

Tipping Valves Catalogue

Hydraulics Parts



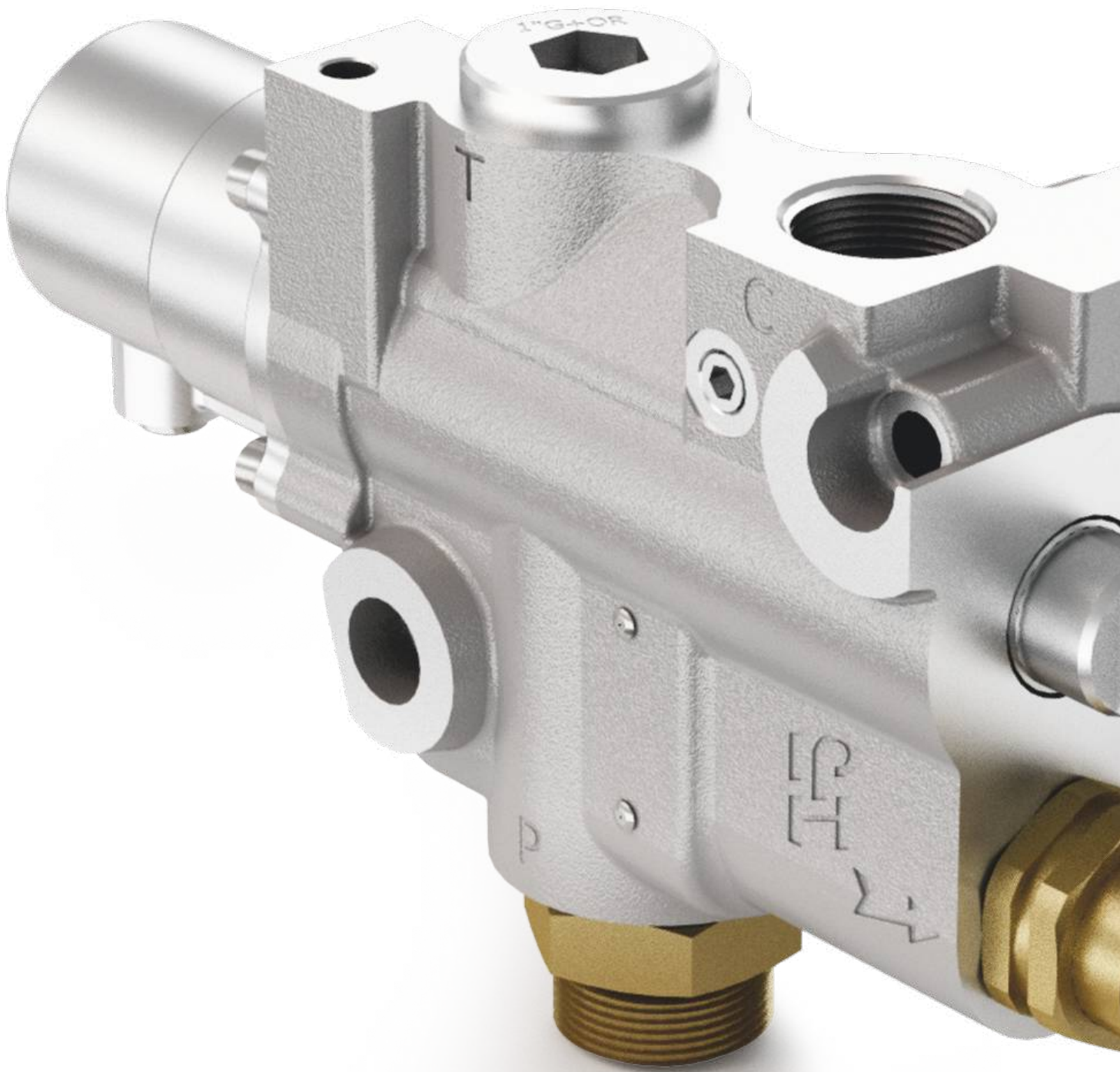
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DISTRIBUTORI IDRAULICI TIPPING VALVES



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DISTRIBUTORI IDRAULICI *TIPPING VALVES*

I distributori idraulici IPH, sono il perfetto risultato di una profonda esperienza nel valutare le necessità di controllo funzionale di sollevamento e abbassamento di cassoni ribaltabili sui veicoli industriali.

Studiati e sviluppati per diverse portate, i distributori possono essere installati su tutte le classi di veicoli, dai più piccoli 3.5 T, sino ai più grossi veicoli cava-cantiere o dumper utilizzati in miniera. La continua collaborazione con i più importanti allestitori di carrozzerie ribaltabili permette di offrire alla nostra Clientela prodotti sempre all'avanguardia per scelte tecniche e costruttive.

The IPH tipping valves represent the perfect result of a long experience in the field of functional controls for raising and lowering tippers on industrial vehicles.

Conceived and developed for different duties, our valves can be installed on all classes of vehicles, from the smallest 3.5 T, to the biggest tipper or dumper vehicles used in mines and yard. The constant cooperation with the most important fitters of tilting bodies allows us to offer our Customers always updated products in technical and manufacturing matters.

DISTRIBUTORE COMANDO RIBALTABILE
TIPPER CONTROL DISTRIBUTOR

montaggio al serbatoio ed al telaio
fitting to tank and chassis

CODICE DI ORDINAZIONE / ORDERING CODE

EF240 D X XXX 0

VARIANTI / VARIANTS

SINGOLA TARATURA / SINGLE SETTING = 10 ÷ 35 MPa
(solo per la versione "1" / with version "1" only)

DOPPIA e TRIPLA TARATURA / DOUBLE and TRIPLE SETTING = vedi tabella / see table
(solo per le versioni "2" - "3" - "4" / with versions "2" - "3" - "4" only)

PER LA SINGOLA E DOPPIA TARATURA L'ULTIMA LETTERA DEL CODICE DI ORDINAZIONE È SEMPRE 0 / FOR SINGLE AND DOUBLE SETTING THE LAST LETTER OF THE ORDER CODE IS ALWAYS 0

A = 100 MPa	F = 160 MPa	K = 210 MPa	Q = 260 MPa	V = 310 MPa
B = 120 MPa	G = 170 MPa	L = 220 MPa	R = 270 MPa	W = 320 MPa
C = 130 MPa	H = 180 MPa	M = 230 MPa	S = 280 MPa	X = 330 MPa
D = 140 MPa	I = 190 MPa	N = 240 MPa	T = 290 MPa	Y = 340 MPa
E = 150 MPa	J = 200 MPa	P = 250 MPa	U = 300 MPa	Z = 350 MPa

INCREMENTI DI PRESSIONE STANDARD STANDARD PRESSURE INCREASES				
Doppia taratura Double settings	+ 50 bar	+ 80 bar	+ 100 bar	+ 130 bar
Tripla taratura Triple settings	+ 80 bar	+ 100 bar	+ 130 bar	+ 100 bar

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- 1 = SINGOLA TARATURA / SINGLE SETTING
2 = DOPPIA TARATURA MECCANICA / DOUBLE MECHANIC SETTING
3 = DOPPIA TARATURA PNEUMATICA / DOUBLE PNEUMATIC SETTING
4 = TRIPLA TARATURA MECCANICA / TRIPLE MECHANIC SETTING

D = DISTRIBUTORE / DISTRIBUTOR (comando pneumatico-doppio scarico / pneumatic control-double drainage)

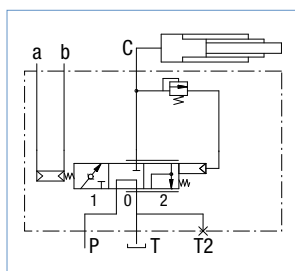
MODELLO / MODEL

CARATTERISTICHE TECNICHE / TECHNICAL SPECIFICATIONS

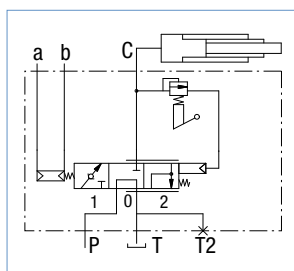
Portata nominale C>T Flow rate	130-250 l/min	Temperatura fluido °C (t) Fluid temperature °C (t)	-25° + 80°C
Pressione massima di lavoro Max working pressure	320 bar	Campo viscosità Viscosity range	12-100 cSt
Pressione massima di picco (<0.1 s) Max peak pressure	350 bar	Filtrazione / Filtering ISO 4406	20/19/16 (25 µm)
Pressione massima sul T T port max pressure	1,5 bar	Peso Weight	7.8 kg
Pressione pneumatica massima Max pneumatic pressure	10 bar	Fluido olio minerale Mineral oil	ISO VG 46
Pressione pneumatica di lavoro Pneumatic working pressure	6-7 bar	Trafilamento Leakage	100 bar = 50 ml ± 20

- Distributore a 3 vie a comando pneumatico, con valvola di non ritorno per l'azionamento di cilindri a semplice effetto.
- Posizione centrale con pompa a scarico nel serbatoio.
- Discesa progressiva.
- Valvola di massima semplice o doppia taratura a comando meccanico o pneumatico.
- Predisposto per scarico ausiliario G1" con scarico attraverso il filtro.
- Flangiabile con gruppo filtro direttamente al serbatoio.

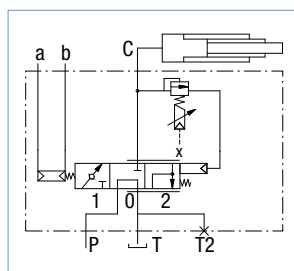
- Pneumatically controlled 3-way distributor with check valve, for operating single acting cylinders.
- Central position with pump drain into tank.
- Progressive lowering.
- Pneumatic or mechanical operated relief valve with single or double setting.
- Ready for auxiliary drainage G1" with drainage through filter.
- Flange connection with filter unit directly to tank.



Mod. EF240 D 1

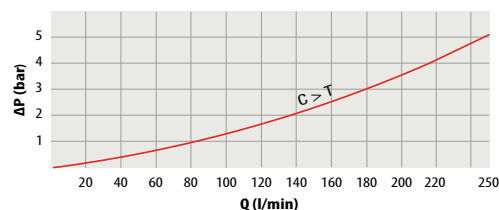


Mod. EF240 D 2 Mod. EF240 D 4



Mod. EF240 D 3

PERDITE DI CARICO / PRESSURE DROP



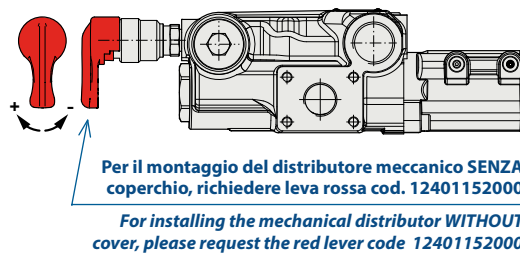
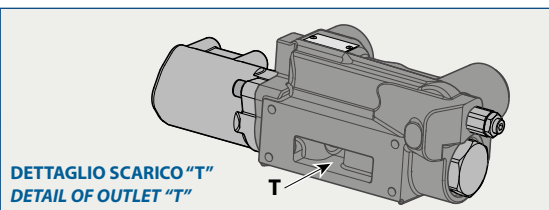
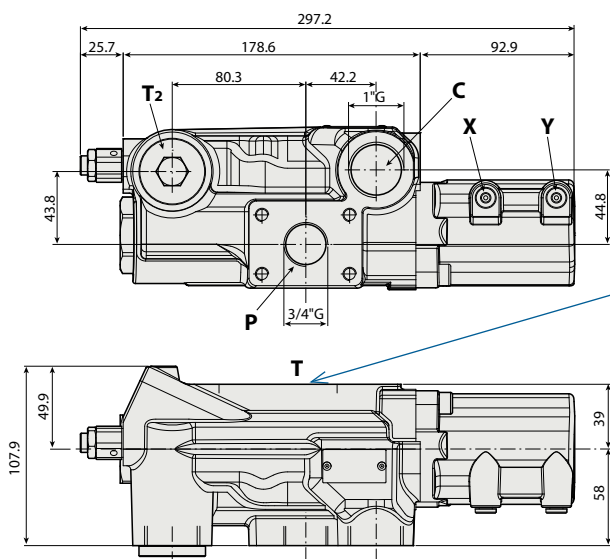
RILIEVI ESEGUITI CON OLIO ISO VG 46 A 50 °C (ν = 30 cSt)
THE ABOVE SPECIFICATIONS REFER TO OIL TYPE
ISO VG 46 AT 50 °C (ν = 30 cSt)

montaggio al serbatoio ed al telaio
fitting to tank and chassis

DISTRIBUTORE COMANDO RIBALTABILE
TIPPER CONTROL DISTRIBUTOR

VERSIONE SINGOLA TARATURA / SINGLE SETTING VERSION

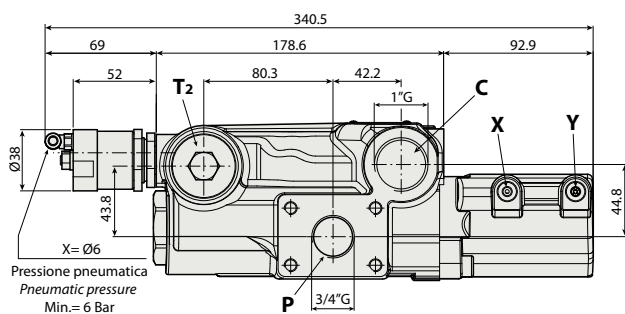
mod. EF240/D 1



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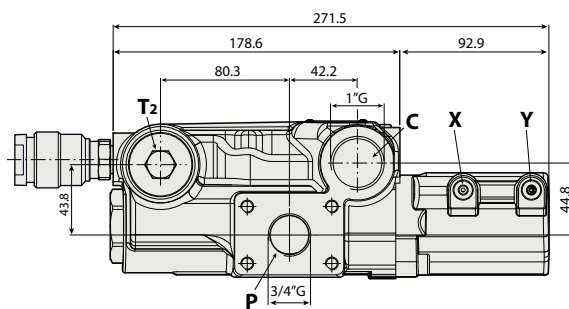
VERSIONE DOPPIA TARATURA PNEUMATICA
DOUBLE PNEUMATIC SETTING VERSION

mod. EF240/D 3



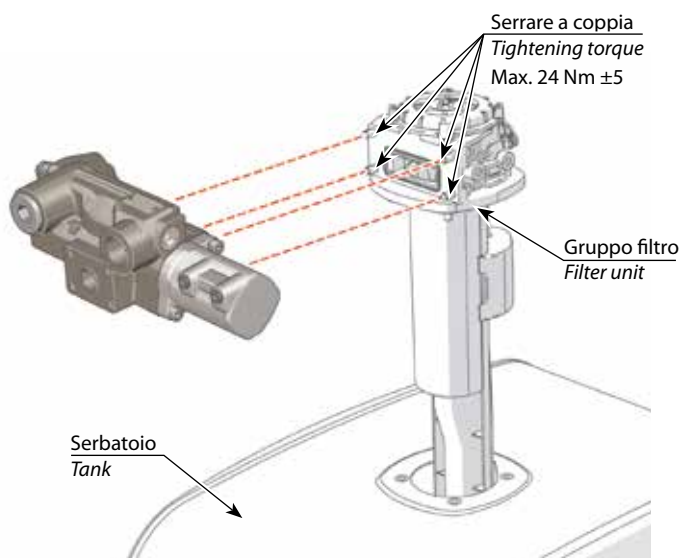
VERSIONE DOPPIA E TRIPLA TARATURA MECCANICA
DOUBLE AND TRIPLE MECHANICAL SETTING VERSION

mod. EF240/D 2 - mod. EF240/D 4

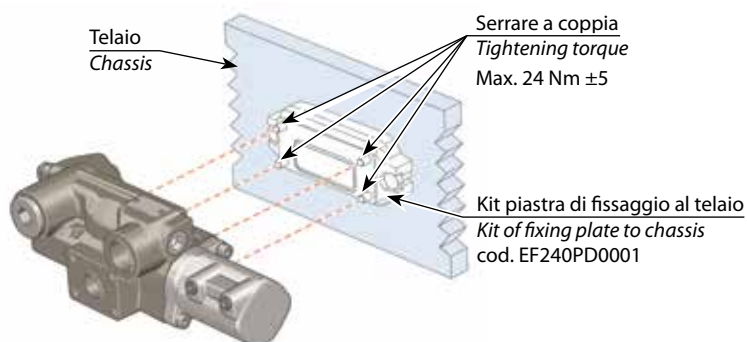


INSTALLAZIONE / INSTALLATION

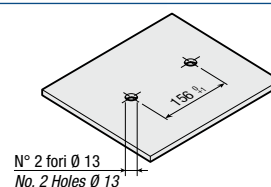
MONTAGGIO SUL GRUPPO FILTRO AL SERBATOIO
FITTING TO FILTER UNIT ON TANK



MONTAGGIO AL TELAI
FITTING TO CHASSIS



FORI DI
INSTALLAZIONE
HOLES FOR
FITTING



VALVOLA COMANDO APRISPONDA
BOARD OPENER SECTION CONTROL

montaggio su distributore EF240/D
fitting to EF240/D distributor

CODICE DI ORDINAZIONE / ORDERING CODE

EF240 V 1 XX X 0

VARIANTI / VARIANTS

0 = CIRCUITO A CENTRO APERTO / OPEN-CENTER CIRCUIT
1 = CIRCUITO A CENTRO CHIUSO / CLOSED-CENTER CIRCUIT

TARATURA / SETTING
19 ÷ 32 MPa

SINGOLA TARATURA / SINGLE SETTING

V = VALVOLA / VALVE (comando pneumatico-doppio scarico / *pneumatic control-double drainage*)

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MODELLO / MODEL

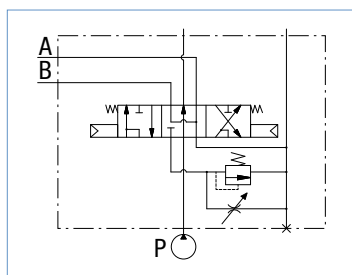


CARATTERISTICHE TECNICHE / TECHNICAL SPECIFICATIONS

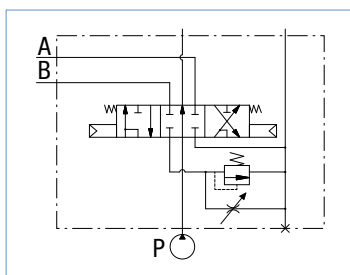
Portata nominale C>T <i>Flow rate</i>	160 l/min	Temperatura fluido °C (t) <i>Fluid temperature °C (t)</i>	-25° + 80°C
Pressione massima di lavoro <i>Max working pressure</i>	320 bar	Campo viscosità <i>Viscosity range</i>	12-100 cSt
Pressione massima di picco (<0.1 s) <i>Max peak pressure</i>	350 bar	Filtrazione / Filtering ISO 4406	20/19/16 (25 µm)
Pressione massima sul T <i>T port max pressure</i>	1,5 bar	Peso <i>Weight</i>	4.6 kg
Pressione pneumatica massima <i>Max pneumatic pressure</i>	10 bar	Fluido olio minerale <i>Mineral oil</i>	ISO VG 46
Pressione pneumatica di lavoro <i>Pneumatic working pressure</i>	5-10 bar		

- Distributore a 4 vie a comando pneumatico, per l'azionamento di un cilindro a doppio effetto, allestito con valvola di blocco (EF240V1XX00) oppure senza valvola di blocco (EF240V1XX10).
- Posizione centrale con pompa in alimentazione a distributore successivo.
- Regolatore di portata all'ingresso della "P".
- Regolazione di pressione e portata indipendenti per la sezione ausiliaria.
- Predisposto per scarico ausiliario G1" con scarico attraverso il filtro.
- Flangiabile direttamente al distributore EF240/D.

