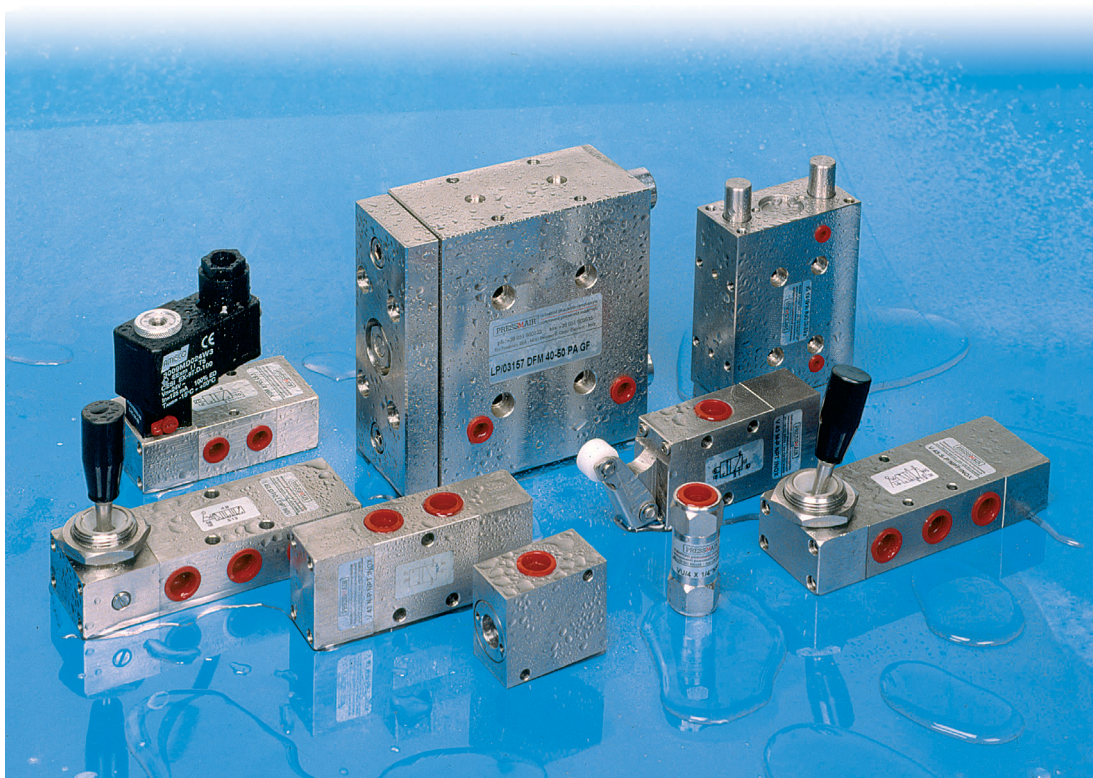


# PRESSMAIR

## AISI 316 L



### **OPERATING VALVES - EVAX SERIE**

VALVOLE DI COMANDO E CONTROLLO SERIE EVAX  
*DISTRIBUTEURS OPÉRATIONNELS SÉRIE EVAX*

### **SOLENOID AND PNEUMATIC VALVES**

ELETTROVALVOLE E VALVOLE PNEUMATICHE  
*ÉLECTRODISTRIBUTEURS ET DISTRIBUTEURS PNEUMATIQUES*

### **MANUAL AND MECHANICAL OPERATING VALVES**

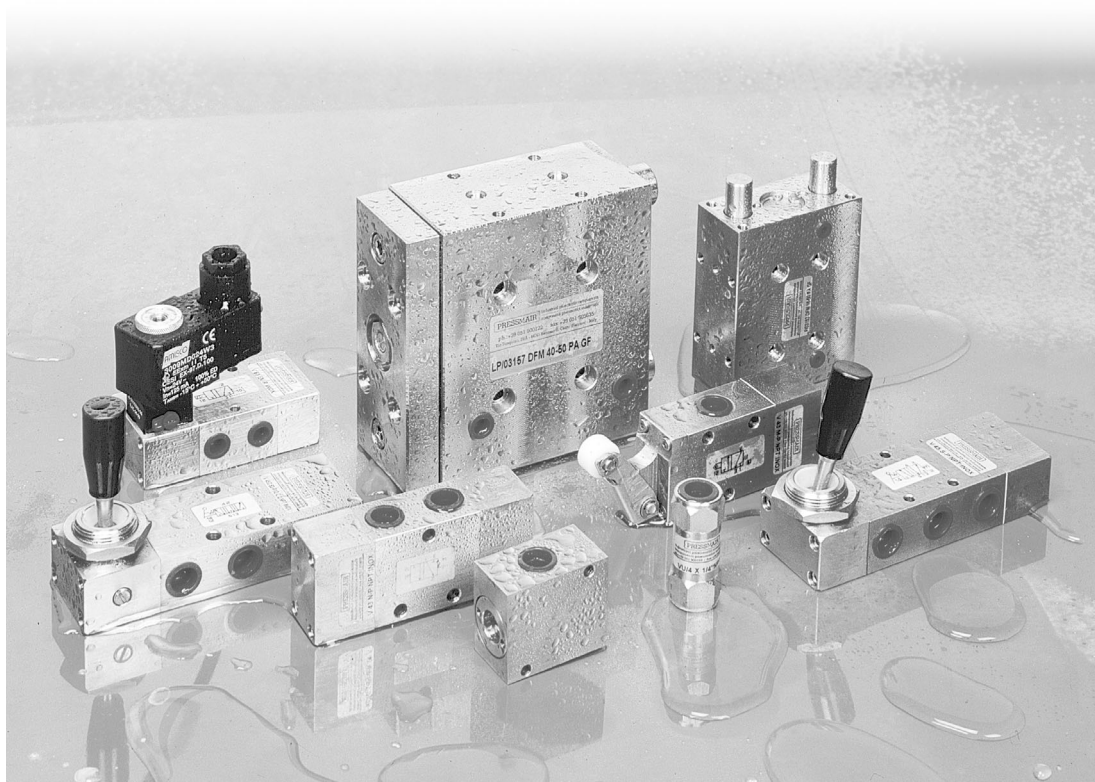
VALVOLE A COMANDO MANUALE E MECCANICO  
*DISTRIBUTEURS À COMMANDE MANUELLE ET MÉCANIQUE*

PRESSMAIR

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# PRESSMAIR

## AISI 316 L



### **OPERATING VALVES - EVAX SERIE**

VALVOLE DI COMANDO E CONTROLLO SERIE EVAX  
*DISTRIBUTEURS OPÉRATIONNELS SÉRIE EVAX*

### **SOLENOID AND PNEUMATIC VALVES**

ELETTROVALVOLE E VALVOLE PNEUMATICHE  
*ÉLECTRODISTRIBUTEURS ET DISTRIBUTEURS PNEUMATIQUES*

### **MANUAL AND MECHANICAL OPERATING VALVES**

VALVOLE A COMANDO MANUALE E MECCANICO  
*DISTRIBUTEURS À COMMANDE MANUELLE ET MÉCANIQUE*

# PRESSMAIR

## MAINTENANCE AND OPERATING INSTRUCTIONS

### ISTRUZIONI DI USO E MANUTENZIONE

### INSTRUCTIONS D'EMPLOI ET D'ENTRETIEN

#### GENERAL MAINTENANCE AND OPERATING INSTRUCTIONS

##### WARNINGS

The need and frequency of maintenance operations will substantially depend on the operating conditions. High temperatures, ozone concentration and moisture (see tropical regions), will damage quickly all rubber parts. When operating in dusty environments, all valves reliefs, compressor case recesses and lubrication points need proper protection. Before adding any oil, clean accurately the input area to avoid inside pollution. We suggest to disassemble the apparatus (when necessary) only in clean and dust-free area. Maintenance and/or repair works will be mainly of two types:

- A) **Standard maintenance operations performed by service personnel.** Includes all daily, weekly or monthly maintenance: it mainly includes checks of devices and pipeworks to eliminate leaks and verify correct setting. Any malfunctions should be immediately eliminated.
- B) **Special maintenance operations performed by skilled personnel.** Devices must be disassembled and cleaned, defective components replaced, springs checked and if necessary, replaced. Use AGIP OSO - 35 oil or equivalent when reassembling components. Before reinstallation, check operation and set-up. A general check of the complete installation should be performed before putting the device into operation.

**INSTALLATION:** Cylinders can work in any position. Pipes delivering air to cylinders should be fed from below, to remove any condensate. To prevent rod flexing, it is basic to ensure a correct cylinder alignment. When cylinder installation is of oscillating type, pressure and stroke should remain within the prescribed limits, to avoid excessive stress on the rod. Cylinders must be firmly connected to the frame, taking account of the operating pressure. When cylinders work in dusty environments, rod should be chromium-plated or protected by a bellows.

**LUBRICANTS AND MEDIUM:** Please use only clean or dry air, lubricated with AGIP OSO - 35 or equivalent.

#### ISTRUZIONI DI USO E MANUTENZIONE

##### GENERALITÀ

Gli interventi di manutenzione dipendono principalmente dalla severità delle condizioni di lavoro. Occorre tener presente che nelle aree geografiche con condizioni atmosferiche di temperatura e di umidità molto elevate, si determina un invecchiamento più rapido di tutte le parti in gomma. Nei luoghi molto polverosi, è necessario proteggere opportunamente sia gli scarichi delle valvole che i raccordi di immissione del lubrificante. Quando è necessario aggiungere il lubrificante, prestare molta attenzione al fine di evitare l'inavvertita immissione di materiale inquinante (polvere od altro) unitamente all'olio. È opportuno che le operazioni di manutenzione che comportano lo smontaggio del componente, siano effettuate in ambienti privi di polvere. Gli interventi di manutenzione sono principalmente di due tipi:

- A) **Manutenzione standard, giornaliera, settimanale o mensile.** Consiste essenzialmente nel controllo delle apparecchiature e delle tubazioni, per la verifica delle tenute e la messa a punto del funzionamento. Tutti i difetti rilevati devono essere eliminati immediatamente.
- B) **Manutenzione periodica svolta da personale specializzato.** Gli apparecchi devono essere smontati e puliti, ed i componenti usurati o difettosi sostituiti, le molle verificate e se necessario sostituite. Rimontare i componenti utilizzando lubrificante AGIP OSO - 35 o equivalente. Verificare il funzionamento ed effettuare le necessarie regolazioni. Prima di procedere alla messa in marcia dell'impianto, effettuare un controllo generale ed una prova di funzionamento completa.

**INSTALLAZIONE:** I cilindri possono lavorare in ogni posizione, tuttavia è buona norma alimentarli dalla parte inferiore al fine di facilitare l'evacuazione della eventuale condensa. Evitare spinte trasversali sullo stelo, facendo molta attenzione al corretto allineamento del cilindro. Quando la applicazione del cilindro è del tipo oscillante, la pressione e la corsa devono rimanere entro i limiti indicati, al fine di evitare un eccessivo stress allo stelo. I cilindri devono essere saldamente collegati alla struttura di supporto, in relazione alla loro pressione di lavoro. Quando i cilindri lavorano in un ambiente polveroso, usare steli cromati oppure proteggere gli steli con opportuni soffiotti.

**LUBRIFICANTI E TIPO DI ARIA UTILIZZABILE:** Utilizzare aria filtrata, lubrificata con olio AGIP OSO - 35 o equivalente, o secca.

#### INSTRUCTIONS D'EMPLOI ET D'ENTRETIEN

##### AVERTISSEMENTS

*La nécessité et la fréquence des travaux d'entretien ou des réparations dépendent des conditions de travail.*

*Dans les régions où les températures et les taux d'humidité sont élevés, il se vérifie un vieillissement prématuré des parties en caoutchouc. Pour les applications en milieu poussiéreux, les échappements des distributeurs, les ouvertures des carters des compresseurs et les points de lubrification doivent être protégés. Il est conseillé, pour le démontage des appareils, d'opérer dans un local dépourvu de poussière.*

*Il existe deux types d'entretien:*

- A) *l'entretien effectué par le personnel de service: il peut être journalier, hebdomadaire ou mensuel et consiste principalement à vérifier le bon fonctionnement des appareils, en éliminant immédiatement tout défaut éventuellement relevé.*
- B) *l'entretien effectué par le personnel spécialisé: il consiste à démonter et à nettoyer tous les appareils. Tous les éléments usagés ou défectueux doivent être remplacés. Utiliser un lubrifiant pour le remontage des appareils. Vérifier le bon fonctionnement de chaque dispositif et faire les réglages nécessaires. Ensuite, effectuer un essai complet de l'installation afin de vérifier son bon fonctionnement.*

**INSTALLATION:** *Les vérins peuvent travailler dans toutes les positions. Dans la mesure du possible, il est préférable que l'alimentation se passe par le bas afin de faciliter l'évacuation de l'eau de condensation. Il est indispensable de s'assurer de l'alignement correct des vérins de façon qu'aucune charge de flexion ne s'exerce sur la tige. Quand la fixation du vérin est de type oscillant, la course et la pression doivent rester dans des limites acceptables, pour limiter les efforts sur la tige.*

*Fixer les vérins en fonction de la pression et de la charge maximum d'exercice. Dans un environnement très poussiéreux la tige doit être chromée ou protégée par un soufflet spécial.*

**LUBRIFICATION ET TYPE D'AIR:** *Utiliser de l'air propre, sec ou lubrifié, avec huile AGIP OSO 32 ou équivalente.*

## TECHNICAL FEATURES CARATTERISTICHE TECNICHE CARACTERISTIQUES TECHNIQUES

<b>CONSTRUCTION</b>	: <b>Body, caps</b> : <b>Spool</b> : <b>Seals</b>	: <b>AISI 316L</b> : <b>Ground and polished Stainless Steel</b> : <b>Lip type, oil-proof rubber, Hardness 75/80 SH</b>
<b>COIL POSITION</b>	: <b>Horizontal or vertical</b>	
<b>CONTROL POSITION</b>	: <b>Horizontal or vertical</b>	
<b>FLUID</b>	: <b>Filtered</b> : <b>Lubricated compressed air</b>	
<b>TEMPERATURE RANGES</b>	: <b>Standard</b> : <b>On request</b>	: <b>From -20°C to + 70°C</b> : <b>From -40°C to + 150°C</b>
<b>OPERATING PRESSURE</b>	: <b>From 2,0 to 10 Bar.</b>	

<b>COSTRUZIONE</b>	: <b>Corpo e Testate</b> : <b>Spoletta</b> : <b>Guarnizioni</b>	: <b>AISI 316L</b> : <b>Acciaio inox rettificato e lucidato</b> : <b>Tipo a labbro con recupero dell'usura. Durezza 75/80 SH</b>
<b>POSIZIONE DELLA BOBINA</b>	: <b>Orizzontale o verticale</b>	
<b>POSIZIONE DEL COMANDO</b>	: <b>Orizzontale o verticale</b>	
<b>FLUIDO</b>	: <b>Aria compressa, con o senza lubrificazione</b>	
<b>TEMPERATURE</b>	: <b>Standard</b> : <b>A richiesta</b>	: <b>Da -20°C a + 70°C</b> : <b>Da -40°C a 150°C</b>
<b>PRESSIONE</b>	: <b>Da 2,0 a 10 Bar.</b>	

<b>CONSTRUCTION</b>	: <b>Corp et Têtes</b> : <b>Tiroir</b> : <b>Joins</b>	: <b>AISI 316L</b> : <b>Acier Inox Rectifié et poli</b> : <b>Type à lèvres. Dureté 75 / 80 SH</b>
<b>POSITION DE LA BOBINE</b>	: <b>Horizontale ou Verticale</b>	
<b>POSITION DE LA COMMANDE</b>	: <b>Horizontale ou Verticale</b>	
<b>FLUIDE</b>	: <b>Air Comprimée, avec ou sans lubrification</b>	
<b>TEMPÉRATURE</b>	: <b>Standard</b> : <b>Sur demande</b>	: <b>De - 20°C à + 70°C</b> : <b>De - 40°C a +150°C</b>
<b>PRESSION</b>	: <b>De 2,0 à 10 Bar.</b>	

### FEATURES - SPECIFICHE - DONNÉES TECHNIQUES

PARAMETERS	Ø 1/8"	Ø 1/4"	Ø 3/8" & 1/2"	1"
<b>FLOW RATE</b> PORTATA Kv (m³/h) DEBIT	0.45	1.09	3.5	8.4
<b>FLOW RATE</b> PORTATA Q (Nm/m) DEBIT	490	1.200	3.850	9.420
<b>SECTION</b> SEZIONE (mm²) SECTION	15	45	110	256

<b>GENERAL INFORMATION ELECTRO VALVES</b> INFORMAZIONI GENERALI ELETTRICITÀ VALVOLE INFORMATION GÉNÉRALES	<b>Frequency</b> Frequenza <b>50 / 60 Hz</b> Fréquence	<b>Protection degree, with connector installed</b> Grado di protezione con connettore installato Degré de protection avec connecteur monté	<b>IP 65</b>
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<b>Insulation Class</b> Classe di isolamento <b>F</b> Classe d'isolation	<b>Connectors have to be ordered separately</b> I connettori devono essere ordinati separatamente Les connecteurs doivent être commandés à part
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<b>CONNECTIONS POSITION:</b> POSIZIONE DEGLI ATTACCHI POSITION DES CONNEXIONS	<b>1 - Feeding</b> - Alimentazione - Alimentation <b>2 - 4 Duty</b> - Utilizzi - Utilisations <b>3 - 5 Exhaust</b> - Scarico - Échappement <b>12 - Control signal connecting 1 with 2 and 4 with 5. 3 is closed</b> <b>Or main control (mechanical, manual, pneumatic)</b> Segnale pilota che collega 1 con 2 e 4 con 5. 3 è chiuso Oppure comando principale (meccanico, manuale, pneumatico) <i>Pilotage qui connecte 1 avec 2 et 4 avec 5. 3 est fermé</i> <i>Ou commande principale (mécanique, manuel, pneumatique)</i> <b>14 - Control signal connecting 1 with 4 and 2 with 3. 5 is closed</b> <b>Or return (pneumatic, manual, spring, air spring)</b> Segnale pilota che collega 1 con 4 e 2 con 3. 5 è chiuso Oppure ritorno (pneumatico, manuale, molla, molla pneumatica) <i>Pilotage qui connecte 1 avec 4 et 2 avec 3. 5 est fermé</i> <i>Ou retour (pneumatique, manuel, ressort, rappel pneumatique)</i>
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**NOTE: Valves are assembled NORMALLY CLOSED (N.C.). Inverting the control position it is possible to have the inverse function NORMALLY OPEN (N.A.)**

Le valvole sono montate NORMALMENTE CHIUSE (N.C.). Invertendo il comando è possibile avere la funzione inversa NORMALMENTE APERTA (N.A.).

Les distributeurs sont assemblés NORMALEMENT FERMÉES (N. C.). En échangeant le pilotage, il est possible d'avoir la fonction contraire NORMALEMENT OUVERT (N.A.).

## COMMERCIAL AND TECHNICAL IDENTIFICATION CODES CODICI PER LA IDENTIFICAZIONE TECNICA E COMMERCIALE CODES POUR LA IDENTIFICATION TECHNIQUE ET COMMERCIALE

### TECHNICAL IDENTIFICATION CODES:

CODICI PER LA IDENTIFICAZIONE TECNICA:

CODES POUR L'IDENTIFICATION TECHNIQUE:

## LP/02151 : V83 EL R

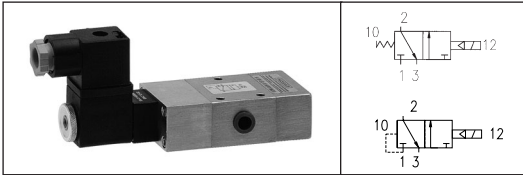
Code  
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Codes

Description  
Descrizione  
Description

TYPE OF BODY TIPO CORPO TYPE DE CORP			CONTROL TYPE TIPO DI OPERATORE TYPE DE COMMANDE		TYPE OF RETURN TIPO DI RITORNO TYPE DE RETOUR	
SYMBOL SIMBOLO SYMBOLE	WAYS VIE VOIES	DIMENSIONS DIMENSIONI DIMENSIONS	EL	<b>ELECTRIC, SIDE</b> ELETTRICO, LATERALE ÉLECTRIQUE, LATÉRAL	EL	<b>ELECTRIC, SIDE</b> ELETTRICO, LATERALE ÉLECTRIQUE, LATÉRAL
V13	3	1"	EV	<b>ELECTRIC, VERTICAL</b> ELETTRICO, VERTICALE ÉLECTRIQUE, VERTICAL	EV	<b>ELECTRIC, VERTICAL</b> ELETTRICO, VERTICALE ÉLECTRIQUE, VERTICAL
V15	5	1"	D	<b>BALL</b> SFERA POUSSOIR	F	<b>PRESSOSTATIC (PUFF)</b> PRESSOSTATICO (SOFFIO) FLUIDIQUE
V15/3	5/3P	1"	DS	<b>MANUAL BUTTON</b> TASTO MANUALE BOUTON POUSSOIR	N	<b>PNEUM. OPERATION</b> COMANDO PNEUMATICO COMMANDE PNEUMATIQUE EXT.
V23	3	1/2"	F	<b>PRESSOSTATIC (PUFF)</b> PRESSOSTATICO (SOFFIO) FLUIDIQUE	P	<b>SPRING</b> MOLLA MECCANICA RESSORT MECANIQUE
V25	5	1/2"	FZ	<b>ROLLER LEVER W. ADJ. LENGTH</b> LEVA RULLO LUNGH. REGOLAB. LEVIER REGLABLE	P1	<b>MANUAL</b> MANUALE MANUEL
V25/3	5/3P	1/2"	L	<b>ROLLER LEVER UNIDIRECT.</b> LEVA RULLO UNIDIREZION. LEVIER ESCAMOTABLE	P1/3	<b>MANUAL, WITH 3 FIXED POS.</b> MANUALE 3 POS. FISSE MANUEL 3 POS. FIXES
V43	3	1/4"	M	<b>ROLLER LEVER</b> LEVA RULLO LEVIER À GALET	P/3	<b>MANUAL RECOVERY</b> <b>SPRING CENTRAL POSITION</b> RITORNO MANUALE-POSIZ. CENTRALE MOLLA RETOUR MANUEL - POSIT. CENTRAL RESSORT
V45	5	1/4"	N	<b>PNEUMATIC</b> PNEUMATICO PNEUMATIQUE	R	<b>PNEUMATIC SPRING</b> MOLLA PNEUMATICA RESSORT PNEUMATIQUE
V45/3	5/3P	1/4"	PED	<b>PEDAL</b> PEDALE PÉDAL	R3	<b>PNEUM. SPRING - 3 POS.</b> MOLLA PNEUM. 3 POSIZ. RESSORT PNEUM. 3 POSIT.
V83	3	1/8"	S	<b>MANUAL LEVER</b> LEVA MANUALE LEVIER MANUEL	T	<b>ASSISTED BALL</b> SFERA SERVOPILOTATA POUSSOIR SERVOPILOTÉ
V85	5	1/8"	S3	<b>3-POS. LEVER</b> LEVA 3 POSIZIONI LEVIER 3 POSIT.	T1/N	<b>BLACK BUILT-IN ASSISTED KEY</b> PULSANTE INCASSATO NERO SERVOPILOTATO BOUTON ENCASTRÉ NOIR SERVOPILOTÉ
			SL	<b>SIDE LEVER (2-POS.)</b> LEVA LATERALE (2 POS.) LEVIER LATÉRAL (2 POS.)	T1/R	<b>RED BUILT-IN ASSISTED KEY</b> PULSANTE INCASSATO ROSSO SERVOPILOTATO BOUTON ENCASTRÉ ROUGE SERVOPILOTÉ
			T	<b>ASSISTED BALL</b> SFERA SERVOPILOTATA POUSSOIR SERVOPILOTÉ	T2	<b>EMERGENCY KEY</b> PULSANTE DI EMERGENZA BOUTON DE SECOURS
			T1/N	<b>BLACK BUILT-IN ASSISTED KEY</b> PULSANTE INCASSATO NERO SERVOPILOTATO BOUTON ENCASTRÉ NOIR SERVOPILOTÉ	T3	<b>2-POSITION KEY</b> CHIAVE 2 POSIZIONI CLÉ 2 POSITIONS
			T1/R	<b>RED BUILT-IN ASSISTED KEY</b> PULSANTE INCASSATO ROSSO SERVOPILOTATO BOUTON ENCASTRÉ ROUGE SERVOPILOTÉ	T3/3	<b>3-POSITION KEY</b> CHIAVE 3 POSIZIONI CLÉ 3 POSITIONS
			T2	<b>EMERGENCY KEY</b> PULSANTE DI EMERGENZA BOUTON DE SECOURS	T4/R	<b>RED SELECTOR</b> SELETTORE ROSSO SÉLECTEUR ROUGE
			T3	<b>2-POSITION KEY</b> CHIAVE 2 POSIZIONI CLÉ 2 POSITIONS	U	<b>ANTENNA</b> ANTENNA ANTENNE
			T3/3	<b>3-POSITION KEY</b> CHIAVE 3 POSIZIONI CLÉ 3 POSITIONS	V	<b>PNEUMATIC</b> PNEUMATICO PNEUMATIQUE
			T4/R	<b>RED SELECTOR</b> SELETTORE ROSSO SÉLECTEUR ROUGE		
			U	<b>ANTENNA</b> ANTENNA ANTENNE		
			V	<b>PNEUMATIC</b> PNEUMATICO PNEUMATIQUE		

## STAINLESS STEEL SOLENOID AND PNEUMATIC VALVES ELETTRIVALVOLE E VALVOLE PNEUMATICHE IN ACCIAIO INOX ÉLECTRODISTRIBUTEURS ET DISTRIBUTEURS PNEUMATIQUES INOX

**3 - WAY - 2 - POSITION 3 VIE - 2 POSIZIONI 3 VOIES - 2 POSITIONS**



### SINGLE ELECTRIC CONTROL COIL POSITION: LATERAL

COMANDO ELETTRICO SINGOLO  
POSIZIONE BOBINA: LATERALE  
COMMANDE ÉLECTRIQUE SIMPLE  
POSITION BOBINE: LATÉRALE

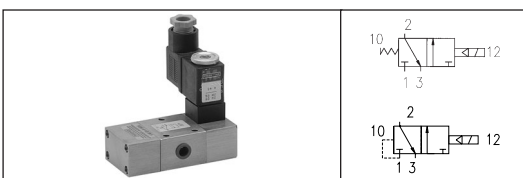
TYPE TIPO TYPE	NAKED NUDA NUÉ		VALVE CODE WITH PILOT CODICE VALVOLA CON IL PILOTA CODE VALVE AVEC PILOTE		VALVE CODE WITH PILOT & COIL CODICE VALVOLA CON IL PILOTA & BOBINA CODE VALVE AVEC PILOTE & BOBINE		v*
	BSP	NPT	BSP	NPT	BSP	NPT	
V 83 EL R	LP/02151	LP/02152	LP/02151SS	LP/02152SS	LP/02151.V*	LP/02152.V*	24 AC
V 83 EL P	LP/02153	LP/02158	LP/02153SS	LP/02158SS	LP/02153.V*	LP/02158.V*	24 DC
V 43 EL R	LP/02155	LP/02157	LP/02155SS	LP/02157SS	LP/02155.V*	LP/02157.V*	48 AC
V 43 EL P	LP/02156	LP/02158	LP/02156SS	LP/02158SS	LP/02156.V*	LP/02158.V*	110 A
V 33 EL R	LP/05707	LP/02159	LP/05707SS	LP/02159SS	LP/05707.V*	LP/02159.V*	220 A
V 23 EL R	LP/05721	LP/02160	LP/05721SS	LP/02160SS	LP/05721.V*	LP/02160.V*	
V 13 EL R	LP/02898	LP/02622	LP/02898SS	LP/02622SS	LP/02898.V*	LP/02622.V*	
V 13 EL P	LP/02620	LP/02621	LP/02620SS	LP/02621SS	LP/02620.V*	LP/02621.V*	



