply as shown in the table allows to select up to 4 different settings (formats). This is the factory setting.

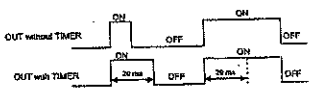
N°. FORMAT	1	2	3	4
input REMOTE A	0V	0V	+V	+V
input REMOTE B	0V	+V	0V	+V

If a non-set format is selected, the sensor is disabled and the green LED flashes at a low rate.
A setting can be stored selecting a format and executing the procedure described in the "SETTING" paragraph.

When **SET** is selected (configuration selector section 1), the MARK and BKGD pushbuttons are disabled; the REMOTE inputs (TLμ-x1x) replace the pushbuttons functionality.
Connecting the REMOTE A and B inputs to the positive power supply rail is equivalent to pressing the MARK and BKGD pushbuttons respectively. Connect the unused inputs to 0V.

TIMING FUNCTION

When ON is selected (configuration selector section 2), a delay timer function is enabled which extends the minimum ON output time to 20 ms. The factory setting is OFF (timer disabled).



SETTING

A two-step setup procedure adjusts the switching threshold and the LIGHT/DARK mode. Using the procedure given below the sensor output is set to be ON when a mark is detected.

1) Output ON state acquisition (MARK)
Place the target mark into the emission spot and press the MARK pushbutton until the green LED turns OFF.
The sensor acquires switching the red and green emissions; don't move the mark during this phase.

2) Output OFF state acquisition (BKGD)
Place the background into the emission spot and press the BKGD pushbutton; the green LED blinks once.
The sensor acquires switching the red and green emissions; don't move the background during this phase.

If the green LED lights permanently ON, a safe operation has been obtained; if it flashes at a low rate the setup procedure has failed due to insufficient contrast; repeat the procedure from the beginning.

DECLARATION OF CONFORMITY
We DATASENSOR S.p.A. declare under our sole responsibility that these products are conform to the 89/336 CEE, 73/23 CEE Directives and successive amendments.

WARRANTY
DATASENSOR S.p.A. warrants its products to be free from defects.
DATASENSOR S.p.A. will repair or replace, free of charge, any product found to be defective during the warranty period of 36 months from the manufacturing date.
This warranty does not cover damage or liability deriving from the improper application of DATASENSOR products.

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DATASENSOR S.p.A. cares for the environment: 100% recycled paper.
DATASENSOR S.p.A. reserves the right to make modifications and improvements without prior notification.

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