- *Pneumatically controlled 4-way distributor, for operating a double acting cylinder, supplied with stop valves (EF240V1XX00) or without stop valves (EF240V1XX10).*
- *Central position with pump supplied to next distributor.*
- *Flow regulator at "P" inlet.*
- *Pressure and flow adjustment independent for auxiliary section.*
- *Ready for auxiliary drainage G1" with drainage through filter.*
- *Flange connection to EF240/D distributor.*

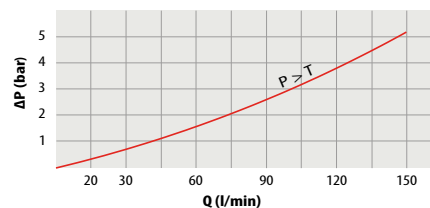


Mod. EF240 V 1 XX 00
Circuito a centro aperto / *Open-center circuit*



Mod. EF240 V 1 XX 10
Circuito a centro chiuso / *Closed-center circuit*

PERDITE DI CARICO / PRESSURE DROP

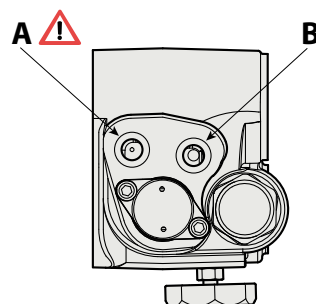
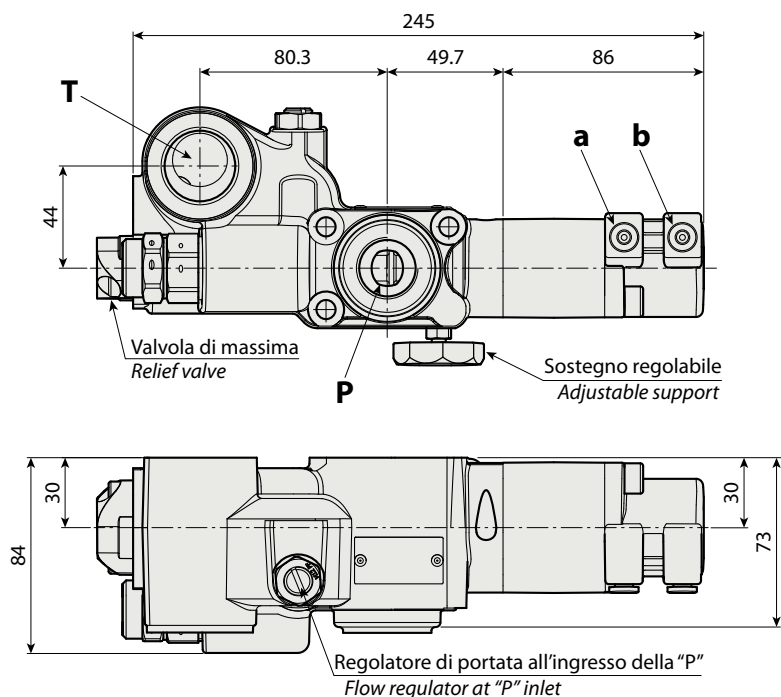


RILIEVI ESEGUITI CON OLIO ISO VG 46 A 50 °C ($\nu = 30$ cSt)
THE ABOVE SPECIFICATIONS REFER TO OIL TYPE
ISO VG 46 AT 50° C ($\nu = 30$ cSt)

montaggio su distributore EF240/D
fitting to EF240/D distributor

VALVOLA COMANDO APRISPONDA
BOARD OPENER SECTION CONTROL

VERSIONE SINGOLA TARATURA / SINGLE SETTING VERSION
mod. EF240/V 1

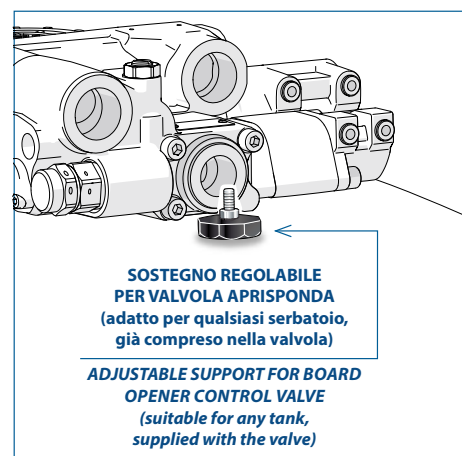
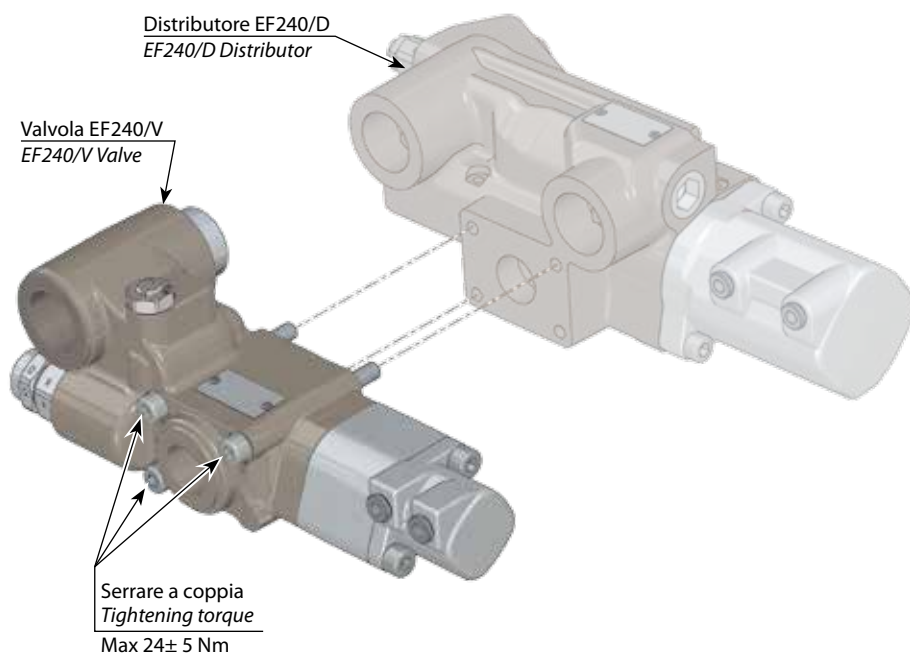


Collegare la porta A preferenzialmente alla salita (minor trafilamento in caso di circuito a centro chiuso).
Connect port A preferentially to tipping (less leakage in case of closed-center circuit).

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INSTALLAZIONE / INSTALLATION

MONTAGGIO SUL DISTRIBUTORE EF240/D / FITTING TO EF240/D DISTRIBUTOR



GRUPPO FILTRO FILTER UNIT

montaggio su serbatoio EF240/N fitting to EF240/N tank

CODICE DI ORDINAZIONE / ORDERING CODE

EF240 F X 1 X X 0

VERSIONE / VERSION

0 = ASSENTE / NONE

1 = INDICATORE DI TEMPERATURA CONTINUA ELETTRICO (display in cabina A RICHIESTA)
ELECTRIC INDICATOR OF CONTINUOUS TEMPERATURE (display in cab UPON REQUEST)

INDICATORI INTASAMENTO / CLOGGING INDICATORS

0 = ASSENTE / NONE

2 = OLIO ELETTRICO / OIL ELECTRIC INDICATOR

4 = ARIA ELETTRICO / AIR ELECTRIC INDICATOR

5 = OLIO E ARIA VISIVO / OIL AND AIR VISUAL INDICATOR

6 = OLIO E ARIA ELETTRICO / OIL AND AIR ELECTRIC INDICATOR

LIVELLO OLIO / OIL LEVEL

0 = ASSENTI / NONE

1 = VISIVO / VISUAL INDICATOR

2 = ELETTRICO SEGNALE LIVELLO (luminoso o display in cabina A RICHIESTA)
ELECTRIC INDICATOR WITH LEVEL (light or display in cab - ON REQUEST)

VERSIONE GRUPPO FILTRO / FILTER UNIT VERSION

1 = STANDARD (montaggio distributore EF240/D) / STANDARD (distributor EF240/D mounting)

2 = SINGOLA SEMI-SOMMERSA (montaggio piastra filtro EF240PF0001)

IMMERSIBLE SINGLE (filter plate EF240PF0001 mounting)

FILTRO OLIO / OIL FILTER

2 = 25 MICRON IN CARTA (codice ricambio 90CF0000001) / 25 MICRON PAPER GRID (spare part code 90CF0000001)

6 = 60 MICRON IN RETE (codice ricambio 099H2669000) / 60 MICRON MESH GRID (spare part code 099H2669000)

F = FILTRO / FILTER

MODELLO / MODEL

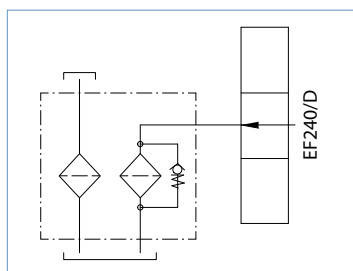


CARATTERISTICHE TECNICHE / TECHNICAL SPECIFICATIONS

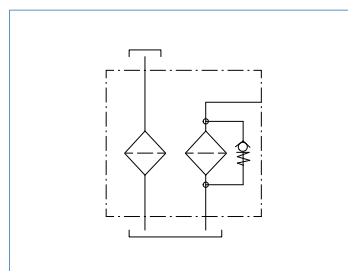
Portata nominale T Flow rate	220 l/min	Temperatura fluido °C (t) Fluid temperature °C (t)	-25° + 80°C
Pressione massima sul T T port max pressure	valvola by-pass 1,5 bar	Campo viscosità Viscosity range	12-100 cSt
Portata filtro aria con Δp: 0,02 bar Air filter capacity with Δp: 0,02 bar	1450 l/min	Peso Weight	2 kg
Filtrazione aria Air filtering	10 μm	Fluido olio minerale Mineral oil	ISO VG 46

- Il gruppo filtro si monta direttamente sul serbatoio EF240/T.
È disponibile in due versioni:
 - standard, per il montaggio del distributore EF240/D,
 - singola semi-sommersa, con montata la piastra filtro EF240PF00001.
- Comprende: filtro aria a cartuccia sostituibile, filtro olio con valvola by-pass, livello olio, tappo carico olio.
- Le cartucce filtro sono sostituibili dalla parte superiore, togliendo gli appositi porta filtro. La sostituzione avviene senza lo smontaggio di nessun componente.
- Filtraggio olio standard: cartuccia in rete da 60 micron con valvola by-pass, altri filtri a richiesta.

- The filter unit is mounted directly on the EF240/T tank.
It is available in two versions:
 - standard, for mounting the distributor EF240/D,
 - single immersible, with the filter plate EF240PF00001 assembled.
- It includes: air filter with replaceable cartridge, oil filter with by-pass valve, oil level, oil filler plug.
- The filter cartridges may be replaced from the top, removing the appropriate filter holders. The replacement is carried out without disassembling any component.
- Standard oil filtering: 60-microns mesh cartridge with by-pass valve, other filterings upon request.



Mod. EF240 FX 1

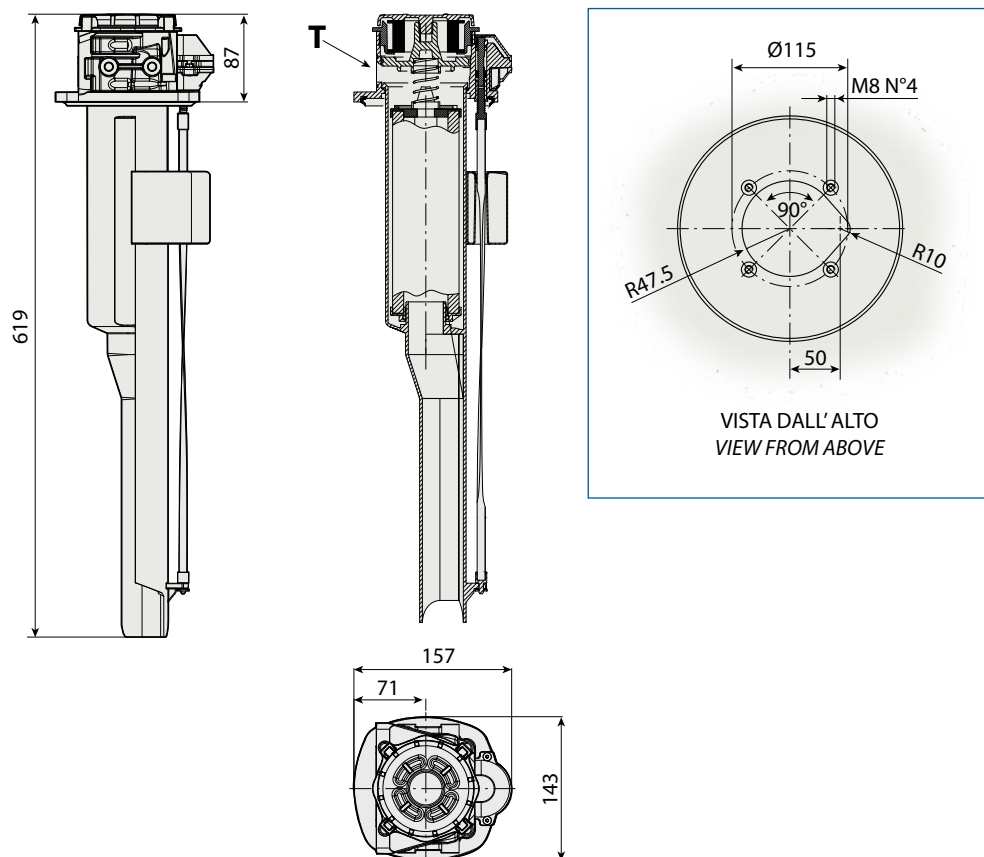


Mod. EF240 FX 2

montaggio su serbatoio EF240/N
fitting to EF240/N tank

GRUPPO FILTRO
FILTER UNIT

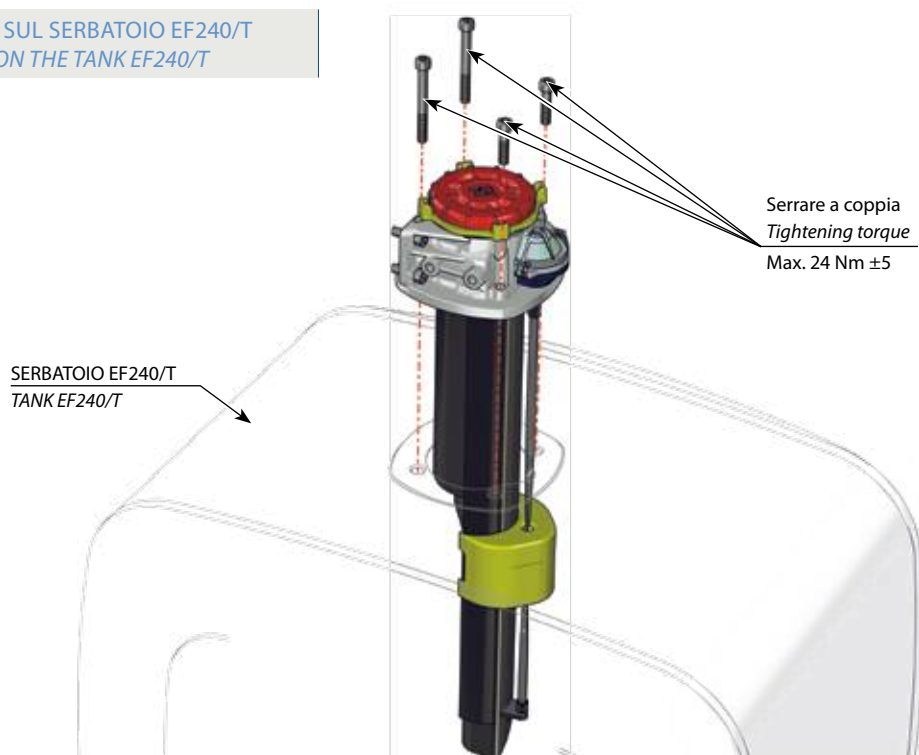
DIMENSIONI / DIMENSIONS



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INSTALLAZIONE / INSTALLATION

MONTAGGIO SUL SERBATOIO EF240/T
FITTING ON THE TANK EF240/T



SERBATOIO OLIO LATERALE DOPPIA ASPIRAZIONE
DOUBLE SUCTION SIDE MOUNTED OIL TANK

NEW

CODICE DI ORDINAZIONE / ORDERING CODE

EF240 N L XXX 0

COLORE / COLOUR
0 = NEUTRO / NEUTRAL

CAPACITÀ SERBATOIO (lt) / TANK CAPACITY (lt)

MATERIALE / MATERIAL
L = ALLUMINIO / ALUMINIUM

N = SERBATOIO LATERALE DOPPIA ASPIRAZIONE / DOUBLE SUCTION SIDE MOUNTING TANK

MODELLO / MODEL



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Utilizzabile anche su veicoli a metano
 Iveco Stralis NPG Natural Power.
 It can be used on Iveco Stralis
 NP vehicles too.

EF 240 NL 150

EF 240 NL 170

EF 240 NL 200

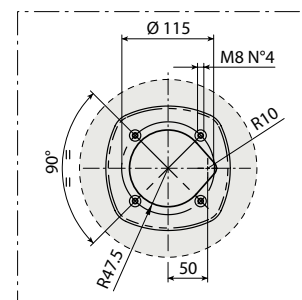
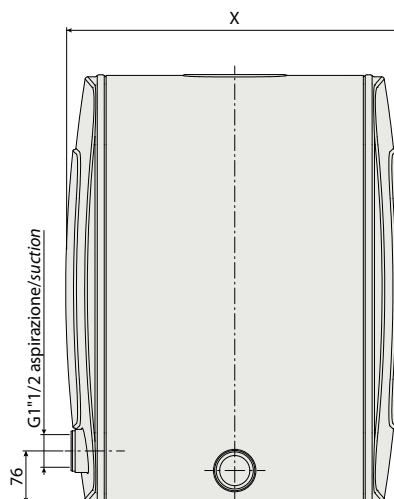
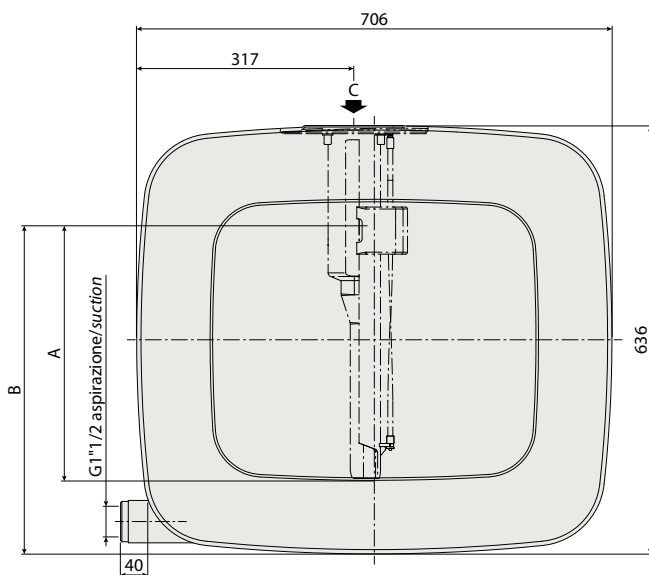
EF 240 NL 230

EF 240 NL 250

CARATTERISTICHE E DATI TECNICI / SPECIFICATIONS AND TECHNICAL DATA

CODICE SERBATOIO ALLUMINIO ALUMINIUM TANK CODE	CAPACITÀ NOMINALE RATED CAPACITY (litri / litres)	CAPACITÀ UTILE MAX MAX USEFUL CAPACITY (litri / litres) A	CAPACITÀ INDICATIVA DI RIEMPIMENTO INDICATIVE FILLING-UP CAPACITY (litri / litres) B	DIMENSIONI DIMENSIONS X (mm)
EF240NL1500	150 lt	108 lt	135 lt	400
EF240NL1700	170 lt	116 lt	148 lt	450
EF240NL2000	200 lt	138 lt	174 lt	500
EF240NL2300	230 lt	159 lt	200 lt	554
EF240NL2500	250 lt	176 lt	218 lt	590

I valori sono relativi all'indicazione del livello visibile su gruppo filtro EF 240/F. / The values correspond to the visible level indicated on the EF 240/F filter unit.

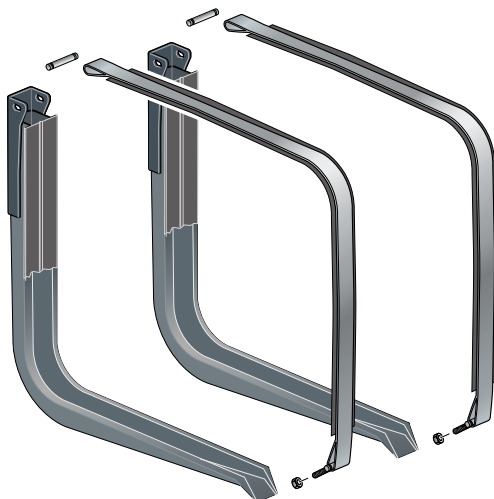


Vista parziale da C
 Partial view from C

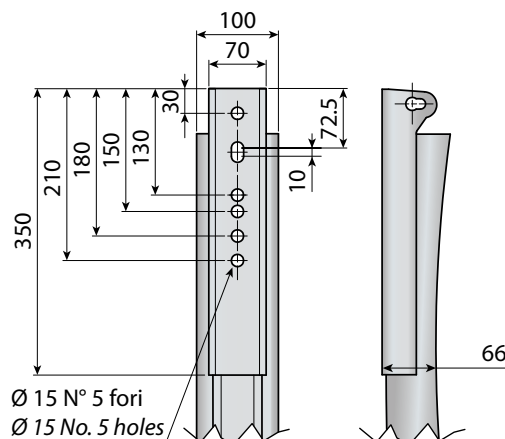
SERBATOIO OLIO LATERALE DOPPIA ASPIRAZIONE DOUBLE SUCTION SIDE MOUNTED OIL TANK

STAFFE / BRACKETS

CODICE / CODE
STA6370A100 (passo/pitch 45 - 50 mm)



DIMENSIONI FORI PER IL FISSAGGIO DELLE STAFFE
HOLE SIZE FOR BRACKET FASTENING



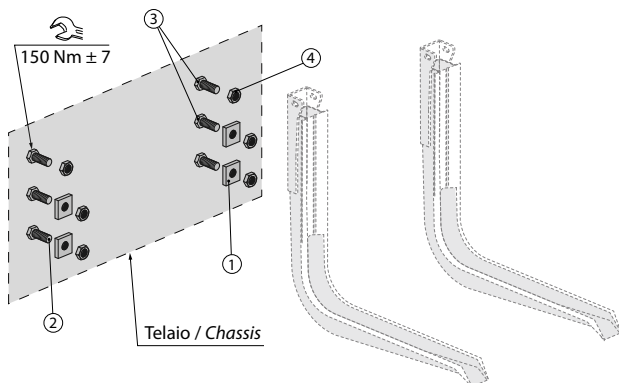
FISSARE CON MINIMO 3 VITI PER OGNI STAFFA
MOUNT BY MEANS OF 3 SCREWS FOR EACH BRACKET AT LEAST

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KIT FISSAGGIO AL TELAIO / CHASSIS MOUNTING KIT

KIT MONTAGGIO SU VEICOLO RENAULT
MOUNTING KIT FOR RENAULT VEHICLE

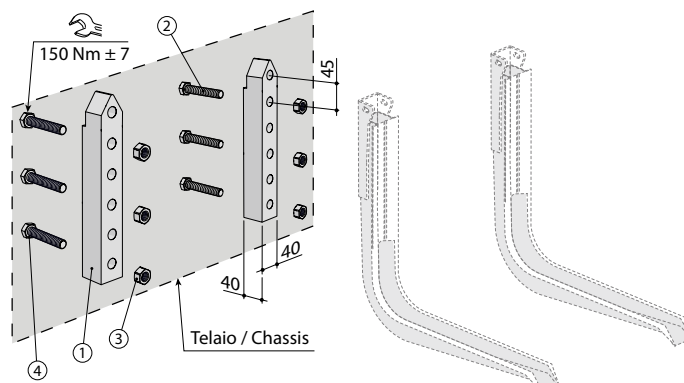
CODICE / CODE **EF240SB0001**



RIF. REF.	DESCRIZIONE / DESCRIPTION	Q.TÀ Q.TY
1	Piatto spessore 60x60x8 foro Ø16 / Shim bored disc 60x60x8 hole Ø16	4
2	Vite flangiata / Flanged screw TE M14X40 UNI EN1665	4
3	Vite flangiata / Flanged screw TE M14X50 UNI EN1665	2
4	Dado flangiato / Flanged nut M14 UNI EN1661	6

KIT MONTAGGIO SU VEICOLO IVECO
MOUNTING KIT FOR IVECO VEHICLE

CODICE / CODE **EF240SB0002**



RIF. REF.	DESCRIZIONE / DESCRIPTION	Q.TÀ Q.TY
1	Distanziale P=40 mm foro Ø16 / Spacer P=40 mm hole Ø16	2
2	Vite / Screw M14X80 UNI 5739	6
3	Dado / Nut M14 UNI 5588	6
4	Rondella piana / Flanged nut 14 UNI 6592	6

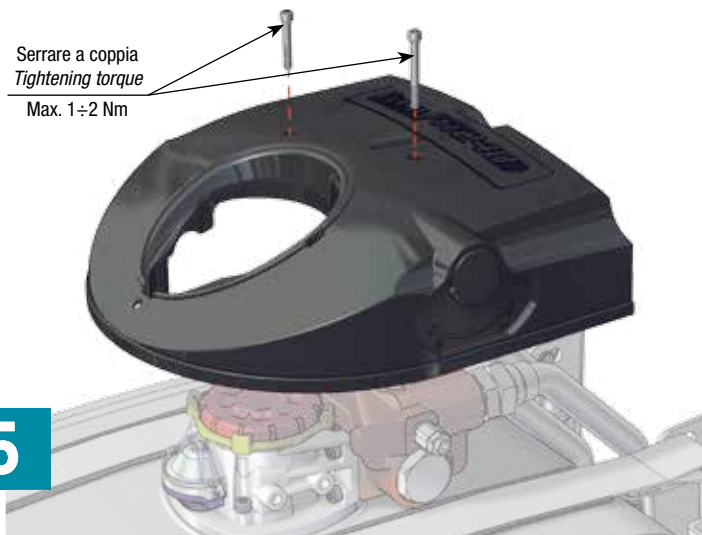
Per la scelta del kit fissaggio al telaio sui veicoli DAF, MAN, MERCEDES, SCANIA vedi sezione accessori da pag. 196
For selecting the chassis mounting kit on vehicles DAF, MAN, MERCEDES, SCANIA see accessories section from page 196.