### DOUBLE ELECTRIC CONTROL COIL POSITION: LATERAL

COMANDO ELETTRICO DOPPIO  
POSIZIONE BOBINA: LATERALE  
COMMANDE ÉLECTRIQUE DOUBLE  
POSITION BOBINE: LATÉRALE

TYPE TIPO TYPE	NAKED NUDA NUÉ		VALVE CODE WITH PILOT CODICE VALVOLA CON IL PILOTA CODE VALVE AVEC PILOTE		VALVE CODE WITH PILOT & COIL CODICE VALVOLA CON IL PILOTA & BOBINA CODE VALVE AVEC PILOTE & BOBINE		v*
	BSP	NPT	BSP	NPT	BSP	NPT	
V 83 EL EL	LP/02161	LP/02162	LP/02161SS	LP/02162SS	LP/02161.V*	LP/02162.V*	24 AC
V 43 EL EL	LP/02163	LP/02164	LP/02163SS	LP/02164SS	LP/02163.V*	LP/02164.V*	24 DC
V 33 EL EL	LP/05788	LP/02165	LP/05788SS	LP/02165SS	LP/05788.V*	LP/02165.V*	48 AC
V 23 EL EL	LP/05720	LP/02166	LP/05720SS	LP/02166SS	LP/05720.V*	LP/02166.V*	110 A
V 13 EL EL	LP/02618	LP/02619	LP/02618SS	LP/02619SS	LP/02618.V*	LP/02619.V*	220 A



### SINGLE ELECTRIC CONTROL COIL POSITION: VERTICAL

COMANDO ELETTRICO SINGOLO  
POSIZIONE BOBINA: VERTICALE  
COMMANDE ÉLECTRIQUE SIMPLE  
POSITION BOBINE: VERTICALE

TYPE TIPO TYPE	NAKED NUDA NUÉ		VALVE CODE WITH PILOT CODICE VALVOLA CON IL PILOTA CODE VALVE AVEC PILOTE		VALVE CODE WITH PILOT & COIL CODICE VALVOLA CON IL PILOTA & BOBINA CODE VALVE AVEC PILOTE & BOBINE		v*
	BSP	NPT	BSP	NPT	BSP	NPT	
V 83 EV R	LP/02167	LP/02169	LP/02167SS	LP/02169SS	LP/02167.V*	LP/02169.V*	24 AC
V 83 EV P	LP/02168	LP/02170	LP/02168SS	LP/02170SS	LP/02168.V*	LP/02170.V*	24 DC
V 43 EV R	LP/02171	LP/02173	LP/02171SS	LP/02173SS	LP/02171.V*	LP/02173.V*	48 AC
V 43 EV P	LP/02172	LP/02174	LP/02172SS	LP/02174SS	LP/02172.V*	LP/02174.V*	110 A
V 33 EV R	LP/05705	LP/02175	LP/05705SS	LP/02175SS	LP/05705.V*	LP/02175.V*	220 A
V 23 EV R	LP/06228	LP/02176	LP/06228SS	LP/02176SS	LP/06228.V*	LP/02176.V*	
V 13 EV R	LP/03361	LP/03362	LP/03361SS	LP/03362SS	LP/03361.V*	LP/03362.V*	
V 13 EV P	LP/03363	LP/03364	LP/03363SS	LP/03364SS	LP/03363.V*	LP/03364.V*	

## STAINLESS STEEL SOLENOID AND PNEUMATIC VALVES ELETTOVALVOLE E VALVOLE PNEUMATICHE IN ACCIAIO INOX ÉLECTRODISTRIBUTEURS ET DISTRIBUTEURS PNEUMATIQUES INOX

### 3 - WAY - 2 - POSITION 3 VIE - 2 POSIZIONI 3 VOIES - 2 POSITIONS



**DOUBLE ELECTRIC CONTROL**  
**COIL POSITION: VERTICAL**  
 COMANDO ELETTRICO DOPPIO  
 POSIZIONE BOBINA: VERTICALE  
 COMMANDE ÉLECTRIQUE DOUBLE  
 POSITION BOBINE: VERTICALE

TYPE TIPO TYPE	NAKED NUDA NUÉ		VALVE CODE WITH PILOT CODICE VALVOLA CON IL PILOTA CODE VALVE AVEC PILOTE		VALVE CODE WITH PILOT & COIL CODICE VALVOLA CON IL PILOTA & BOBINA CODE VALVE AVEC PILOTE & BOBINE		V*
	BSP	NPT	BSP	NPT	BSP	NPT	
V 83 EV EV	LP/02177	LP/02178	LP/02177SS	LP/02178SS	LP/02177.V*	LP/02178.V*	24 AC
V 43 EV EV	LP/02179	LP/02180	LP/02179SS	LP/02180SS	LP/02179.V*	LP/02180.V*	24 DC
V 33 EV EV	LP/05706	LP/02181	LP/05706SS	LP/02181SS	LP/05706.V*	LP/02181.V*	48 AC
V 23 EV EV	LP/05722	LP/02182	LP/05722SS	LP/02182SS	LP/05722.V*	LP/02182.V*	110 A
V 13 EV EV	LP/03365	LP/03366	LP/03365SS	LP/03366SS	LP/03365.V*	LP/03366.V*	220 A



**SINGLE PNEUMATIC CONTROL**  
 COMANDO PNEUMATICO SINGOLO  
 COMMANDE PNEUMATIQUE SIMPLE

TYPE TIPO TYPE	NAKED NUDA NUÉ		VALVE CODE WITH PILOT CODICE VALVOLA CON IL PILOTA CODE VALVE AVEC PILOTE		VALVE CODE WITH PILOT & COIL CODICE VALVOLA CON IL PILOTA & BOBINA CODE VALVE AVEC PILOTE & BOBINE		V*
	BSP	NPT	BSP	NPT	BSP	NPT	
V 83 N R	LP/02183	LP/02185					
V 83 N P	LP/02184	LP/02186					
V 43 N R	LP/02187	LP/02189					
V 43 N P	LP/02188	LP/02190					
V 33 N R	LP/05709	LP/02191					
V 23 N R	LP/05725	LP/02192					
V 13 N R	LP/03367	LP/03368					
V 13 N P	LP/02675	LP/03369					



**DOUBLE PNEUMATIC CONTROL**  
 COMANDO PNEUMATICO DOPPIO  
 COMMANDE PNEUMATIQUE DOUBLE

TYPE TIPO TYPE	NAKED NUDA NUÉ		VALVE CODE WITH PILOT CODICE VALVOLA CON IL PILOTA CODE VALVE AVEC PILOTE		VALVE CODE WITH PILOT & COIL CODICE VALVOLA CON IL PILOTA & BOBINA CODE VALVE AVEC PILOTE & BOBINE		V*
	BSP	NPT	BSP	NPT	BSP	NPT	
V 83 N N	LP/02193	LP/02194					
V 43 N N	LP/02195	LP/02196					
V 33 N N	LP/05710	LP/02197					
V 23 N N	LP/05724	LP/02198					
V 13 N N	LP/03370	LP/03371					

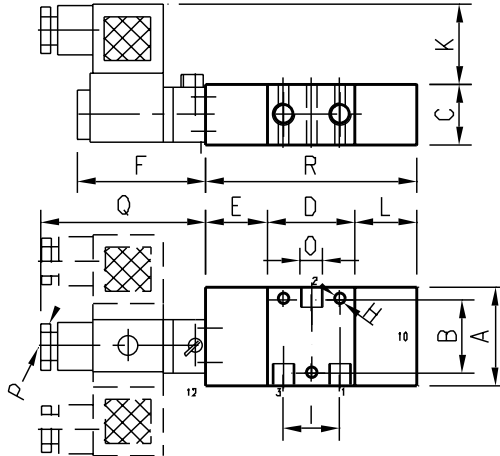
### 3 WAY - 2 POSITION - Overall dimensions

### 3 VIE - 2 POSIZIONI - Dimensioni di ingombro

### 3 VOIES - 2 POSITIONS - Dimensions d'encombrement

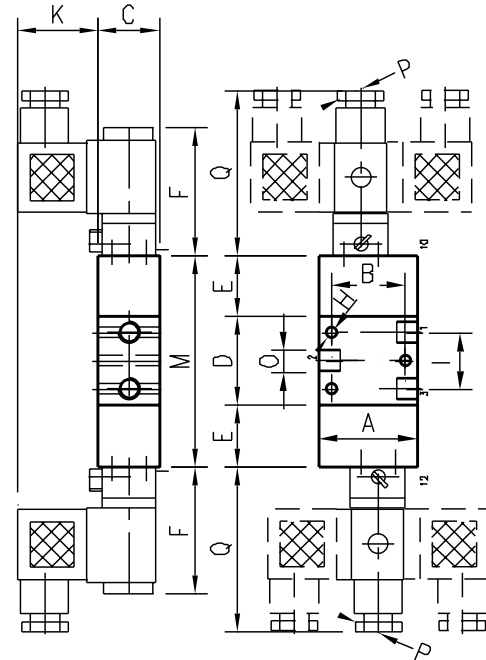
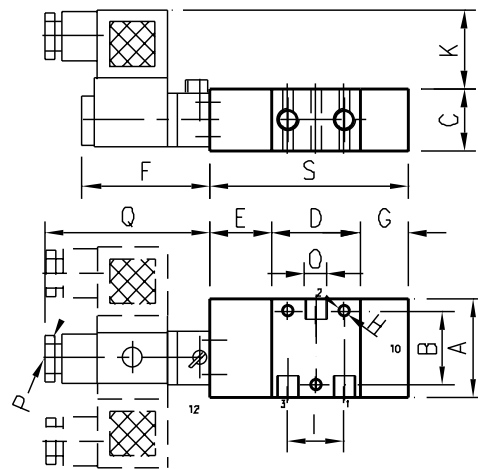
#### LATERAL CONTROL - PILOTAGGIO LATERALE - PILOTAGE LATERAL

**SPRING RECOVERY**  
RITORNO A MOLLA MECCANICA  
RAPPEL RESSORT



SPRING RETURN - RITORNO A MOLLA - RETOUR RESSORT.

**PNEUMATIC RECOVERY**  
RITORNO PNEUMATICO  
RESSORT PNEUMATIQUE



DIMENSIONS DIMENSIONI DIMENSIONS		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
PORT NPT BSP	1/8"	40	30	25	36	25	52	20	4.3	23	11.5	32	25	86	-	1/8"	DIN 43650  PG9	67	86	81
	1/4"				45									1/4"		95			95	90
	3/8"	60	50	40	63	32	52	25	5.5	38	19	32	25	127	-	3/8"		67	120	120
	1/2"															1/2"				
	1"	95	75	65	124	40	52	40	10,5	60	-	32	40	204	80	1"		132	204	204

**NOTES:**

-: Pls specify voltage value - Indicare la tensione - Indiquer la tension, s.v.p.

-Connectors have to be ordered separately - I connettori sono da ordinare separatamente - Les connecteur doivent être commandés à part

-For separate operation pls indicate PS - Per pilotaggio separato, indicare il suffisso PS - Pour pilotage séparé, prière d'indiquer le PS.



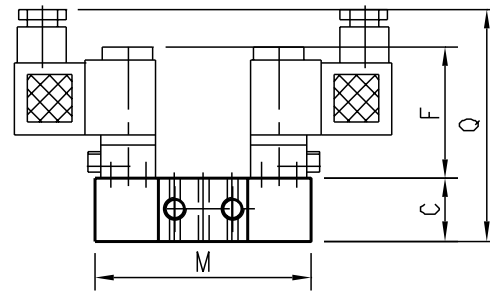
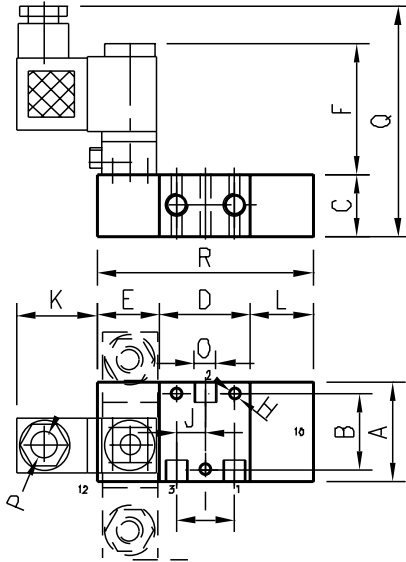
**3 WAY - 2 POSITION** - Overall dimensions

**3 VIE - 2 POSIZIONI** - Dimensioni di ingombro

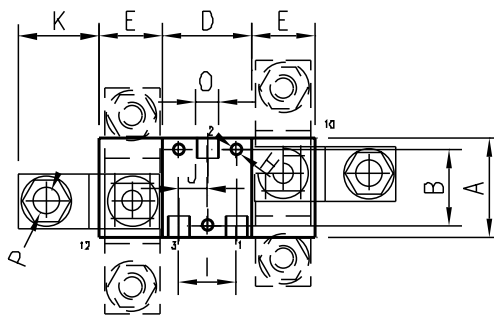
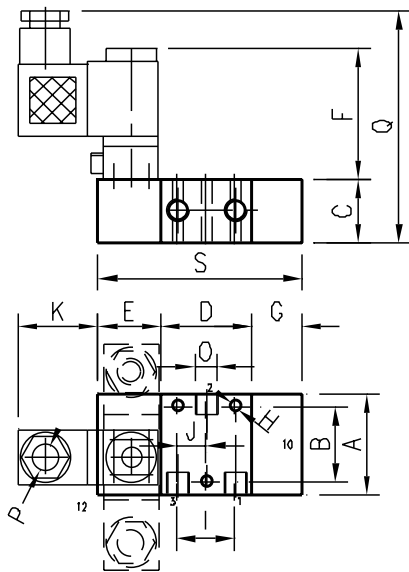
**3 VOIES - 2 POSITIONS** - Dimensions d'encombrement

**VERTICAL CONTROL** - PILOTAGGIO VERTICALE - PILOTAGE VERTICALE

**SPRING RECOVERY**  
RITORNO A MOLLA MECCANICA  
RAPPEL RESSORT



**PNEUMATIC RECOVERY**  
RITORNO PNEUMATICO  
RESSORT PNEUMATIQUE



DIMENSIONS		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S		
DIMENSIONI																						
DIMENSIONS																						
<b>PORT</b>	<b>NPT</b>	1/8"	40	30	25	36	25	52	20	4.3	23	11.5	32	25	86	-	1/8"	DIN 43650	92	86	81	
	<b>BSP</b>					1/4"											45			1/4"	95	95
	1/2"	3/8"	60	50	40	63	32	52	25	5.5	38	19	32	25	127	-	3/8"	PG9	107	120	120	
		1/2"																				1/2"
		1"																				95

**NOTES:**

-\*: Pls specify voltage value - Indicare la tensione - Indiquer la tension, s.v.p.

-Connectors have to be ordered separately - I connettori sono da ordinare separatamente - Les connecteur doivent être commandés à part

-For separate operation pls indicate PS - Per pilotaggio separato, indicare il suffisso PS - Pour pilotage séparé, prière d'indiquer le PS.

## STAINLESS STEEL SOLENOID AND PNEUMATIC VALVES ELETTOVALVOLE E VALVOLE PNEUMATICHE IN ACCIAIO INOX ÉLECTRODISTRIBUTEURS ET DISTRIBUTEURS PNEUMATIQUES INOX

5 WAYS - 2 POSITIONS    5 VIE - 2 POSIZIONI    5 VOIES - 2 POSITIONS



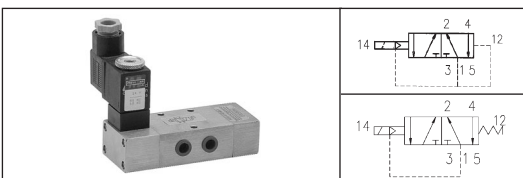
**SINGLE ELECTRIC CONTROL**  
**COIL POSITION: LATERAL**  
COMANDO ELETTRICO SINGOLO  
POSIZIONE BOBINA: LATERALE  
COMMANDE ÉLECTRIQUE SIMPLE  
POSITION BOBINE: LATÉRAL

TYPE TIPO TYPE	NAKED NUDA NUÉ		VALVE CODE WITH PILOT CODICE VALVOLA CON IL PILOTA CODE VALVE AVEC PILOTE		VALVE CODE WITH PILOT & COIL CODICE VALVOLA CON IL PILOTA & BOBINA CODE VALVE AVEC PILOTE & BOBINE		V*
	BSP	NPT	BSP	NPT	BSP	NPT	
V 85 EL R	LP/02199	LP/02201	LP/02199SS	LP/02201SS	LP/02199.V*	LP/02201.V*	24 AC
V 85 EL P	LP/02200	LP/02202	LP/02200SS	LP/02202SS	LP/02200.V*	LP/02202.V*	24 DC
V 45 EL R	LP/02203	LP/02205	LP/02203SS	LP/02205SS	LP/02203.V*	LP/02205.V*	48 AC
V 45 EL P	LP/02204	LP/02206	LP/02204SS	LP/02206SS	LP/02204.V*	LP/02206.V*	110 A
V 35 EL R	LP/05732	LP/02207	LP/05732SS	LP/02207SS	LP/05732.V*	LP/02207.V*	220 A
V 25 EL R	LP/05729	LP/02208	LP/05729SS	LP/02208SS	LP/05729.V	LP/02208.V*	
V 15 EL P	LP/03372	LP/03373	LP/03372SS	LP/03373SS	LP/03372.V*	LP/03373.V*	
V 15 EL R	LP/03374	LP/03375	LP/03374SS	LP/03375SS	LP/03374.V*	LP/03375.V*	



**DOUBLE ELECTRIC CONTROL**  
**COIL POSITION: LATERAL**  
COMANDO ELETTRICO DOPPIO  
POSIZIONE BOBINA: LATERALE  
COMMANDE ÉLECTRIQUE DOUBLE  
POSITION BOBINE: LATÉRAL

TYPE TIPO TYPE	NAKED NUDA NUÉ		VALVE CODE WITH PILOT CODICE VALVOLA CON IL PILOTA CODE VALVE AVEC PILOTE		VALVE CODE WITH PILOT & COIL CODICE VALVOLA CON IL PILOTA & BOBINA CODE VALVE AVEC PILOTE & BOBINE		V*
	BSP	NPT	BSP	NPT	BSP	NPT	
V 85 EL EL	LP/02209	LP/02210	LP/02209SS	LP/02210SS	LP/02209.V*	LP/02210.V*	24 AC
V 45 EL EL	LP/02211	LP/02212	LP/02211SS	LP/02212SS	LP/02211.V*	LP/02212.V*	24 DC
V 35 EL EL	LP/05733	LP/02213	LP/05733SS	LP/02213SS	LP/05733.V*	LP/02213.V*	48 AC
V 25 EL EL	LP/05728	LP/02214	LP/05728SS	LP/02214SS	LP/05728.V*	LP/02214.V*	110 A
V 15 EL EL	LP/03376	LP/03377	LP/03376SS	LP/03377SS	LP/03376.V*	LP/03377.V*	220 A



**SINGLE ELECTRIC CONTROL**  
**COIL POSITION: VERTICAL**  
COMANDO ELETTRICO SINGOLO  
POSIZIONE BOBINA: VERTICALE  
COMMANDE ÉLECTRIQUE SIMPLE  
POSITION BOBINE: VERTICALE

TYPE TIPO TYPE	NAKED NUDA NUÉ		VALVE CODE WITH PILOT CODICE VALVOLA CON IL PILOTA CODE VALVE AVEC PILOTE		VALVE CODE WITH PILOT & COIL CODICE VALVOLA CON IL PILOTA & BOBINA CODE VALVE AVEC PILOTE & BOBINE		V*
	BSP	NPT	BSP	NPT	BSP	NPT	
V 85 EV R	LP/02215	LP/02217	LP/02215SS	LP/02217SS	LP/02215.V*	LP/02217.V*	24 AC
V 85 EV P	LP/02216	LP/02218	LP/02216SS	LP/02218SS	LP/02216.V*	LP/02218.V*	24 DC
V 45 EV R	LP/02219	LP/02221	LP/02219SS	LP/02221SS	LP/02219.V*	LP/02221.V*	48 AC
V 45 EV P	LP/02220	LP/02222	LP/02220SS	LP/02222SS	LP/02220.V*	LP/02222.V*	110 A
V 35 EV R	LP/05153	LP/02223	LP/05153SS	LP/02223SS	LP/05153.V*	LP/02223.V*	220 A
V 25 EV R	LP/06226	LP/02224	LP/06226SS	LP/02224SS	LP/06226.V*	LP/02224.V*	
V 15 EV R	LP/03378	LP/03379	LP/03378SS	LP/03379SS	LP/03378.V*	LP/03379.V*	
V 15 EV P	LP/03380	LP/03381	LP/03380SS	LP/03381SS	LP/03380.V*	LP/03381.V*	

## STAINLESS STEEL SOLENOID AND PNEUMATIC VALVES

## ELETTROVALVOLE E VALVOLE PNEUMATICHE IN ACCIAIO INOX

## ÉLECTRODISTRIBUTEURS ET DISTRIBUTEURS PNEUMATIQUES INOX

5 WAYS - 2 POSITIONS

5 VIE - 2 POSIZIONI

5 VOIES - 2 POSITIONS



### DOUBLE ELECTRIC CONTROL

#### COIL POSITION: VERTICAL

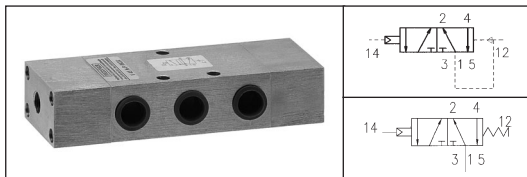
COMANDO ELETTRICO DOPPIO

POSIZIONE BOBINA: VERTICALE

COMMANDE ÉLECTRIQUE DOUBLE

POSITION BOBINE: VERTICALE

TYPE TIPO TYPE	NAKED NUDA NUÉ		VALVE CODE WITH PILOT CODICE VALVOLA CON IL PILOTA CODE VALVE AVEC PILOTE		VALVE CODE WITH PILOT & COIL CODICE VALVOLA CON IL PILOTA & BOBINA CODE VALVE AVEC PILOTE & BOBINE		V*
	BSP	NPT	BSP	NPT	BSP	NPT	
V 85 EV EV	LP/02225	LP/02226	LP/02225SS	LP/02226SS	LP/02225.V*	LP/02226.V*	24 AC
V 45 EV EV	LP/02227	LP/02228	LP/02227SS	LP/02228SS	LP/02227.V*	LP/02228.V*	24 DC
V 35 EV EV	LP/05154	LP/02229	LP/05154SS	LP/02229SS	LP/05154.V*	LP/02229.V*	48 AC
V 25 EV EV	LP/05730	LP/02230	LP/05730SS	LP/02230SS	LP/05730.V	LP/02230.V*	110 A
V 15 EV EV	LP/03383	LP/03384	LP/03383SS	LP/03384SS	LP/03383.V*	LP/03384.V*	220 A



### SINGLE PNEUMATIC CONTROL

COMANDO PNEUMATICO SINGOLO

COMMANDE PNEUMATIQUE SIMPLE

TYPE TIPO TYPE	NAKED NUDA NUÉ		VALVE CODE WITH PILOT CODICE VALVOLA CON IL PILOTA CODE VALVE AVEC PILOTE		VALVE CODE WITH PILOT & COIL CODICE VALVOLA CON IL PILOTA & BOBINA CODE VALVE AVEC PILOTE & BOBINE		V*
	BSP	NPT	BSP	NPT	BSP	NPT	
V 85 N R	LP/02231	LP/02233					
V 85 N P	LP/02232	LP/02234					
V 45 N R	LP/02235	LP/02237					
V 45 N P	LP/02236	LP/02238					
V 35 N R	LP/05735	LP/02239					
V 25 N R	LP/05727	LP/02240					
V 15 N R	LP/03385	LP/02955					
V 15 N P	LP/02676	LP/03386					



### DOUBLE PNEUMATIC CONTROL

COMANDO PNEUMATICO DOPPIO

COMMANDE PNEUMATIQUE DOUBLE

TYPE TIPO TYPE	NAKED NUDA NUÉ		VALVE CODE WITH PILOT CODICE VALVOLA CON IL PILOTA CODE VALVE AVEC PILOTE		VALVE CODE WITH PILOT & COIL CODICE VALVOLA CON IL PILOTA & BOBINA CODE VALVE AVEC PILOTE & BOBINE		V*
	BSP	NPT	BSP	NPT	BSP	NPT	
V 85 N N	LP/02241	LP/02242					
V 45 N N	LP/02243	LP/02244					
V 35 N N	LP/05734	LP/02245					
V 25 N N	LP/05726	LP/02246					
V 15 N N	LP/03387	LP/03388					

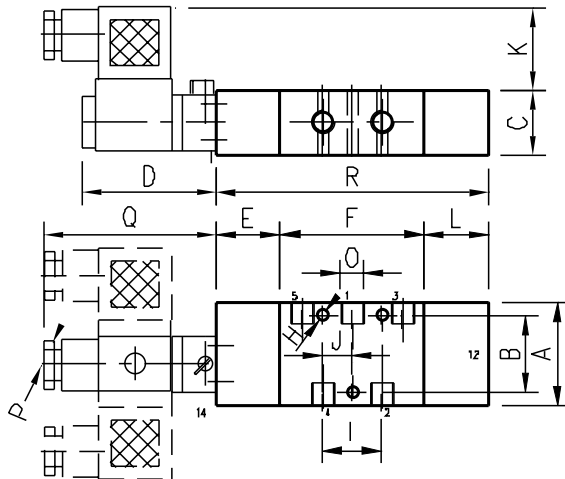
**5 WAY - 2 POSITION** - Overall dimensions

**5 VIE - 2 POSIZIONI** - Dimensioni di ingombro

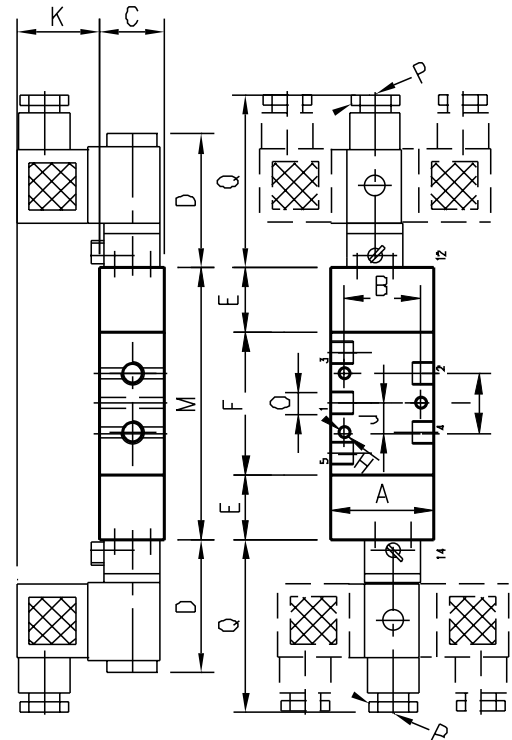
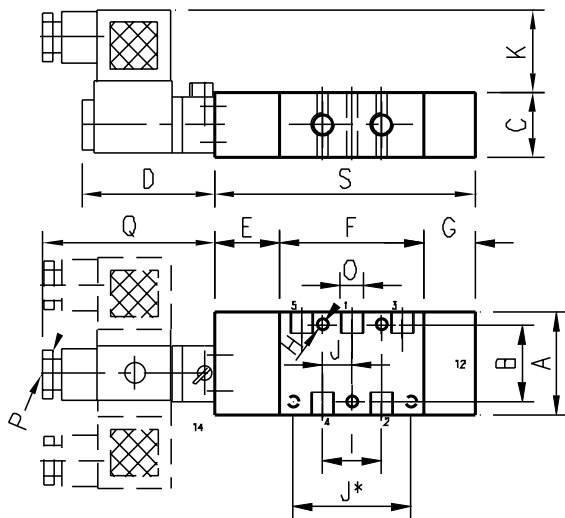
**5 VOIES - 2 POSITIONS** - Dimensions d'encombrement

**LATERAL CONTROL** - PILOTAGGIO LATERALE - PILOTAGE LATERAL

**SPRING RECOVERY**  
RITORNO A MOLLA MECCANICA  
RAPPEL RESSORT



**PNEUMATIC RECOVERY**  
RITORNO PNEUMATICO  
RESSORT PNEUMATIQUE



DIMENSIONS		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S		
DIMENSIONI																						
DIMENSIONS																						
<b>PORT</b>	<b>NPT</b>	1/8"	40	30	25	52	25	56	20	4.3	23	11.5	32	25	106	-	1/8"	DIN 43650	52	106	101	
		1/4"						71									1/4"			121	121	116
		3/8"	60	50	40	52	32	101	25	5.5	38	19	32	25	165	-	3/8"		PG9	52	158	158
		1/2"															1/2"					
		1"	95	75	65	52	40	184	40	10.5	60	J* 120	32	40	264	-	1"			52	264	264

**NOTES:**

-\*: Pls specify voltage value - Indicare la tensione - Indiquer la tension, s.v.p.

-Connectors have to be ordered separately - I connettori sono da ordinare separatamente - Les connecteur doivent être commandés à part

-For separate operation pls indicate PS - Per pilotaggio separato, indicare il suffisso PS - Pour pilotage séparé, prière d'indiquer le PS.

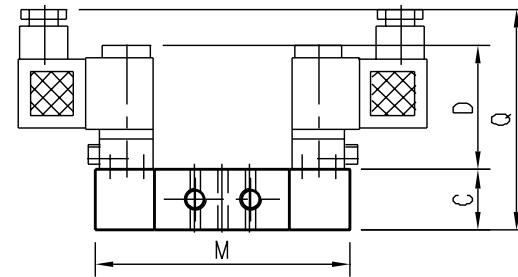
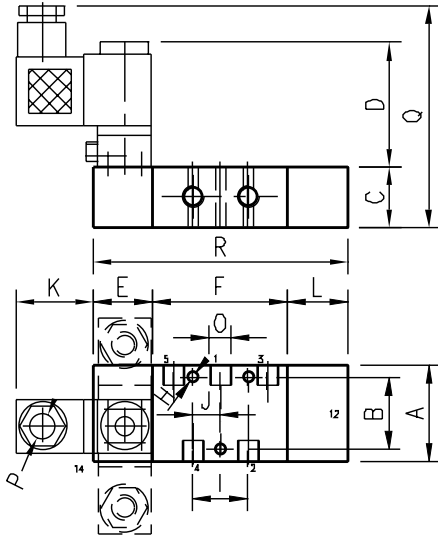
**5 WAY - 2 POSITION** - Overall dimensions

**5 VIE - 2 POSIZIONI** - Dimensioni di ingombro

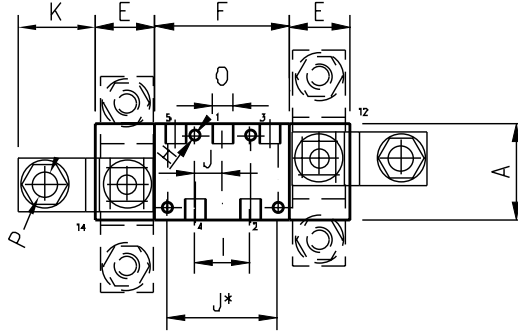
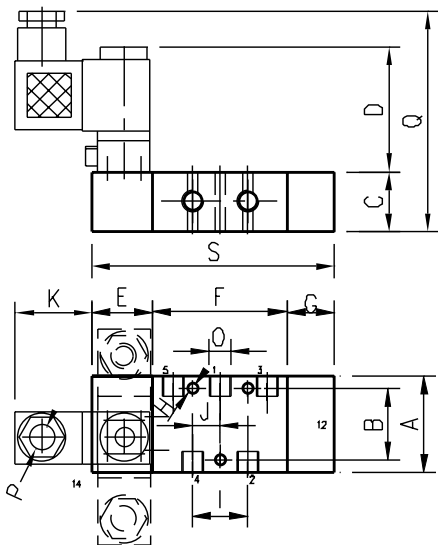
**5 VOIES - 2 POSITIONS** - Dimensions d'encombrement

**VERTICAL CONTROL - PILOTAGGIO VERTICALE - PILOTAGE VERTICALE**

**SPRING RECOVERY**  
RITORNO A MOLLA MECCANICA  
RAPPEL RESSORT



**PNEUMATIC RECOVERY**  
RITORNO PNEUMATICO  
RESSORT PNEUMATIQUE



DIMENSIONS		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S		
DIMENSIONI																						
DIMENSIONS																						
<b>PORT</b>	<b>NPT</b>	1/8"	40	30	25	52	25	56	20	4.3	23	11.5	32	25	-	1/8"	DIN 43650	92	106	101		
		1/4"																			71	121
		3/8"	60	50	40	52	32	101	25	5.5	38	19	32	25	165	-		3/8"	PG9	107	158	158
		1/2"																				
		1"	95	75	65	52	40	184	40	10,5	60	J' 120	32	40	264	-		1"			132	264

**NOTES:**

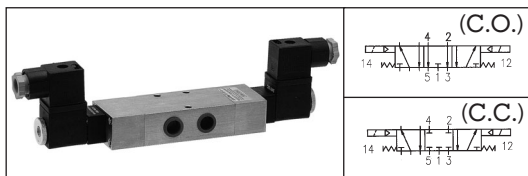
∴: Pls specify voltage value - Indicare la tensione - Indiquer la tension, s.v.p.

-Connectors have to be ordered separately - I connettori sono da ordinare separatamente - Les connecteur doivent être commandés à part

-For separate operation pls indicate PS - Per pilotaggio separato, indicare il suffisso PS - Pour pilotage séparé, prière d'indiquer le PS.

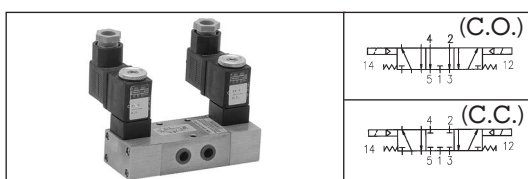
## STAINLESS STEEL SOLENOID AND PNEUMATIC VALVES ELETTROVALVOLE E VALVOLE PNEUMATICHE IN ACCIAIO INOX ÉLECTRODISTRIBUTEURS ET DISTRIBUTEURS PNEUMATIQUES INOX

**5 WAYS - 3 POSITIONS    5 VIE - 3 POSIZIONI    5 VOIES - 3 POSITIONS**



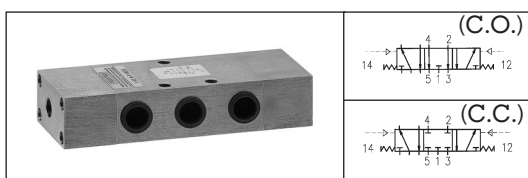
**DOUBLE ELECTRIC CONTROL**  
**COIL POSITION: LATERAL**  
COMANDO ELETTRICO DOPPIO  
POSIZIONE BOBINA: LATERALE  
COMMANDE ÉLECTRIQUE DOUBLE  
POSITION BOBINE: LATÉRALE

TYPE TIPO TYPE	NAKED NUDA NUÉ		VALVE CODE WITH PILOT CODICE VALVOLA CON IL PILOTA CODE VALVE AVEC PILOTE		VALVE CODE WITH PILOT & COIL CODICE VALVOLA CON IL PILOTA & BOBINA CODE VALVE AVEC PILOTE & BOBINE		V*
	BSP	NPT	BSP	NPT	BSP	NPT	
V 45/3 EL EL CO	LP/02247	LP/02248	LP/02247SS	LP/02248SS	LP/02247.V*	LP/02248.V*	24 AC
V 45/3 EL EL CC	LP/02249	LP/02250	LP/02249SS	LP/02250SS	LP/02249.V*	LP/02250.V*	24 DC
V 25/3 EL EL CO	LP/03392	LP/03391	LP/03392SS	LP/03391SS	LP/03392.V*	LP/03391.V*	48 AC
V 25/3 EL EL CC	LP/03389	LP/02466	LP/03389 SS	LP/02466SS	LP/03389 .V*	LP/02466.V*	110 A
V 15/3 EL EL CO	LP/03390	LP/03393	LP/03390 SS	LP/03393SS	LP/03390 .V*	LP/03393.V*	220A
V 15/3 EL EL CC	LP/03394	LP/03395	LP/03394 SS	LP/03395SS	LP/03394 .V*	LP/03395.V*	



**DOUBLE ELECTRIC CONTROL**  
**COIL POSITION: VERTICAL**  
COMANDO ELETTRICO DOPPIO  
POSIZIONE BOBINA: VERTICALE  
COMMANDE ÉLECTRIQUE DOUBLE  
POSITION BOBINE: VERTICALE

TYPE TIPO TYPE	NAKED NUDA NUÉ		VALVE CODE WITH PILOT CODICE VALVOLA CON IL PILOTA CODE VALVE AVEC PILOTE		VALVE CODE WITH PILOT & COIL CODICE VALVOLA CON IL PILOTA & BOBINA CODE VALVE AVEC PILOTE & BOBINE		V*
	BSP	NPT	BSP	NPT	BSP	NPT	
V 45/3 EV EV CO	LP/02251	LP/02252	LP/02251SS	LP/02252SS	LP/02251.V*	LP/02252.V*	24 AC
V 45/3 EV EV CC	LP/02253	LP/02254	LP/02253SS	LP/02254SS	LP/02253.V*	LP/02254.V*	24 DC
V 25/3 EV EV CO	LP/02971	LP/03396	LP/02971SS	LP/03396SS	LP/02971.V*	LP/03396.V*	48AC
V 25/3 EV EV CC	LP/02970	LP/03397	LP/02970SS	LP/03397SS	LP/02970.V*	LP/03397.V*	110AC
V 15/3 EV EV CO	LP/03398	LP/03399	LP/03398SS	LP/03399SS	LP/03398.V*	LP/03399.V*	220A
V 15/3 EV EV CC	LP/04000	LP/03208	LP/04000SS	LP/03208SS	LP/04000.V*	LP/03208.V*	



**DOUBLE PNEUMATIC CONTROL**  
COMANDO PNEUMATICO DOPPIO  
COMMANDE PNEUMATIQUE DOUBLE

TYPE TIPO TYPE	NAKED NUDA NUÉ		VALVE CODE WITH PILOT CODICE VALVOLA CON IL PILOTA CODE VALVE AVEC PILOTE		VALVE CODE WITH PILOT & COIL CODICE VALVOLA CON IL PILOTA & BOBINA CODE VALVE AVEC PILOTE & BOBINE		V*
	BSP	NPT	BSP	NPT	BSP	NPT	
V 45/3 N N CO	LP/02255	LP/02256					
V 45/3 N N CC	LP/02257	LP/02258					
V 25/3 N N CO	LP/07156	LP/02826					
V 25/3 N N CC	LP/04001	LP/02825					
V 15/3 N N CO	LP/04002	LP/04003					
V 15/3 N N CC	LP/04004	LP/04005					

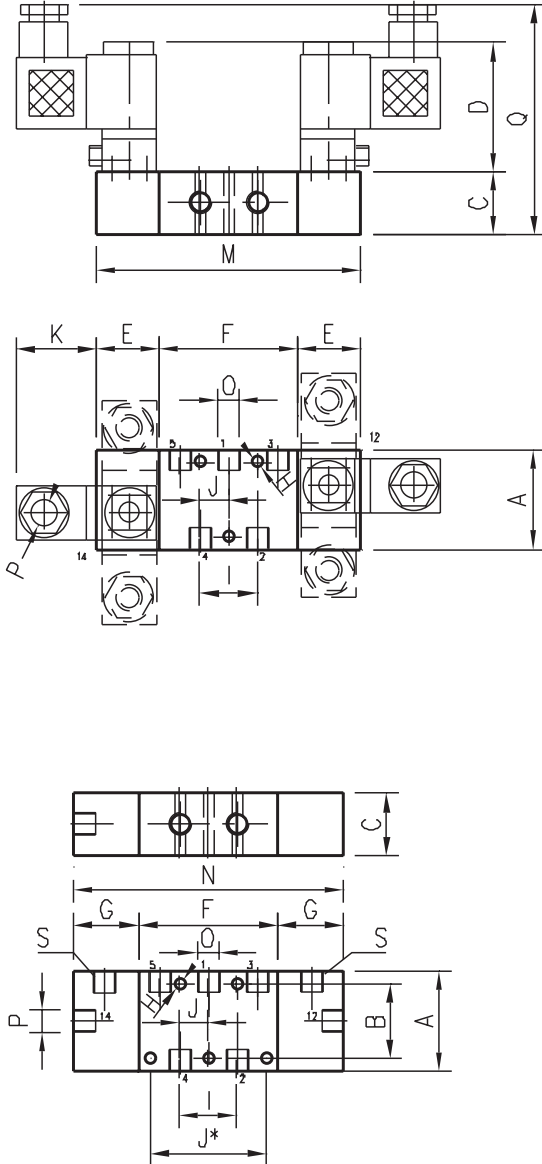
**5 WAY - 3 POSITION** - Overall dimensions

**5 VIE - 3 POSIZIONI** - Dimensioni di ingombro

**5 VOIES - 3 POSITIONS** - Dimensions d'encombrement

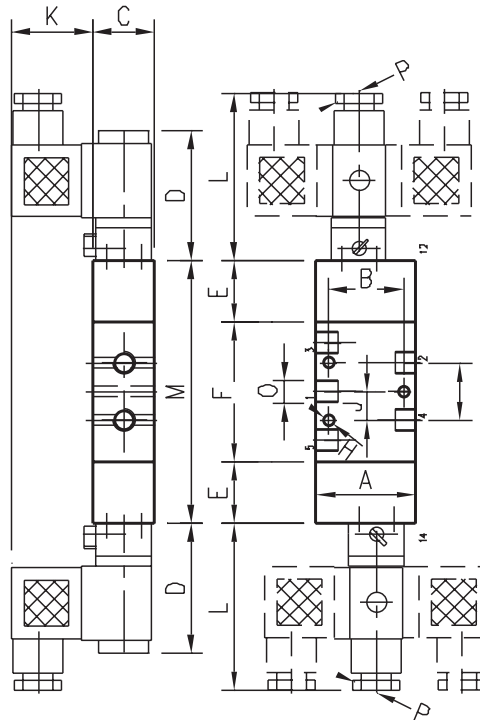
**VERTICAL CONTROL**

PILOTAGGIO VERTICALE - PILOTAGE VERTICALE



**LATERAL CONTROL**

PILOTAGGIO LATERALE - PILOTAGE LATERAL



DIMENSIONS		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
DIMENSIONI		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
DIMENSIONS		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
PORT	BSP	1/8"	40	30	25	52	36	71	30	4,3	23	11,5	32	67	143	131	1/4"	92	1/8"	-
	NPT	1/4"	60	50	40	52	36	101	40	5,5	38	19	32	67	173	181	1/2"	107	1/8"	-
		1"	95	75	65	52	93	184	95	10,5	60,	j"	32	67	370	374	1"	132	-	1/8"
											120									

**NOTES:**

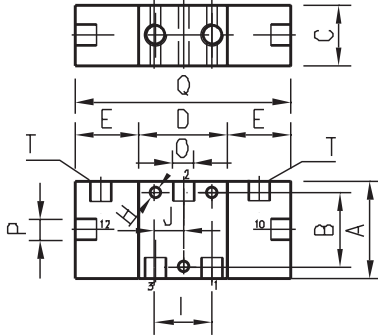
- \*: Pls specify voltage value - Indicare la tensione - Indiquer la tension, s.v.p.
- Connectors have to be ordered separately - I connettori sono da ordinare separatamente - Les connecteur doivent être commandés à part
- For separate operation pls indicate PS - Per pilotaggio separato, indicare il suffisso PS - Pour pilotage séparé, prière d'indiquer le PS.

**3 and 5 WAY - 2 POSITION** - Overall dimensions

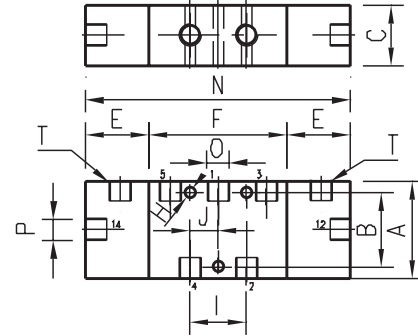
**3 e 5 VIE - 2 POSIZIONI** - Dimensioni di ingombro

**3 et 5 VOIES - 2 POSITIONS** - Dimensions d'encombrement

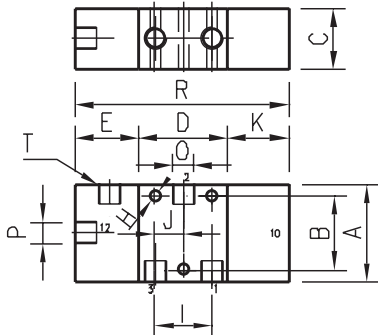
**3 WAY VALVE - VALVOLA A 3 VIE - VALVE A' 3 VOIES**



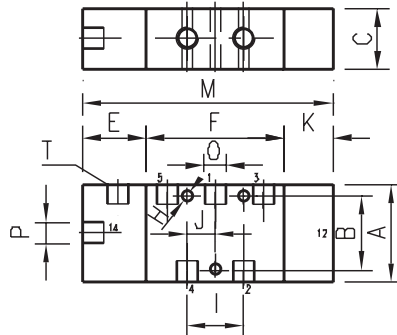
**5 WAY VALVE - VALVOLA A 5 VIE - VALVE A' 5 VOIES**



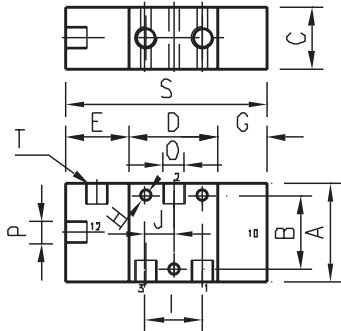
**SPRING RETURN - RITORNO A MOLLA - RETOUR RESSORT**



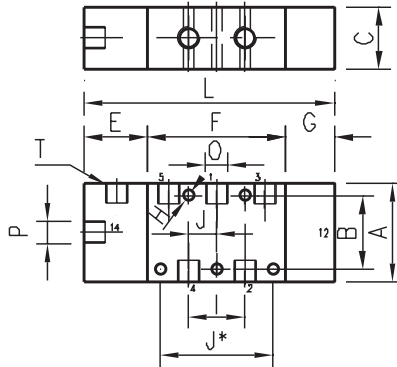
**SPRING RETURN - RITORNO A MOLLA - RETOUR RESSORT**



**PNEUMATIC RETURN - RITORNO PNEUMATICO - RETOUR PNEUMATIQUE**



**PNEUMATIC RETURN - RITORNO PNEUMATICO - RETOUR PNEUMATIQUE**



DIMENSIONS DIMENSIONI DIMENSIONS		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
PORT NPT BSP	1/8"	40	30	25	36	26	56	20	4,3	23	11,5	25	102	107	108	1/8"	1/8"	88	87	82
	1/4"				45		71						117	122	123	1/4"		97	96	91
	1/2"	60	50	40	63	35	101	25	5,5	38	19	25	161	161	171	1/2"		133	123	123
	1"	95	75	65	124	40	184	40	10,5	60	$\frac{j^*}{120}$	40	264	264	264	1"		1/8"	204	204

**NOTES:**

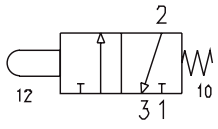

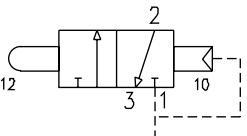
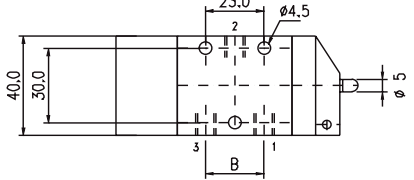
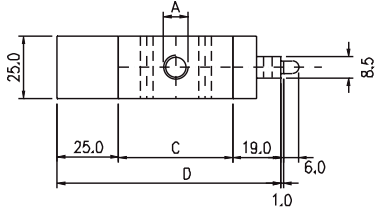
-\*: Pls specify voltage value - Indicare la tensione - Indiquer la tension, s.v.p.

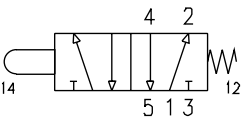

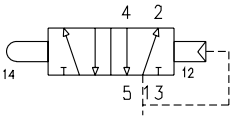
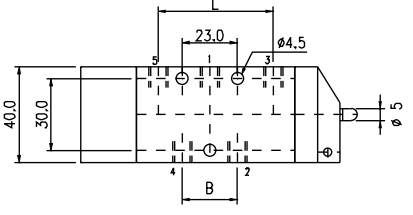
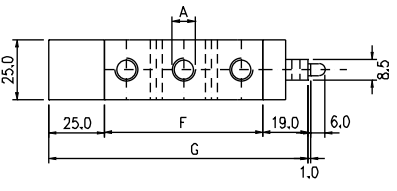
-Connectors have to be ordered separately - I connettori sono da ordinare separatamente - Les connecteur doivent être commandés à part

-For separate operation pls indicate PS - Per pilotaggio separato, indicare il suffisso PS - Pour pilotage séparé, prière d'indiquer le PS.