COPERCHIO COVER

KIT COPERCHIO STANDARD per distributore SINGOLA TARATURA
(coperchio, viti e tappo chiusura nero)
STANDARD COVER KIT for SINGLE-SETTING distributor
(cover, screws and black closing cap)

CODICE / CODE **EF240C00003**

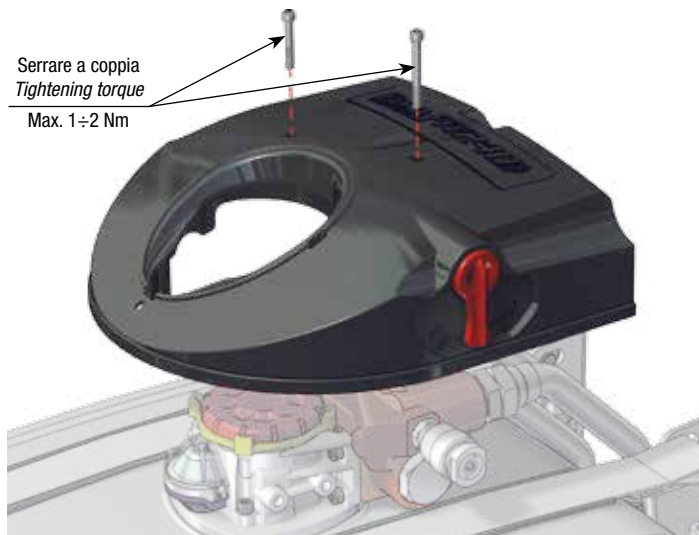
Serrare a coppia
Tightening torque
Max. $1 \div 2$ Nm



KIT COPERCHIO STANDARD per distributore DOPPIA TARATURA
(coperchio, viti e leva rossa)
STANDARD COVER KIT for DOUBLE-SETTING distributor
(cover, screws and red lever)

CODICE / CODE **EF240C00002**

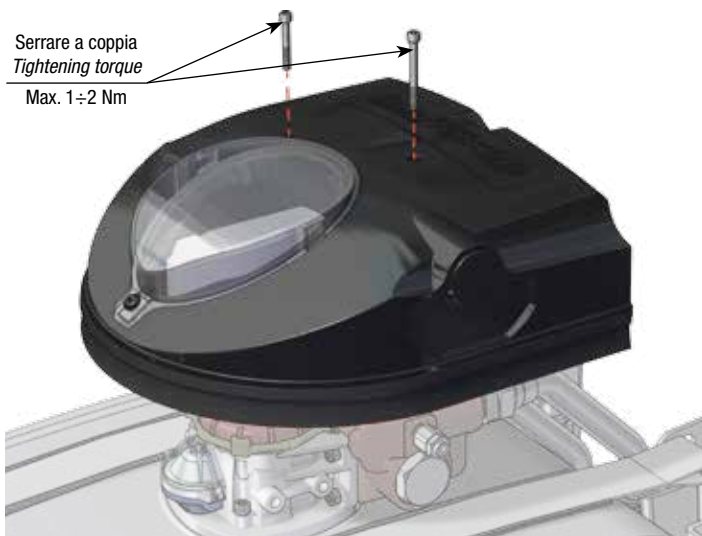
Serrare a coppia
Tightening torque
Max. $1 \div 2$ Nm



KIT COPERCHIO COMPLETO per distributore SINGOLA TARATURA
(coperchio, viti, tappo chiusura nero, calotta trasparente, clips e guarnizione)
COMPLETE COVER KIT for SINGLE-SETTING distributor
(cover, screws, black closing cap, transparent lid, clips and gasket)

CODICE / CODE **EF240C00005**

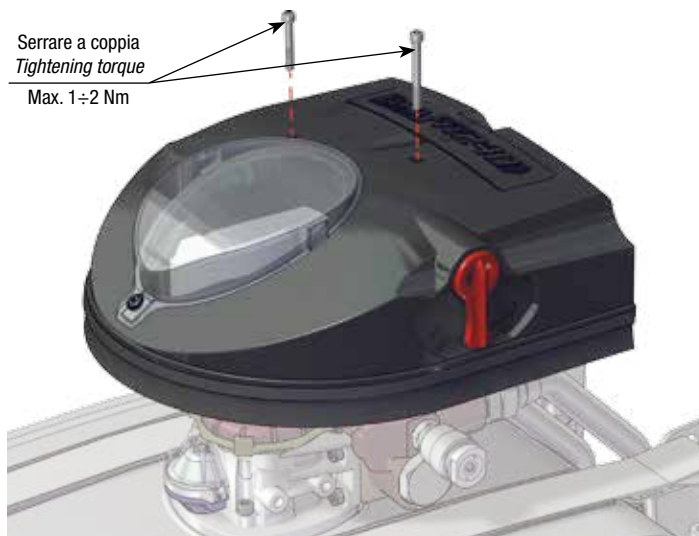
Serrare a coppia
Tightening torque
Max. $1 \div 2$ Nm



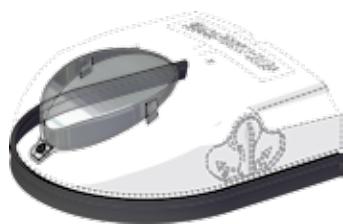
KIT COPERCHIO COMPLETO per distributore DOPPIA TARATURA
(coperchio, viti, leva rossa, calotta trasparente, clips e guarnizione)
COMPLETE COVER KIT for DOUBLE-SETTING distributor
(cover, screws, red lever, transparent lid, clips and gasket)

CODICE / CODE **EF240C00004**

Serrare a coppia
Tightening torque
Max. $1 \div 2$ Nm



A RICHIESTA / ON REQUEST



KIT TENUTA PER COPERCHIO EF 240/C
(composto da: calotta trasparente, vite, clips e guarnizione)

SEALING KIT FOR EF 240/C COVER
(including: transparent lid, screw, clips and gasket)

CODICE / CODE **EF240KT0001**

SETTAGGIO DISTRIBUTORE DOPPIA TARATURA
DOUBLE SETTING DISTRIBUTOR ADJUSTMENT



Per i valori di pressione del distributore EF240/D, vedere tabella a pag. 98.

For the pressure values of EF240/D distributor, see the table on page 98.



RACCORDI E TUBI FITTINGS AND HOSES

RACCORDI / FITTINGS

RACCORDO G1" COLLEGAMENTO DISTRIBUTORE EF 240/D - TUBI
G1" FITTING FOR EF 240/D DISTRIBUTOR - TUBES CONNECTION

CODICE / CODE **01300284000**



RACCORDO G1" COLLEGAMENTO VALVOLA EF 240/V - TUBI
G1" FITTING FOR EF 240/V VALVE - TUBES CONNECTION

CODICE / CODE **01300038000**



5

RACCORDI INGOMBRO RIDOTTO / REDUCED OVERALL FITTINGS

RACCORDO G1" A GOMITO 45° MASCHIO-FEMMINA GIREVOLE
G1" 45° MALE-FEMALE FITTING, TURNABLE ELBOW

CODICE / CODE **01300334000**



RACCORDO G1" A GOMITO 90° MASCHIO-FEMMINA GIREVOLE
G1" 90° MALE-FEMALE FITTING, TURNABLE ELBOW

CODICE / CODE **09902308000**



TUBI G1" 250 BAR / G1" HOSES 250 BAR

LUNGHEZZA LENGTH cm	TERMINALI TUBI / HOSES TERMINAL		
	FEMMINA-FEMMINA FEMALE-FEMALE	FEMMINA-FEMMINA 90° FEMALE-FEMALE 90°	FEMMINA-MASCHIO FEMALE-MALE
80	0160TE080CC	0160TE080CE	
105	0160TE105CC	0160TE105CE	
125	0160TE125CC	0160TE125CE	
150	0160TE150CC	0160TE150CE	
170	0160TE170CC	0160TE170CE	0160TE170CA
200	0160TE200CC	0160TE200CE	0160TE200CA
250	0160TE250CC	0160TE250CE	
300	0160TE300CC	0160TE300CE	0160TE300CA
350	0160TE350CC	0160TE350CE	0160TE350CA
400	0160TE400CC	0160TE400CE	0160TE400CA

DETTAGLIO TERMINALE TERMINAL DETAIL

	Terminale FEMMINA FEMALE terminal
	Terminale FEMMINA 90° FEMALE 90° terminal
	Terminale MASCHIO MALE terminal

PNEUMATICO E MECCANICO
PNEUMATICAL AND MECHANICAL CONTROL

CODICE DI ORDINAZIONE / ORDERING CODE

D50F4 X 0 XX X 0

RACCORDO D'ENTRATA / INLET FITTING
1 = 1/2" GAS (ATTACCO MASCHIO) STANDARD
1/2" GAS (MALE COUPLING) STANDARD
2 = 3/8" GAS (ATTACCO MASCHIO)
3/8" GAS (MALE COUPLING)

TARATURA VALVOLA MASSIMA PRESSIONE
PRESSURE RELIEF VALVE SETTING
01÷30 MPa (10÷300 bar)

M = DISTRIBUTORE A COMANDO MECCANICO
CABLE OPERATED VALVE

P = DISTRIBUTORE A COMANDO PNEUMATICO
AIR OPERATED VALVE

MODELLO / MODEL



5

CARATTERISTICHE TECNICHE / TECHNICAL SPECIFICATIONS

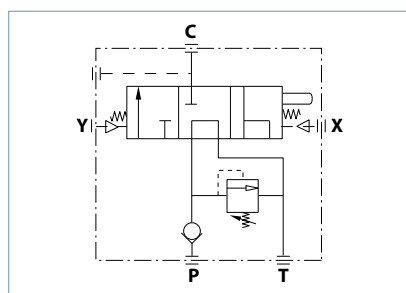
Portata nominale Flow rate	50 l/min	Temperatura fluido °C (t) Fluid temperature °C (t)	-25° + 80°C
Pressione massima di lavoro Max working pressure	300 bar	Campo viscosità Viscosity range	12-100 cSt
Pressione massima di picco (<0.1 s) Max peak pressure	350 bar	Filtrazione / Filtering ISO 4406 βx=75	20/17 25 μm
Pressione massima sul T T port max pressure	5 bar	Peso Weight	Meccanico / Mechanical: 2.74 kg Pneumatico / Pneumatical: 2.69 kg
Fluido olio minerale Mineral oil	ISO VG 46	Pressione pneumatica di lavoro Pneumatic working pressure	5 - 10 bar

CAMPI DI TARATURA / PRESSURE SETTING RANGE

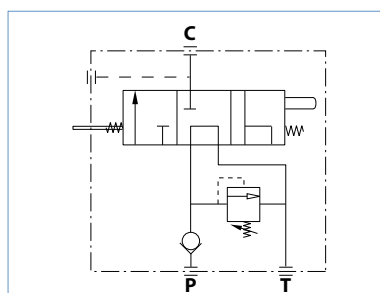
Bassa pressione Low pressure	80 - 150 bar	Media pressione Medium pressure	160 - 250 bar	Alta pressione High pressure	260-300 bar
	120 bar standard		200 bar standard		300 bar standard

- Distributore meccanico/pneumatico per il comando di ribaltabili leggeri a centro aperto.
- Valvola di ritegno incorporata.
- Valvola di massima a cartuccia tarabile sigillata.
- Predisposizione per pressostato (fornito a parte).
- Possibilità di montaggio flangiato o in linea.
- Attacco fine corsa.

- Pneumatical and mechanical distributor for light tipping vehicles with open center.
- Relief valve included.
- Relief valve with set and damped cartridge.
- Ready for pressure switch add-on (to be ordered separately).
- Fitting to tank or to chassis.
- Ready for end of stroke add-on.

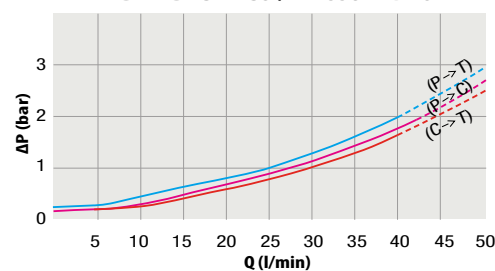


VERSIONE PNEUMATICA / PNEUMATICAL VERSION



VERSIONE MECCANICA / MECHANICAL VERSION

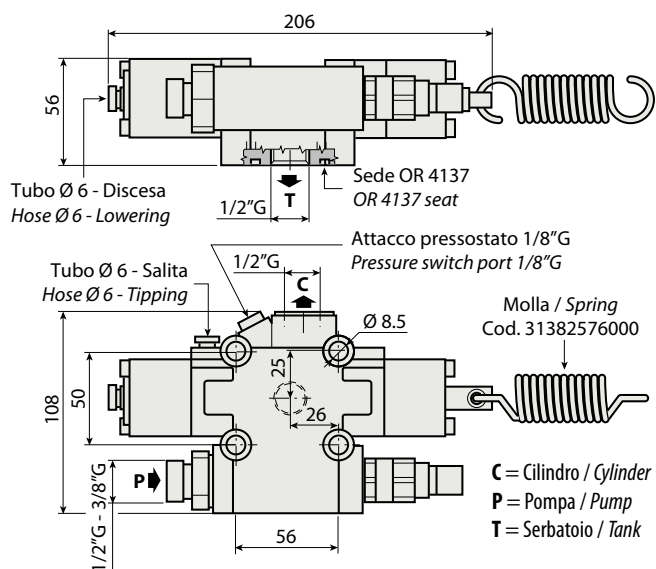
PERDITE DI CARICO / PRESSURE DROP



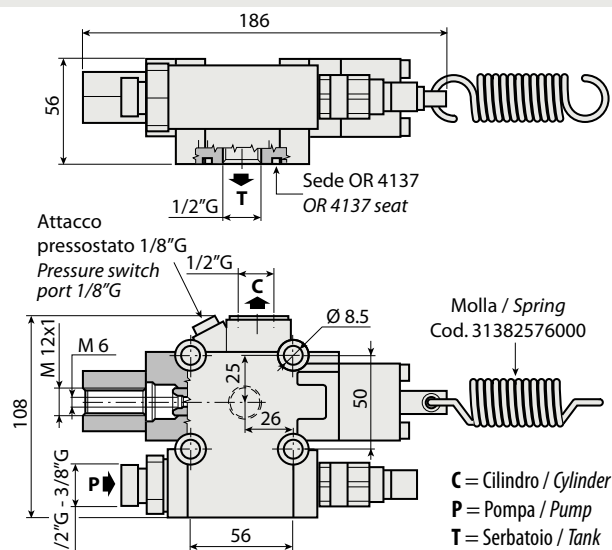
RILIEVI ESEGUITI CON OLIO ISO VG 46 A 20° C (ν = 135 cSt)
THE ABOVE SPECIFICATIONS REFER TO OIL TYPE ISO VG 46 AT 20° C (ν = 135 cSt)

PNEUMATICO E MECCANICO
PNEUMATICAL AND MECHANICAL CONTROL

VERSIONE PNEUMATICA / PNEUMATICAL VERSION



VERSIONE MECCANICA / MECHANICAL VERSION



PRESSOSTATO A RICHIESTA / UPON REQUEST PRESSURE SWITCH

CODICE / CODE

	Coppia di serraggio: 30 ± 5 Nm Tightening torque: 30 ± 5 Nm	Pressostato 3 bar per pressioni di lavoro < 160 bar Pressure switch at 3 bar for working pressure < 160 bar	501PRS163A1
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DESCRIZIONE / DESCRIPTION

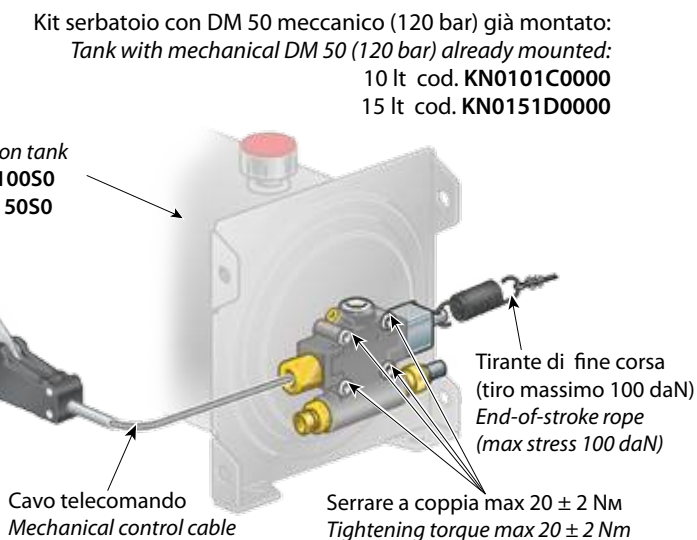
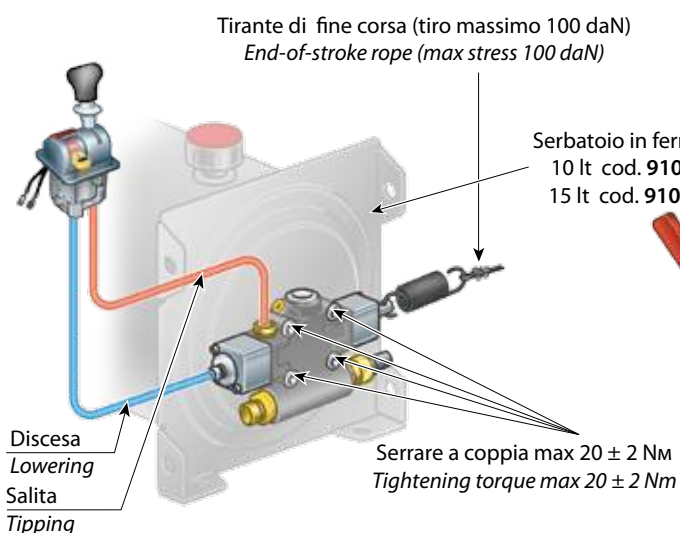
CODICE / CODE

Kit raccordo C 1/2" G - C 1/2" G fitting	30KDF510000
Kit raccordo C 3/8" G - C 3/8" G fitting	30KDF520000
Kit fissaggio per serbatoio in ferro - Stud kit for steel tank	30KDF500000
Kit fissaggio per serbatoio in plastica - Stud kit for plastic tank	30KFSOPDM50
Kit montaggio a telaio - Stud kit for chassis fitting	30KDF600000
Kit fissaggio per serbatoi sottocassa 21-34 lt - Stud kit for underbody tank 21-34 lt	30KDF502134
Kit fissaggio per serbatoi sottocassa 47-60 lt - Stud kit for underbody tank 47-60 lt	30KDF504760

ESEMPIO SCHEMA DI MONTAGGIO / EXAMPLE OF HOOK-UP

VERSIONE PNEUMATICA / PNEUMATICAL VERSION

VERSIONE MECCANICA / MECHANICAL VERSION



ELETTRICO
ELECTRICAL CONTROL

CODICE DI ORDINAZIONE / ORDERING CODE

D50F4 X X XX X 0

RACCORDO D'ENTRATA / INLET FITTING

1 = 1/2" GAS (ATTACCO MASCHIO) STANDARD
1/2" GAS (MALE COUPLING) STANDARD

2 = 3/8" GAS (ATTACCO MASCHIO)
3/8" GAS (MALE COUPLING)

TARATURA VALVOLA MASSIMA PRESSIONE
PRESSURE RELIEF VALVE SETTING
01÷25 MPa (10÷250 bar)

1 = 12 V DC

2 = 24 V DC

F = ELETTTRICO CON FINE CORSA / ELECTRICAL CONTROL WITH END-OF-STROKE

E = ELETTTRICO SENZA FINE CORSA / ELECTRICAL CONTROL WITHOUT END-OF-STROKE

MODELLO / MODEL



5

CARATTERISTICHE TECNICHE / TECHNICAL SPECIFICATIONS

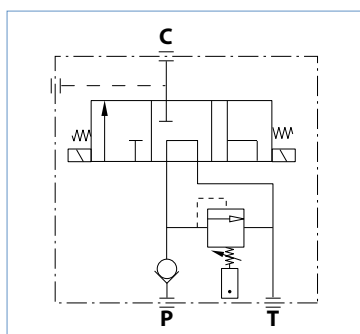
Portata nominale Flow rate	40 l/min	Temperatura fluido °C (t) Fluid temperature °C (t)	-25° + 80°C
Pressione massima di lavoro Max working pressure	250 bar	Campo viscosità Viscosity range	12-100 cSt
Pressione massima di picco (<0.1 s) Max peak pressure	300 bar	Filtrazione / Filtering ISO 4406 βx=75	20/17 25 μm
Pressione massima sul T T port max pressure	5 bar	Peso Weight	3.57 kg
Fluido olio minerale / Mineral oil	ISO VG 46		

CAMPI DI TARATURA / PRESSURE SETTING RANGE

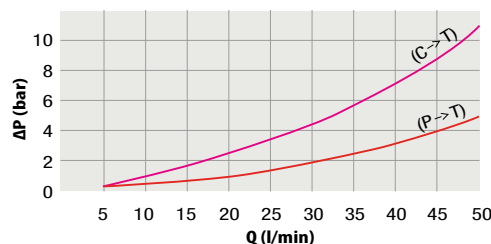
Bassa pressione Low pressure	100 - 210 bar	Media pressione Medium pressure	220 - 250 bar
	120 bar standard		250 bar standard

- Distributore elettrico per il comando di ribaltabili leggeri a centro aperto.
- Tensione di comando 12 V o 24 V.
- Valvola di ritegno incorporata.
- Valvola di massima a cartuccia tarabile sigillata.
- Predisposizione per pressostato (fornito a parte).
- Possibilità di montaggio flangiato o in linea.
- Attacco fine corsa.