## 3 & 5 WAY - 2 POSITION - BALL MECHANICAL OPERATION 3 & 5 VIE - 2 POSIZIONI - AZIONAMENTO MECCANICO A SFERA 3 & 5 VOIES - 2 POSITIONS - COMMANDE MÉCANIQUE PAR SPHÈRE

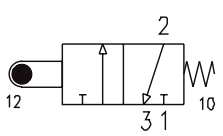
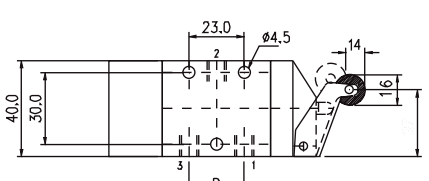
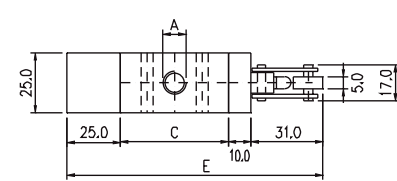

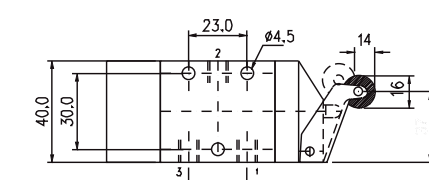
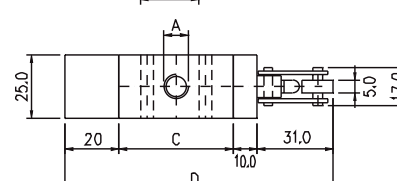
<b>3 WAY - VIE - VOIES</b>      	<b>SPRING RETURN</b> RITORNO MOLLA MECCANICA RAPPEL RESSORT				  
	V 83 D P		V 43 D P		
1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT		
code <b>LP/06273</b> .BSP	<b>LP/06273</b>	<b>LP/07014</b> .BSP	<b>LP/07014</b>		
<b>DIMENSIONS</b> DIMENSIONI DIMENSIONS					
<b>1/8"</b>	A	<b>1/4"</b>			
20	B	26			
36	C	45			
80	D	89			
75	E	84			
<b>PNEUMATIC SPRING RETURN</b> RITORNO MOLLA PNEUMATICA RAPPEL RESSORT PNEUMATIQUE					
V 83 D R		V 43 D R			
1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT		
code <b>LP/07015</b> .BSP	<b>LP/07015</b>	<b>LP/07016</b> .BSP	<b>LP/07016</b>		

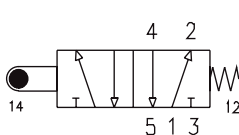
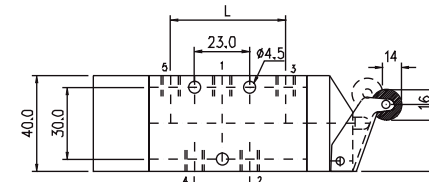
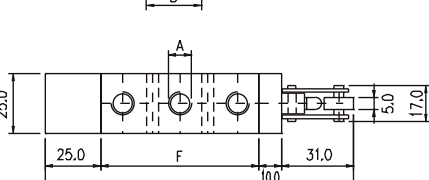

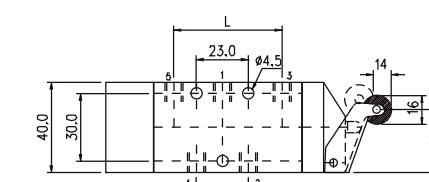
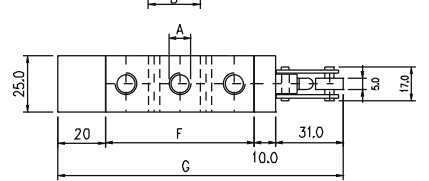
<b>5 WAY - VIE - VOIES</b>      	<b>SPRING RETURN</b> RITORNO MOLLA MECCANICA RAPPEL RESSORT				  
	V 85 D P		V 45 D P		
1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT		
code <b>LP/07017</b> .BSP	<b>LP/07017</b>	<b>LP/07018</b> .BSP	<b>LP/07018</b>		
<b>DIMENSIONS</b> DIMENSIONI DIMENSIONS					
<b>1/8"</b>	A	<b>1/4"</b>			
20	B	26			
56	F	71			
100	G	115			
95	H	100			
41	L	53			
<b>PNEUMATIC SPRING RETURN</b> RITORNO MOLLA PNEUMATICA RAPPEL RESSORT PNEUMATIQUE					
V 85 D R		V 45 D R			
1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT		
code <b>LP/07019</b> .BSP	<b>LP/07019</b>	<b>LP/07020</b> .BSP	<b>LP/07020</b>		

## 3 & 5 WAY - 2 POSITION - ROLLER LEVER OPERATION

## 3 & 5 VIE - 2 POSIZIONI - AZIONAMENTO MECCANICO LEVA A RULLO

## 3 & 5 VOIES - 2 POSITIONS - COMMANDE MÉCANIQUE LEVIER À ROULEAU

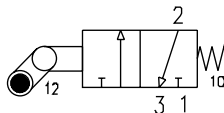

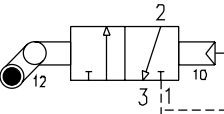
<b>3 WAY - VIE - VOIES</b> 	<b>SPRING RETURN</b> RITORNO MOLLA MECCANICA RAPPEL RESSORT				
	V 83 M P		V 43 M P		
	1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT	
code	<b>LP/07021</b> .BSP	<b>LP/07021</b>	<b>LP/07022</b> .BSP	<b>LP/07022</b>	
<b>DIMENSIONS</b> DIMENSIONI DIMENSIONS					
	<b>1/8"</b>	A			<b>1/4"</b>
	20	B			26
	36	C			45
	97	D			106
	102	E			111
	<b>PNEUMATIC SPRING RETURN</b> RITORNO MOLLA PNEUMATICA RAPPEL RESSORT PNEUMATIQUE				
	V 83 M R		V 43 M S		
	1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT	
code	<b>LP/07023</b> .BSP	<b>LP/07023</b>	<b>LP/07024</b> .BSP	<b>LP/07024</b>	

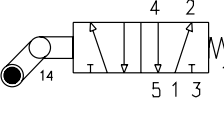

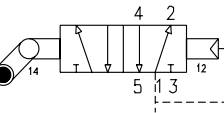
<b>5 WAY - VIE - VOIES</b> 	<b>SPRING RETURN</b> RITORNO MOLLA MECCANICA RAPPEL RESSORT				
	V 85 M P		V 45 M P		
	1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT	
code	<b>LP/07025</b> .BSP	<b>LP/07025</b>	<b>LP/07026</b> .BSP	<b>LP/07026</b>	
<b>DIMENSIONS</b> DIMENSIONI DIMENSIONS					
	<b>1/8"</b>	A			<b>1/4"</b>
	20	B			26
	51	F			71
	112	G			132
	117	H			137
	41	L			53
	<b>PNEUMATIC SPRING RETURN</b> RITORNO MOLLA PNEUMATICA RAPPEL RESSORT PNEUMATIQUE				
	V 85 M R		V 45 M R		
	1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT	
code	<b>LP/07027</b> .BSP	<b>LP/07027</b>	<b>LP/07028</b> .BSP	<b>LP/07028</b>	

## 3 & 5 WAY - 2 POSITION - UNIDIRECTIONAL ROLLER LEVER OPERATION

## 3 & 5 VIE - 2 POSIZIONI - AZIONAMENTO MECCANICO LEVA A RULLO UNIDIREZIONALE

## 3 & 5 VOIES - 2 POSITIONS - COMMANDE MÉCANIQUE LEVIER ET ROULEAU UNIDIRECTIONNEL

<p><b>3 WAY - VIE - VOIES</b></p>   	<b>SPRING RETURN</b> RITORNO MOLLA MECCANICA RAPPEL RESSORT				V 83 LP                      V 43 LP			
	1/8" BSP		1/8" NPT		1/4" BSP		1/4" NPT	
	code	<b>LP/07037</b>	<b>LP/07037</b>	<b>LP/07038</b>	<b>LP/07038</b>	<b>LP/07038</b>	<b>LP/07038</b>	<b>LP/07038</b>
		<b>.BSP</b>		<b>.BSP</b>		<b>.BSP</b>		<b>.BSP</b>
	<b>DIMENSIONS</b> DIMENSIONI DIMENSIONS							
	<b>1/8"</b>		A		<b>1/4"</b>			
	20		B		26			
	36		C		45			
	110		D		119			
	105		E		114			
<b>PNEUMATIC SPRING RETURN</b> RITORNO MOLLA PNEUMATICA RAPPEL RESSORT PNEUMATIQUE				V 83 LR                      V 43 LR				
1/8" BSP		1/8" NPT		1/4" BSP		1/4" NPT		
code	<b>LP/07039</b>	<b>LP/07039</b>	<b>LP/07040</b>	<b>LP/07040</b>	<b>LP/07040</b>	<b>LP/07040</b>	<b>LP/07040</b>	
	<b>.BSP</b>		<b>.BSP</b>		<b>.BSP</b>		<b>.BSP</b>	

<p><b>5 WAY - VIE - VOIES</b></p>   	<b>SPRING RETURN</b> RITORNO MOLLA MECCANICA RAPPEL RESSORT				V 85 LP                      V 45 LP			
	1/8" BSP		1/8" NPT		1/4" BSP		1/4" NPT	
	code	<b>LP/07041</b>	<b>LP/07041</b>	<b>LP/07042</b>	<b>LP/07042</b>	<b>LP/07042</b>	<b>LP/07042</b>	<b>LP/07042</b>
		<b>.BSP</b>		<b>.BSP</b>		<b>.BSP</b>		<b>.BSP</b>
	<b>DIMENSIONS</b> DIMENSIONI DIMENSIONS							
	<b>1/8"</b>		A		<b>1/4"</b>			
	20		B		26			
	56		F		71			
	130		G		145			
	125		H		140			
41		L		53				
<b>PNEUMATIC SPRING RETURN</b> RITORNO MOLLA PNEUMATICA RAPPEL RESSORT PNEUMATIQUE				V 85 LR                      V 45 LR				
1/8" BSP		1/8" NPT		1/4" BSP		1/4" NPT		
code	<b>LP/07043</b>	<b>LP/07043</b>	<b>LP/07044</b>	<b>LP/07044</b>	<b>LP/07044</b>	<b>LP/07044</b>	<b>LP/07044</b>	
	<b>.BSP</b>		<b>.BSP</b>		<b>.BSP</b>		<b>.BSP</b>	

## 3 WAY - 2 POSITION - MANUAL LEVER OPERATION 3 VIE - 2 POSIZIONI - AZIONAMENTO MECCANICO LEVA MANUALE 3 VOIES - 2 POSITIONS - COMMANDE MÉCANIQUE LEVIER MANUEL

<p><b>3 WAY - VIE - VOIES</b> (1 fixed position - 1 posizione fissa - 1 position fixe)</p>	<b>SPRING RETURN</b> RITORNO A MOLLA MECCANICA RAPPEL RESSORT			
	V 83 S P		V 43 S P	
	1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT
	code <b>LP/07045</b> <b>.BSP</b>	code <b>LP/07045</b> <b>.BSP</b>	code <b>LP/07046</b> <b>.BSP</b>	code <b>LP/07046</b> <b>.BSP</b>
<p><b>3 WAY - VIE - VOIES</b> (2 fixed positions - 2 posizioni fisse - 2 positions fixes)</p>	<b>MANUAL RETURN</b> RITORNO MANUALE RAPPEL MANUEL			
	V 23 S P		V 13 S P	
	1/2" BSP	1/2" NPT	1" BSP	1" NPT
	code <b>LP/02550</b> <b>.BSP</b>	code <b>LP/02550</b> <b>.BSP</b>	code <b>LP/03022</b> <b>.BSP</b>	code <b>LP/03022</b> <b>.BSP</b>
	<b>MANUAL RETURN</b> RITORNO MANUALE RAPPEL MANUEL			
	V 83 S P1		V 43 S P1	
	1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT
	code <b>LP/07047</b> <b>.BSP</b>	code <b>LP/07047</b> <b>.BSP</b>	code <b>LP/07048</b> <b>.BSP</b>	code <b>LP/07048</b> <b>.BSP</b>
	<b>MANUAL RETURN</b> RITORNO MANUALE RAPPEL MANUEL			
	V 23 S P1		V 13 S P1	
	1/2" BSP	1/2" NPT	1" BSP	1" NPT
	code <b>LP/07005</b> <b>.BSP</b>	code <b>LP/07005</b> <b>.BSP</b>	code <b>LP/04006</b> <b>.BSP</b>	code <b>LP/04006</b> <b>.BSP</b>

### DIMENSIONS - DIMENSIONI - DIMENSIONS

#### TYPE P

A	B	C	D	E	F	G	H	L	M	N	P	Q	R	S	T	U
1/8"	20	36	86	25	12	86	30	40	25	25	M25x1,5	5	32	23	4,5	17
1/4"	26	45	95	25	12	86	30	40	25	25	M25x1,5	5	32	23	4,5	17
1/2"	38	63	118	40	13	140	50	60	25	30	M25x1,5	5	32	38	5,5	25
1"	60	124	209	65	/	240	75	95	40	45		/	/	80	10,5	25

#### TYPE P1

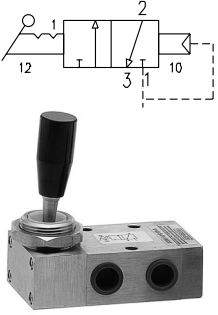
A	B	C	D	E	F	G	H	L	M	N	P	Q	R	S	T	U
1/8"	20	36	71	25	12	86	30	40	10	25	M25x1,5	5	32	23	4,5	17
1/4"	26	45	80	25	12	86	30	40	10	25	M25x1,5	5	32	23	4,5	17
1/2"	38	63	104	40	13	140	50	60	11	30	M25x1,5	5	32	38	5,5	25
1"	60	124	209	65	/	240	75	95	40	45		/	/	80	10,5	25

## 3 & 5 WAY - 2 POSITION - MANUAL LEVER OPERATION

## 3 & 5 VIE - 2 POSIZIONI - AZIONAMENTO MECCANICO LEVA MANUALE

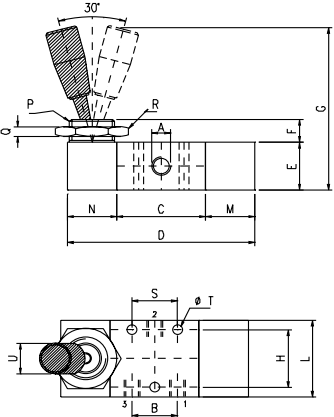
## 3 & 5 VOIES - 2 POSITIONS - COMMANDE MÉCANIQUE LEVIER MANUEL

**3 WAY - VIE - VOIES**  
(1 fixed position - 1 posizione fissa - 1 position fixe)

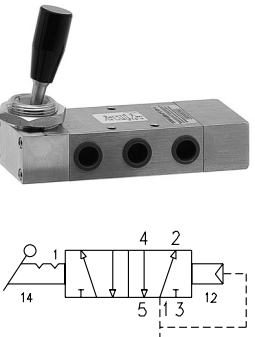


**PNEUMATIC SPRING RETURN**  
RITORNO MOLLA PNEUMATICA  
RAPPEL RESSORT PNEUMATIQUE

V 83 S R		V 43 S R	
1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT
code <b>LP/07051</b> .BSP	code <b>LP/07051</b> .BSP	code <b>LP/07052</b> .BSP	code <b>LP/07052</b> .BSP
V 23 S R		V 13 S R	
1/2" BSP	1/2" NPT	1" BSP	1" NPT
code <b>LP/04009</b> .BSP	code <b>LP/04009</b> .BSP	code <b>LP/04010</b> .BSP	code <b>LP/04010</b> .BSP

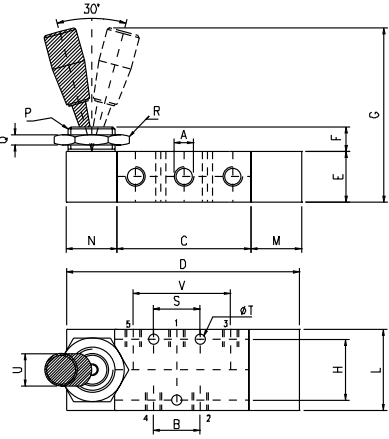


**5 WAY - VIE - VOIES**  
(1 fixed position - 1 posizione fissa - 1 position fixe)



**PNEUMATIC SPRING RETURN**  
RITORNO MOLLA PNEUMATICA  
RAPPEL RESSORT PNEUMATIQUE

V 85 S R		V 45 S R	
1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT
code <b>LP/07053</b> .BSP	code <b>LP/07053</b> .BSP	code <b>LP/07054</b> .BSP	code <b>LP/07054</b> .BSP
V 25 S R		V 15 S R	
1/2" BSP	1/2" NPT	1" BSP	1" NPT
code <b>LP/04011</b> .BSP	code <b>LP/04011</b> .BSP	code <b>LP/04012</b> .BSP	code <b>LP/04012</b> .BSP



### DIMENSIONS - DIMENSIONI - DIMENSIONS

#### TYPE V3 R

A	B	C	D	E	F	G	H	L	M	N	P	Q	R	S	T	U
1/8"	20	36	81	25	12	86	30	40	25	25	M25x1,5	5	32	23	4,5	17
1/4"	26	45	90	25	12	86	30	40	25	25	M25x1,5	5	32	23	4,5	17
1/2"	38	63	118	40	13	140	50	60	25	30	M25x1,5	5	32	38	5,5	25
1"	60	124	209	65	/	240	75	95	40	45	/	/	/	80	10,5	25

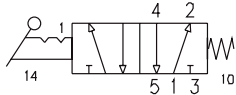

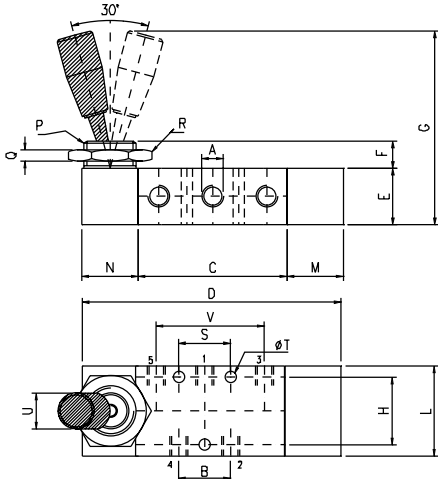
#### TYPE V5 R

A	B	C	D	E	F	G	H	L	M	N	P	Q	R	S	T	U	V
1/8"	20	56	101	25	12	86	30	40	20	25	M25x1,5	5	32	23	4,5	17	41
1/4"	26	71	116	25	12	86	30	40	20	25	M25x1,5	5	32	23	4,5	17	53
1/2"	38	100	155	40	13	140	50	60	25	30	M25x1,5	5	32	38	5,5	25	76
1"	60	184	269	65	/	240	75	95	40	45	/	/	/	80	10,5	25	120

## 5 WAY - 2 POSITION - MANUAL LEVER OPERATION

## 5 VIE - 2 POSIZIONI - AZIONAMENTO MECCANICO LEVA MANUALE

## 5 VOIES - 2 POSITIONS - COMMANDE MÉCANIQUE LEVIER MANUEL

<p><b>5 WAY - VIE - VOIES</b> (1 fixed position - 1 posizione fissa - 1 position fixe)</p>  	<p><b>SPRING RETURN</b> RITORNO A MOLLA MECCANICA RAPPEL RESSORT</p>										
	V 85 S P		V 45 S P								
	1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT							
	code <b>LP/07049</b> <b>.BSP</b>	code <b>LP/07049</b> <b>.BSP</b>	code <b>LP/07050</b> <b>.BSP</b>	code <b>LP/07050</b> <b>.BSP</b>							
V 25 S P		V 15 S P		<p><b>MANUAL RETURN</b> RITORNO MANUALE RAPPEL MANUEL</p>		V 85 S P1		V 45 S P1			
1/2" BSP	1/2" NPT	1" BSP	1" NPT	1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT	code <b>LP/07000</b> <b>.BSP</b>	code <b>LP/07000</b> <b>.BSP</b>	code <b>LP/07001</b> <b>.BSP</b>	code <b>LP/07001</b> <b>.BSP</b>
code <b>LP/02486</b> <b>.BSP</b>	code <b>LP/02486</b> <b>.BSP</b>	code <b>LP/04007</b> <b>.BSP</b>	code <b>LP/04007</b> <b>.BSP</b>	V 25 S P1		V 15 S P1		code <b>LP/07002</b> <b>.BSP</b>		code <b>LP/04008</b> <b>.BSP</b>	
1/2" BSP		1/2" NPT		1" BSP		1" NPT		code <b>LP/07002</b> <b>.BSP</b>		code <b>LP/04008</b> <b>.BSP</b>	
code <b>LP/07002</b> <b>.BSP</b>		code <b>LP/07002</b> <b>.BSP</b>		code <b>LP/04008</b> <b>.BSP</b>		code <b>LP/04008</b> <b>.BSP</b>		code <b>LP/07002</b> <b>.BSP</b>		code <b>LP/04008</b> <b>.BSP</b>	

### DIMENSIONS - DIMENSIONI - DIMENSIONS

#### TYPE P

A	B	C	D	E	F	G	H	L	M	N	P	Q	R	S	T	U	V
1/8"	20	56	106	25	12	86	30	40	25	25	M25x1,5	5	32	23	4,5	17	41
1/4"	26	71	121	25	12	86	30	40	25	25	M25x1,5	5	32	23	4,5	17	53
1/2"	38	100	155	40	13	140	50	60	25	30	M25x1,5	5	32	38	5,5	25	76
1"	60	184	269	65	/	240	75	95	40	45	/	/	/	80	10,5	25	120

#### TYPE P1

A	B	C	D	E	F	G	H	L	M	N	P	Q	R	S	T	U	V
1/8"	20	56	91	25	12	86	30	40	10	25	M25x1,5	5	32	23	4,5	17	41
1/4"	26	71	106	25	12	86	30	40	10	25	M25x1,5	5	32	23	4,5	17	53
1/2"	38	100	141	40	13	140	50	60	11	30	M25x1,5	5	32	38	5,5	25	76
1"	60	184	269	65	/	240	75	95	40	45	/	/	/	80	10,5	25	120

**3 & 5 WAY - 2 POSITION - MANUAL LEVER OPERATION**

**3 & 5 VIE - 2 POSIZIONI - AZIONAMENTO MECCANICO LEVA MANUALE**

**3 & 5 VOIES - 2 POSITIONS - COMMANDE MÉCANIQUE LEVIER MANUEL**

<p><b>3 WAY - VIE - VOIES</b> (1 fixed position - 1 posizione fissa - 1 position fixe)</p>	<p><b>PNEUMATIC CONTROL RETURN</b> RITORNO A COMANDO PNEUMATICO RAPPEL COMMANDE PNEUMATIQUE</p>				
	<p>V 83 S N</p>			<p>V 43 S N</p>	
	<p>1/8" BSP   1/8" NPT</p>			<p>1/4" BSP   1/4" NPT</p>	
	<p>code <b>LP/07055 LP/07055</b> .BSP</p>			<p>code <b>LP/07056 LP/07056</b> .BSP</p>	
<p><b>5 WAY - VIE - VOIES</b> (1 fixed position - 1 posizione fissa - 1 position fixe)</p>	<p><b>PNEUMATIC CONTROL RETURN</b> RITORNO A COMANDO PNEUMATICO RAPPEL COMMANDE PNEUMATIQUE</p>				
	<p>V 85 S N</p>			<p>V 45 S N</p>	
	<p>1/8" BSP   1/8" NPT</p>			<p>1/4" BSP   1/4" NPT</p>	
	<p>code <b>LP/07057 LP/07057</b> .BSP</p>			<p>code <b>LP/07058 LP/07058</b> .BSP</p>	
<p><b>5 WAY - VIE - VOIES</b> (1 fixed position - 1 posizione fissa - 1 position fixe)</p>	<p>V 23 S N</p>		<p>V 13 S N</p>		
	<p>1/2" BSP   1/2" NPT</p>		<p>1" BSP   1" NPT</p>		
	<p>code <b>LP/04013 LP/04013</b> .BSP</p>		<p>code <b>LP/04014 LP/04014</b> .BSP</p>		
	<p>V 25 S N</p>		<p>V 15 S N</p>		
<p>1/2" BSP   1/2" NPT</p>		<p>1" BSP   1" NPT</p>			
<p>code <b>LP/04015 LP/04015</b> .BSP</p>		<p>code <b>LP/04016 LP/04016</b> .BSP</p>			

**DIMENSIONS - DIMENSIONI - DIMENSIONS**

**TYPE V3 N**

A	B	C	D	E	F	G	H	L	M	N	P	Q	R	S	T	U
1/8"	20	36	81	25	12	86	30	40	20	25	M25x1,5	5	32	23	4,5	17
1/4"	26	45	90	25	12	86	30	40	20	25	M25x1,5	5	32	23	4,5	17
1/2"	38	63	118	40	13	140	50	60	25	30	M25x1,5	5	32	38	5,5	25
1"	60	124	209	65	/	240	75	95	40	45	/	/	/	80	10,5	25

**TYPE V5 N**

A	B	C	D	E	F	G	H	L	M	N	P	Q	R	S	T	U	V
1/8"	20	56	101	25	12	86	30	40	20	25	M25x1,5	5	32	23	4,5	17	41
1/4"	26	71	116	25	12	86	30	40	20	25	M25x1,5	5	32	23	4,5	17	53
1/2"	38	100	155	40	13	140	50	60	25	30	M25x1,5	5	32	38	5,5	25	76
1"	60	184	269	65	/	240	75	95	40	45	/	/	/	80	10,5	25	120

## 5 WAY - 3 POSITION - MANUAL LEVER OPERATION

## 5 VIE - 3 POSIZIONI - AZIONAMENTO MECCANICO LEVA MANUALE

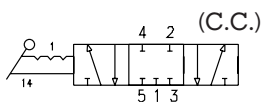
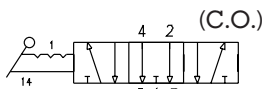
## 5 VOIES - 3 POSITIONS - COMMANDE MÉCANIQUE LEVIER MANUEL

**5 WAY - VIE - VOIES**

**3-FIXED POSITIONS (C. C. OR C. O.)**

3 POSIZIONI FISSE (C.C. O C.A.)  
3 POSITIONS FIXES (C.F. OU C.O.)

**MANUAL RETURN - Ritorno manuale**  
*Rappel manuel*



V 45/3 S3 P1/3 (C.C.)

1/4" BSP 1/4" NPT

code **LP/01930** **LP/01930**  
**.BSP**

V 25/3 S3 P1/3 (C.C.)

1/2" BSP 1/2" NPT

code **LP/02456** **LP/02456**  
**.BSP**

V 15/3 S3 P1/3 (C.C.)

1" BSP 1" NPT

code **LP/04017** **LP/04017**  
**.BSP**

V 45/3 S3 P1/3 (C.O.)

1/4" BSP 1/4" NPT

code **LP/07059** **LP/07059**  
**.BSP**

V 25/3 S3 P1/3 (C.O.)

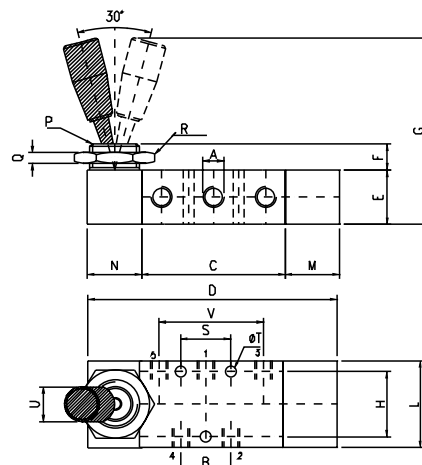
1/2" BSP 1/2" NPT

code **LP/02704** **LP/02704**  
**.BSP**

V 15/3 S3 P1/3 (C.O.)

1" BSP 1" NPT

code **LP/05736** **LP/05736**  
**.BSP**



### DIMENSIONS - DIMENSIONI - DIMENSIONS

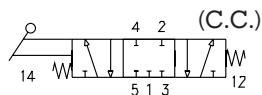
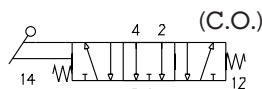
A	B	C	D	E	F	G	H	L	M	N	P	Q	R	S	T	U	V
1/4"	26	71	120	25	12	86	30	40	33	16	M25x1,5	5	32	23	4,5	17	53
1/2"	38	100	165	40	13	140	50	60	40	25	M25x1,5	5	32	38	5,5	25	76
1"	60	184	269	65	/	240	75	95	40	45	/	/	/	80	10,5	25	120

**5 WAY - VIE - VOIES**

**3-POSITIONS - CENTRAL ONLY FIXED (C. C. OR C. O.)**

3 POSIZIONI - SOLO LA CENTRALE FISSA (C.C. O C.A.)  
3 POSITIONS - SEULEMENT LA CENTRALE FIXE (C.F. OU C.O.)

**SPRING RETURN - RITORNO MOLLA**  
*MECCANICA - RETOUR RESSORT MÉCANIQUE*



V 45/3 S3 P/3 (C.C.)

1/4" BSP 1/4" NPT

code **LP/07060** **LP/07060**  
**.BSP**

V 25/3 S3 P/3 (C.C.)

1/2" BSP 1/2" NPT

code **LP/02908** **LP/02908**  
**.BSP**

V 15/3 S3 P/3 (C.C.)

1" BSP 1" NPT

code **LP/04018** **LP/04018**  
**.BSP**

V 45/3 S3 P/3 (C.O.)

1/4" BSP 1/4" NPT

code **LP/07061** **LP/07061**  
**.BSP**

V 25/3 S3 P/3 (C.O.)

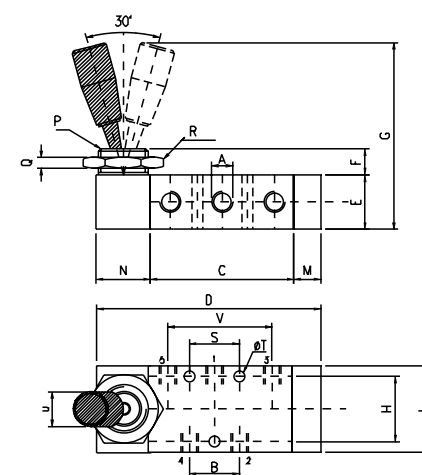
1/2" BSP 1/2" NPT

code **LP/02969** **LP/02969**  
**.BSP**

V 15/3 S3 P/3 (C.O.)