- Electrical distributor for light tipping vehicles with open center.
- Voltage 12V or 24V.
- Relief valve included.
- Relief valve with set and damped cartridge.
- Ready for pressure switch add-on (to be ordered separately).
- Fitting to tank or to chassis.
- Ready for end of stroke add-on.

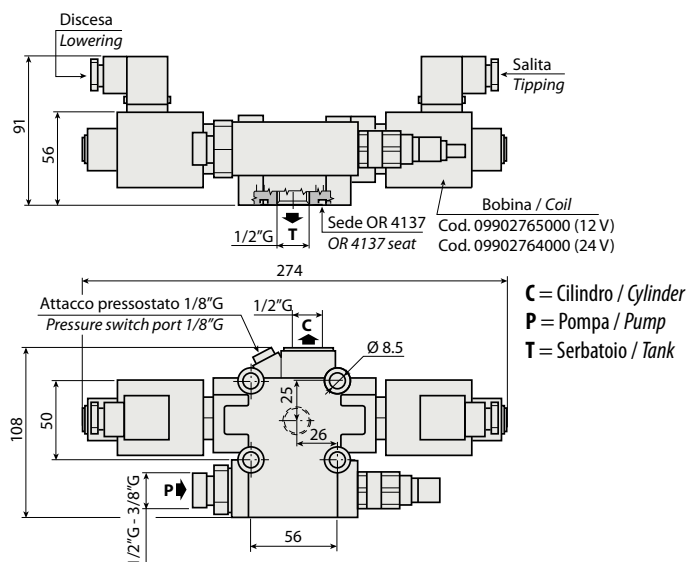


PERDITE DI CARICO / PRESSURE DROP

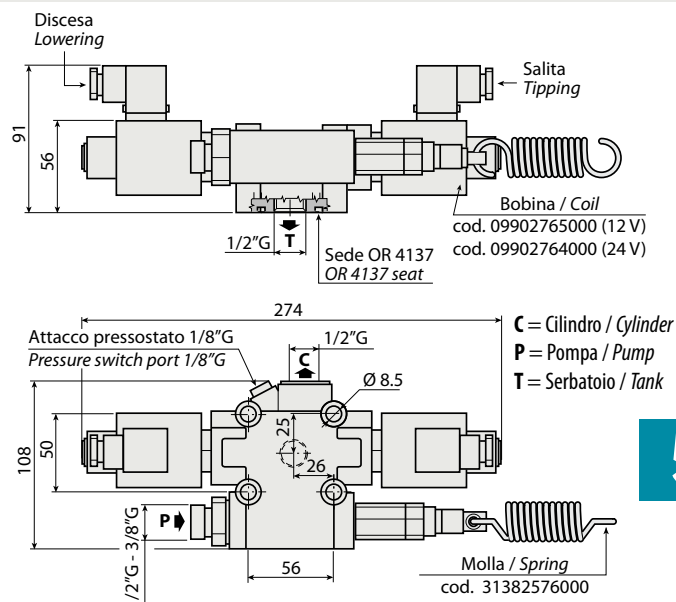


RILIEVI ESEGUITI CON OLIO ISO VG 46 A 50° C (ν = 30 cSt)
THE ABOVE SPECIFICATIONS REFER TO OIL TYPE ISO VG 46 AT 50° C (ν = 30 cSt)

VERSIONE ELETTRICA
ELECTRICAL VERSION



VERSIONE ELETTRICA CON FINECORSA
ELECTRICAL VERSION WITH END-OF-STROKE



5

PRESSOSTATO A RICHIESTA / UPON REQUEST PRESSURE SWITCH

CODICE / CODE

	Coppia di serraggio: 30 ± 5 Nm Tightening torque: 30 ± 5 Nm	Pressostato 3 bar per pressioni di lavoro < 160 bar Pressure switch at 3 bar for working pressure < 160 bar	501PRS163A1
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DESCRIZIONE / DESCRIPTION

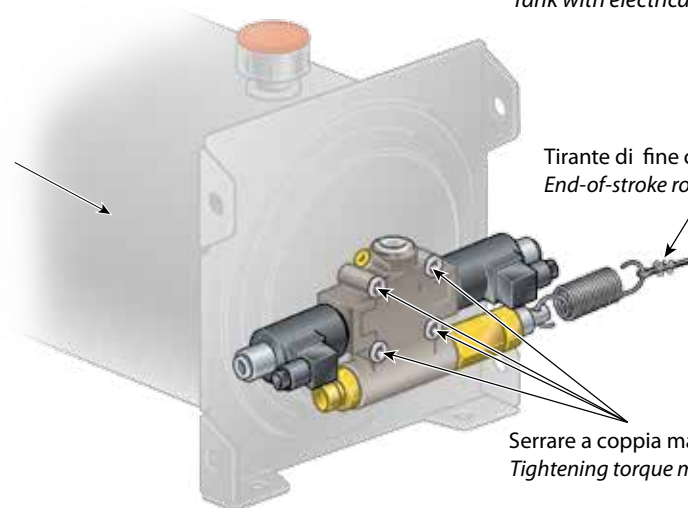
CODICE / CODE

Kit raccordo C 1/2" G - C 1/2" G fitting	30KDF510000
Kit raccordo C 3/8" G - C 3/8" G fitting	30KDF520000
Kit fissaggio per serbatoio in ferro - Stud kit for steel tank	30KDF500000
Kit fissaggio per serbatoio in plastica - Stud kit for plastic tank	30KFSOPDM50
Kit montaggio a telaio - Stud kit for chassis fitting	30KDF600000
Kit fissaggio per serbatoi sottocassa 21-34 lt - Stud kit for underbody tank 21-34 lt	30KDF502134
Kit fissaggio per serbatoi sottocassa 47-60 lt - Stud kit for underbody tank 47-60 lt	30KDF504760

ESEMPIO SCHEMA DI MONTAGGIO / EXAMPLE OF HOOK-UP

Kit serbatoio con DM 50 elettrico (120 bar) già montato:
Tank with electrical DM 50 (120 bar) already mounted:
10 lt cod. KN0101A0000
15 lt cod. KN0151B0000

Serbatoio in ferro / Iron tank
10 lt cod. 910SO0100S0
15 lt cod. 910SO0150S0



Tirante di fine corsa (tiro massimo 100 daN)
End-of-stroke rope (max stress 100 daN)

Serrare a coppia max 20 ± 2 Nm
Tightening torque max 20 ± 2 Nm

CODICE DI ORDINAZIONE / ORDERING CODE

DM70 X X XX X XX

00 = NESSUN OPTIONAL / NO OPTIONALS

PO = ATTACCO PRESSOSTATO /
PRESSURE SWITCH GAUGE

MO = ATTACCO MANOMETRO
MANOMETER GAUGE

RACCORDO D'ENTRATA / INLET GAUGE

2 = 1/2" GAS FEMMINA STANDARD / 1/2" GAS STANDARD FEMALE

3 = 1/2" GAS MASCHIO / 1/2" GAS MALE

TARATURA VALVOLA MASSIMA PRESSIONE / PRESSURE RELIEF VALVE SETTING

08 ÷ 35 MPa (80-350 bar)

0 = SOLO DISCESA VELOCE / FAST LOWERING ONLY

L = SOLO DISCESA LENTA / SLOW LOWERING ONLY

P = COMANDO PNEUMATICO / PNEUMATIC CONTROL

C = COMANDO MECCANICO / MECHANICAL CONTROL

L = COMANDO A LEVA / LEVER CONTROL



DM 70 P

DM 70 C

DM 70 PL

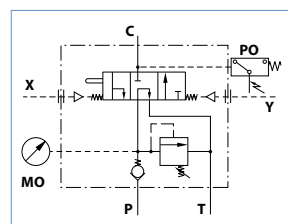
DM 70 L

CARATTERISTICHE TECNICHE / TECHNICAL SPECIFICATIONS

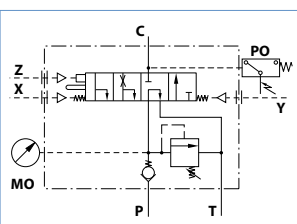
Portata nominale Flow rate	80 l/min	Temperatura fluido °C (t) Fluid temperature °C (t)	-25° + 80°C
Pressione massima di lavoro Max working pressure	350 bar	Campo viscosità Viscosity range	12-100 cSt
Pressione massima di picco (<0.1 s) Max peak pressure	500 bar	Filtrazione / Filtering ISO 4406 $\beta_x=75$	20/17 25 μ m
Pressione massima sul T T port max pressure	30 bar	Peso Weight	3.5 kg
Pressione pneumatica massima Max pneumatic pressure	12 bar	Fluido olio minerale Mineral oil	ISO VG 46

- Distributore da 80 l/min a comando pneumatico o meccanico (a cavo o a leva) per veicoli ribaltabili con sola motrice.
- Consente la salita, la discesa veloce e la discesa lenta fissa (mod. DM 70 P e DM 70 PL).
- Nei modelli DM 70 C la discesa lenta è in posizione transitoria.
- Ricentraggio a molla.
- In posizione di riposo la mandata ricircola a serbatoio e l'utenza A è chiusa.
- Sono incorporate le valvole di ritegno e controllo pressione in P.
- Tirante per fine corsa.
- Flangiabile a serbatoio e a telaio.
- Attacco manometro o pressostato a richiesta.

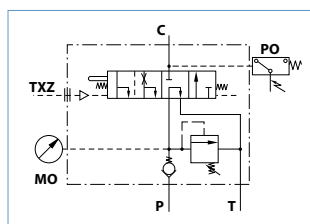
- Pneumatically or mechanically (operated through cable or lever) 80 l/min distributor for tipping vehicles, with tractor only.
- It allows tipping, fast lowering and fixed slow lowering (models DM 70 P and DM 70 PL).
- DM 70 C versions are provided with a transitory position slow lowering.
- Re-centering through spring.
- In neutral position the oil outlet is open to oil tank and the port A is closed.
- Port P check and adjustable relief valves are included.
- End-of-stroke rope.
- Flange connection to tank or chassis.
- Upon request manometer or pressure gauge.



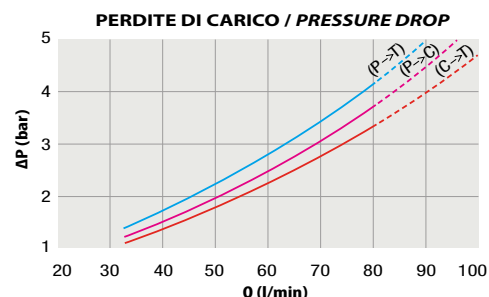
mod. DM 70 P



mod. DM 70 PL



mod. DM 70 C mod. DM 70 L



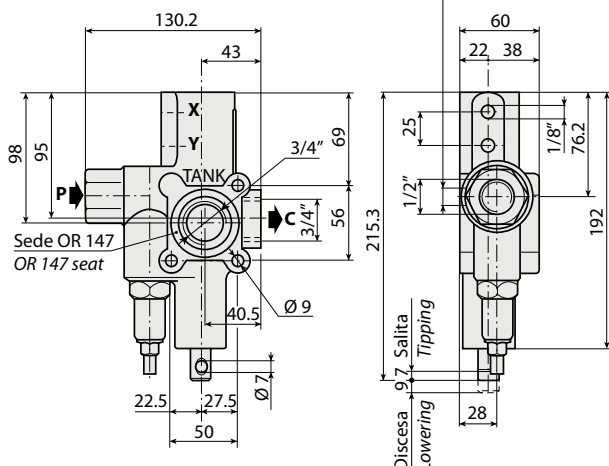
RILIEVI ESEGUITI CON OLIO ISO VG 46 A 50° C ($\nu=30$ cSt)
THE ABOVE SPECIFICATIONS REFER TO OIL TYPE ISO VG 46 AT 50° C ($\nu=30$ cSt)

VERSIONE STANDARD / STANDARD VERSION

mod. DM 70 P

X = Discesa / Lowering
Y = Salita / Tipping

A richiesta foro 1/8"G per pressost.
o 1/4"G per manometro
Upon req. 1/8"G press. switch gauge
or 1/4"G manom. gauge



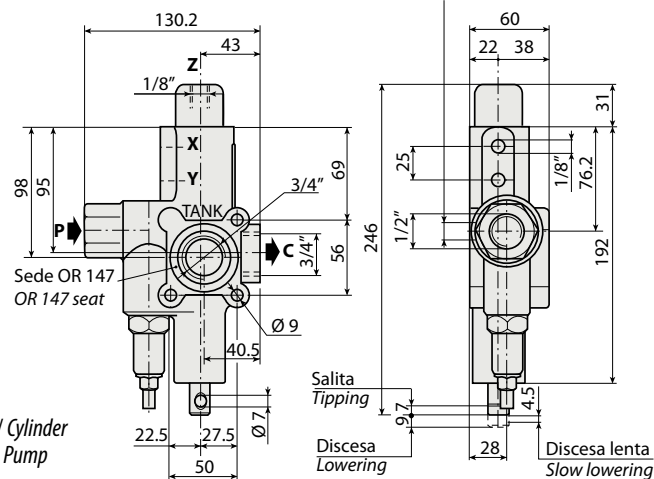
C = Cilindro / Cylinder
P = Pompa / Pump

VERSIONE CON DISCESA LENTA / SLOW LOWERING VERSION

mod. DM 70 PL

X = Discesa veloce / Fast lowering
Y = Salita / Tipping
Z = Discesa lenta / Slow lowering

A richiesta foro 1/8"G per pressost.
o 1/4"G per manometro
Upon req. 1/8"G press. switch gauge
or 1/4"G manom. gauge



5

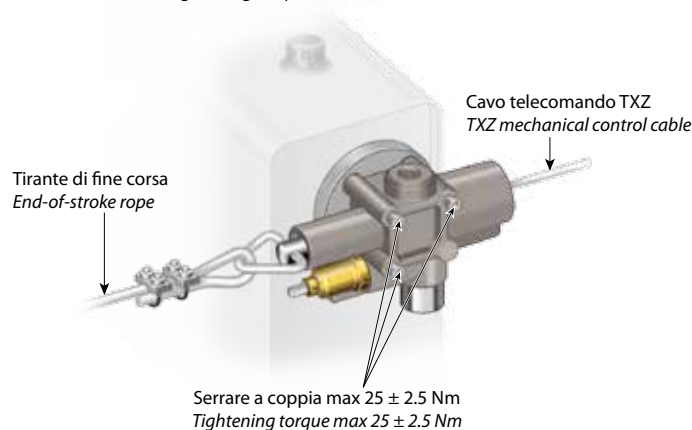
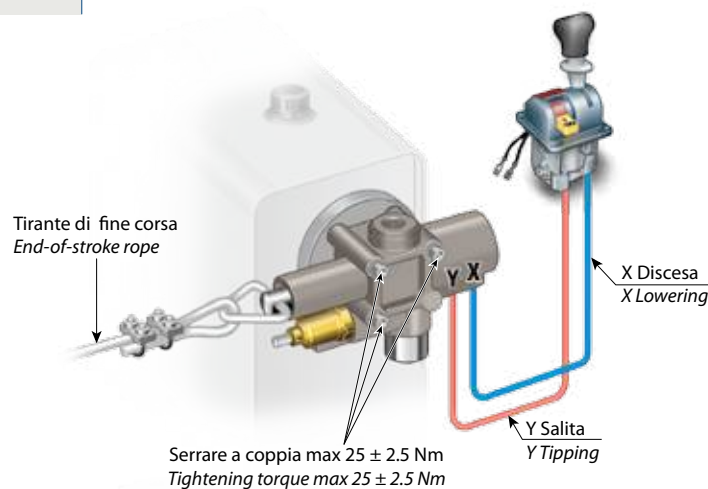
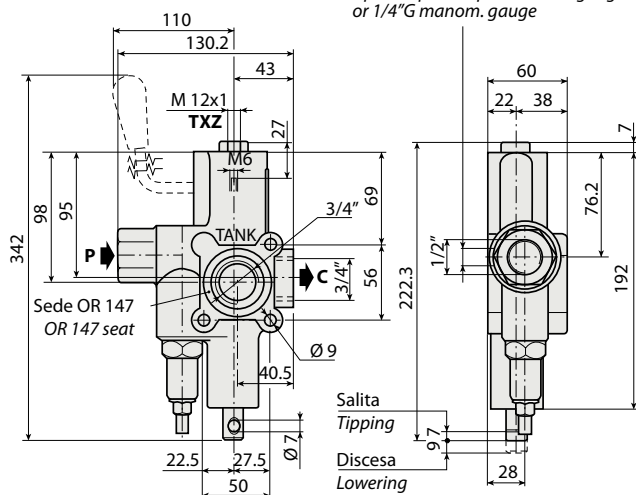
VERSIONE A COMANDO MECCANICO / MECHANICAL CONTROL VERSION

mod. DM 70 C mod. DM 70 L

C = Cilindro / Cylinder
P = Pompa / Pump

TXZ = Comando meccanico / Mechanical control

A richiesta foro 1/8"G per pressost.
o 1/4"G per manometro
Upon req. 1/8"G press. switch gauge
or 1/4"G manom. gauge



PRESSOSTATO A RICHIESTA / UPON REQUEST PRESSURE SWITCH

Coppia di serraggio / Tightening torque: 30 ± 5 Nm

Pressostato 3 bar per pressioni di lavoro < 160 bar
Pressure switch at 3 bar for working pressure < 160 bar

COD.
501PRS163A1

Pressostato 7 bar per pressioni di lavoro > 160 bar
Pressure switch at 7 bar for working pressure > 160 bar

COD.
501PRS357A1

KIT PER FISSAGGIO AL SERBATOIO / TANK MOUNTING KIT



M8x75

Serrare a coppia max 25 ± 5 Nm
Tightening torque max 25 ± 5 Nm

COD. 30KDF080000

CAMPI DI REGOLAZIONE VALVOLA DI MASSIMA ADJUSTMENT RANGES FOR RELIEF VALVE

140 ÷ 240 bar

240 ÷ 350 bar

CODICE DI ORDINAZIONE / ORDERING CODE

D130 X P XX X XX

00 = NESSUN OPTIONAL / NO OPTIONAL
PO = ATTACCO PRESSOSTATO / PRESSURE SWITCH GAUGE
MO = ATTACCO MANOMETRO / MANOMETER GAUGE
CO = COPRIMOZZO / PROTECTION CUP
MC = MANOMETRO E COPRIMOZZO
MANOMETER AND PROTECTION CUP
PC = PRESSOSTATO E COPRIMOZZO
PRESSURE AND PROTECTION CUP

RACCORDO D'ENTRATA / INLET GAUGE
4 = 3/4" GAS FEMMINA STANDARD / FEMALE STANDARD
5 = 3/4" GAS MASCHIO / MALE

TARATURA VALVOLA MASSIMA PRESSIONE / PRESSURE RELIEF VALVE SETTING
08 ÷ 35 MPa (80-350 bar)

P = DISCESA PROGRESSIVA / PROGRESSIVE LOWERING

P = COMANDO PNEUMATICO / PNEUMATIC CONTROL

C = COMANDO MECCANICO MONOSTABILE / MECHANICAL CONTROL MONOSTABLE

L = COMANDO A LEVA MONOSTABILE / LEVER CONTROL MONOSTABLE

MODELLO / MODEL



DM 130 P

DM 130 C

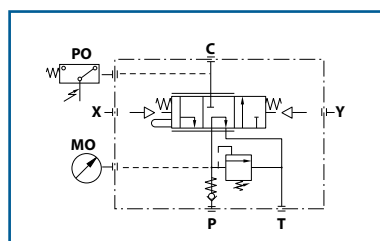
DM 130 L

CARATTERISTICHE TECNICHE / TECHNICAL SPECIFICATIONS

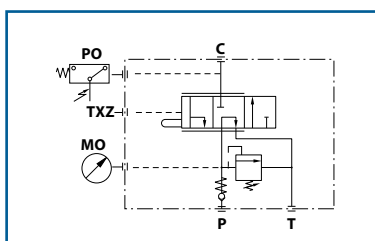
Portata nominale Flow rate	130 l/min	Temperatura fluido °C (t) Fluid temperature °C (t)	-25° + 80°C
Pressione massima di lavoro Max working pressure	350 bar	Campo viscosità Viscosity range	12-100 cSt
Pressione massima di picco (<0.1 s) Max peak pressure	500 bar	Filtrazione / Filtering ISO 4406 $\beta_x=75$	20/17 25 μm
Pressione massima sul T T port max pressure	30 bar	Peso Weight	4.5 kg
Pressione pneumatica massima Max pneumatic pressure	12 bar	Fluido olio minerale Mineral oil	ISO VG 46

- Distributore da 130 l/min a comando pneumatico o meccanico, per veicoli ribaltabili con sola motrice.
- Consente la salita, la discesa veloce e la discesa progressiva (con il telecomando TXZ o con il comando pneumatico proporzionale tipo CP).
- Sono incorporate la valvola di ritegno in ingresso e la valvola di massima pressione regolabile da 140-220 bar (std.=160 bar) o (a richiesta) da 220-350 bar (std.=250 bar).
- Tirante per fine corsa o coprismozzo.
- Flangiabile a serbatoio e a telaio.
- Attacco manometro o pressostato a richiesta.

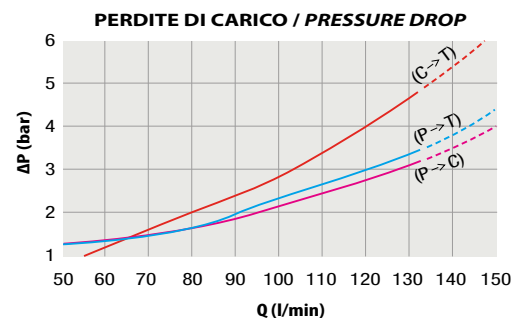
- Pneumatic or mechanical operated 130 l/min distributor, for tipping vehicles, with tractor only.
- It performs tipping, fast lowering and progressive lowering (by means of mechanical control cable TXZ or the progressive pneumatic control like CP).
- The inlet check valve and the adjustable relief valve are built-in. The relief valve range is from 140-220 bar (std.=160 bar) or (upon request) from 220-350 bar (std.=250 bar).
- End-of-stroke rope or protection cup.
- Flange connection to tank or chassis is available.
- Upon request manometer or pressure switch gauge.



mod. DM 130 P



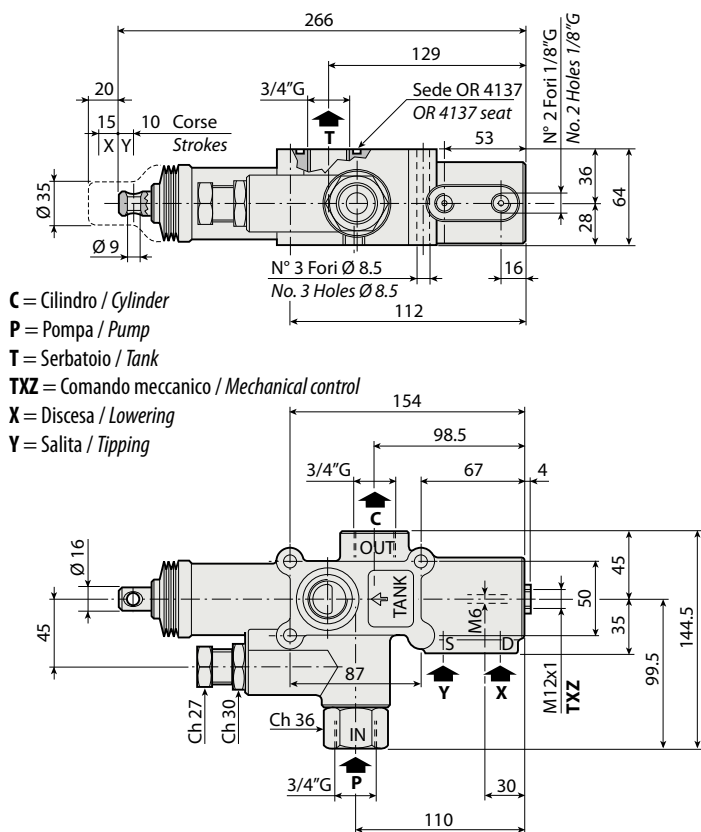
mod. DM 130 C



RILIEVI ESEGUITI CON OLIO ISO VG 46 A 50° C ($\nu=30$ cSt)
THE ABOVE SPECIFICATIONS REFER TO OIL TYPE ISO VG 46 AT 50° C ($\nu=30$ cSt)

VERSIONE STANDARD / STANDARD VERSION

mod. DM 130



C = Cilindro / Cylinder

P = Pompa / Pump

T = Serbatoio / Tank

TXZ = Comando meccanico / Mechanical control

X = Discesa / Lowering

Y = Salita / Tipping

CAMPI DI REGOLAZIONE VALVOLA DI MASSIMA ADJUSTMENT RANGES FOR RELIEF VALVE

140 ÷ 240 bar	240 ÷ 350 bar
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PRESSOSTATO A RICHIESTA / UPON REQUEST PRESSURE SWITCH

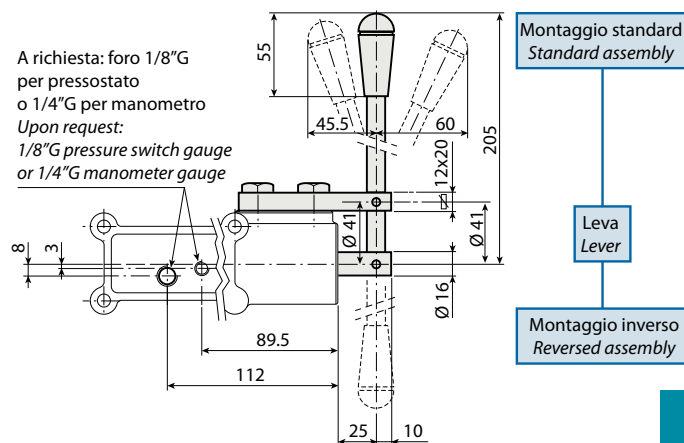
Coppia di serraggio / Tightening torque: 30 ± 5 Nm	
Pressostato 3 bar per pressioni di lavoro < 160 bar Pressure switch at 3 bar for working pressure < 160 bar	COD. 501PRS163A1
Pressostato 7 bar per pressioni di lavoro > 160 bar Pressure switch at 7 bar for working pressure > 160 bar	COD. 501PRS357A1

KIT PER FISSAGGIO AL SERBATOIO / TANK MOUNTING KIT

M8x80 Serrare a coppia max 25 ± 5 Nm Tightening torque max 25 ± 5 Nm	COD. 30KFDF08000
Kit + piastra a saldare / Kit + plate to weld ≠ 20	COD. 30KDF070000
Kit + piastra a saldare / Kit + plate to weld ≠ 30	COD. 30KDF071000

KIT LEVA / LEVER KIT

cod. 3LDMM800000

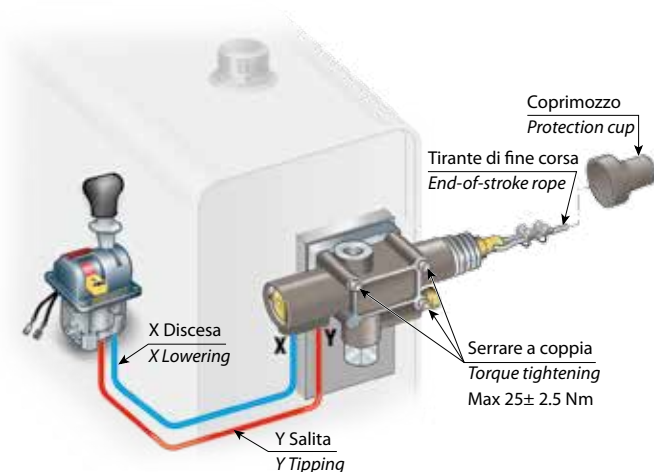
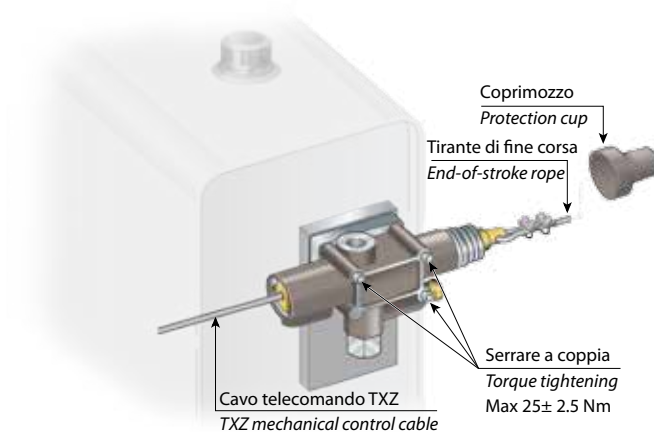


Montaggio standard
Standard assembly

Leva
Lever

Montaggio inverso
Reversed assembly

5



CODICE DI ORDINAZIONE / ORDERING CODE

D140 P P XX 5 P P

MODELLO / MODEL

P = COMANDO PNEUMATICO / PNEUMATIC CONTROL

P = DISCESA PROGRESSIVA / PROGRESSIVE LOWERING

TARATURA VALVOLA MASSIMA PRESSIONE
PRESSURE RELIEF VALVE SETTING
08 ÷ 35 MPa (80-350 bar)

5 = 3/4" GAS MASCHIO / 3/4" GAS MALE

RACCORDO D'ENTRATA / INLET GAUGE

ATTACCO PRESSOSTATO / PRESSURE SWITCH GAUGE

VALVOLA PIOMBATA / SEALED VALVE



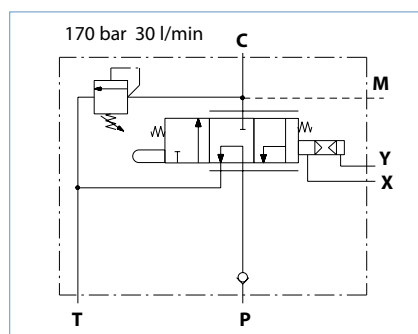
DM 140 P

CARATTERISTICHE TECNICHE / TECHNICAL SPECIFICATIONS

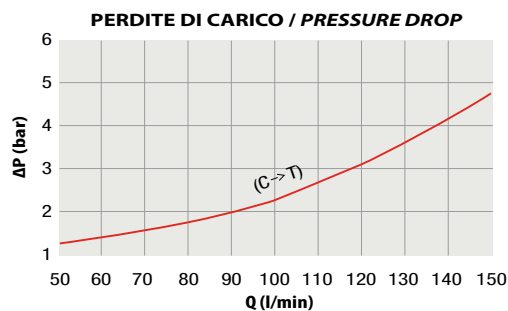
Portata nominale Flow rate	140 l/min	Temperatura fluido °C (t) Fluid temperature °C (t)	-25° + 80°C
Pressione massima di lavoro Max working pressure	350 bar	Campo viscosità Viscosity range	12-100 cSt
Pressione massima di picco (<0.1 s) Max peak pressure	400 bar	Filtrazione / Filtering ISO 4406 βx=75	20/17 25 μm
Pressione massima sul T T port max pressure	30 bar	Peso Weight	5.1 kg
Pressione pneumatica massima Max pneumatic pressure	10 bar	Fluido olio minerale Mineral oil	ISO VG 46

- Distributore da 140 l/min a comando pneumatico, per veicoli ribaltabili.
- Consente la salita, la discesa veloce e la discesa progressiva (con il comando pneumatico proporzionale).
- Sono incorporate la valvola di ritegno in ingresso e la valvola di massima pressione regolabile da 140-350 bar.
- Tirante per fine corsa.
- Flangiabile a serbatoio e a telaio.
- Attacco manometro.

- Pneumatic operated 140 l/min distributor, for tipping vehicles.
- It performs tipping, fast lowering and progressive lowering (by means of progressive pneumatic control).
- The inlet check valve and the adjustable relief valve are built-in. The relief valve range is from 140-350 bar.
- End-of-stroke rope.
- Flange connection to tank or chassis is available.
- Manometer connection.

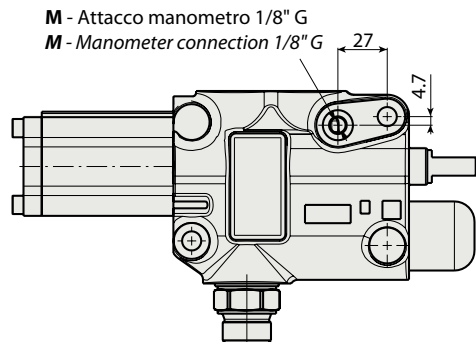
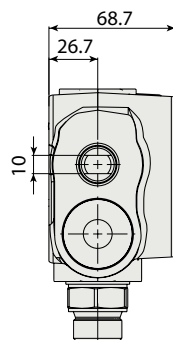
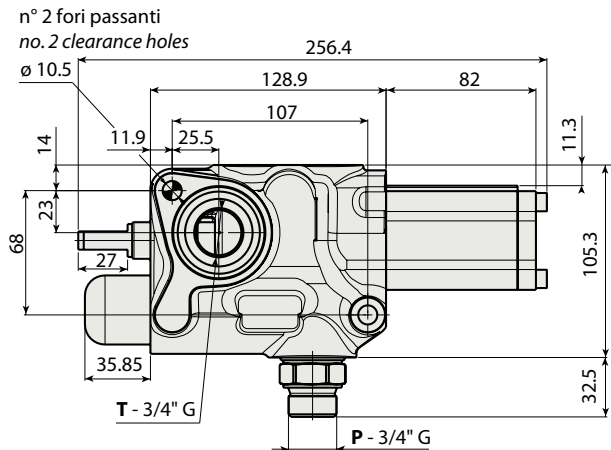


mod. DM 140

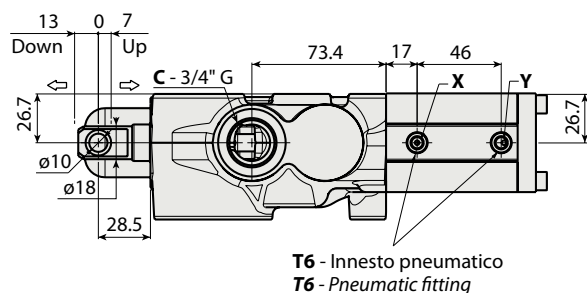


RILIEVI ESEGUITI CON OLIO ISO VG 46 A 50° C ($\nu = 30$ cSt)
THE ABOVE SPECIFICATIONS REFER TO OIL TYPE ISO VG 46 AT 50° C ($\nu = 30$ cSt)

VERSIONE STANDARD / STANDARD VERSION
mod. DM 140



C = Cilindro / Cylinder
P = Pompa / Pump
T = Serbatoio / Tank
X = Salita / Tipping
Y = Discesa / Lowering



PRESSOSTATO A RICHIESTA / UPON REQUEST PRESSURE SWITCH



Coppia di serraggio 30 ± 5 Nm / Tightening torque: 30 ± 5 Nm

Pressostato 3 bar per pressioni di lavoro < 160 bar
Pressure switch at 3 bar for working pressure < 160 bar

COD.
501PRS163A1

Pressostato 7 bar per pressioni di lavoro > 160 bar
Pressure switch at 7 bar for working pressure > 160 bar

COD.
501PRS357A1

KIT PER FISSAGGIO AL SERBATOIO / TANK MOUNTING KIT



Serrare a coppia max 25 ± 5 Nm
Tightening torque max 25 ± 5 Nm

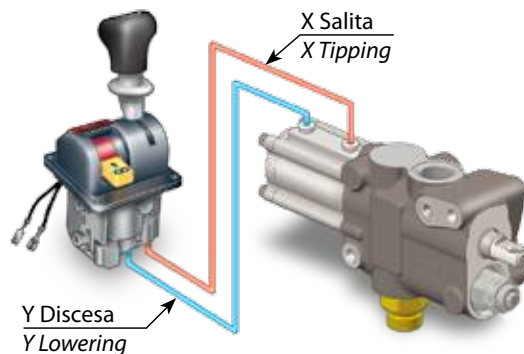
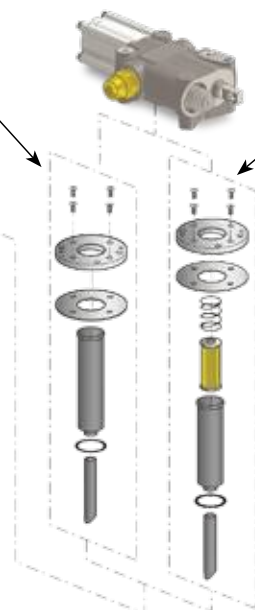
COD. 299290000H0

ESEMPI DI MONTAGGIO / EXAMPLES OF MOUNTING

Piastra fissaggio distributore
Distributor mounting plate
Cod. 30KFDS00400



Piastra fissaggio distributore con filtro
Distributor mounting plate with filter
Cod. 30KFDS00300



CODICE DI ORDINAZIONE / ORDERING CODE

DS15 P F XX 4 P 1

MODELLO / MODEL

P = COMANDO PNEUMATICO / PNEUMATIC CONTROL

F = FINE CORSA PNEUMATICO / PNEUMATIC END-OF-STROKE

TARATURA VALVOLA MASSIMA PRESSIONE
PRESSURE RELIEF VALVE SETTING
19 = 190 bar
24 = 240 bar

RACCORDO D'ENTRATA / INLET GAUGE
4 = 3/4" GAS MASCHIO STANDARD / 3/4" GAS MALE STANDARD

P = ATTACCO PRESSOSTATO
PRESSURE SWITCH GAUGE

VERSIONE / VERSION



Flangibile solo al CILINDRO
Flange connection only to CYLINDER

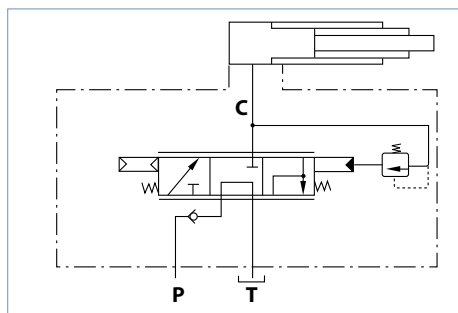
S 150 PF

CARATTERISTICHE TECNICHE / TECHNICAL SPECIFICATIONS

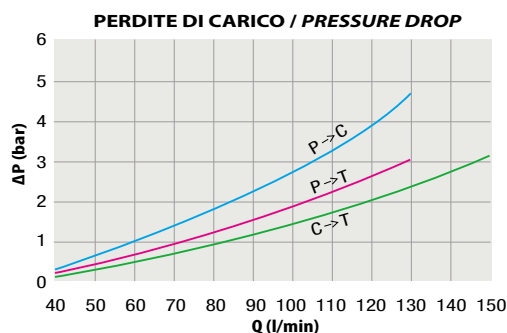
Portata nominale Flow rate	150 l/min	Temperatura fluido °C (t) Fluid temperature °C (t)	-25° + 80°C
Pressione massima di lavoro Max working pressure	250 bar	Campo viscosità Viscosity range	12-100 cSt
Pressione massima di picco (<0.1 s) Max peak pressure	350 bar	Filtrazione / Filtering ISO 4406 βx=75	20/17 25 μm
Pressione massima sul T T port max pressure	10 bar	Peso Weight	4.5 kg
Pressione pneumatica massima Max pneumatic pressure	10 bar	Fluido olio minerale Mineral oil	ISO VG 46

- Distributore da 150 l/min a comando pneumatico.
- Consente la salita, la discesa veloce e la discesa progressiva con il comando pneumatico proporzionale.
- Sono incorporate la valvola di ritegno in ingresso e la valvola di massima pressione.
- Fine corsa pneumatico.
- Attacco pressostato.

- Pneumatic operated 150 l/min distributor.
- It performs tipping, fast lowering and progressive lowering by means of the progressive pneumatic control.
- The inlet check valve and the relief valve are built-in.
- Pneumatic end-of-stroke.
- Connection of pressure switch gauge.