1" BSP 1" NPT

code **LP/04019** **LP/04019**  
**.BSP**



### DIMENSIONS - DIMENSIONI - DIMENSIONS

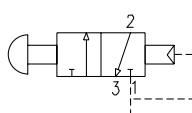

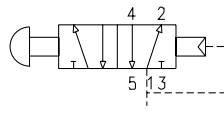

A	B	C	D	E	F	G	H	L	M	N	P	Q	R	S	T	U	V
1/4"	26	71	135	25	12	86	30	40	33	31	M25x1,5	5	32	23	4,5	17	53
1/2"	38	100	200	40	13	140	50	60	60	40	M25x1,5	5	32	38	5,5	25	76
1"	60	184	289	65	/	240	75	95	60	45	/	/	/	80	10,5	25	120

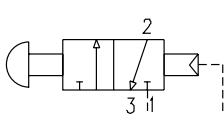

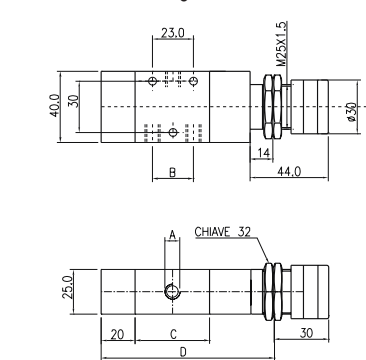
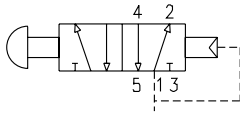

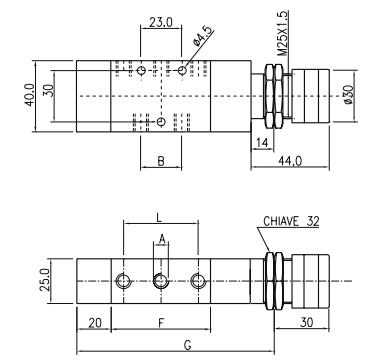


## 3 & 5 WAY - 2 POSITION - MANUAL OPERATION - EMERGENCY AND PROTECTED PUSH BOTTONS

## 3 & 5 VIE - 2 POSIZIONI - AZIONAMENTO MANUALE - PULSANTI INCASSATI E DI EMERGENZA

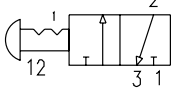

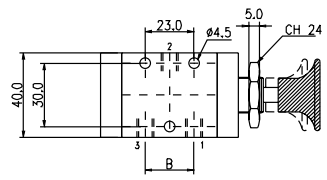
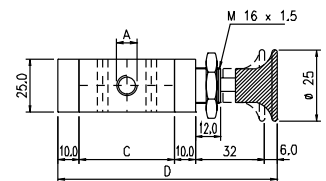
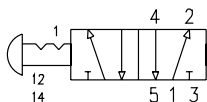

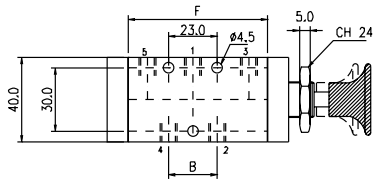
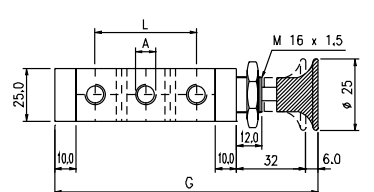
## 3 & 5 VOIES - 2 POSITIONS - COMMANDE MANUELLE - BOUTONS DE SECOURS ET PROTEGÉS

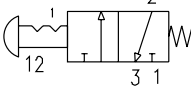

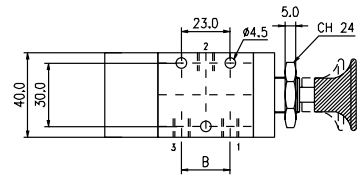
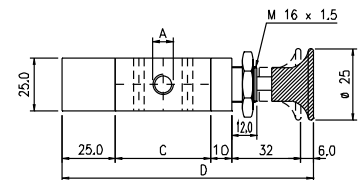
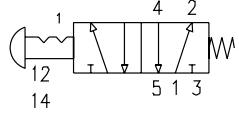

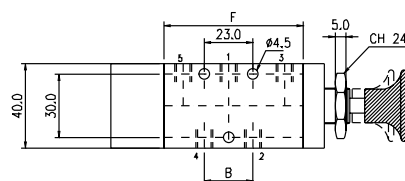
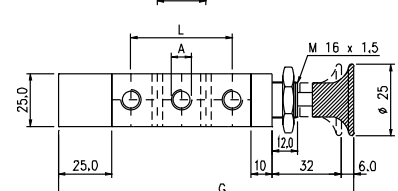
<b>3 WAY - VIE - VOIES</b>  	<b>PNEUMATIC SPRING RETURN</b> RITORNO MOLLA PNEUMATICA RAPPEL RESSORT PNEUMATIQUE				Color of push buttons: T1/R = RED / T1/N = BLACK Colori dei pulsanti: T1/R = Rosso / T1/N = Nero Couleurs des Boutons: T1/R = Rouge / T1/N = Noir
	V 83 T1/R R		V 43 T1/R R		
	1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT	
	code <b>LP/07065</b>	<b>LP/07065</b>	<b>LP/07066</b>	<b>LP/07066</b>	
	<b>.BSP</b>		<b>.BSP</b>		
	V 83 T1/N R		V 43 T1/N R		
	1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT	
	code <b>LP/07067</b>	<b>LP/07067</b>	<b>LP/07068</b>	<b>LP/07068</b>	
	<b>.BSP</b>		<b>.BSP</b>		
	<b>DIMENSIONS - DIMENSIONI - DIMENSIONS</b>				
	<b>1/8"</b>	A	<b>1/4"</b>		
	20	B	26		
	36	C	45		
	100	D	109		
	56	F	71		
	120	G	135		
	41	L	53		
<b>5 WAY - VIE - VOIES</b>  	<b>PNEUMATIC SPRING RETURN</b> RITORNO MOLLA PNEUMATICA RAPPEL RESSORT PNEUMATIQUE				Color of push buttons: T1/R = RED / T1/N = BLACK Colori dei pulsanti: T1/R = Rosso / T1/N = Nero Couleurs des Boutons: T1/R = Rouge / T1/N = Noir
	V 85 T1/R R		V 45 T1/R R		
	1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT	
	code <b>LP/07069</b>	<b>LP/07069</b>	<b>LP/07070</b>	<b>LP/07070</b>	
	<b>.BSP</b>		<b>.BSP</b>		
	V 85 T1/N R		V 45 T1/N R		
	1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT	
	code <b>LP/07071</b>	<b>LP/07071</b>	<b>LP/07072</b>	<b>LP/07072</b>	
	<b>.BSP</b>		<b>.BSP</b>		

<b>3 WAY - VIE - VOIES</b>  	<b>PNEUMATIC SPRING RETURN</b> RITORNO A MOLLA PNEUMATICA RAPPEL RESSORT PNEUMATIQUE				
	V 83 T2 R		V 43 T2 R		
	1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT	
	code <b>LP/07073</b>	<b>LP/07073</b>	<b>LP/07074</b>	<b>LP/07074</b>	
	<b>.BSP</b>		<b>.BSP</b>		
	<b>DIMENSIONS</b> DIMENSIONI DIMENSIONS				
	<b>1/8"</b>	A	<b>1/4"</b>		
	20	B	26		
	36	C	45		
	100	D	109		
	56	F	71		
	120	G	135		
	41	L	53		
<b>5 WAY - VIE - VOIES</b>  	<b>PNEUMATIC SPRING RETURN</b> RITORNO A MOLLA PNEUMATICA RAPPEL RESSORT PNEUMATIQUE				
	V 85 T2 R		V 45 T2 R		
	1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT	
	code <b>LP/07075</b>	<b>LP/07075</b>	<b>LP/07077</b>	<b>LP/07077</b>	
	<b>.BSP</b>		<b>.BSP</b>		

## 3 & 5 WAY - 2 POSITION - MANUAL OPERATION - PUSH-PULL BOTTONS 3 & 5 VIE - 2 POSIZIONI - AZIONAMENTO MANUALE - PULSANTI A TASTO 3 & 5 VOIES - 2 POSITIONS - COMMANDE MANUELLE - BOUTONS PUSH-PULL

EVAX

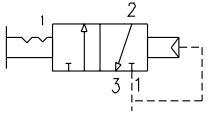

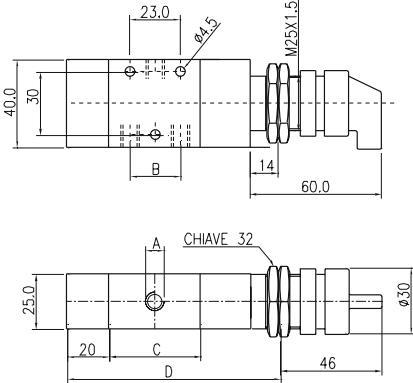
<b>3 WAY - VIE - VOIES</b>  	<b>MANUAL RETURN</b> RITORNO MANUALE RAPPEL MANUEL				 
	V 83 DS P1		V 43 DS P1		
1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT		
code <b>LP/07078</b> .BSP	<b>LP/07078</b>	<b>LP/07079</b> .BSP	<b>LP/07079</b>		
<b>DIMENSIONS</b> DIMENSIONI DIMENSIONS					
<b>1/8"</b>	A	<b>1/4"</b>			
20	B	26			
36	C	45			
94	D	103			
56	F	71			
114	G	129			
41	L	53			
<b>5 WAY - VIE - VOIES</b>  	<b>MANUAL RETURN</b> RITORNO MANUALE RAPPEL MANUEL				 
	V 85 DS P1		V 45 DS P1		
1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT		
code <b>LP/07008</b> .BSP	<b>LP/07008</b>	<b>LP/07009</b> .BSP	<b>LP/07009</b>		

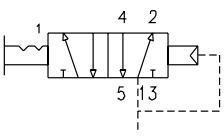

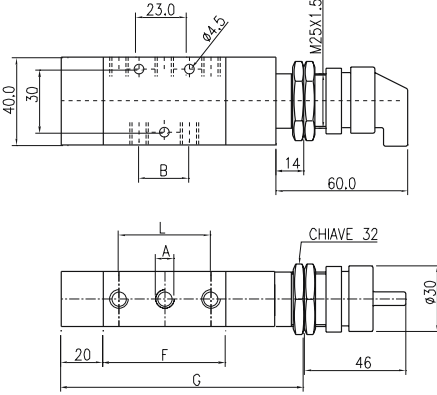
<b>3 WAY - VIE - VOIES</b>  	<b>SPRING RETURN</b> RITORNO A MOLLA MECCANICA RAPPEL RESSORT				 
	V 83 DS P		V 43 DS P		
1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT		
code <b>LP/07080</b> .BSP	<b>LP/07080</b>	<b>LP/07081</b> .BSP	<b>LP/07081</b>		
<b>DIMENSIONS</b> DIMENSIONI DIMENSIONS					
<b>1/8"</b>	A	<b>1/4"</b>			
20	B	26			
36	C	45			
109	D	118			
56	F	71			
129	G	144			
41	L	53			
<b>5 WAY - VIE - VOIES</b>  	<b>SPRING RETURN</b> RITORNO A MOLLA MECCANICA RAPPEL RESSORT				 
	V 85 DS P		V 45 DS P		
1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT		
code <b>LP/07012</b> .BSP	<b>LP/07012</b>	<b>LP/07013</b> .BSP	<b>LP/07013</b>		

## 3 & 5 WAY - 2 POSITION - MANUAL OPERATION - SELECTORS

## 3 & 5 VIE - 2 POSIZIONI - AZIONAMENTO MANUALE - PULSANTI SELETTORI

## 3 & 5 VOIES - 2 POSITIONS - COMMANDE MANUELLE - BOUTONS SÉLECTEURS

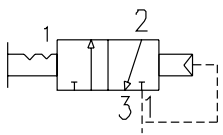

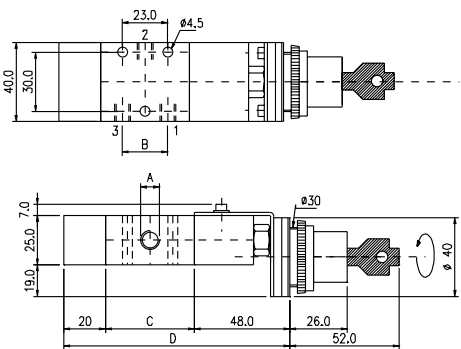
<b>3 WAY - VIE - VOIES</b>  	<b>PNEUMATIC SPRING RETURN</b> RITORNO MOLLA PNEUMATICA RAPPEL RESSORT PNEUMATIQUE				
	V 83 T4/N R		V 43 T4/N R		
1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT		
code LP/07088 .BSP	LP/07088	LP/07089 .BSP	LP/07089		
<b>DIMENSIONS DIMENSIONI</b>					
<b>1/8"</b>	A	<b>1/4"</b>			
20	B	26			
36	C	45			
100	D	109			

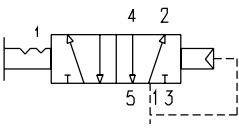

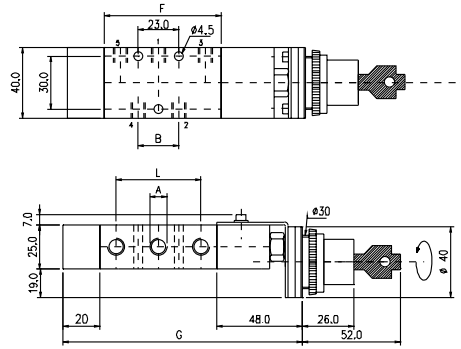
<b>5 WAY - VIE - VOIES</b>  	<b>PNEUMATIC SPRING RETURN</b> RITORNO MOLLA PNEUMATICA RAPPEL RESSORT PNEUMATIQUE				
	V 85 T4/N R		V 45 T4/N R		
1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT		
code LP/07092 .BSP	LP/07092	LP/07093 .BSP	LP/07093		
<b>DIMENSIONS DIMENSIONI</b>					
<b>1/8"</b>	A	<b>1/4"</b>			
20	B	26			
56	F	71			
120	G	135			
41	L	53			

## 3 & 5 WAY - 2 POSITION - MANUAL OPERATION - KEY TYPE

## 3 & 5 VIE - 2 POSIZIONI - AZIONAMENTO MANUALE - TIPO A CHIAVE

## 3 & 5 VOIES - 2 POSITIONS - COMMANDE MANUELLE - TYPE À CLEF

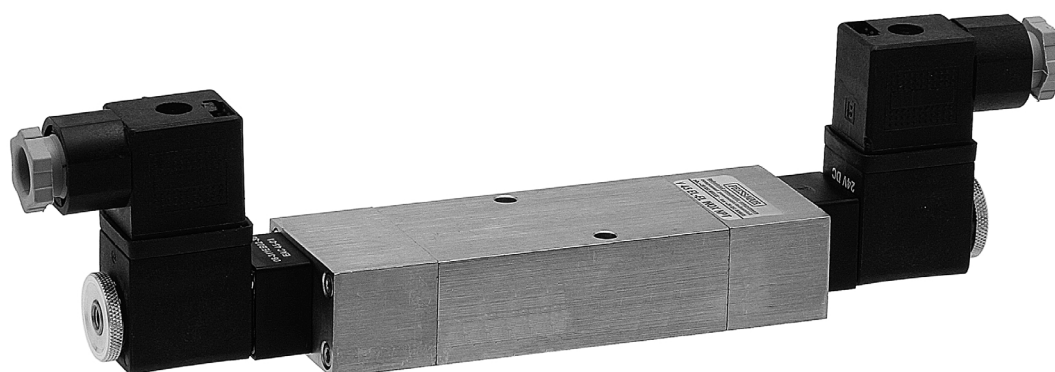
<b>3 WAY - VIE - VOIES</b> 	<b>PNEUMATIC SPRING RETURN</b> RITORNO MOLLA PNEUMATICA RAPPEL RESSORT PNEUMATIQUE				<b>2 STABLE POSITIONS</b> 2 POSIZIONI STABILI 2 POSITIONS STABLES	
	V 83 T3 R		V 43 T3 R			
	1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT		
code	<b>LP/07102</b>	<b>LP/07102</b>	<b>LP/07103</b>	<b>LP/07103</b>		
	<b>.BSP</b>		<b>.BSP</b>			
<b>DIMENSIONS</b> DIMENSIONI DIMENSIONS						
	<b>1/8"</b>	A	<b>1/4"</b>			
	20	B	26			
	36	C	45			
	106	D	115			
						

<b>5 WAY - VIE - VOIES</b> 	<b>PNEUMATIC SPRING RETURN</b> RITORNO MOLLA PNEUMATICA RAPPEL RESSORT PNEUMATIQUE				<b>2 STABLE POSITIONS</b> 2 POSIZIONI STABILI 2 POSITIONS STABLES	
	V 85 T3 R		V 45 T3 R			
	1/8" BSP	1/8" NPT	1/4" BSP	1/4" NPT		
code	<b>LP/07104</b>	<b>LP/07104</b>	<b>LP/07105</b>	<b>LP/07105</b>		
	<b>.BSP</b>		<b>.BSP</b>			
<b>DIMENSIONS</b> DIMENSIONI DIMENSIONS						
	<b>1/8"</b>	A	<b>1/4"</b>			
	20	B	26			
	56	F	71			
	126	G	141			
	41	L	53			
						



# PRESSMAIR

## AISI 316 L



NAMUR

### NAMUR VALVES VALVOLE NAMUR DISTRIBUTEURS NAMUR

**STANDARD OPERATING CONTIONS:**  
CONDIZIONI DI IMPIEGO STANDARD:  
CONDITION D'EMPLOI STANDARD:

**P. MAX = 10**  
**T° = 20/ + 70°C**  
**Fluid: Filtered air with or without lubrication**  
Fluido: Aria filtrata con o senza lubrificazione  
Fluide: Air filtrée avec ou sans lubrification

# PRESSMAIR

## TECHNICAL FEATURES CARATTERISTICHE TECNICHE CARACTERISTIQUES TECHNIQUES

<b>CONSTRUCTION</b>	: Body, caps : Spool : Seals	: <b>AISI 316L</b> : <b>Ground and polished Stainless Steel</b> : <b>Lip type, oil-proof rubber, Hardness 75/80 SH</b>
<b>COIL POSITION</b>	: <b>Horizontal or vertical</b>	
<b>CONTROL POSITION</b>	: <b>Horizontal or vertical</b>	
<b>FLUID</b>	: <b>Filtered and/or lubricated compressed air</b>	
<b>TEMPERATURE RANGES</b>	: <b>Standard</b> : <b>On request</b>	: <b>From -20°C to + 70°C</b> : <b>From -40°C to + 150°C</b>
<b>OPERATING PRESSURE</b>	: <b>From 2,0 to 10 Bar.</b>	

<b>COSTRUZIONE</b>	: Corpo e Testate : Spoletta : Guarnizioni	: AISI 316L : Acciaio inox rettificato e lucidato : Tipo a labbro con recupero dell'usura. Durezza 75/80 SH
<b>POSIZIONE DELLA BOBINA</b>	: Orizzontale o verticale	
<b>POSIZIONE DEL COMANDO</b>	: Orizzontale o verticale	
<b>FLUIDO</b>	: Aria compressa, con o senza lubrificazione	
<b>TEMPERATURE</b>	: Standard : A richiesta	: Da -20°C a + 70°C : Da -40°C a 150°C
<b>PRESSIONE</b>	: Da 2,0 a 10 Bar.	

<b>CONSTRUCTION</b>	: Corp et Têtes : Tiroir : Joints	: AISI 316L : Acier Inox Rectifié et poli : Type à lèvres. Dureté 75 / 80 SH
<b>POSITION DE LA BOBINE</b>	: Horizontale ou Verticale	
<b>POSITION DE LA COMMANDE</b>	: Horizontale ou Verticale	
<b>FLUIDE</b>	: Air Comprimée, avec ou sans lubrification	
<b>TEMPÉRATURE</b>	: Standard : Sur demande:	: De -20°C à + 70°C : De -40°C a +150°C
<b>PRESSION</b>	: De 2,0 à 10 Bar.	

### FEATURES - SPECIFICHE - DONNÉES TECHNIQUES

PARAMETERS	Ø 1/4"
<b>FLOW RATE</b> PORTATA Kv (m³/h) DEBIT	1.09
<b>FLOW RATE</b> PORTATA Q (Nm³/m) DEBIT	1,200
<b>SECTION</b> SEZIONE (mm²) SECTION	45

<b>GENERAL INFORMATION ELECTRO VALVES</b> INFORMAZIONI GENERALI ELETTRICO VALVOLE INFORMATION GÉNÉRALES	<b>Frequency</b> Frequenza <b>50 / 60 Hz</b> Fréquence	<b>Protection degree, with connector installed</b> Grado di protezione con connettore installato <b>IP 65</b> Degré de protection avec connecteur, monté
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**Insulation Class**  
Classe di isolamento **F**  
Classe d'isolation

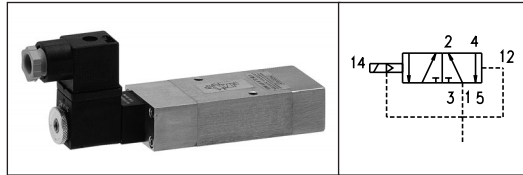
**Connectors have to be ordered separately**  
I connettori devono essere ordinati separatamente  
Les connecteurs doivent être commandés à part

<b>EXPLOSION PROOF TYPES</b>	: <b>See page.</b>
<b>TIPi ANTIDFLAGRANTI</b>	: <b>Vedere pag.</b>
<b>TYPES ANTIDÉFLAGRANTS</b>	: <b>Voir pag.</b>

# 45

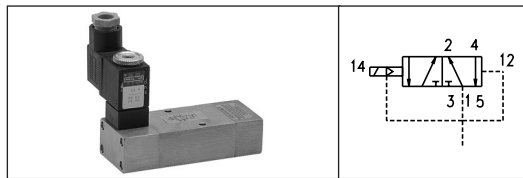
**SOLENOID AND PNEUMATIC VALVES - NAMUR SERIES**  
**ELETTROVALVOLE E VALVOLE PNEUMATICHE - SERIE NAMUR**  
**ÉLECTRODISTRIBUTEURS ET TRIB. PNEUMATIQUES - SÉRIE NAMUR**

**5 WAY - 2 POSITION    5 VIE - 2 POSIZIONI    5 VOIES - 2 POSITIONS**



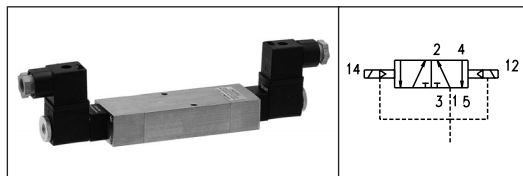
**SINGLE ELECTRIC CONTROL - COIL POSITION: LATERAL**  
 COMANDO ELETTRICO SINGOLO - POSIZIONE BOBINA: LATERALE  
 COMMANDE ÉLECTRIQUE SIMPLE - POSITION BOBINE: LATÉRALE

TYPE TIPO TYPE	NAKED NUDA NUÉ		VALVE CODE WITH PILOT CODICE VALVOLA CON IL PILOTA CODE VALVE AVEC PILOTE		VALVE CODE WITH PILOT & COIL CODICE VALVOLA CON IL PILOTA & BOBINA CODE VALVE AVEC PILOTE & BOBINE		V*
	BSP	NPT	BSP	NPT	BSP	NPT	
E5 L 1A 1/4"	LP/07514	LP/07524	LP/07514SS	LP/07524SS	LP/07514.V*	LP/07524.V*	24 AC - 24 DC - 48 AC 110 A - 220 A



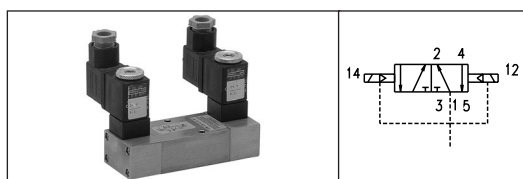
**SINGLE ELECTRIC CONTROL - COIL POSITION: VERTICAL**  
 COMANDO ELETTRICO SINGOLO - POSIZIONE BOBINA: VERTICALE  
 COMMANDE ÉLECTRIQUE SIMPLE - POSITION BOBINE: VERTICALE

TYPE TIPO TYPE	NAKED NUDA NUÉ		VALVE CODE WITH PILOT CODICE VALVOLA CON IL PILOTA CODE VALVE AVEC PILOTE		VALVE CODE WITH PILOT & COIL CODICE VALVOLA CON IL PILOTA & BOBINA CODE VALVE AVEC PILOTE & BOBINE		V*
	BSP	NPT	BSP	NPT	BSP	NPT	
E5 V 1A 1/4"	LP/07516	LP/07526	LP/07516SS	LP/07526SS	LP/07516.V*	LP/07526.V*	24 AC - 24 DC - 48 AC 110 A - 220 A



**DOUBLE ELECTRIC CONTROL - COIL POSITION: LATERAL**  
 COMANDO ELETTRICO DOPPIO - POSIZIONE BOBINA: LATERALE  
 COMMANDE ÉLECTRIQUE DOUBLE - POSITION BOBINE: LATÉRALE

TYPE TIPO TYPE	NAKED NUDA NUÉ		VALVE CODE WITH PILOT CODICE VALVOLA CON IL PILOTA CODE VALVE AVEC PILOTE		VALVE CODE WITH PILOT & COIL CODICE VALVOLA CON IL PILOTA & BOBINA CODE VALVE AVEC PILOTE & BOBINE		V*
	BSP	NPT	BSP	NPT	BSP	NPT	
E5 L 2A 1/4"	LP/07515	LP/07525	LP/07515SS	LP/07525SS	LP/07515.V*	LP/07525.V*	24 AC - 24 DC - 48 AC 110 A - 220 A



**DOUBLE ELECTRIC CONTROL - COIL POSITION: VERTICAL**  
 COMANDO ELETTRICO DOPPIO - POSIZIONE BOBINA: VERTICALE  
 COMMANDE ÉLECTRIQUE DOUBLE - POSITION BOBINE: VERTICALE

TYPE TIPO TYPE	NAKED NUDA NUÉ		VALVE CODE WITH PILOT CODICE VALVOLA CON IL PILOTA CODE VALVE AVEC PILOTE		VALVE CODE WITH PILOT & COIL CODICE VALVOLA CON IL PILOTA & BOBINA CODE VALVE AVEC PILOTE & BOBINE		V*
	BSP	NPT	BSP	NPT	BSP	NPT	
E5 V 2A 1/4"	LP/07517	LP/07527	LP/07517SS	LP/07527SS	LP/07517.V*	LP/07527.V*	24 AC - 24 DC - 48 AC 110 A - 220 A





### SINGLE PNEUMATIC CONTROL

COMANDO PNEUMATICO SINGOLO  
COMMANDE PNEUMATIQUE SIMPLE

TYPE TIPO TYPE	NAKED NUDA NUÉ		VALVE CODE WITH PILOT CODICE VALVOLA CON IL PILOTA CODE VALVE AVEC PILOTE		VALVE CODE WITH PILOT & COIL CODICE VALVOLA CON IL PILOTA & BOBINA CODE VALVE AVEC PILOTE & BOBINE		V*
	BSP	NPT	BSP	NPT	BSP	NPT	
V5 1P 1/4"	LP/07518	LP/07528					

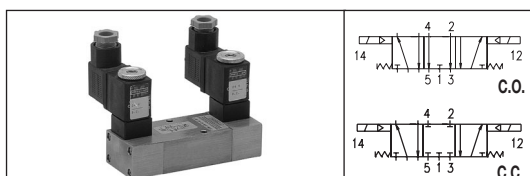


### DOUBLE PNEUMATIC CONTROL

COMANDO PNEUMATICO DOPPIO  
COMMANDE PNEUMATIQUE DOUBLE

TYPE TIPO TYPE	NAKED NUDA NUÉ		VALVE CODE WITH PILOT CODICE VALVOLA CON IL PILOTA CODE VALVE AVEC PILOTE		VALVE CODE WITH PILOT & COIL CODICE VALVOLA CON IL PILOTA & BOBINA CODE VALVE AVEC PILOTE & BOBINE		V*
	BSP	NPT	BSP	NPT	BSP	NPT	
V5 2P 1/4"	LP/07519	LP/07529					

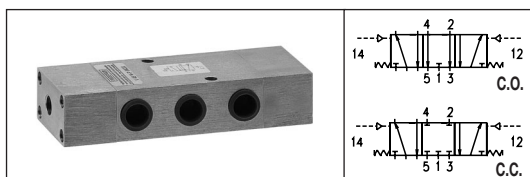
## 5 WAY - 3 POSITION    5 VIE - 3 POSIZIONI    5 VOIES - 3 POSITIONS



### DOUBLE ELECTRIC CONTROL - COIL POSITION: VERTICAL

COMANDO ELETTRICO DOPPIO - POSIZIONE BOBINA: VERTICALE  
COMMANDE ÉLECTRIQUE DOUBLE - POSITION BOBINE: VERTICALE

TYPE TIPO TYPE	NAKED NUDA NUÉ		VALVE CODE WITH PILOT CODICE VALVOLA CON IL PILOTA CODE VALVE AVEC PILOTE		VALVE CODE WITH PILOT & COIL CODICE VALVOLA CON IL PILOTA & BOBINA CODE VALVE AVEC PILOTE & BOBINE		V*
	BSP	NPT	BSP	NPT	BSP	NPT	
E5 V 2A 1/4" 3P CC	LP/04024	LP/04025	LP/04024SS	LP/04025SS	LP/04024.V*	LP/04025.V*	24 AC - 24 DC - 48 AC
E5 V 2A 1/4" 3P CO	LP/04026	LP/04027	LP/04026SS	LP/04027SS	LP/04026.V*	LP/04027.V*	110 A - 220 A

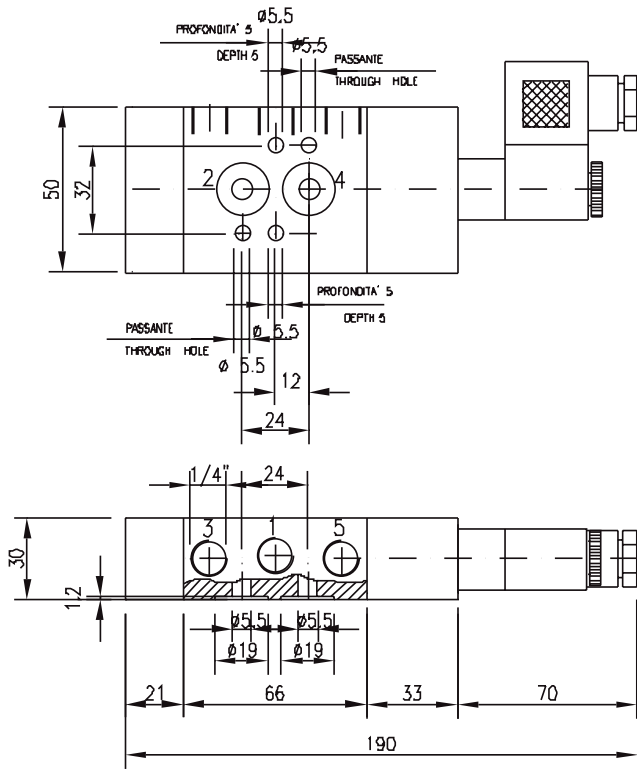


### DOUBLE PNEUMATIC CONTROL

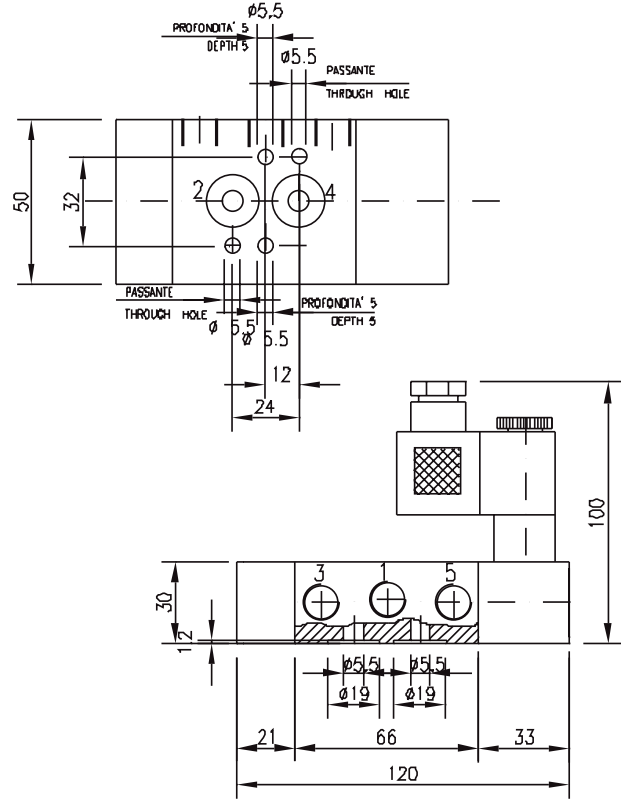
COMANDO PNEUMATICO DOPPIO  
COMMANDE PNEUMATIQUE DOUBLE

TYPE TIPO TYPE	NAKED NUDA NUÉ		VALVE CODE WITH PILOT CODICE VALVOLA CON IL PILOTA CODE VALVE AVEC PILOTE		VALVE CODE WITH PILOT & COIL CODICE VALVOLA CON IL PILOTA & BOBINA CODE VALVE AVEC PILOTE & BOBINE		V*
	BSP	NPT	BSP	NPT	BSP	NPT	
V5 2P 1/4" 3P CC	LP/04028	LP/04029					
V5 2P 1/4" 3P CO	LP/04030	LP/04031					

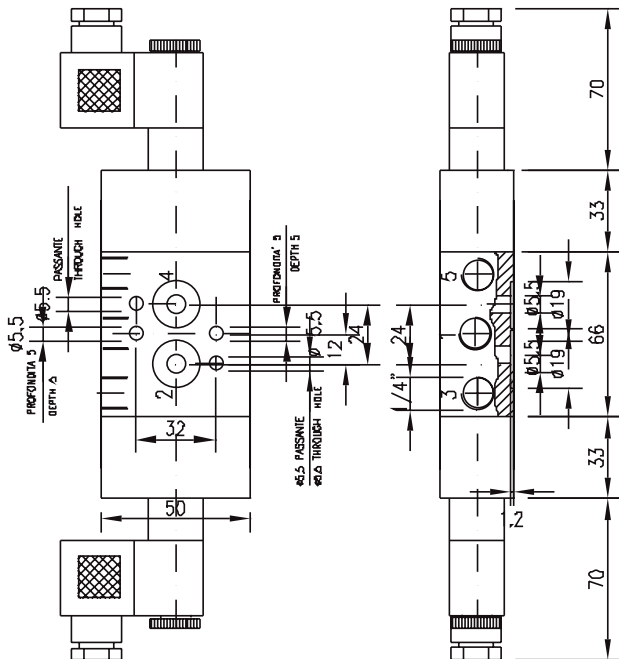
**NAMUR 5/2 LATERAL COIL**  
 NAMUR 5/2 BOBINA LATERALE  
 NAMUR 5/2 BOBINE LATERAL



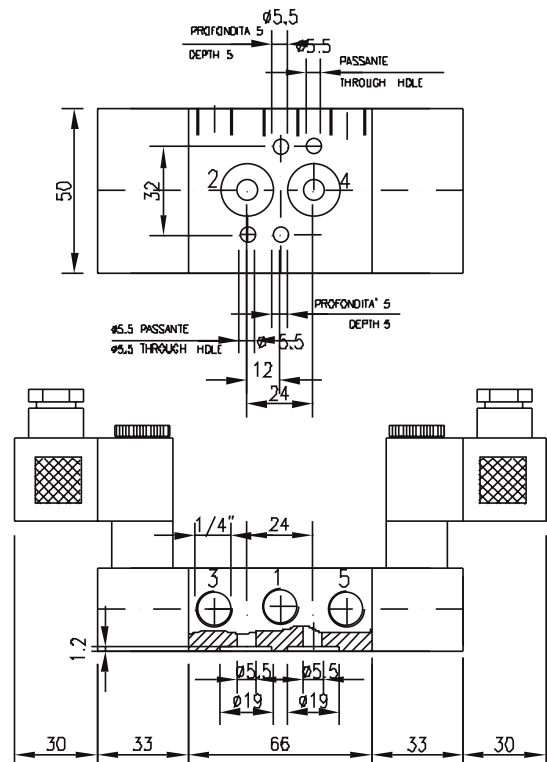
**NAMUR 5/2 VERTICAL COIL**  
 NAMUR 5/2 BOBINA VERTICALE  
 NAMUR 5/2 BOBINE VERTICAL



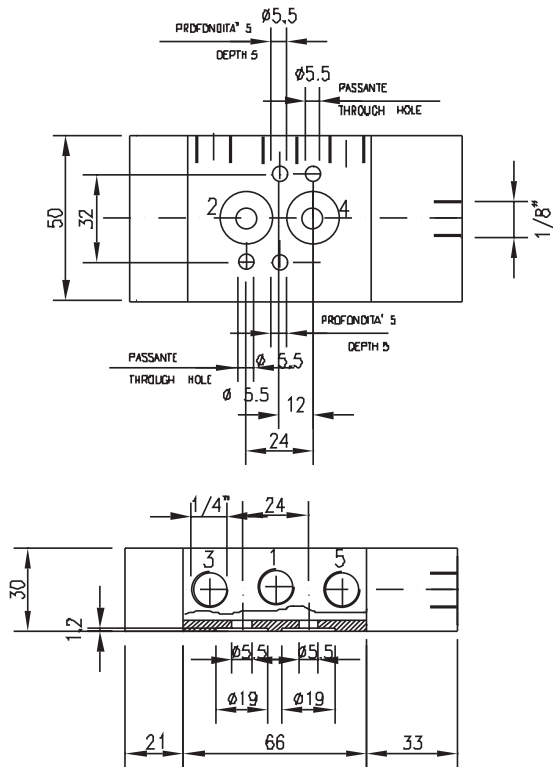
**NAMUR 5/2 LATERAL COIL DOUBLE**  
 NAMUR 5/2 BOBINA LATERALE DOPPIA  
 NAMUR 5/2 BOBINE LATERAL DOUBLE



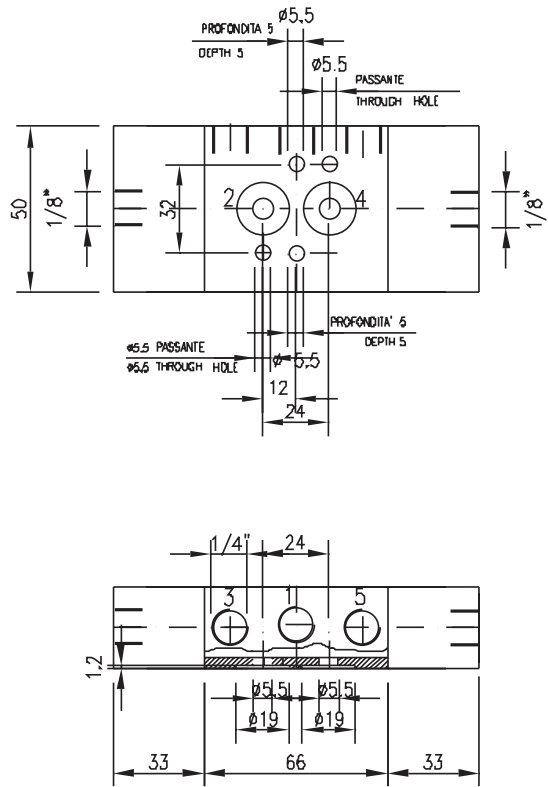
**NAMUR 5/2 VERTICAL COIL DOUBLE**  
 NAMUR 5/2 BOBINA VERTICALE DOPPIA  
 NAMUR 5/2 BOBINE VERTICAL DOUBLE



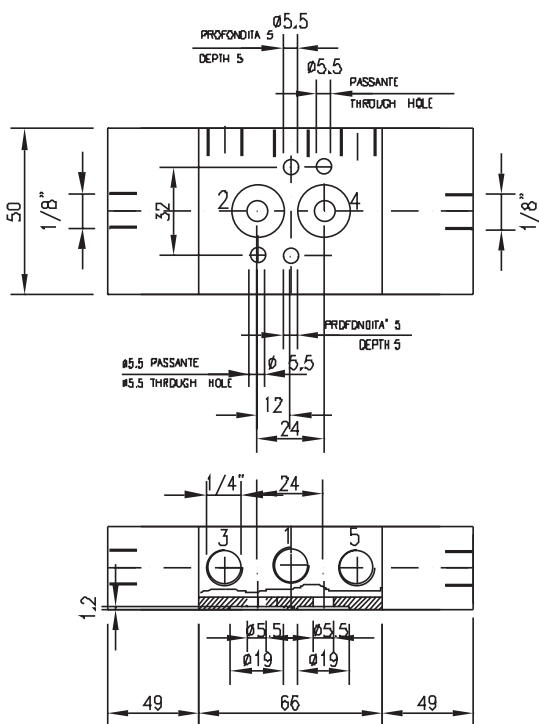
**NAMUR 5/2 SINGLE PNEUMATIC CONTROL**  
 NAMUR 5/2 COMANDO PNEUMATICO SINGOLO  
 NAMUR 5/2 COMMANDE PNEUMATIQUE SINGLE



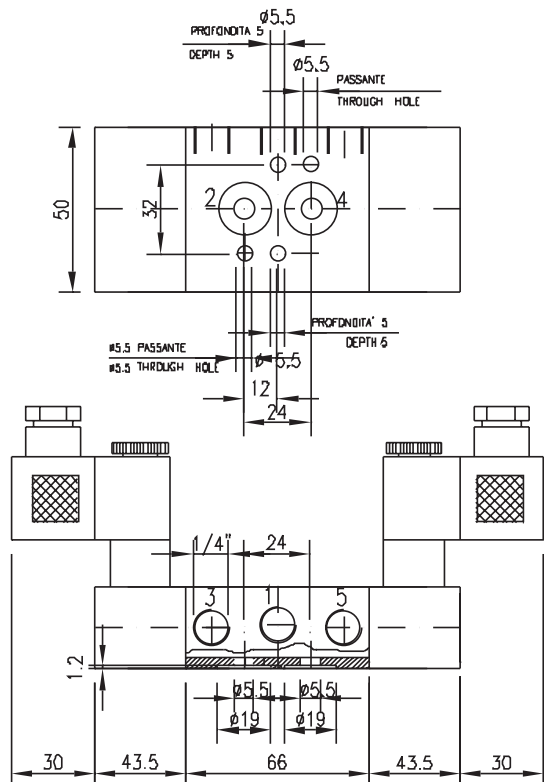
**NAMUR 5/2 DOUBLE PNEUMATIC CONTROL**  
 NAMUR 5/2 COMANDO PNEUMATICO DOPPIO  
 NAMUR 5/2 COMMANDE PNEUMATIQUE DOUBLE



**NAMUR 5/3 DOUBLE PNEUMATIC CONTROL**  
 NAMUR 5/3 DOPPIO COMANDO PEUMATICO  
 NAMUR 5/3 DOUBLE COMMANDE PNEUMATIQUE



**NAMUR 5/3 VERTICAL COIL DOUBLE**  
 NAMUR 5/3 BOBINA VERTICALE DOPPIA  
 NAMUR 5/3 BOBINE VERTICALE DOUBLE



# PRESSMAIR

## AISI 316 L



MANUAL RESET

### MANUAL RESET VALVES VALVOLE CON RESET MANUALE DISTRIBUTEURS AVEC RÉSET MANUEL

STANDARD OPERATING CONTIONS:  
CONDIZIONI DI IMPIEGO STANDARD:  
CONDITION D'EMPLOI STANDARD:

P. MAX = 10  
T° = 20/ + 70°C  
Fluid: Filtered air with or without lubrication  
Fluido: Aria filtrata con o senza lubrificazione  
Fluide: Air filtrée avec ou sans lubrification

# PRESSMAIR

## TECHNICAL FEATURES CARATTERISTICHE TECNICHE CARACTERISTIQUES TECHNIQUES

### Technical features:

<b>Port Dimensions :</b>	1/4" et 1/2" BSP or NPT
<b>Body material :</b>	AISI 316 L
<b>Spool Material :</b>	AISI 316 L lapped
<b>Seals :</b>	NBR (standard), VITON, (on request)
<b>Medium :</b>	Compressed Air, filtered, with or without lubrication On request, special "all fluid" execution.
<b>Working pressure :</b>	min. 2.5 Bar ; max. 10 bar
<b>Working Temperature :</b>	from -40 °C to + 220 °C, using proper seals kits.

### Appliance and using system.

These distributors are mainly used as **safety devices** ; to help the understanding we assume as **X** the valve configuration when the Reset is **ON**, and **Y** the valve configuration when the Reset is **OFF**.

A pneumatic signal should be applied to the **A** port; this signal can change the valve configuration from **Y** to **X** and can support it ,but only if there is a human operation on the knob Nr. 16 to perform the spool movement: after the spool movement, if the pneumatic signal is still **ON**, the valve configuration stays **X**, as it became when the knob was operated.

On the other hand, if the pneumatic signal in **A** port is switched **OFF**, the spring Nr. 14 will change the valve configuration from type **X** to type **Y**; but if the signal on port **A** comes **ON**, the valve stays in its **Y** configuration, gained with the signal **OFF**, compelling an operation performed directly by a responsible person to reset the valve in its **X** working condition.

This function makes this valve totally suitable for all applications where there is a risk condition, controlled by a pneumatic signal, to be checked continuously; if the signal turns **OFF** it is necessary to cut off the fluid on port Nr. 1; moreover if the pneumatic signal on port **A** comes back **ON**, port 1 should not re-open automatically, but it is necessary to "reset" the valve on its **X** condition by a manual operation performed by someone who has the responsibility to check every part of installation is working properly.

### Caratteristiche Tecniche :

<u>Dimensioni dei passaggi :</u>	1/4" et 1/2" BSP oppure NPT
<u>Materiale del corpo :</u>	AISI 316 L
<u>Materiale della spola :</u>	AISI 316 L rettificato
<u>Guarnizioni :</u>	NBR (standard), VITON, (su richiesta)
<u>Fluido :</u>	Aria Compressa, filtrata con o senza lubrificazione Su richiesta esecuzione adatta a fluidi diversi.
<u>Pressione di lavoro :</u>	min. 2.5 Bar ; max. 10 bar
<u>Temperatura di lavoro :</u>	da - 40 °C a + 220 °C compatibilmente al tipo delle guarnizioni.

### Applicazioni e metodo di utilizzo:

Queste valvole sono impiegate principalmente come **elementi di sicurezza** ; per facilitare la comprensione della funzione svolta, assumiamo che la valvola sia in configurazione **X** quando è riarmata, e in configurazione **Y** quando non è riarmata.

La porta **A** è prevista per ricevere un segnale pneumatico; tale segnale fa cambiare la configurazione della valvola dalla posizione **Y** alla posizione **X** e può mantenerla, **ma ciò avviene solamente** se c'è un intervento umano sul pomello 16: dopo il movimento della spola, se il segnale in **A** resta attivo, la configurazione resta **X**, cioè quella che è diventata quando si è tirato il pomello.

Al contrario se, con la valvola armata in configurazione **X**, il segnale in **A** cade, la molla 14 fa cambiare la configurazione della valvola nella posizione **Y** ; se succede in seguito che il segnale in **A** si ripristina, la valvola resta nella configurazione **Y** che ha preso alla caduta del segnale in **A**, obbligando l'intervento di un responsabile per ripristinare la configurazione di lavoro **X**.

Questo tipo di funzionamento rende questo distributore adatto per tutte quelle applicazioni nelle quali è necessario controllare la continuità della presenza di un segnale pneumatico, rappresentativo di un fattore di criticità, cioè di un segnale la cui caduta deve comportare la chiusura della alimentazione del fluido della porta 1: inoltre se il segnale alla porta **A** si ripristina, la porta 1 non deve riaprirsi automaticamente, ma deve essere necessario che un responsabile si rechi sul posto per "riarmare" la valvola, riportandola alla posizione ora stabile di lavoro **X**.

### Caractéristiques techniques :

<u>Dimensions des passages :</u>	1/4" et 1/2" BSP ou NPT
<u>Materiel du corp :</u>	AISI 316 L
<u>Materiel du tiroir :</u>	AISI 316 L rectifiée
<u>Joints :</u>	NBR (standard), VITON, (sur demande)
<u>Fluide :</u>	Air comprimée Exécutions tous fluides sur demande.
<u>Pression de travail :</u>	min. 2.5 Bar ; max. 10 bar
<u>Température de travail :</u>	de -40 °C à + 220 °C suivant la nature des joints.

### Applications et système d'utilisation.

Ce produit est utilisée principalement comme élément de sécurité ; pour faciliter la compréhension, nous assumons que le distributeur a la configuration appelée **X** quant il est réarmé, et la configuration **Y** quand il n'est pas réarmé.

La porte **A** est prévue pour recevoir un signal pneumatique ; ce signal fait changer la configuration du distributeur de la position **Y** à la position **X** et peut la maintenir, **mais seulement** s'il est aidé par une intervention humaine sur le pommeau 16 : après le mouvement du tiroir, si le signal reste actif, la configuration reste **X**, telle qui est devenue lors qu'on a tiré le pommeau.

Mais si le signal en **A** va tomber, le ressort nr. 14 va changer la configuration du distributeur dans la position **Y** ; s'il arrive que ensuite le signal va revenir, le distributeur va rester dans la configuration **Y** qu'il a pris lorsque le signal **A** est tombé, et oblige une intervention humaine pour réinitialiser la configuration de travail **X**.

Cette fonction fait que ce distributeur est approprié pour toutes les applications dans lesquelles il est nécessaire contrôler la présence d'un signal pneumatique critique, c'est à dire un signal qui, s'il va à tomber, il est nécessaire couper l'alimentation du fluide de la porte 1, et si le signal va retourner, la porte 1 ne doit pas s'ouvrir, mais il est nécessaire que un contrôleur vient sur place pour « réarmer » le distributeur, qui maintenant restera dans la position de travail **X**.



### 3 WAY - 2 POSITION PNEUMATIC CONTROL

3 VIE - 2 POSIZIONI COMANDO PNEUMATICO  
3 VOIES - 2 POSITION COMMANDE PNEUMATIQUE

## 1/2"

TYPE - TIPO - TYPE	CODE - CODICE - CODE			
<b>V 23 N P</b>	BSP		NPT	
	STD	UNIV	STD	UNIV
	<b>LP/02674</b>	<b>LP/02674.U</b>	<b>LP/02405</b>	<b>LP/02405.U</b>



### 5 WAY - 2 POSITION PNEUMATIC CONTROL

5 VIE - 2 POSIZIONI COMANDO PNEUMATICO  
5 VOIES - 2 POSITION COMMANDE PNEUMATIQUE

## 1/2"

TYPE - TIPO - TYPE	CODE - CODICE - CODE			
<b>V 25 N P</b>	BSP		NPT	
	STD	UNIV	STD	UNIV
	<b>LP/03314.BSP</b>	<b>LP/03314.BSPU</b>	<b>LP/03314</b>	<b>LP/03314.U</b>



### 3 WAY - 2 POSITION PNEUMATIC CONTROL

3 VIE - 2 POSIZIONI COMANDO PNEUMATICO  
3 VOIES - 2 POSITION COMMANDE PNEUMATIQUE

## 1/4"

TYPE - TIPO - TYPE	CODE - CODICE - CODE			
<b>V 43 N P</b>	BSP		NPT	
	STD	UNIV	STD	UNIV
	<b>LP/03313.BSP</b>	<b>LP/03313.BSPU</b>	<b>LP/03313</b>	<b>LP/03072</b>



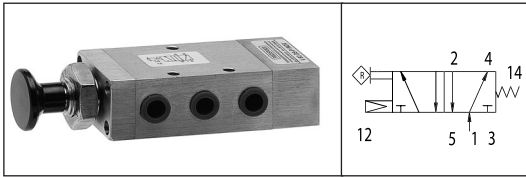
### 3 WAY - 2 POSITION PNEUMATIC CONTROL

3 VIE - 2 POSIZIONI COMANDO PNEUMATICO  
3 VOIES - 2 POSITION COMMANDE PNEUMATIQUE

## 1/4"

## WITH MECHANICAL LATCH

TYPE - TIPO - TYPE	CODE - CODICE - CODE			
<b>V 43 N P</b> MECHANICAL LATCH	BSP		NPT	
	STD	UNIV	STD	UNIV
	<b>LP/03105.BSP</b>	<b>LP/03105.BSPU</b>	<b>LP/03105</b>	<b>LP/03105.U</b>



**5 WAY - 2 POSITION PNEUMATIC CONTROL**  
 5 VIE - 2 POSIZIONI COMANDO PNEUMATICO  
 5 VOIES - 2 POSITION COMMANDE PNEUMATIQUE

**1/4"**

TYPE - TIPO - TYPE	CODE - CODICE - CODE			
	BSP		NPT	
V 45 N P	STD	UNIV	STD	UNIV
	LP/02043.BSP	LP/02043.BSPU	LP/02043	LP/02043.U



**5 WAY - 2 POSITION PNEUMATIC CONTROL**  
 5 VIE - 2 POSIZIONI COMANDO PNEUMATICO  
 5 VOIES - 2 POSITION COMMANDE PNEUMATIQUE

**1/4"**

**WITH MECHANICAL LATCH**

TYPE - TIPO - TYPE	CODE - CODICE - CODE			
	BSP		NPT	
V 45 N P MECHANICAL LATCH	STD	UNIV	STD	UNIV
	LP/03315.BSP	LP/03315.BSPU	LP/03316.NPT	LP/03316.NPTU



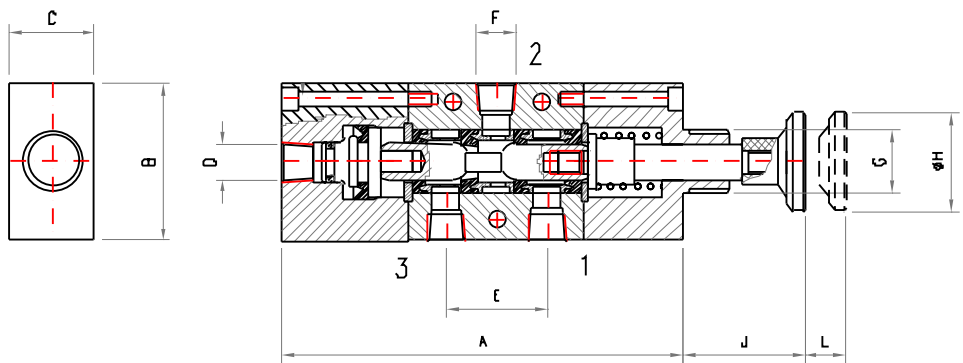
**5 WAY - 2 POSITION ELECTRICAL CONTROL**  
 5 VIE - 2 POSIZIONI COMANDO ELETTRICO  
 5 VOIES - 2 POSITION COMMANDE ELECTRIQUE