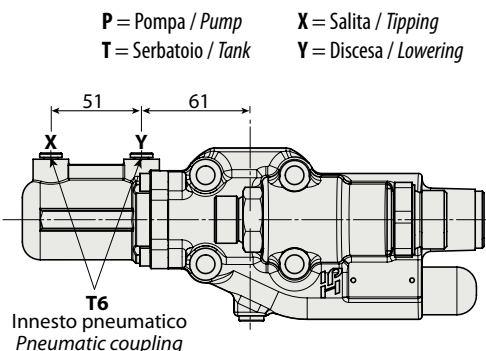
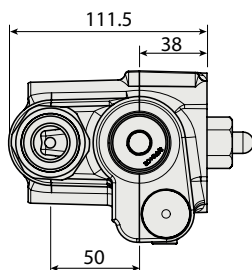
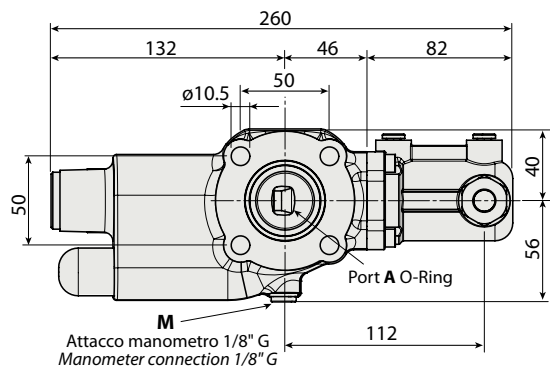


mod. S 150 PF

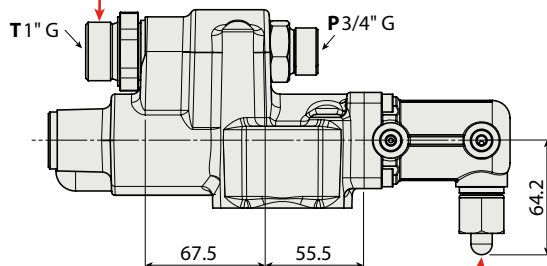


RILIEVI ESEGUITI CON OLIO ISO VG 46 A 50° C ($\nu=30$ cSt)
THE ABOVE SPECIFICATIONS REFER TO OIL TYPE ISO VG 46 AT 50° C ($\nu=30$ cSt)

VERSIONE STANDARD / STANDARD VERSION



ATTENZIONE: utilizzare SOLO tubi da 1" G sulla porta "T"
WARNING: use ONLY 1" G hoses on "T" tank connection



ATTENZIONE: utilizzare SEMPRE con fine corsa
WARNING: use ALWAYS with end-of-stroke

PRESSOSTATO A RICHIESTA / UPON REQUEST PRESSURE SWITCH



Coppia di serraggio 30 ± 5 Nm / Tightening torque: 30 ± 5 Nm

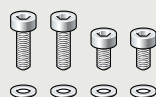
Pressostato 3 bar per pressioni di lavoro < 160 bar
Pressure switch at 3 bar for working pressure < 160 bar

COD.
501PRS163A1

Pressostato 7 bar per pressioni di lavoro > 160 bar
Pressure switch at 7 bar for working pressure > 160 bar

COD.
501PRS357A1

KIT PER FISSAGGIO AL CILINDRO / CYLINDER MOUNTING KIT

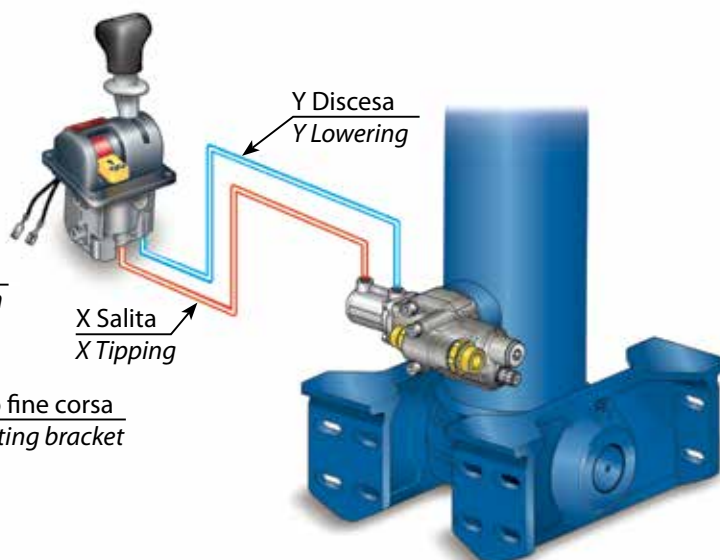
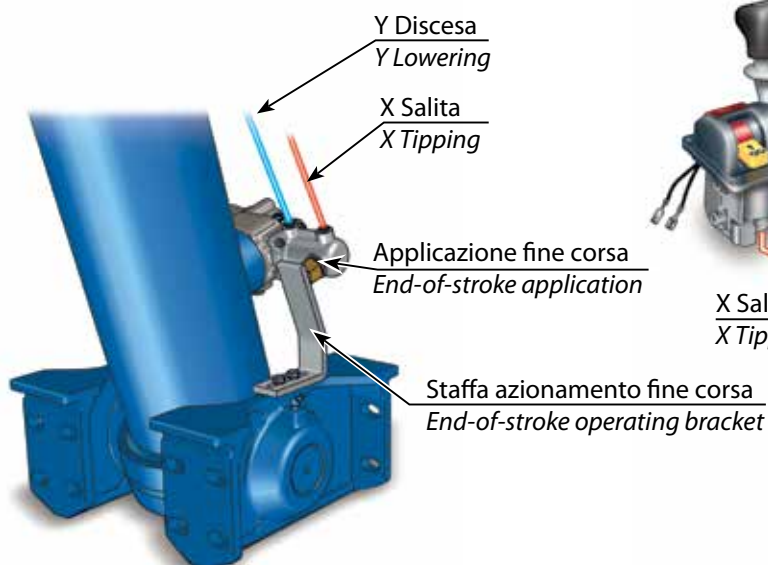


Serrare a coppia max 25 ± 5 Nm
Tightening torque max 25 ± 5 Nm

COD. 299296000H0

5

ESEMPIO DI UTILIZZO / EXAMPLE OF APPLICATION



CODICE DI ORDINAZIONE / ORDERING CODE

D150 P P XX X XX

00 = NESSUN OPTIONAL / NO OPTIONAL
01 = MONTAGGIO A SERBATOIO / TANK MOUNTING

RACCORDO D'ENTRATA / INLET GAUGE
4 = 3/4" GAS (ATTACCO FEMMINA / FEMALE PORT)
5 = 3/4" GAS MASCHIO STANDARD / MALE STANDARD
6 = 1" GAS (ATTACCO FEMMINA / FEMALE PORT)
7 = 1" GAS (ATTACCO MASCHIO / MALE PORT)

TARATURA VALVOLA MASSIMA PRESSIONE / PRESSURE RELIEF VALVE SETTING
10 ÷ 22 MPA (100-220 BAR)
22 ÷ 35 MPA (220-350 BAR)

DISCESA PROGRESSIVA / PROGRESSIVE LOWERING

COMANDO PNEUMATICO / PNEUMATIC CONTROL

MODELLO / MODEL

5



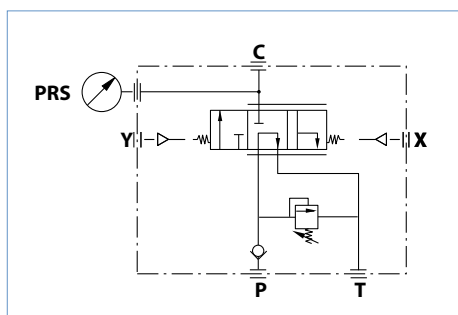
DM 150 P

CARATTERISTICHE TECNICHE / TECHNICAL SPECIFICATIONS

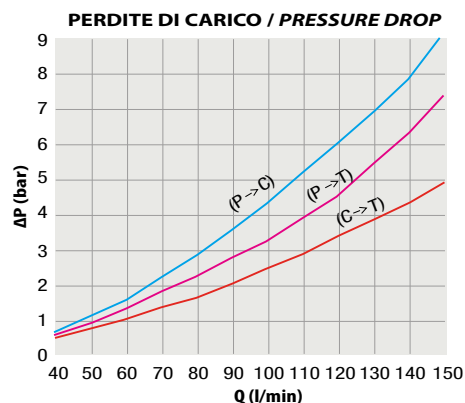
Portata nominale Flow rate	150 l/min	Temperatura fluido °C (t) Fluid temperature °C (t)	-25° + 80°C
Pressione massima di lavoro Max working pressure	250 bar	Campo viscosità Viscosity range	12-100 cSt
Pressione massima di picco (<0.1 s) Max peak pressure	300 bar	Filtrazione / Filtering ISO 4406 βx=75	20/17 25 μm
Pressione massima sul T T port max pressure	30 bar	Peso Weight	5.8 kg
Pressione pneumatica massima Max pneumatic pressure	12 bar	Fluido olio minerale Mineral oil	ISO VG 46

- Distributore da 150 l/min a comando pneumatico, per veicoli ribaltabili con sola motrice.
- Consente la salita, la discesa veloce e la discesa progressiva con comando pneumatico proporzionale.
- Sono incorporate la valvola di ritegno in ingresso e la valvola di massima pressione regolabile a richiesta 140-250 bar.
- Flangiabile a telaio.
- Attacco manometro o pressostato.

- Pneumatic operated 150 l/min distributor, for tippers without trailer.
- It performs tipping, fast lowering or progressive lowering by means of progressive pneumatic control.
- It includes inlet check valve and adjustable relief valve. The relief valve range is upon request from 140 to 250 bar.
- Flange connection to chassis.
- Upon manometer or pressure switch gauge.



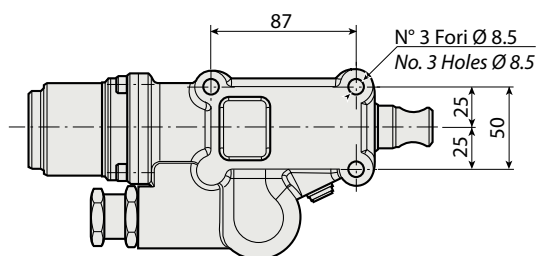
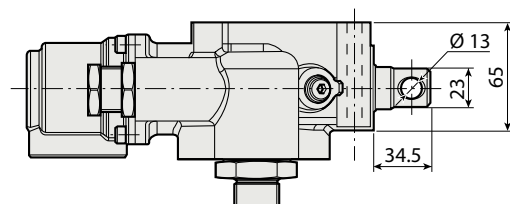
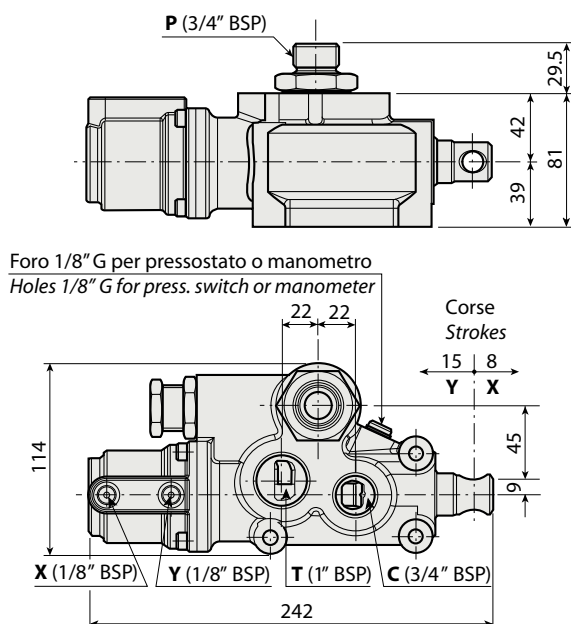
mod. DM 150 P



RILIEVI ESEGUITI CON OLIO ISO VG 46 A 50° C (ν₅₀ = 30 cSt)
THE ABOVE SPECIFICATIONS REFER TO OIL TYPE ISO VG 46 AT 50° C (ν₅₀ = 30 cSt)

VERSIONE STANDARD / STANDARD VERSION
mod. DM 150 P

C = Cilindro / Cylinder **X** = Salita / Tipping
P = Pompa / Pump **Y** = Discesa / Lowering
T = Serbatoio / Tank



5

PRESSOSTATO A RICHIESTA / UPON REQUEST PRESSURE SWITCH

Coppia di serraggio / Tightening torque: 30 ± 5 Nm	
Pressostato 3 bar per pressioni di lavoro < 160 bar Pressure switch at 3 bar for working pressure < 160 bar	COD. 501PRS163A1
Pressostato 7 bar per pressioni di lavoro > 160 bar Pressure switch at 7 bar for working pressure > 160 bar	COD. 501PRS357A1

KIT PER FISSAGGIO AL TELAIO / CHASSIS MOUNTING KIT

M8x80 	
Serrare a coppia max 20 Nm $\pm$ 5 Tightening torque max 20 Nm $\pm$ 5 Montare con frenafiletti 243 Assembly using threadlocker 243	
COD. 30KFD004000	

CAMPI DI REGOLAZIONE VALVOLA DI MASSIMA
ADJUSTMENT RANGES FOR RELIEF VALVE

140 ÷ 240 bar	240 ÷ 350 bar
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KIT GUARNIZIONI / SEALS KIT

COD. 39200028000

CODICE DI ORDINAZIONE / ORDERING CODE

D15 X P X X C X X X

COMANDO SEZIONE 3 (vedi "TABELLA VERSIONI")
SECTION CONTROL 3 (see "VERSION TABLE")

COMANDO SEZIONE 2 (vedi "TABELLA VERSIONI")
SECTION CONTROL 2 (see "VERSION TABLE")

COMANDO SEZIONE 1 (vedi "TABELLA VERSIONI")
SECTION CONTROL 1 (see "VERSION TABLE")

TARATURA AUSILIARIO / AUXILIARY SETTING

TARATURA PRINCIPALE (vedi "TABELLA TARATURA")
MAIN SETTING (see "SETTING TABLE")

RACCORDO D'ENTRATA / INLET GAUGE

5 = 3/4" GAS (ATTACCO MASCHIO/MALE PORT)

7 = 1" GAS (ATTACCO MASCHIO STANDARD / STANDARD MALE PORT)

TIPO DISTRIBUTORE PRINCIPALE / PRINCIPAL DISTRIBUTOR TYPE

P = PNEUMATICO / PNEUMATIC

SEZIONI AGGIUNTIVE / SUPPLEMENTARY SECTIONS

1 = SEZIONE AGGIUNTIVA / SUPPLEMENTARY SECTION

2 = SEZIONI AGGIUNTIVE / SUPPLEMENTARY SECTIONS

3 = SEZIONI AGGIUNTIVE / SUPPLEMENTARY SECTIONS

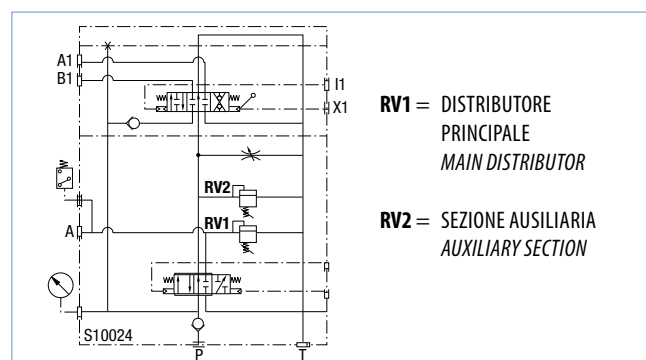
MODELLO / MODEL

CARATTERISTICHE TECNICHE / TECHNICAL SPECIFICATIONS

Portata nominale Flow rate	Distributore principale Main distributor	150 l/min	Temperatura fluido °C (t) Fluid temperature °C (t)	-25° + 80°C
	Sezione ausiliaria Auxiliary section	60 l/min		
Pressione massima di lavoro Max working pressure		250 bar	Campo viscosità Viscosity range	12-100 cSt
Pressione massima di picco (<0.1 s) Max peak pressure		300 bar	Filtrazione / Filtering ISO 4406 $\beta_{x=75}$	20/17 25 μ m
Pressione massima sul T T port max pressure		30 bar	Peso Weight	5.8 kg
Pressione pneumatica massima Max pneumatic pressure		12 bar	Fluido olio minerale Mineral oil	ISO VG 46

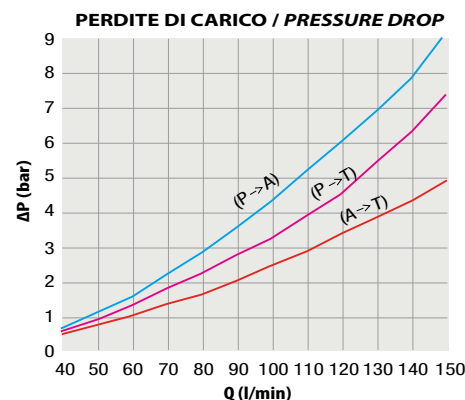
- Distributore da 150 l/min a comando pneumatico, per veicoli ribaltabili con sola motrice.
- Consente la salita, la discesa veloce e la discesa progressiva con comando pneumatico proporzionale.
- Sono incorporate la valvola di ritegno in ingresso e la valvola di massima pressione regolabile a richiesta 140-250 bar.
- Valvola di massima pressione per sezioni ausiliarie, regolabile a richiesta 140-250 bar.
- Regolatore di portata per sezioni ausiliarie.
- Sezioni ausiliarie da 1 a 3.

- Pneumatic operated 150 l/min distributor, for tippers without trailer.
- It performs tipping, fast lowering or progressive lowering by means of progressive pneumatic control.
- It includes inlet check valve and adjustable relief valve. The relief valve range is from 140 to 250 bar.
- Relief valve for auxiliary sections, adjustable 140-250 bar (upon request).
- Flow regulator for auxiliary sections.
- Auxiliary sections from 1 to 3.

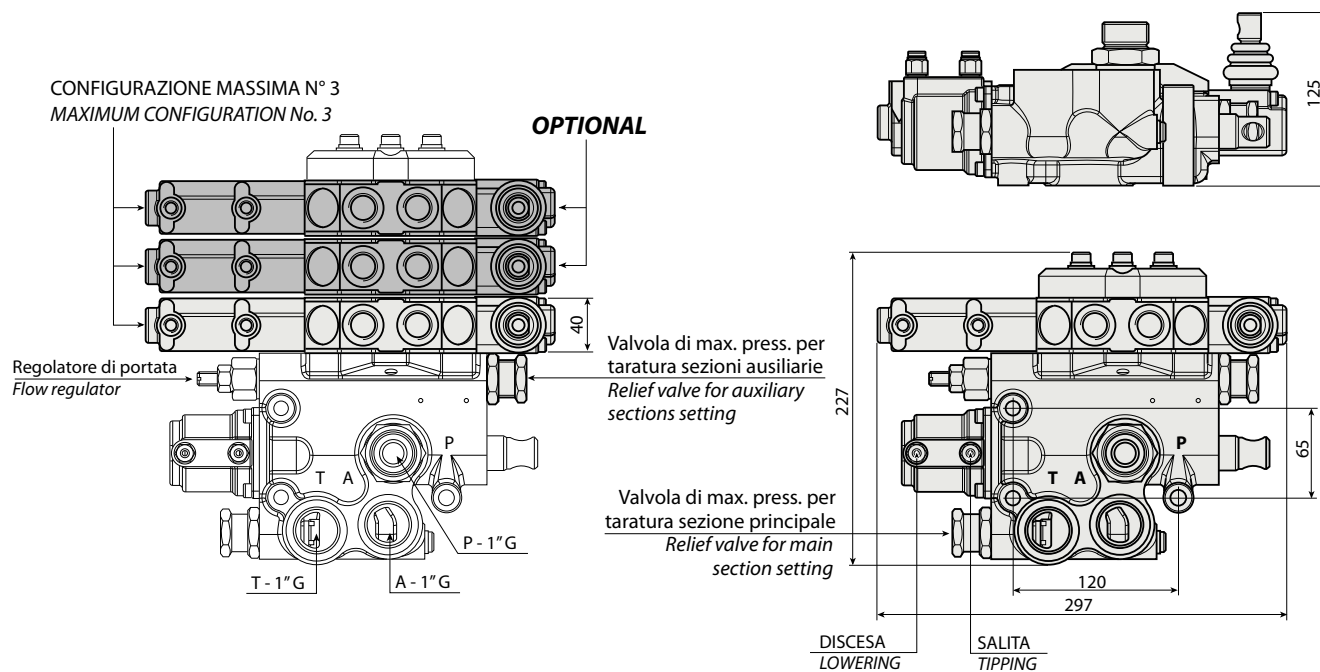


RILIEVI ESEGUITI CON OLIO
ISO VG 46 A 50° C ($\nu = 30$ cSt)

THE ABOVE SPECIFICATIONS
REFER TO OIL TYPE ISO VG 46 AT
50° C ($\nu = 30$ cSt)



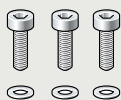
DIMENSIONI / DIMENSIONS



5

KIT PER FISSAGGIO AL TELAIO / CHASSIS MOUNTING KIT

M8x80



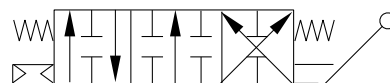
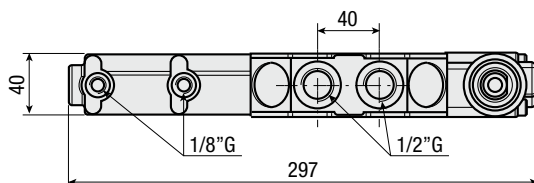
Serrare a coppia max 20 Nm $\pm$ 5
Tightening torque max 20 Nm $\pm$ 5

Montare con frenafilletti 243
Assembly using threadlocker 243

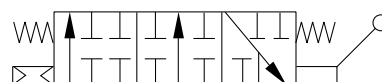
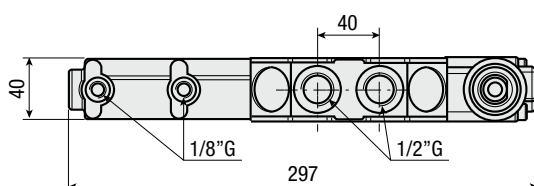
COD. 30KFD004000

TABELLA VERSIONI / VERSION TABLE

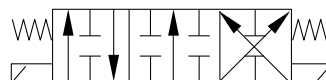
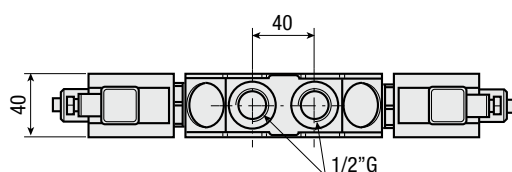
F = PNEUMATICO DOPPIO EFFETTO / PNEUMATICAL DOUBLE ACTING



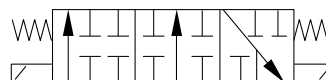
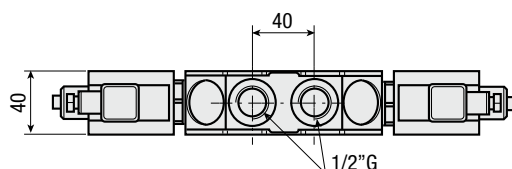
P = PNEUMATICO SEMPLICE EFFETTO / PNEUMATICAL SINGLE ACTING



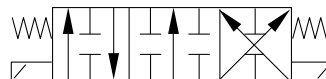
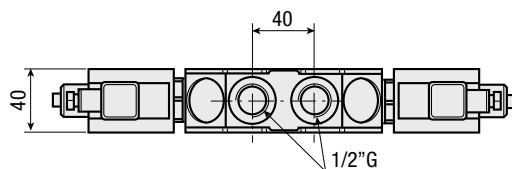
E = ELETTRICO DOPPIO EFFETTO 24 VOLT / ELECTRICAL DOUBLE ACTING 24 VOLT