**1/4"**

TYPE - TIPO - TYPE	CODE - CODICE - CODE			
	BSP		NPT	
V 45 EV P	STD	UNIV	STD	UNIV
		LP/03338.BSP		LP/03338

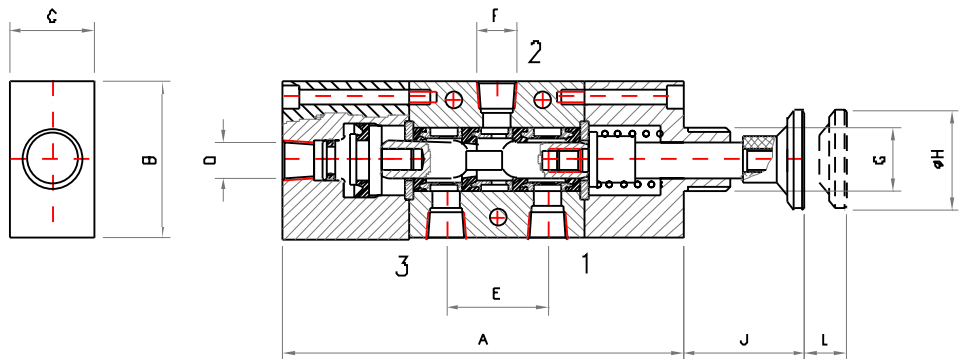
**MANUAL RESET 3/2 STANDARD SEALS**

	1/8"	1/4"	1/2"
A	93	102	128
B	40	40	60
C	25	25	40
D	1/8"	1/8"	1/8"
E	20	26	38
F	1/8"	1/4"	1/2"
G	16x1,5	16x1,5	25x1,5
H	25	25	25
J	42	42	45
L	6	6	10



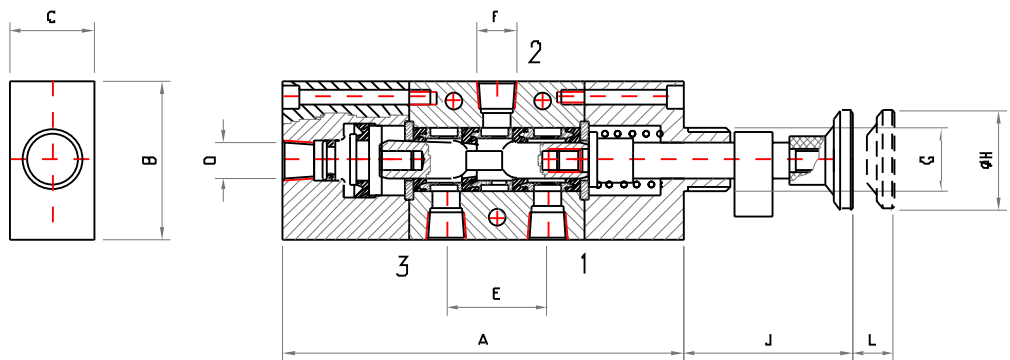
**MANUAL RESET 3/2 UNIVERSAL SEALS**

	1/8"	1/4"	1/2"
A	93	102	128
B	40	40	60
C	25	25	40
D	1/8"	1/8"	1/8"
E	20	26	38
F	1/8"	1/4"	1/2"
G	16x1,5	16x1,5	25x1,5
H	25	25	25
J	42	42	45
L	6	6	10



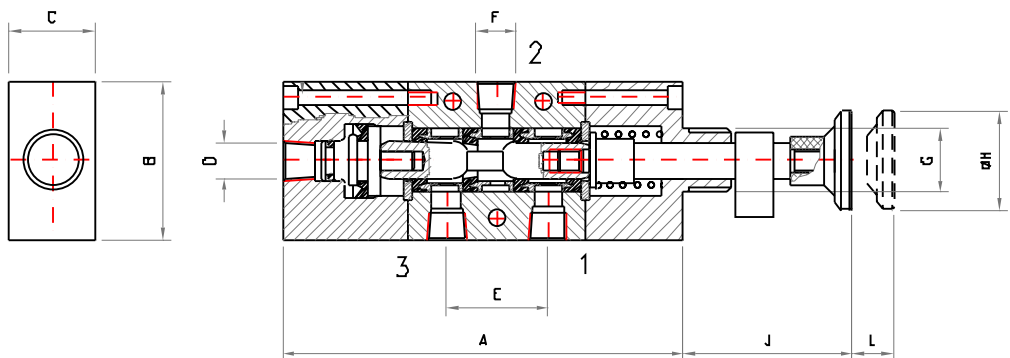
**MANUAL RESET 3/2 UNIVERSAL SEALS WITH MECHANICAL LATCH**

	1/8"	1/4"	1/2"
A	93	102	128
B	40	40	60
C	25	25	40
D	1/8"	1/8"	1/8"
E	20	26	38
F	1/8"	1/4"	1/2"
G	16x1,5	16x1,5	25x1,5
H	25	25	25
J	42	42	45
L	6	6	10



**MANUAL RESET 3/2 STANDARD SEALS WITH MECHANICAL LATCH**

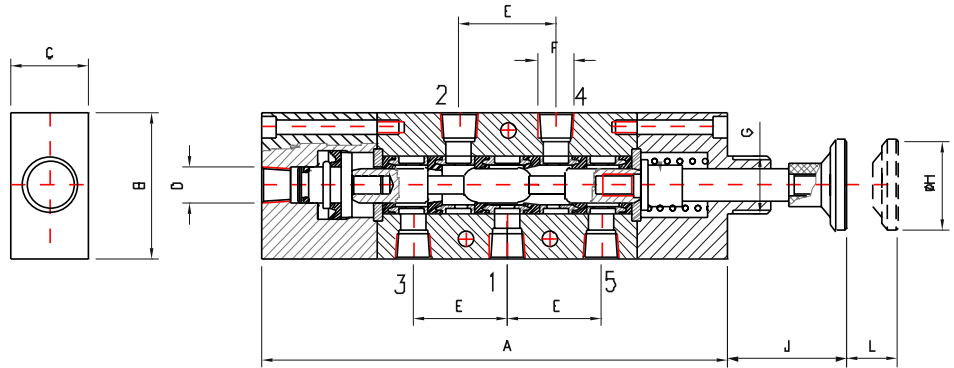
	1/8"	1/4"	1/2"
A	93	102	128
B	40	40	60
C	25	25	40
D	1/8"	1/8"	1/8"
E	20	26	38
F	1/8"	1/4"	1/2"
G	16x1,5	16x1,5	25x1,5
H	25	25	25
J	42	42	45
L	6	6	10





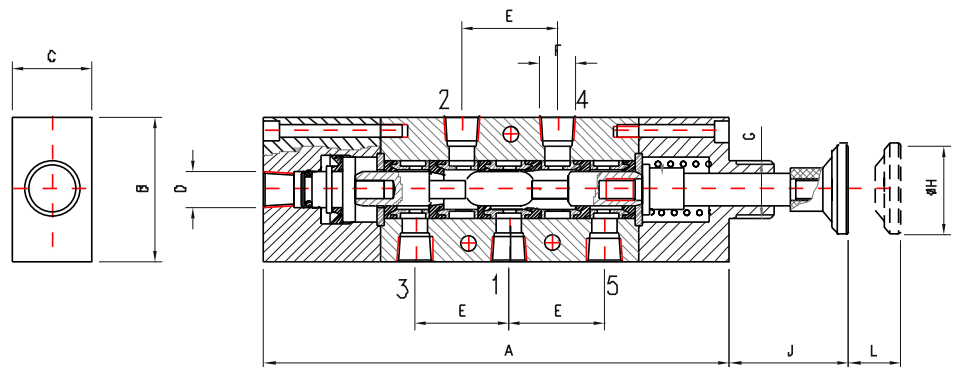
### MANUAL RESET 5/2 STANDARD SEALS

	1/8"	1/4"	1/2"
A	123	128	165
B	40	40	60
C	25	25	40
D	1/8"	1/8"	1/8"
E	20	26	38
F	1/8"	1/4"	1/2"
G	16x1,5	16x1,5	25x1,5
H	25	25	25
J	42	42	45
L	6	6	10



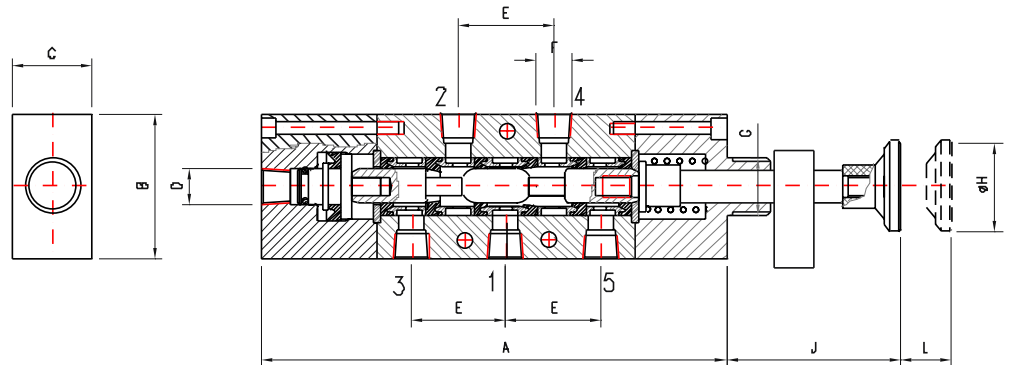
### MANUAL RESET 5/2 UNIVERSAL SEALS

	1/8"	1/4"	1/2"
A	123	128	165
B	40	40	60
C	25	25	40
D	1/8"	1/8"	1/8"
E	20	26	38
F	1/8"	1/4"	1/2"
G	16x1,5	16x1,5	25x1,5
H	25	25	25
J	42	42	45
L	6	6	10



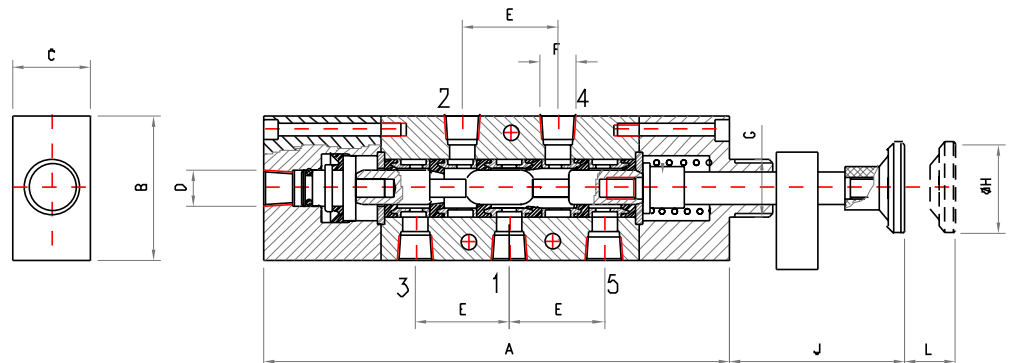
### MANUAL RESET 5/2 STANDARD SEALS WITH MECHANICAL LATCH

	1/8"	1/4"	1/2"
A	123	128	165
B	40	40	60
C	25	25	40
D	1/8"	1/8"	1/8"
E	20	26	38
F	1/8"	1/4"	1/2"
G	16x1,5	16x1,5	25x1,5
H	25	25	25
J	42	42	45
L	6	6	10



### MANUAL RESET 5/2 UNIVERSAL SEALS WITH MECHANICAL LATCH

	1/8"	1/4"	1/2"
A	123	128	165
B	40	40	60
C	25	25	40
D	1/8"	1/8"	1/8"
E	20	26	38
F	1/8"	1/4"	1/2"
G	16x1,5	16x1,5	25x1,5
H	25	25	25
J	42	42	45
L	6	6	10



# PRESSMAIR

## AISI 316 L



### PNEUMATIC ACCESSORIES ACCESSORI PNEUMATICI ACCESSOIRES PNEUMATIQUES

STANDARD OPERATING CONTIONS:  
CONDIZIONI DI IMPIEGO STANDARD:  
CONDITION D'EMPLOI STANDARD:

P. MAX = 50  
T° = 20/ + 70°C  
Fluid: Filtered air with or without lubrication  
Fluido: Aria filtrata con o senza lubrificazione  
Fluide: Air filtrée avec ou sans lubrification

# PRESSMAIR

## VRF/X

### FLOW CONTROLLERS

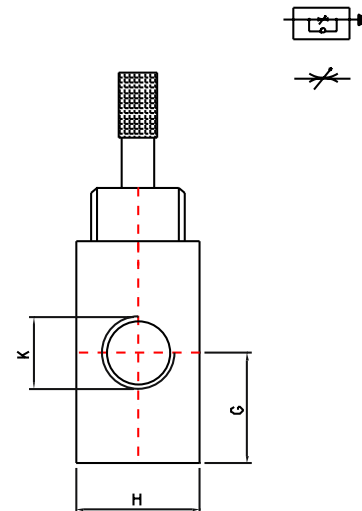
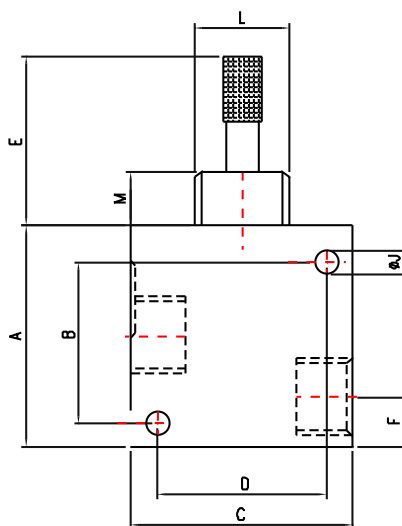
REGOLATORI DI FLUSSO

REGULATEURS DE DEBIT



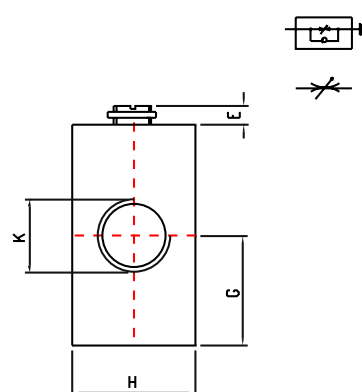
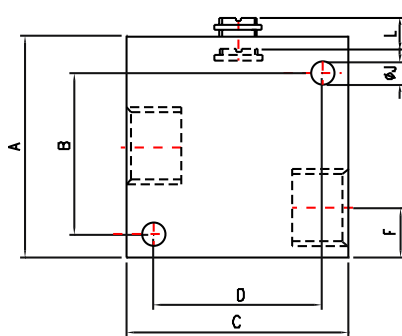
### PANEL TYPE

	VRF/8X	VRF/4X	VRF/2X	VRF/1X
A	45	45	60	95
B	28	28	40	55
C	40	40	65	95
D	33	33	47	65
E	24	24	32	32
F	9,6	9,6	15,5	21
G	24	24	31	48
H	25	25	35	53
J	Ø4,5	Ø4,5	Ø4,5	Ø4,5
K	1/8"	1/4"	1/2"	1"
L	M25x1,5	M25x1,5	M25x1,5	M25x1,5
M	12	12	12	12



### LINE TYPE

	VRF/8X	VRF/4X	VRF/2X	VRF/1X
A	45	45	60	95
B	28	28	40	55
C	40	40	65	95
D	33	33	47	65
E	3	3	3	3
F	9,6	9,6	15,5	21
G	24	24	31	48
H	25	25	35	53
J	Ø4,5	Ø4,5	Ø4,5	Ø8,5
K	1/8"	1/4"	1/2"	1"
L	5,5	5,5	8,5	14



Dimension Dimensione Dimension	Type Tipo Type	Line type - Tipo di linea - Type pour ligne				Panel type - Tipo da pannello - Type pour tableau			
		Unidirectional		Bidirectional		Unidirectional		Bidirectional	
		BSP	NPT	BSP	NPT	BSP	NPT	BSP	NPT
1/8"	VRF/8X	LP/01743	LP/01743.NPT	LP/01747	LP/01747.NPT	LP/04048	LP/04048.NPT	LP/04047	LP/04047.NPT
1/4"	VRF/4X	LP/01744	LP/01744.NPT	LP/01748	LP/01747.NPT	LP/04046	LP/04046.NPT	LP/04045	LP/04045.NPT
1/2"	VRF/2X	LP/01745	LP/01745.NPT	LP/01750	LP/01750.NPT	LP/04044	LP/04044.NPT	LP/04043	LP/04043.NPT
1"	VRF/1X	LP/04020	LP/04020.NPT	LP/04021	LP/04021.NPT	LP/04077	LP/04077.NPT	LP/04042	LP/04042.NPT

N.B.: The company reserves the right to make changes - N.B.: Con riserva di modifiche - N.B.: Sous réserve de modification

**VSR/X**

**FREE-FLOW VALVE - VALVOLA DI SCARICO RAPIDO - VALVE DE DÉCHARGEMENT RAPIDE**

A (NPT)	B	C	D	E	F	G	Ch	ORIFICE DIAM.(mm)	BSP	NPT
								DIAM. PASS.(mm) ØPASSAGE(mm)		
1/8"	25	22	13	35	11	3	20	6	LP/01820.BSP	LP/01820
1/4"								8	LP/01753	LP/01819
1/2"	30	29	16	45	15	5	26	14	LP/01755	LP/01338.NPT
1"	60	57	38	95	32	12	54	26	LP/04022	LP/04022.NPT

**P = INLET ; R = WASTE ; A= DUTY**  
**P = ALIMENTAZIONE - R = SCARICO ; A = UTILIZZO**  
**P = ALIMENTATION - R = DÉCHARGE ; A = UTILISATION.**

**VU/X**

**UNIDIRECTIONAL VALVE - VALVOLA UNIDIREZIONALE - VALVE UNIDIRECTIONNELLE**

A (NPT)	B	Ch	ORIFICE DIAM.(mm) DIAM. PASS.(mm) ØPASSAGE(mm)	BSP	NPT
1/8"	50	19	6	LP/01919.BSP	LP/01919
1/4"	50	19	7	LP/01918.BSP	LP/01918
1/2"	63	25	11	LP/01916.BSP	LP/01916
1"	93	40	17	LP/04023.BSP	LP/04023

**VSC/X**

**SHUTTLE VALVE - VALVOLA SELETRICE - VALVE SÉLECTRICE**

A (NPT)	ORIFICE DIAM.(mm) DIAM. PASS.(mm) ØPASSAGE(mm)	INDICATION SIGLA INDICATIF	BSP	NPT
1/8"	7	VSC/8 X	LP/01958.BSP	LP/01958.NPT
1/4"	12	VSC/4 X	LP/01959.BSP	LP/01959.NPT



# PRESSMAIR

## AISI 316 L



### EXPLOSION PROOF SYSTEMS SISTEMI ANTI DEFLAGRANTI SYSTÈMES ANTI-DEFLAGRANTS

STANDARD OPERATING CONTIONS:  
CONDIZIONI DI IMPIEGO STANDARD:  
CONDITION D'EMPLOI STANDARD:

P. MAX = 10  
T° = 20/ + 70°C  
Fluid: Filtered air with or without lubrication  
Fluido: Aria filtrata con o senza lubrificazione  
Fluide: Air filtrée avec ou sans lubrification

# PRESSMAIR

# Explosion proof systems

## General Information

An electrical apparatus for use in an explosive atmosphere must be provided with a marking conforming the EN 50014 Standards EEx m II T4; the symbol's meaning is:

### EEx

#### STANDARD IDENTIFICATION

This symbol means that the electrical apparatus complies with one or several types of protection conforming specifically to the European Standard EN 50015 to EN 50028

### m

#### TYPES OF PROTECTION

This symbol determines type of apparatus' protection; different protection types are as follows:

d :	Flameproof enclosure	( EN 50018)
e :	Increased safety	( EN 50019)
i :	Intrinsic safety "ia" "ib"	( EN 50020)
m :	Encapsulation	( EN 50028)
o :	Oil immersion	( EN 50015)
p :	Pressurization	( EN 50016)
q :	Powder filling	( EN 50017)

### II

#### GROUPS OF EQUIPMENT

This symbol determines apparatus' groups, as follows:

- I : Electrical apparatus intended for use in mines susceptible to Firedamp.
- II : Electrical apparatus intended for use in locations with atmospheres other than in mines

#### NOTE:

For the types of protection "d" and "i", group II is subdivided into IIA, IIB, IIC

For example the "d" and "i" types of protection are respectively subdivided according to the Maximum Experimental Safe Gap (MESG) and Minimum Igniting Current (MIC)

-The type of protection "d" within class IIB, may be associated with a symbol standing for a specific gas mixture of group IIC , e.g. H2(Hydrogen).In this case, the certificate of conformity would be :Eex d IIB +H2

### T4

#### TEMPERATURES CLASSES

This symbol determines apparatus' groups temperature, as follows:

Temperature classes are based on the highest surface temperature reached on the whole part or surface of electrical apparatus operating under the most unfavorable conditions and likely to cause ignition of the explosive atmosphere. See the following indications.

## ELECTRICAL APPARATUS FOR POTENTIALLY EXPLOSIVE ATMOSPHERES

### TYPES OF PROTECTION

This is the comprehensive range of protecting measures applied to an electrical apparatus to prevent possible ignition of the explosive atmosphere.

Protection symbol	Zones			Description
	0	1	2	
"d"	no	yes	yes	Refers to an electrical apparatus whose explosive parts are enclosed in an explosion proof casting. This casting will resist the pressure generated by the internal explosion of an explosive mixture and will prevent the explosion from being penetrating to the ambient atmosphere
"e"	no	yes	yes	Refers to an electrical apparatus with a high safety coefficient. Such an apparatus is free from excessively high temperatures and, like under service conditions, can not develop inside and outside electric arc and sparks.
"i"	"ia"	yes	yes	Refers to a circuit in which neither sparks nor temperatures can ignite an explosive atmosphere, if generated under the service conditions specified by the standard regulations (normal and faulty operating conditions)
	"ib"	no	yes	
"m"	no	yes	yes	Refers to a special casting in which the parts of an electrical apparatus which could ignite an explosive atmosphere by either sparking or heating, are encapsulated in a compound in a way that this explosive atmosphere cannot be ignited.
"o"				Refers to electrical apparatus immersed in oil
"p"				Pressurization is maintained against atmosphere by means of an inert gas
"q"				Refers to a casting containing powder filling

## ELECTRICAL APPARATUS FOR POTENTIALLY EXPLOSIVE ATMOSPHERES

### GAS GROUPS AND TEMPERATURE CLASSES

Group I: mines susceptible to firedamp

Group II: location other than mines susceptible to firedamp (surface industries)

Groups	Gas	Ignition temperature/ °C	Temperature class Temp Eratu Re Cl ass						
			T1	T2	T3	T4	T5	T6	
I	Methane (Grisou)								
A	Acetone	540	yes						
	Acetic Acid	485	yes						
	Ammonia	630	yes						
	Ethane	515	yes						
	Methylene Chloride	556	yes						
	Methane (CH4)	595	yes						
	Carbon Monoxide	605	yes						
II (2)	Propane	470	yes						
	n-butane	365		yes					
	n-butyl	370		yes					
	Hydrogen sulfide	270			yes				
	n-hexane	240			yes				
	acetaldehyde	140				yes			
	Ethyl Ether	170				yes			
B	Ethyl Nitrile	90							yes
	Ethylene	425		yes					
	Ethyl oxide	429/440		yes					
	C	Acetylene (C2H2)	305		yes				
Carbon Bisulphide (CS2)		102					yes		
Hydrogen (H2)		560	yes						

(1) : Temperature of a hot surface able to ignite a gas mixture

(2) : IIB certified products may be used as equipment of group IIA. Similarly, IIC certified products may be used as equipment of group IIA and IIB



## TEMPERATURE CLASSES

Group I : temperatures  $\leq 150\text{ }^{\circ}\text{C}$  or  $\leq 450\text{ }^{\circ}\text{C}$  according to coal dust accumulation on equipment

Group II:

Temperature Class	Max surface Temperature (3)	Ignition Temperature (4)
T1	450	>450
T2	300	>300
T3	200	>200
T4	135	>135
T5	100	>100
T6	85	> 85

(3): The ambient temperature must not exceed  $+40\text{ }^{\circ}\text{C}$

(4): The ignition temperature of the gas mixture must be higher than the maximum surface temperature. In practice a 10 to 20% safety margin is observed between the ignition temperature and the ambient temperature

## Technical specifications

On customer request, all electrovalves included in this catalogue, can be equipped with explosion proof coils, certified by CEN-ELEC, ATEX, FM, CSA, SAA, as follows:

### EEx d

- Tropicalized coil, black nylon encapsulated, magnetic circuit included, insulation F class, coil copper wire H class
- Fluid totally separated from the coil
- Airtight box IP 65 in aluminum, epoxy painted, or on request in Stainless Steel epoxy painted. Electrical terminal board included.
- Temperature class T5 or T6 on request
- 360° twisting coil
- Any assembling orientation allowed
- Manual override on request
- Protection class EEx d IIB; EEx d IIC
- Voltage: 12, 24, 48, 110, 220, V AC/DC- 50-60 Hz
- Maximum power : Vac 11 VA; Vdc 11W.
- Temperature range:  $-30^{\circ}$ ;  $+ 80^{\circ}\text{C}$

### EEx ia

- Tropicalized coil, black nylon encapsulated, insulation F class, coil copper wire H class.
- Fluid totally separated from the coil.
- Temperature class T5 or T6 on request
- 360° twisting coil
- Any assembling orientation allowed
- Manual override on request
- Protection class EEx ia IIB; EEx ia IIC
- Voltage: 12, 24, 48, 110, 220, V AC/DC- 50-60 Hz
- Maximum power : Vac 11 VA; Vdc 11W.
- Temperature range:  $-10^{\circ}$ ;  $+ 40^{\circ}\text{C}$

### EEx m

- Tropicalized coil, black nylon encapsulated, fuse circuit included, insulation F class, coil copper wire H class.
- Fluid totally separated from the coil
- Temperature class T5 or T6 on request
- 360° twisting coil
- Any assembling orientation allowed
- Manual override on request
- Protection class EEx m IIB; EEx m IIC
- Voltage: 12, 24, 48, 110, 220, V AC/DC- 50-60 Hz
- Maximum power : Vac 11 VA; Vdc 11W.
- Temperature range:  $-30^{\circ}$ ;  $+ 80^{\circ}\text{C}$

## SISTEMI ANTI DEFLAGRANTI

### INFORMAZIONI GENERALI

Un apparato elettrico atto ad essere usato in una atmosfera esplosiva, deve essere provvisto di una marcatura conforme allo Standard EN 50014, del tipo ad es. : EEx m II T4, il cui significato è il seguente:

#### EEx

##### IDENTIFICAZIONE STANDARD

Questa sigla significa che l'apparecchiatura elettrica soddisfa uno dei molti tipi di protezione specificati conformemente alle norme Europee secondo gli Standard EN 50015 e EN 50028.

#### m

##### TIPI DI PROTEZIONE

Questa sigla identifica il tipo di protezione dell'apparato; i diversi tipi di protezione sono i seguenti:

d :	Contenitore a prova di fuoco	(EN 50018)
e :	Sicurezza incrementata	(EN 50019)
i :	Sicurezza intrinseca "ia" "ib"	(EN 50020)
m :	Incapsulamento	(EN 50028)
o :	Immersione in Olio	(EN 50015)
p :	Pressurizzazione	(EN 50016)
q :	Anti polvere	(EN 50017)

#### II

##### GRUPPI DI APPARATI

Questa sigla identifica i gruppi di apparati, suddivisi come segue:

- I :** Apparatı elettrici da usare in miniere ove c'è rischio di incendio
- II :** Apparatı elettrici da usare in luoghi con presenza di atmosfere esplosive, diversi da miniere

##### NOTE:

Riguardo i tipi di protezione "d" ed "i", il gruppo II è suddiviso in IIA, IIB, e IIC. Per esempio i tipi di protezione "d" ed "i" sono rispettivamente suddivisi secondo il MESH (Maximum Experimental Safe Gap) e lo MIC (Minimum Igniting Current).

I tipi di protezione "d" compresi nella classe IIB, possono essere associati con il simbolo stabilito per una specifica miscela di gas del gruppo IIC, ad esempio H2 (Idrogeno). In questo caso il certificato di conformità sarà: EEx d IIB + H2.

#### T4

##### CLASSI DI TEMPERATURE

Questa sigla identifica le classi di temperatura, come segue:

Le classi di temperature sono basate sulla più alta temperatura superficiale raggiunta sulla intera superficie o parte dell'apparato elettrico operante nelle condizioni più sfavorevoli ed essere perciò probabile causa di accensione della atmosfera esplosiva. Vedere lo schema di seguito.

## APPARATI ELETTRICI PER ATMOSFERE POTENZIALMENTE ESPLOSIVE

### TIPI DI PROTEZIONE

Questo e' l'elenco delle misure applicate ad una apparecchiatura elettrica per prevenire una possibile accensione della atmosfera esplosiva.

Simbolo	Zone			Descrizione
	0	1	2	
"d"	no	sì	sì	Si riferisce ad un apparato elettrico le cui parti potenzialmente esplosive sono racchiuse in un contenitore a prova di scoppio. Tale contenitore dovrà resistere alla pressione generata dalla esplosione nel suo interno di una miscela esplosiva, e dovrà evitare che la esplosione si estenda alla atmosfera esplosiva dell'ambiente.
"e"	no	sì	sì	Si riferisce ad un apparato elettrico con un alto coefficiente di sicurezza. Tale apparato non raggiunge mai temperature eccessivamente alte, e in normali condizioni di impiego non può sviluppare ne' internamente ne' esternamente archi o scintille.
"i"	"ia"	sì	sì	Si riferisce a quei circuiti in cui scintille o alte temperature, se generate in condizioni specificate dalle normative standard ( condizioni operative normali o alternative), non possono dar luogo ad accensioni della atmosfera esplosiva.
	"ib"	no	sì	
"m"	no	sì	sì	Si riferisce ad uno speciale isolamento in cui le parti di un apparato elettrico, che potrebbero generare l'accensione di una atmosfera esplosiva con una scintilla od un per riscaldamento, vengono incapsulate in un composto in modo tale per cui la atmosfera esplosiva viene protetta.
"o"				Si riferisce ad apparati elettrici immersi in olio
"p"				Viene mantenuta una pressurizzazione interna per mezzo di un gas inerte.
"q"				Si riferisce ad un contenitore riempito di polvere

## APPARATI ELETTRICI PER ATMOSFERE POTENZIALMENTE ESPLOSIVE

### GRUPPI DI GAS E CLASSI DI TEMPERATURE

Gruppo I : miniere

Gruppo II: località diverse dalle miniere ma a rischio di incendio

Gruppo	Gas	Temperatura di accensione ( °C ) (1)	Classi di temperatura							
			T1	T2	T3	T4	T5	T6		
I	Metano (Grisou)									
	A	Acetone	540	si						
		Acido Acetico	485	si						
		Ammoniaca	630	si						
		Etano	515	si						
		Cloruro di Metilene	556	si						
		Metano (CH4)	595	si						
		Monossido di Carbonio	605	si						
		Propano	470	si						
II (2)	n-butano	365		si						
	n-butile	370		si						
	Solfuro di idrogeno	270				si				
		n-esano	240			si				
	Acetaldeide	140					si			
		Etere Etilico	170				si			
	Nitrile Etilico	90							si	
	B	Etilene	425		si					
		Ossido di etilene	429/440		si					
	C	Acetilene (C2H2)	305		si					
Bisolfuro di Carbonio (CS2)		102					si			
Idrogeno		560	si							

(1) : Temperatura di una superficie calda in grado di far accendere una miscela di gas

(2) : I prodotti certificati IIB possono essere usati come equipaggiamenti del gruppo IIA. Similmente i prodotti certificati IIC possono essere usati come equipaggiamenti dei gruppi IIA e IIB

## CLASSI DI TEMPERATURE

Gruppo I :Temperature  $\leq$  a 150 °C o  $\leq$ 450 °C ,in funzione dell'accumulo di polvere di carbone sull'apparato.

Gruppo II:

Classe di Temperatura	Temp. Max della Superficie (°C)(3)	Temperatura di Accensione (°C)(4)
T1	450	>450
T2	300	>300
T3	200	>200
T4	135	>135
T5	100	>100
T6	85	> 85

(3): La temperatura ambiente non deve superare i + 40°C

(4): La temperatura di accensione del gas deve essere piu' alta della massima temperatura della superficie. In pratica viene mantenuto dal 10 al 20% di margine di sicurezza tra la temperatura di accensione e la temperatura ambiente.

## Specifiche tecniche

Su richiesta del cliente, tutte le elettrovalvole illustrate in questo catalogo possono essere equipaggiate con bobine di comando Antideflagranti, certificate CENELEC, ATEX, FM, CSA, SAA, dei seguenti tipi:

### EEx d :

- Bobina tropicalizzata per impregnazione, incapsulata in nylon-vetro, con circuito magnetico incorporato, classe di isolamento F, e filo di rame dell'avvolgimento in classe H.
- Completa separazione tra l'avvolgimento ed il fluido che attraversa l'elettrovalvola.
- Custodia bobina stagna IP 65 in lega leggera con verniciatura epossidica, o a richiesta in acciaio Inossidabile AISI 316 con verniciatura epossidica.
- Morsettiera elettrica incorporata.
- Classe temperatura T6 o T5 a richiesta
- Gruppo bobina orientabile su 360°
- Orientamento di montaggio: qualsiasi.
- Comando manuale a richiesta
- Classe di protezione: EEx-d IIB ; EEx-d IIC
- Tensione di alimentazione: 12, 24, 48, 110, 220 VAC /DC- 50/60 Hz
- Potenza max assorbita : Vac 11 VA; Vdc 11 W
- Temperatura: -30 ; + 80°C;

### EEx ia:

- Bobina tropicalizzata incapsulata in nylon-vetro, classe di isolamento F, e filo di rame dell'avvolgimento in classe H.
- Completa separazione tra l'avvolgimento ed il fluido che attraversa l'elettrovalvola.
- Classe temperatura T6 o T5 a richiesta
- Orientamento di montaggio: qualsiasi.
- Comando manuale standard
- Classe di protezione: EEx-ia IIB ; EEx-ia IIC
- Tensione di alimentazione: 12, 24, 48, 110, 220 VAC /DC- 50/60 Hz
- Potenza max assorbita : Vac 11 VA; Vdc 11 W
- Temperatura: -10 ; + 40°C;

### EEx m:

- Bobina incapsulata in nylon-vetro, con circuito fusibile incorporato, classe di isolamento F, e filo di rame dell'avvolgimento in classe H.
- Completa separazione tra l'avvolgimento ed il fluido che attraversa l'elettrovalvola.
- Classe temperatura T6 o T5 a richiesta
- Gruppo bobina orientabile su 360°
- Orientamento di montaggio: qualsiasi.
- Comando manuale a standard
- Classe di protezione: EEx-m IIB ; EEx-m IIC
- Tensione di alimentazione: 12, 24, 48, 110, 220 VAC /DC- 50/60 Hz
- Potenza max assorbita : Vac 11 VA; Vdc 11 W
- Temperatura: -30°C ; +80°C.

# SYSTÈMES ANTI-DEFLAGRANTS

## Informations générales

Un appareil électrique qui doit être utilisé dans une atmosphère explosive, doit être marqué suivant le Standard EN 50017, du type pour exemple **EEx m II T4**, dont le sens est le suivant :

### EEx

#### Identification Standard

Cet indicatif signifie que l'appareil électrique satisfait un des plusieurs type de protection standardisés suivant les normes Européennes standard EN 50015 et EN 50028.

### m

#### Types de protection

Cet indicatif identifie le type de protection de l'appareil ; les différents types des protections sont les suivants :

<b>d</b> :	boite à l'épreuve du feu	(EN 50018)
<b>e</b> :	Sécurité augmentée	(EN 50019)
<b>i</b> :	Sécurité intrinsèque "ia" "ib"	(EN 50020)
<b>m</b> :	capsulage	(EN 50028)
<b>o</b> :	immersion dans l'huile	(EN 50015)
<b>p</b> :	Pressurisation	(EN 50016)
<b>q</b> :	anti poussière	(EN 50017)

### II

#### Groups d'appareils

Cet indicatif identifie les groups d'appareils, comme indiqué :

- I** : Appareils électriques à user dans les mines où on a le risque d'incendie.
- I** : Appareils électriques à user dans les lieux avec atmosphère explosive, qui ne sont pas des mines.

#### NOTES :

Pour ce qui concerne les protections « **d** » et « **i** » le group **II** est subdivisé en **IIA, IIB, IIC**. Pour exemple les types de protection « **d** » et « **i** » sont à son tour subdivisé suivant MESH (Maximum Experimental Safe Gap) et MIC (Minimum Igniting Current).

Les types de protection « **d** » inclus dans la classe **IIB**, peuvent être associés avec le symbol défini pour une spécifique mélange de gaz du group **IIC**, pour exemple H<sub>2</sub> (Hydrogène) ; dans ce cas le certificat de conformité sera : EEx d IIB+H<sub>2</sub>.

### T4

#### Classes de Températures

Cet indicatif identifie les classes de températures, comme indiqué

Les classes de température sont déterminées par la plus haute température superficielle aboutie sur toute la surface ou sur une partie de l'appareil électrique qui travaille dans les conditions les plus défavorables, ainsi devenant une probable cause d'allumage de l'atmosphère explosive. Voir les indications suivantes.

## APPAREILS ELECTRIQUES POUR ATMOSPHERES A RISQUE D'EXPLOSION

### TYPES DE PROTECTION

Voici la liste des mesures appliquées à un appareil électrique pour prévenir une possible allumage de l'atmosphère explosive.

Protection symbol	Zones			Description
	0	1	2	
"d"	no	yes	yes	Refers to an electrical apparatus whose explosive parts are enclosed in an explosion proof casting. This casting will resist the pressure generated by the internal explosion of an explosive mixture and will prevent the explosion from being penetrating to the ambient atmosphere
"e"	no	yes	yes	Refers to an electrical apparatus with a high safety coefficient. Such an apparatus is free from excessively high temperatures and, like under service conditions, can not develop inside and outside electric arc and sparks.
"i"	"ia"	yes	yes	Refers to a circuit in which neither sparks nor temperatures can ignite an explosive atmosphere, if generated under the service conditions specified by the standard regulations (normal and faulty operating conditions)
	"ib"	no	yes	
"m"	no	yes	yes	Refers to a special casting in which the parts of an electrical apparatus which could ignite an explosive atmosphere by either sparking or heating, are encapsulated in a compound in a way that this explosive atmosphere cannot be ignited.
"o"				Refers to electrical apparatus immersed in oil
"p"				Pressurization is maintained against atmosphere by means of an inert gas
"q"				Refers to a casting containing powder filling

## APPAREILS ELECTRIQUES POUR ATMOSPHERE A RISQUE D'EXPLOSION

### GROUPES DE GAZ ET CLASSES DE TEMPERATURES

Groupe I : mines

Groupe II: milieu différents des mines, mais à risque du feu

Groupe	Gaz	Température de allumage ( °C ) (1)	Classes de température						
			T1	T2	T3	T4	T5	T6	
I	Méthano (Grisou)								
	Acétone	540	oui						
	Acide Acétique	485	oui						
	Ammoniaque	630	oui						
	Ethane	515	oui						
	Chlorure de Méylène	556	oui						
	Methane (CH4)	595	oui						
	Monoxide de Carbone	605	oui						
	Propane	470	oui						
II (2)	n-butane	365		oui					
	n-butyle	370		oui					
	Sulfure di H2	270			oui				
	n-esane	240			oui				
	Acetaldeyde	140				oui			
	Etere Etilique	170				oui			
	Nitryle Etilique	90							oui
	Etylene	425		oui					
	Oxide de etylène	429/440		oui					
	Acetylène (C2H2)	305		oui					
	Bisulfure di Carbone (CS2)	102						oui	
	Hydrogène H2	560	oui						

(1) : Température d'une surface chaude en condition d'allumer une mélange de gaz

(2) : Le produits certifiés IIB peuvent être utilisés comme équipement du group IIA. De même les produits certifiés IIC peuvent être utilisés comme équipement des groups IIA et IIB

## CLASSES DE TEMPERATURE

**Groupe I :** Température  $\leq$  à 150 °C ou  $\leq$  450 °C ,par rapport au cumul du carbone sur l'appareil.

**Groupe II :**

Classe de Température	Temp. Max de la Surface (°C)(3)	Température de Allumage (°C)(4)
T1	450	>450
T2	300	>300
T3	200	>200
T4	135	>135
T5	100	>100
T6	85	> 85

(3): La température du milieu ne peut pas passer les + 40°C

(4): La température d'allumage du gaz, doit être plus élevée de la plus haute température de la surface. Pratiquement on tient du 10 au 20% de marge de sécurité entre la température d'allumage et la température du milieu.

## Spécifications Techniques

Sur demande du client, **tous les électrodistributeurs qui sont dans ce catalogue** peuvent être équipés avec des bobines de commande Antidéflagrantes, certifiées pas CENELEC, ATEX, FM, CSA, SAA ; les différents types sont les suivants :

### EEx d :

- Bobine tropicalisée par impregnation, capsulée avec du nylon-verre, avec circuit magnétique incorporé, classe d'isolation F, file de cuivre de la bobine classe H.
- Séparation totale entre la bobine et le fluide qui passe par la valve.
- Étui de la bobine à étanche IP 65 en aluminium peint avec de la résine époxydique ou acier inoxydable peint avec de la résine époxydique. Bornes électriques inclus.
- Classe de la température T6 ou T5 sur demande.
- Compensif bobine orientable de 360°
- Orientation de montage : libre
- Commande manuel sur demande
- Classe de protection : EEx d IIB ; EEx d IIC
- Alimentation électrique : 12, 24, 48, 110, 220 V AC/DC 50/60 Hz.
- Puissance maximal : Vac 11 VA ; Vdc 11 W.
- Température : -30°C ; +80°C.

### EEx ia

Bobine tropicalisée, capsulée avec du nylon-verre, classe d'isolation F, file de cuivre de la bobine classe H.

- Séparation totale entre la bobine et le fluide qui passe par la valve.
- Classe de la température T6 ou T5 sur demande.
- Orientation de montage : libre
- Commande manuel standard
- Classe de protection : EEx a IIB ; EEx a IIC
- Alimentation électrique : 12, 24, 48, 110, 220 V AC/DC 50/60 Hz.
- Puissance maximal : Vac 11 VA ; Vdc 11 W.
- Température : -10°C ; +40°C.

### EEx m

- Bobine tropicalisée, capsulée avec du nylon-verre, avec fusible incorporé, classe d'isolation F, file de cuivre de la bobine classe H.
- Séparation totale entre la bobine et le fluide qui passe par la valve.
- Classe de la température T6 ou T5 sur demande.
- Compensif bobine orientable de 360°
- Orientation de montage : libre
- Commande manuel standard
- Classe de protection : EEx m IIB ; EEx m IIC
- Alimentation électrique : 12, 24, 48, 110, 220 V AC/DC 50/60 Hz.
- Puissance maximal : Vac 11 VA ; Vdc 11 W.
- Température : -30°C ; +80°C.

## DIRECTIVE 94/9/CE ATEX MEMORANDUM

- From 07/01/2003 the CEE directive ATEX 94/9/CE is operative ; the relative object is the classification and certification of all those devices ( both electrical and mechanical) to be used in atmosphere potentially explosives.
- 2 groups are identified : Group 1 MINES; Group 2 : surface industries
- Inside each group, you can find different categories:

GROUP 1 MINES			
CATEGORY M1 work in explosive atmosphere		CATEGORY M2 Devices non electrically fitted working in explosive atmosphere	
Code	I M1	Code	I M2

GROUP 2 SURFACE INDUSTRIES		
CATEGORY 1 Gas : Zone 0 = II 1 G Dusts : Zone 20 = II 1 D	CATEGORY 2 Gas : Zone 1 = II 2 G Dusts : Zone 21 = II 2 D	CATEGORY 3 Gas : Zone 2 = II 3 G Dusts : Zone 22 = II 3 D

- The law do not classify any zone, but identifies all risk Categories as follows:  
Category 1: It is necessary to have a VERY HIGH PROTECTION LEVEL  
Category 2: It is necessary to have an HIGHT PROTECTION LEVEL (similar to old Ee xd IIB T5)  
Category3: It is necessary to have a NORMAL PROTECTION LEVEL (BUT CERTIFIED)

Similar to old Ee xm II B T 5.

- Zone are identified in the rule EN 1127-1 as follows:

### Dusts

Zone 20: where it is sure you will find continuously for a long period an explosive atmosphere, as a burning powder.

Zone 21: where it is probable you will find continuously for a long period an explosive atmosphere, as a burning powder.

Zone 22: where it is not probable (but it is possible) you will find continuously for a long period an explosive atmosphere, as a burning powder; if this happens, it will persist for a short time.

### Gas - Vapor - Smog

Zona 0: where it is sure you will find continuously for a long period an explosive atmosphere, as a burning mixture of air with flammable material in gas, vapor or smog status.

Zona 1: where it is probable you will find continuously for a long period an explosive atmosphere, as a burning mixture of air with flammable material in gas, vapor or smog status.

Zona 2: where it is not probable (but it is possible) you will find continuously for a long period an explosive atmosphere, as a burning mixture of air with flammable material in gas, vapor or smog status; if this happens, it will persist for a short time.

- It is customer responsibility to supply Identifications of Zones and Categories: in fact end user only can know exactly all using conditions.

## Direttiva 94/9/CE ATEX Recepita in Italia con Decreto Presidente della Repubblica 23/03/1998 nr. 126 MEMORANDUM

- Dal 1/07/2003 è in vigore la direttiva ATEX 94/9/CE che riguarda la classificazione e la omologazione di tutti quegli apparecchi (sia elettrici che **meccanici**) destinati ad essere utilizzati in atmosfera potenzialmente esplosiva.
- Sono definiti 2 Gruppi : **Gruppo 1 Miniere; Gruppo 2 : industrie di superficie**
- Nell'ambito dei gruppi ci sono diverse categorie, come da schema:

GRUPPO 1 MINIERE			
CATEGORIA M1 Funzionamento in atmosfera esplosiva		CATEGORIA M2 Apparecchi non alimentati in atmosfera esplosiva	
Sigla	I M1	Sigla	I M2

GRUPPO 2 INDUSTRIE DI SUPERFICIE		
CATEGORIA 1 Gas : Zona 0 = II 1 G Polveri : Zona 20 = II 1 D	CATEGORIA 2 Gas : Zona 1 = II 2 G Polveri : Zona 21 = II 2 D	CATEGORIA 3 Gas : Zona 2 = II 3 G Polveri : Zona 22 = II 3 D



- La legge non classifica le zone, ma definisce le categorie di rischio, che sono le seguenti  
**Categoria 1: Occorre un livello di protezione MOLTO ALTO**  
**Categoria 2: Occorre un livello di protezione ALTO (tipo il vecchio Ee x d II B T5)**  
**Categoria 3: Occorre un livello di protezione NORMALE (ma comunque omologato) (Tipo il vecchio Ee x m II B T5)**
- Le zone sono definite dalla norma EN 1127-1 come segue:

### Polveri

- Zona 20:** luogo dove **è certo** sia presente con continuità per lungo periodo un'atmosfera esplosiva, sotto forma di polvere combustibile
- Zona 21:** luogo dove **è probabile** che sia presente con continuità per un lungo periodo un'atmosfera esplosiva, nella forma di polvere combustibile.
- Zona 22:** luogo dove **non è probabile** (ma è possibile) che sia presente con continuità per un lungo periodo un'atmosfera esplosiva, nella forma di polvere combustibile, ma qualora ciò accada, persiste per un breve periodo.

### Gas - Vapori - Nebbie

- Zona 0:** luogo dove **è certo** che è presente con continuità per un lungo periodo un'atmosfera esplosiva, costituita da miscela di aria con sostanze infiammabili nella forma di gas, vapori o nebbie.
- Zona 1:** luogo dove **è probabile** che sia presente con continuità per un lungo periodo un'atmosfera esplosiva, costituita da miscela di aria con sostanze infiammabili nella forma di gas, vapori o nebbie.
- Zona 2:** luogo dove **non è probabile** (ma è possibile) che sia presente con continuità per un lungo periodo un'atmosfera esplosiva, costituita da miscela di aria con sostanze infiammabili nella forma di gas, vapori o nebbie, ma qualora ciò accada persiste per un breve periodo.

- La definizione delle zone e delle categorie **deve essere fornita dal cliente**: solo l'utilizzatore può essere al corrente della zona e della categoria dove la elettrovalvola viene impiegata.

## Directive 94/9/CE ATEX MEMORANDUM

- Le 01/07/2003 est entrée en vigueur la directive **ATEX 94/9/CE** concernant la classification et la omologation de tous les appareils (soit électriques, soit **mécaniques**) qui doivent être installés dans des atmosphères potentiellement explosives.
- La directive identifie 2 Groups: **Group 1 = Mines** ; **Group 2 = Industries de la Surface**.
- Parmi les groups, on identifie différentes catégories, comme illustré.

GROUP 1 MINES			
CATEGORIE M1 Travail dans atmosphère explosive		CATEGORY M2 Appareils sans alim. Électrique dans atm. Explos	
Identificative	<b>I M1</b>	Identificative	<b>I M2</b>

GROUP 2 INDUSTRIES DE LA SURFACE		
CATEGORIE 1 Gaz : <b>Zone 0 = II 1 G</b> Poudre : <b>Zone 20 = II 1 D</b>	CATEGORIE 2 Gaz : <b>Zone 1 = II 2 G</b> Poudre : <b>Zone 21 = II 2 D</b>	CATEGORIE 3 Gaz : <b>Zone 2 = II 3 G</b> Poudre : <b>Zone 22 = II 3 D</b>

- La loi ne classe pas les ZONES, mais fait la définition des catégories du risque comme indiqué:  
**Categorie 1: Il est impératif un niveau de protections TRES HAUT**  
**Categorie 2: Il est impératif un niveau de protections HAUT (type Ee x d II B T5)**  
**Categorie 3: Il est impératif un niveau de protections NORMAL (mais en tous cas omologué) (Type Ee x m II B T5)**
- Les ZONES sont définies dans la norme EN 1127-1 comme indiqué:

### Poudres

- Zone 20:** lieux ou **il est sûr** la présence avec continuité pour des longs périodes d'une atmosphère explosive, comme poudre combustible.
- Zone 21:** lieux ou **il est probable** la présence avec continuité pour des longs périodes d'une atmosphère explosive, comme poudre combustible.
- Zone 22:** lieux ou **il n'est pas probable** (mais il est possible) la présence avec continuité pour des longs périodes d'une atmosphère explosive, comme poudre combustible; si telle condition va se réaliser, il sera pour un bref période.

### Gaz - Vapeurs - Brouillards

- Zone 0:** lieux ou **il est sûr** la présence avec continuité pour des longs périodes d'une atmosphère explosive, composé par une mélange d'air avec des substances inflammables sous la forme de gaz, vapeurs ou brouillards.
- Zone 1:** lieux ou **il est probable** la présence avec continuité pour des longs périodes d'une atmosphère explosive, composé par une mélange d'air avec des substances inflammables sous la forme de gaz, vapeurs ou brouillards.
- Zone 2:** lieux ou **il n'est pas probable** (mais il est possible) la présence avec continuité pour des longs périodes d'une atmosphère explosive, composé par une mélange d'air avec des substances inflammables sous la forme de gaz, vapeurs ou brouillards; si telle condition va se réaliser, il sera pour un bref période.

- Le client/utilisateur doit donner (et se charger de la responsabilité) les indications** sur la Zone et le Catégorie : seulement le client/utilisateur peut connaître les conditions réelles dans lesquelles les produits vendu seront utilisés.

## EEx d IIC T6 Explosion Proof Coils and Pilot

EEx d IIC T6 Bobine e Piloti Antideflagranti

EEx d IIC T6 Bobines et Embases Antidéflagrants

V	CODE	CODE
	Aluminium Pilot	S. Steel Pilot
24 VAC 50/60 Hz	<b>51704</b>	<b>51705</b>
24 VDC	<b>51656</b>	<b>51657</b>
110 VAC 50/60 Hz	<b>51706</b>	<b>51707</b>
220VAC 50/60 Hz	<b>51708</b>	<b>51709</b>



## EEx ia IIC T6 Explosion Proof Coils and Pilot

EEx ia IIC T6 Bobine e Piloti Antideflagranti

EEx ia IIC T6 Bobines et Embases Antidéflagrants

V	CODE
12 VAC 50 Hz	<b>51711</b>
12 VAC 50 Hz	<b>51712</b>
12 VDC	<b>51710</b>
24 VAC 50 Hz	<b>51714</b>
24 VAC 60 Hz	<b>51713</b>
24 VDC	<b>50744</b>



## EEx m IIC T5 Explosion Proof Coils and Pilot

EEx m IIC T5 Bobine e Piloti Antideflagranti

EEx m IIC T5 Bobines et Embases Antidéflagrants

V	CODE	CODE
	Aluminium Pilot	S. Steel Pilot
24 VDC 0,5 W	<b>51658</b>	<b>51659</b>



## EEx m IIC T5 Explosion Proof Coils and Pilot

EEx m IIC T5 Bobine e Piloti Antideflagranti

EEx m IIC T5 Bobines et Embases Antidéflagrants

V	CODE
24 VDC 5 W	<b>50871</b>
48 VDC 5 W	<b>51006</b>
110 VAC 5 VA	<b>51246</b>
220 VAC 5 VA	<b>51075</b>



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**APPARECCHIATURE PNEUMATICHE INDUSTRIALI**

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