H = ELETTRICO SEMPLICE EFFETTO 24 VOLT / ELECTRICAL SINGLE ACTING 24 VOLT



G = ELETTRICO DOPPIO EFFETTO 12 VOLT / ELECTRICAL DOUBLE ACTING 12 VOLT



M = ELETTRICO SEMPLICE EFFETTO 12 VOLT / ELECTRICAL SINGLE ACTING 12 VOLT

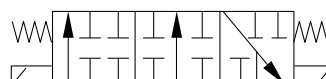
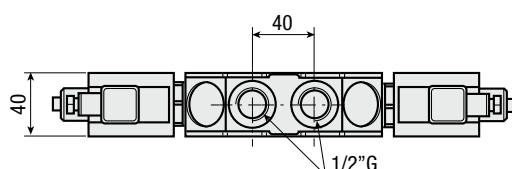


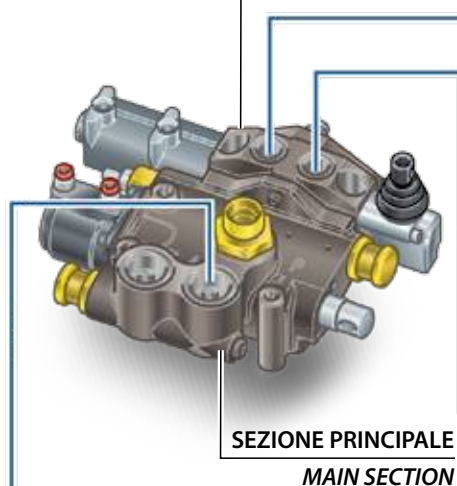
TABELLA TARATURE / SETTING TABLE

TARATURA DISTRIBUTORE / DISTRIBUTOR SETTING bar			
A = 100	B = 120	C = 130	D = 140
E = 150	F = 160	G = 170	H = 180
I = 190	J = 200	K = 210	L = 220
M = 230	N = 240	P = 250	Q = 260
R = 270	S = 280	T = 290	U = 300
V = 310	W = 320		
1 = 150/250		2 = 140/220	

5

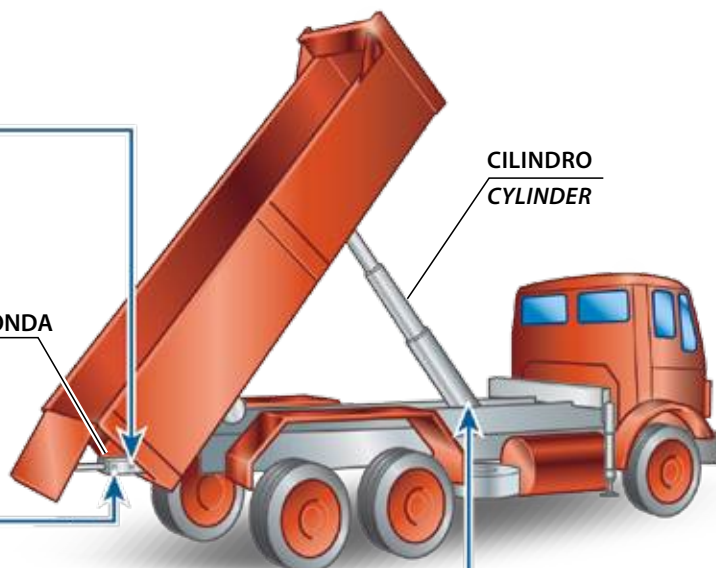
ESEMPIO DI UTILIZZO / EXAMPLE OF APPLICATION

SEZIONE AUSILIARIA
AUXILIARY SECTION



APRISPONDA
BOARD
OPENER

CILINDRO
CYLINDER



CODICE DI ORDINAZIONE / ORDERING CODE

D160 P X XX X XX

00 = NESSUN OPTIONAL / NO OPTIONAL
PO = ATTACCO PRESSOSTATO / PRESSURE SWITCH GAUGE
MO = ATTACCO MANOMETRO / MANOMETER GAUGE
CO = COPRIMOZZO / PROTECTION CUP
MC = MANOMETRO E COPRIMOZZO
MANOMETER AND PROTECTION CUP
PC = PRESSOSTATO E COPRIMOZZO
PRESSURE AND PROTECTION CUP
RACCORDO D'ENTRATA / INLET GAUGE
4 = 3/4" GAS FEMMINA STANDARD / FEMALE STANDARD
5 = 3/4" GAS (ATTACCO MASCHIO / MALE PORT)
6 = 1" GAS (ATTACCO FEMMINA / FEMALE PORT)
7 = 1" GAS (ATTACCO MASCHIO / MALE PORT)

TARATURA VALVOLA MASSIMA PRESSIONE / PRESSURE RELIEF VALVE SETTING
(VEDI TABELLA / SEE TABLE)

L = DISCESA LENTA / SLOW LOWERING
P = DISCESA PROGRESSIVA / PROGRESSIVE LOWERING

COMANDO PNEUMATICO / PNEUMATIC CONTROL

MODELLO / MODEL



DM 160 PP

DM 160 PL

TABELLA / TABLE

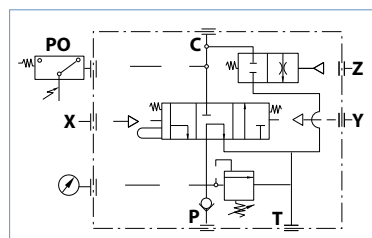
08 ÷ 35	MPa (80-350 bar) con valvola standard (regolabile)/with standard relief valve (adjustable)	D0 ÷ D9	con cartuccia regolabile da 10 a 19 MPa/with adjustable cartridge (from 10 to 19 Mpa)
2B	con valvola pilotata a 2 livelli (stand. 140, 220 bar)/piloted relief valve with 2 settings	E0 ÷ E9	con cartuccia regolabile da 20 a 29 MPa/with adjustable cartridge (from 20 to 29 Mpa)
3B	con valvola pilotata a 3 livelli (stand. 130, 220, 350 bar)/piloted relief valve with 3 settings	F0 ÷ F5	con cartuccia regolabile da 30 a 35 MPa/with adjustable cartridge (from 30 to 35 Mpa)
00	senza valvola (predisposto per cartuccia)/without relief valve (suitable for preset cartridge)	G0	cartuccia regolabile non tarata, non piombata/not setting, not plumbed adjustable cartridge

CARATTERISTICHE TECNICHE / TECHNICAL SPECIFICATIONS

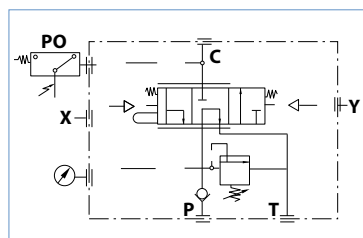
Portata nominale Flow rate	160 l/min	Temperatura fluido °C (t) Fluid temperature °C (t)	-25° + 80°C
Pressione massima di lavoro Max working pressure	350 bar	Campo viscosità Viscosity range	12-100 cSt
Pressione massima di picco (<0.1 s) Max peak pressure	500 bar	Filtrazione / Filtering ISO 4406 βx=75	20/17 25 μm
Pressione massima sul T T port max pressure	30 bar	Peso Weight	8-9 kg
Pressione pneumatica massima Max pneumatic pressure	12 bar	Fluido olio minerale Mineral oil	ISO VG 46

- Distributore da 160 l/min solo comando pneumatico, per veicoli ribaltabili con sola motrice (cilindro semplice effetto).
- Consente la salita, la discesa veloce e la discesa lenta (mod. DM 160 PL) o la discesa progressiva (mod. DM 160 PP).
- Sono incorporate di serie la valvola di ritegno in ingresso e la valvola di controllo pressione disponibile in 3 versioni: regolabile, a cartuccia regolabile intercambiabile, pilotata pretarata a 2 o 3 livelli.
- Tirante per fine corsa meccanico di serie.
- Flangiabile a serbatoio e a telaio.
- Attacco manometro di serie.
- Varie soluzioni ed optional disponibili (vedi codifica).

- Single acting hydraulic tipping valve with oil flow of 160 l/min, pneumatically controlled.
- It allows rising, fast lowering and slow lowering (mod. DM 160 PL) or proportional lowering (mod. DM 160 PP).
- Inlet check valve and overpressure valve are built-in.
- Concerning overpressure safety device three different versions are available: adjustable, with interchangeable cartridge and switch (either with 2 or 3 different pressure settings).
- Equipped with end-of-stroke device.
- Flange connection to tank or to chassis.
- Manometer threaded hole provided.
- Several other optional versions available (ordering code).



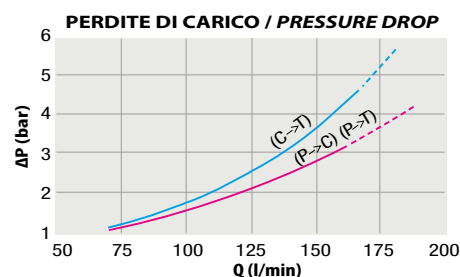
mod. DM 160 PL



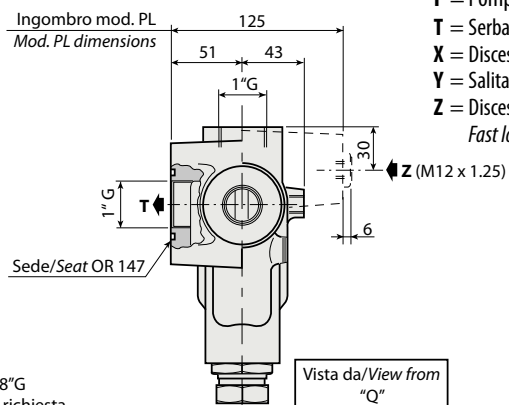
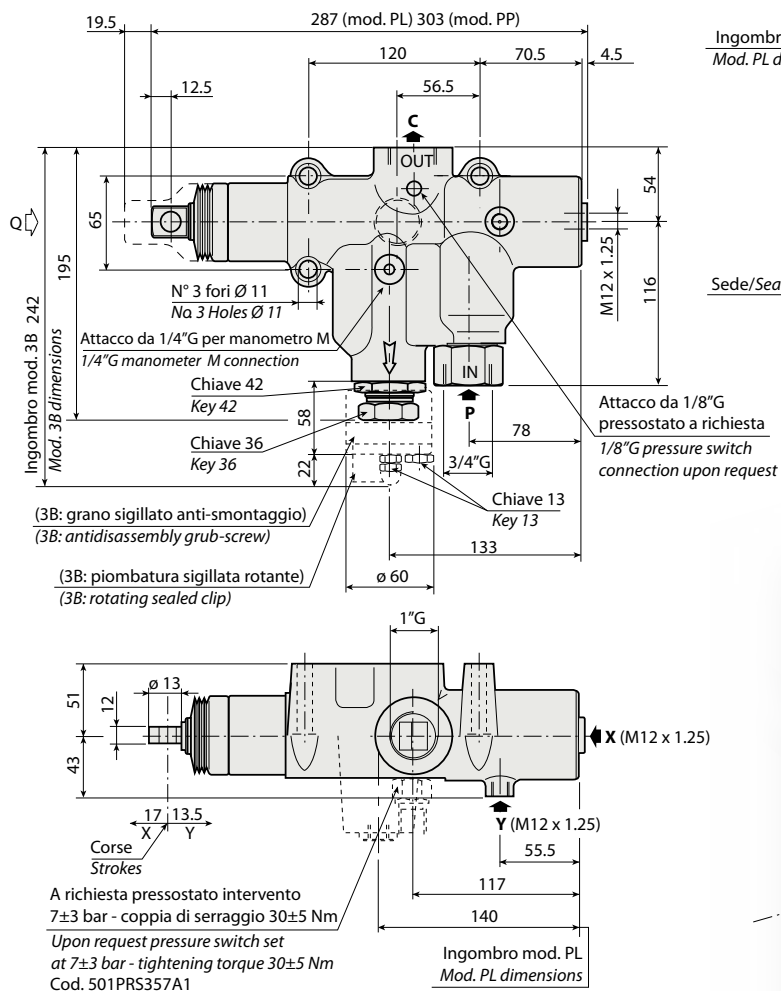
mod. DM 160 PP

RILIEVI ESEGUITI CON OLIO
ISO VG 46 A 50° C (ν= 30 cSt)

THE ABOVE SPECIFICATIONS
REFER TO OIL TYPE ISO VG 46 AT
50° C (ν= 30 cSt)

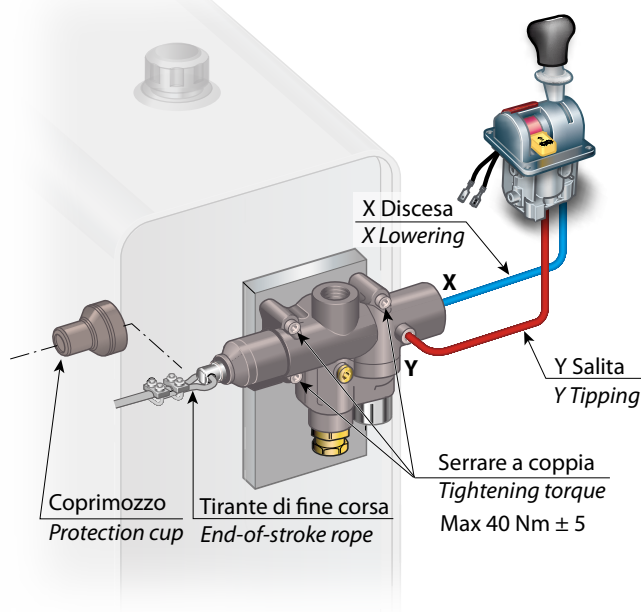


VERSIONE STANDARD / STANDARD VERSION



C = Cilindro / *Cylinder*
P = Pompa / *Pump*
T = Serbatoio / *Tank*
X = Discesa / *Lowering*
Y = Salita / *Tipping*
Z = Discesa veloce (DM 160 PL)
Fast lowering (DM 160 PL)

5



CAMPI DI REGOLAZIONE VALVOLA DI MASSIMA ADJUSTMENT RANGES FOR RELIEF VALVE

140 ÷ 240 bar	240 ÷ 350 bar
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PRESSOSTATO A RICHIESTA / UPON REQUEST PRESSURE SWITCH



 Coppia di serraggio / *Tightening torque*: 30 ± 5 Nm

Pressostato 3 bar per pressioni di lavoro < 160 bar <i>Pressure switch at 3 bar for working pressure < 160 bar</i>	COD. 501PRS163A1
Pressostato 7 bar per pressioni di lavoro > 160 bar <i>Pressure switch at 7 bar for working pressure >160 bar</i>	COD. 501PRS357A1

KIT PER FISSAGGIO AL SERBATOIO TANK MOUNTING KIT



M10x65

Serrare a coppia max 40 Nm ± 5
Tightening torque max 40 Nm ± 5

COD. 30KFDF0000

Kit + piastra a saldare / Kit + plate to weld ≠ 20

COD.30KDF02T000

Kit + piastra a saldare / Kit + plate to weld ≠ 30

COD. 30KDF03T000

CODICE DI ORDINAZIONE / ORDERING CODE

D162 P T XX X XX

CG = STANDARD (COPRIMOZZO)
STANDARD (PROTECTION CUP)

PC = PRESSOSTATO / PRESSURE

FC = ATTACCO INDICATORE FILTRO
FILTER INDICATOR CONNECTION

RACCORDO D'ENTRATA / INLET GAUGE

5 = 3/4" GAS STANDARD (ATTACCO MASCHIO / MALE PORT)

7 = 1" GAS (ATTACCO MASCHIO / MALE PORT)

TARATURA VALVOLA MASSIMA PRESSIONE

PRESSURE RELIEF VALVE SETTING

(VEDI TABELLA / SEE TABLE)

DOPPIO SCARICO / DOUBLE DRAINAGE

COMANDO PNEUMATICO / PNEUMATIC CONTROL

MODELLO / MODEL



DM 162 PT

TABELLA / TABLE

08 ÷ 35 MPa (80-350 bar) con valvola standard (regolabile)/with standard relief valve (adjustable)
2B con valvola pilotata a 2 livelli (stand. 140, 220 bar)/piloted relief valve with 2 settings
3B con valvola pilotata a 3 livelli (stand. 130, 220, 350 bar)/piloted relief valve with 3 settings
00 senza valvola (predisposto per cartuccia)/without relief valve (suitable for preset cartridge)

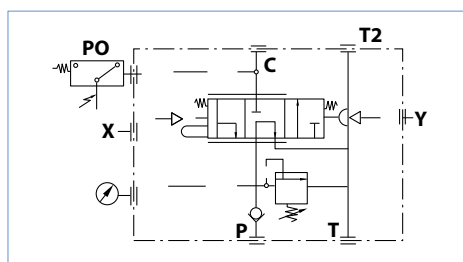
D0 ÷ D9 con cartuccia regolabile da 10 a 19 MPa/with adjustable cartridge (from 10 to 19 Mpa)
E0 ÷ E9 con cartuccia regolabile da 20 a 29 MPa/with adjustable cartridge (from 20 to 29 Mpa)
F0 ÷ F5 con cartuccia regolabile da 30 a 35 MPa/with adjustable cartridge (from 30 to 35 Mpa)
G0 cartuccia regolabile non tarata, non piombata/not setting, not plumbed adjustable cartridge

CARATTERISTICHE TECNICHE / TECHNICAL SPECIFICATIONS

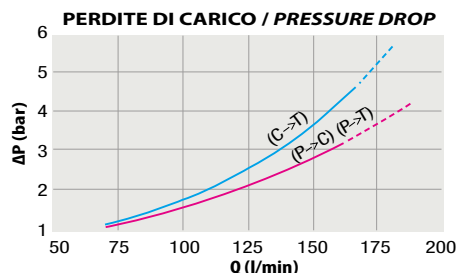
Portata nominale Flow rate	160 l/min	Temperatura fluido °C (t) Fluid temperature °C (t)	-25° + 80°C
Pressione massima di lavoro Max working pressure	350 bar	Campo viscosità Viscosity range	12-100 cSt
Pressione massima di picco (<0.1 s) Max peak pressure	500 bar	Filtrazione / Filtering ISO 4406 βx=75	20/17 25 μm
Pressione massima sul T T port max pressure	30 bar	Peso Weight	8-9 kg
Pressione pneumatica massima Max pneumatic pressure	12 bar	Fluido olio minerale Mineral oil	ISO VG 46

- Distributore da 160 l/min solo comando pneumatico, per veicoli ribaltabili con sola motrice (cilindro semplice effetto).
- Sono incorporate di serie la valvola di ritegno in ingresso e la valvola di controllo pressione disponibile in 3 versioni: regolabile, a cartuccia regolabile intercambiabile, pilotata pretarata a 2 o 3 livelli.
- Tirante per fine corsa meccanico di serie.
- Flangiabile a serbatoio e a telaio.
- Attacco manometro di serie.
- Varie soluzioni ed optional disponibili (vedi codifica).

- Single acting hydraulic tipping valve with oil flow of 160 l/min, pneumatically controlled.
- Inlet check valve and overpressure valve are built-in. Concerning overpressure safety device three different versions are available: adjustable, with interchangeable cartridge and switch (either with 2 or 3 different pressure settings).
- Equipped with end-of-stroke device.
- Flange connection to tank or to chassis.
- Manometer threaded hole provided.
- Several other optional versions available (ordering code).

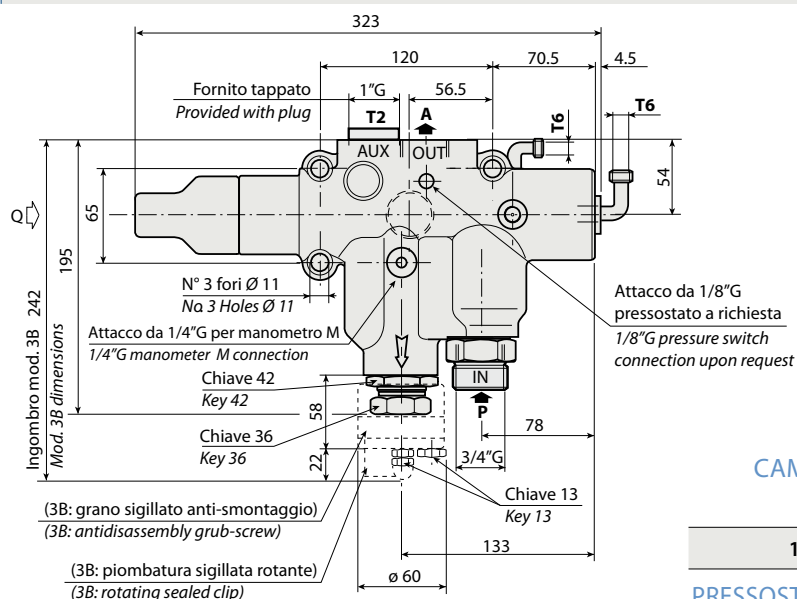


mod. DM 162 PT

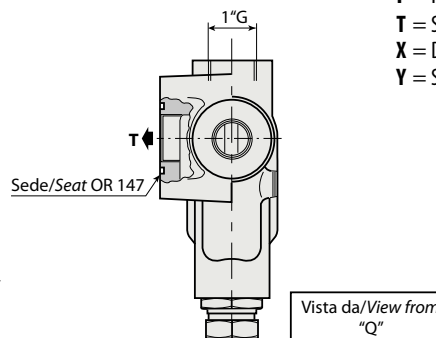


RILIEVI ESEGUITI CON OLIO ISO VG 46 A 50° C (ν=30 cSt)
THE ABOVE SPECIFICATIONS REFER TO OIL TYPE ISO VG 46 AT 50° C (ν=30 cSt)

VERSIONE STANDARD / STANDARD VERSION



C = Cilindro / Cylinder
P = Pompa / Pump
T = Serbatoio / Tank
X = Discesa / Lowering
Y = Salita / Tipping



CAMPI DI REGOLAZIONE VALVOLA DI MASSIMA ADJUSTMENT RANGES FOR RELIEF VALVE

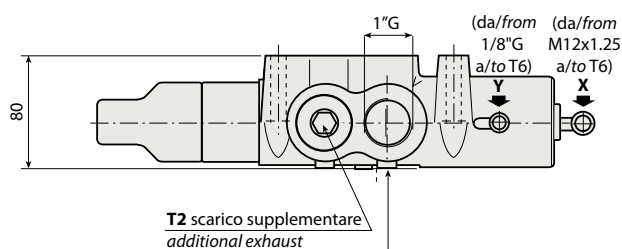
140 ÷ 240 bar	240 ÷ 350 bar
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PRESSOSTATO A RICHIESTA / UPON REQUEST PRESSURE SWITCH

Coppia di serraggio / Tightening torque: 30 ± 5 Nm	
Pressostato 3 bar per pressioni di lavoro < 160 bar Pressure switch at 3 bar for working pressure < 160 bar	COD. 501PRS163A1
Pressostato 7 bar per pressioni di lavoro > 160 bar Pressure switch at 7 bar for working pressure > 160 bar	COD. 501PRS357A1

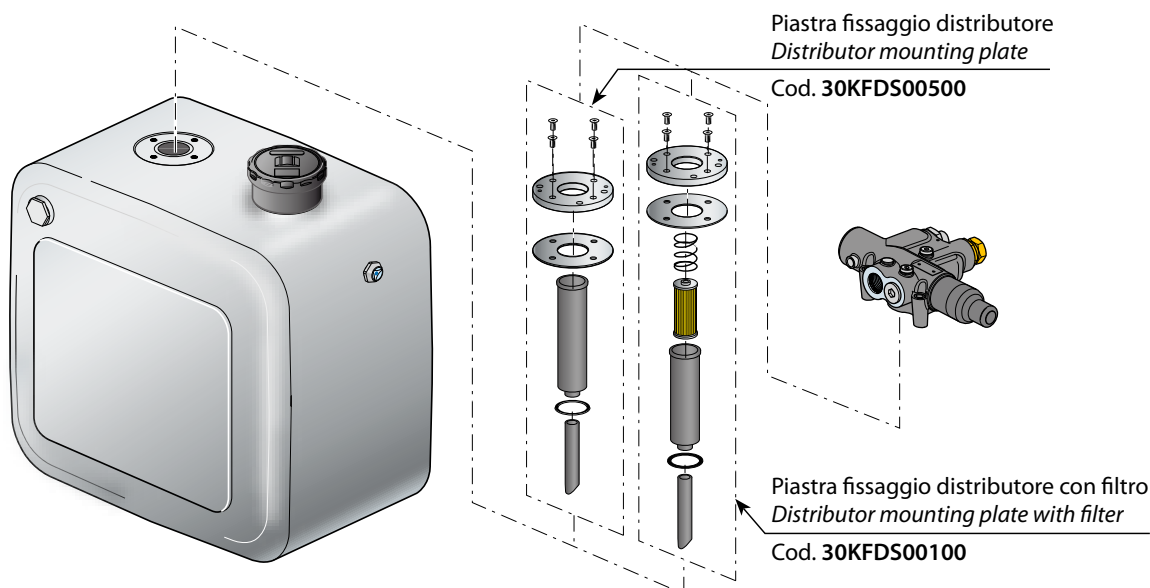
KIT PER FISSAGGIO AL TELAIO / CHASSIS MOUNTING KIT

	M10x60	Serrare a coppia max 40 Nm ± 5 Tightening torque max 40 Nm ± 5
COD. 30KFDF0001		



A richiesta pressostato intervento 7±3 bar - coppia di serraggio 30±5 Nm
Upon request pressure switch set at 7±3 bar - tightening torque 30±5 Nm
Cod. 501PRS357A1

ESEMPIO DI MONTAGGIO / EXAMPLE OF MOUNTING



MONTAGGIO STANDARD STANDARD MOUNTING

CODICE DI ORDINAZIONE / ORDERING CODE

D240 XX X X XXX

SINGOLA TARATURA / SINGLE SETTING = 10 ÷ 35 MPa
(SOLO PER LA VERSIONE "P1" / WITH VERSION "P1" ONLY)

DOPPIA e TRIPLA TARATURA / DOUBLE and TRIPLE SETTING = VEDI TABELLA / SEE TABLE
(SOLO PER LE VERSIONI "P2" - "M2" - "M3" / WITH VERSIONS "P2" - "M2" - "M3" ONLY)

PER LA SINGOLA E DOPPIA TARATURA L'ULTIMA LETTERA DEL CODICE DI ORDINAZIONE
È SEMPRE **O** / FOR SINGLE AND DOUBLE SETTING THE LAST LETTER OF THE ORDER CODE
IS ALWAYS **O**

A = 100 MPa	F = 160 MPa	K = 210 MPa	Q = 260 MPa	V = 310 MPa
B = 120 MPa	G = 170 MPa	L = 220 MPa	R = 270 MPa	W = 320 MPa
C = 130 MPa	H = 180 MPa	M = 230 MPa	S = 280 MPa	X = 330 MPa
D = 140 MPa	I = 190 MPa	N = 240 MPa	T = 290 MPa	Y = 340 MPa
E = 150 MPa	J = 200 MPa	P = 250 MPa	U = 300 MPa	Z = 350 MPa

INCREMENTI DI PRESSIONE STANDARD STANDARD PRESSURE INCREASES				
Doppia taratura Double settings	+ 50 bar	+ 80 bar	+ 100 bar	+ 130 bar
Tripla taratura Triple settings	+ 80 + 130 bar	+ 80 + 100 bar	+ 50 + 130 bar	+ 100 + 100 bar

CONNESSIONI PNEUMATICHE / AIR CONNECTIONS

0 = 1/8" G

1 = RACCORDO T6 / T6 FITTING

2 = RACCORDO TUBO 1/4" / 1/4" FITTING

1 = P G 3/4" M

2 = P G 1" M

3 = P 1.5/16" (SAE 16)

P1 = SINGOLA TARATURA / SINGLE SETTING

P2 = DOPPIA TARATURA PNEUMATICA / DOUBLE PNEUMATIC SETTING

M2 = DOPPIA TARATURA MECCANICA / DOUBLE MECHANICAL SETTING

M3 = TRIPLA TARATURA MECCANICA / TRIPLE MECHANICAL SETTING

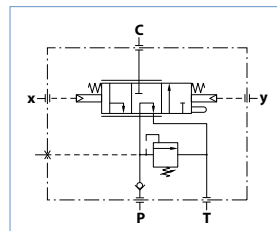
MODELLO / MODEL

CARATTERISTICHE TECNICHE / TECHNICAL SPECIFICATIONS

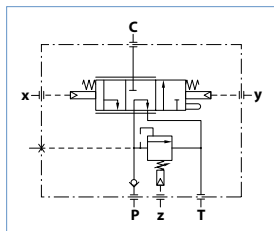
Portata nominale Flow rate	160-240 l/min	Temperatura fluido °C (t) Fluid temperature °C (t)	-25° + 80°C
Portata nominale - Massima in scarico Flow rate - Lowering max	250-300 l/min	Campo viscosità Viscosity range	12-100 cSt
Pressione massima di lavoro Max working pressure	350 bar	Filtrazione / Filtering ISO 4406 βx=75	20/17 25 μm
Pressione massima di picco Max peak pressure (<0.1 s)	400 bar	Peso Weight	8 kg
Pressione massima sul T T port max pressure	30 bar	Pressione pneumatica massima Max pneumatic pressure	4.5 - 12 bar

- Distributore a comando pneumatico a 3 vie (pompa, cilindro, serbatoio).
- Tre posizioni:
 - posizione centrale con pompa in scarico e cilindro bloccato,
 - posizione di salita con mandata al cilindro,
 - posizione di discesa.
- Discesa proporzionale con l'uso dell'apposito comando pneumatico.
- Valvola di max. tarabile fino a 350 bar su bocca "P".
- Valvola di non ritorno.

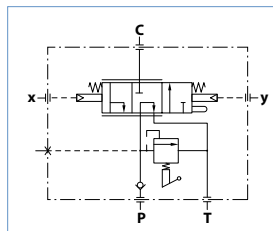
- Three way (pump, cylinder, tank) air operated control valve.
- Three positions:
 - hold,
 - tipping,
 - lowering.
- Variable descent speed with suitable air control.
- Relief valve setting up to 350 bar on port "P".
- Built-in check valve.



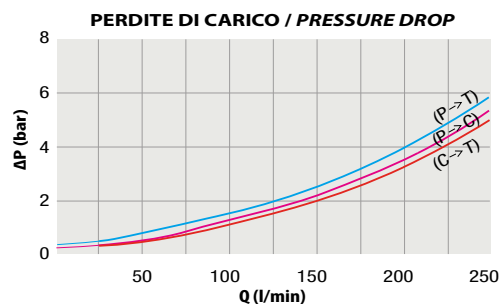
Mod. DM 240 P1



Mod. DM 240 P2



Mod. DM 240 M2 Mod. DM 240 M3

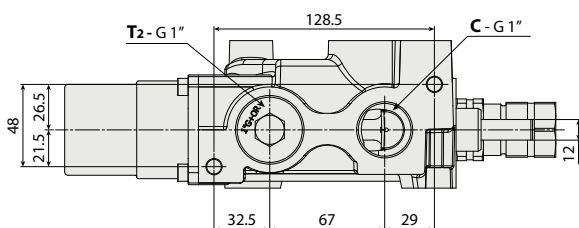
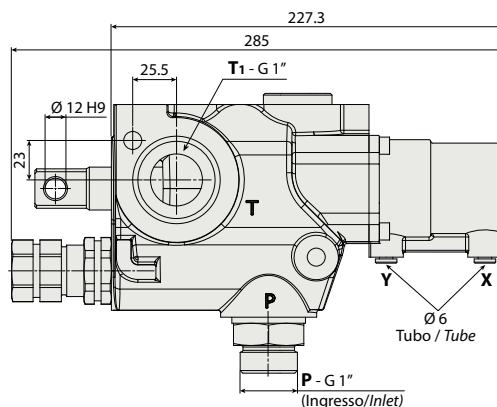
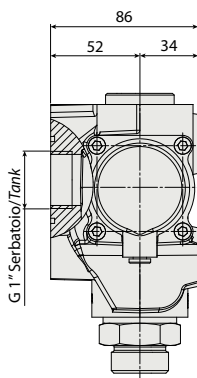
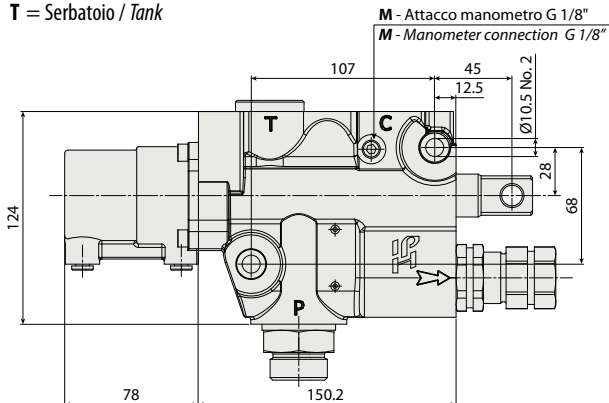


RILIEVI ESEGUITI CON OLIO ISO VG 46 A 50° C (√= 30 cSt)
THE ABOVE SPECIFICATIONS REFER TO OIL TYPE ISO VG 46 AT 50° C (√= 30 cSt)

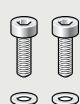
MONTAGGIO STANDARD
STANDARD MOUNTING

VERSIONE SINGOLA TARATURA / SINGLE SETTING VERSION

C = Cilindro / Cylinder **X** = Discesa / Lowering
P = Pompa / Pump **Y** = Salita / Tipping
T = Serbatoio / Tank



KIT PER FISSAGGIO AL SERBATOIO / TANK MOUNTING KIT



M10x90

Serrare a coppia max 25 ± 5 Nm
Tightening torque max 25 ± 5 Nm

COD. 299230000H0

5

PRESSOSTATO A RICHIESTA / UPON REQUEST PRESSURE SWITCH



Coppia di serraggio 30 ± 5 Nm / Tightening torque: 30 ± 5 Nm

Pressostato 3 bar per pressioni di lavoro < 160 bar / Pressure switch at 3 bar for working pressure < 160 bar

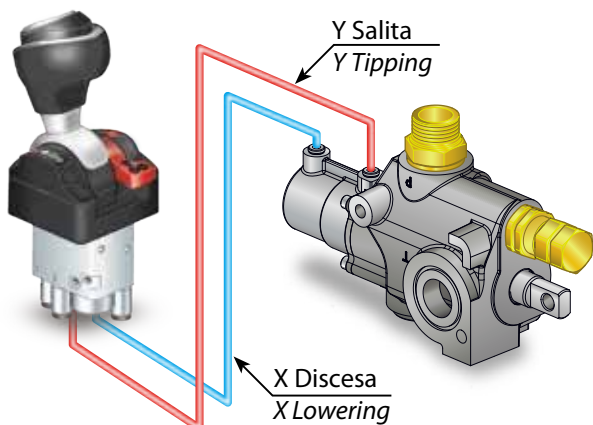
COD.
501PRS163A1

Pressostato 7 bar per pressioni di lavoro > 160 bar / Pressure switch at 7 bar for working pressure > 160 bar

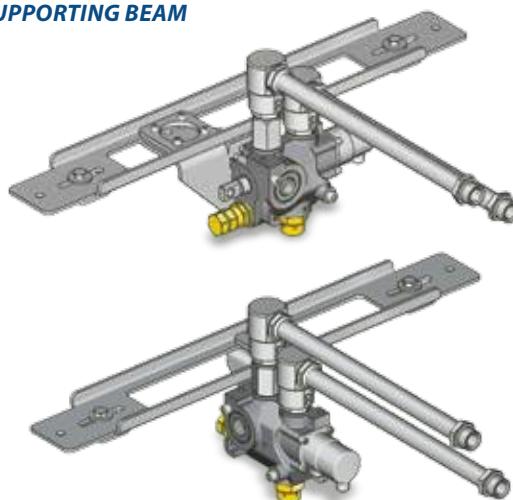
COD.
501PRS357A1

ESEMPI DI MONTAGGIO / EXAMPLES OF MOUNTING

AL TELAIO
TO THE CHASSIS



SU BARRA PORTATUBI
ON TUBE SUPPORTING BEAM



CODICE DI ORDINAZIONE / ORDERING CODE

D180 P P XX X XX

00 = NESSUN OPTIONAL / NO OPTIONAL
CO = COPRIMOZZO / PROTECTION CUP

RACCORDO D'ENTRATA / INLET GAUGE
4 = 3/4" GAS STANDARD (ATTACCO FEMMINA / FEMALE PORT)
5 = 3/4" GAS (ATTACCO MASCHIO / MALE PORT)
6 = 1" GAS (ATTACCO FEMMINA / FEMALE PORT)
7 = 1" GAS (ATTACCO MASCHIO / MALE PORT)

TARATURA VALVOLA MASSIMA PRESSIONE
PRESSURE RELIEF VALVE SETTING
(VEDI TABELLA / SEE TABLE)

P = DISCESA PROGRESSIVA / PROGRESSIVE LOWERING

COMANDO PNEUMATICO / PNEUMATIC CONTROL

MODELLO / MODEL



DM 180-250 P

5

08 ÷ 35	MPa (80-350 bar) con valvola standard (regolabile)/with standard relief valve (adjustable)
2B	con valvola pilotata a 2 livelli (stand. 140, 220 bar)/piloted relief valve with 2 settings
3B	con valvola pilotata a 3 livelli (stand. 130, 220, 350 bar)/piloted relief valve with 3 settings
00	senza valvola (predisposto per cartuccia)/without relief valve (suitable for preset cartridge)

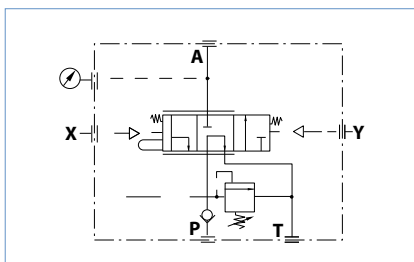
D0 ÷ D9	con cartuccia regolabile da 10 a 19 MPa/with adjustable cartridge (from 10 to 19 Mpa)
E0 ÷ E9	con cartuccia regolabile da 20 a 29 MPa/with adjustable cartridge (from 20 to 29 Mpa)
F0 ÷ F5	con cartuccia regolabile da 30 a 35 MPa/with adjustable cartridge (from 30 to 35 Mpa)
G0	cartuccia regolabile non tarata, non piombata/not setting, not plumbed adjustable cartridge

CARATTERISTICHE TECNICHE / TECHNICAL SPECIFICATIONS

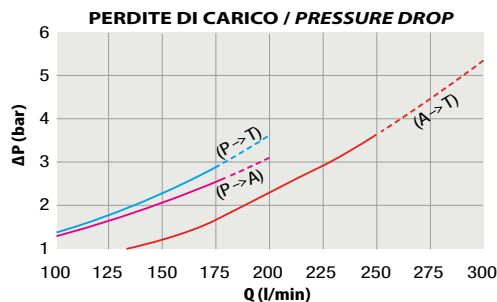
Portata nominale - Massima in ingresso Tipping nom. - Max flow rate	180-200 l/min	Temperatura fluido °C (t) Fluid temperature °C (t)	-25° + 80°C
Portata nominale - Massima in scarico Lowering nom. - Max flow rate	250-300 l/min	Campo viscosità Viscosity range	12-100 cSt
Pressione massima di lavoro Max working pressure	300 bar	Filtrazione / Filtering ISO 4406 $\beta_{x=75}$	20/17 25 μ m
Pressione massima di picco (<0.1 s) Max peak pressure	450 bar	Peso Weight	8-9 kg
Pressione massima sul T T port max pressure	30 bar	Pressione pneumatica massima Max pneumatic pressure	12 bar

- Distributore da 180 l/min (salita) e 250 l/min (discesa), a comando pneumatico, per veicoli ribaltabili con sola motrice (cilindro semplice effetto).
- Consente la salita, la discesa veloce e la discesa progressiva.
- Sono incorporate di serie la valvola di ritegno in ingresso e la valvola di controllo pressione disponibile in 3 versioni: regolabile, a cartuccia pretarata intercambiabile, pilotata a 2 o 3 livelli di taratura.
- Tirante per fine corsa meccanico di serie.
- Flangiabile a serbatoio e a telaio.
- Attacco manometro o pressostato di serie.
- Coprimozzo a richiesta (vedi codifica).

- Pneumatic controlled distributor, oil flow 180 l/min (tipping), and 250 l/min (lowering), for tippers without trailer (single-acting cylinder).
- It performs tipping, fast and progressive lowering.
- The inlet check valve and the relief valve are built-in. Three models of relief valve are available: adjustable relief valve, interchangeable preset cartridge, piloted relief valve with 2 or 3 possible settings.
- Standard end-of-stroke rope.
- Flange connection to tank and chassis.
- Standard pressure-switch or manometer connection.
- Protection cup (ordering code).



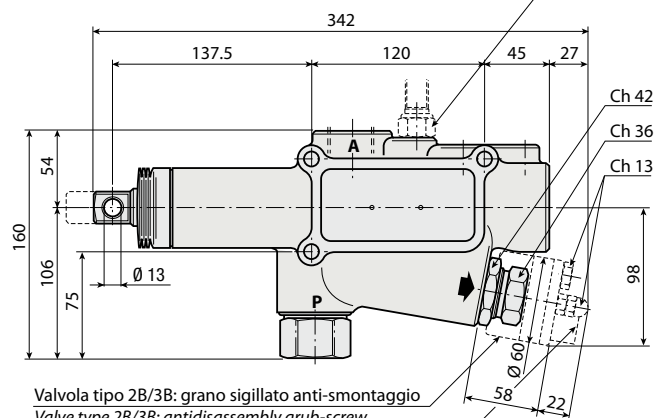
mod. DM 180-250 P



RILIEVI ESEGUITI CON OLIO ISO VG 46 A 50° C ($\nu = 30$ cSt)
THE ABOVE SPECIFICATIONS REFER TO OIL TYPE ISO VG 46 AT 50° C ($\nu = 30$ cSt)

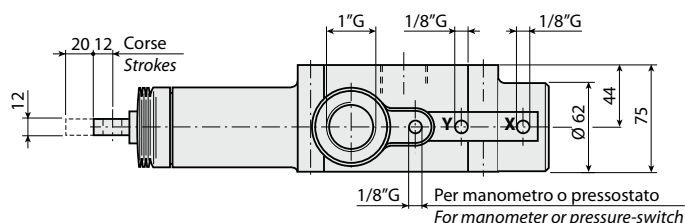
VERSIONE STANDARD / STANDARD VERSION

A richiesta pressostato intervento 7 ± 3 bar - Coppia di serraggio 30 ± 5 Nm
 Upon request pressure switch set at 7 ± 3 bar - Tightening torque 30 ± 5 Nm /



Valvola tipo 2B/3B: grano sigillato anti-smontaggio
Valve type 2B/3B: antidisassembly grub-screw

Valvola tipo 2B/3B: fascetta sigillata rotante
Valve type 2B/3B: rotating sealed clip



CAMPI DI REGOLAZIONE VALVOLA DI MASSIMA ADJUSTMENT RANGES FOR RELIEF VALVE

140 ÷ 240 bar	240 ÷ 350 bar
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PRESSOSTATO A RICHIESTA / UPON REQUEST PRESSURE SWITCH



 Coppia di serraggio / *Tightening torque*: $30 \pm 5 \text{ Nm}$

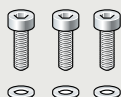
Pressostato 3 bar per pressioni di lavoro < 160 bar
Pressure switch at 3 bar for working pressure < 160 bar

COD.
501PRS163A1

Pressostato 7 bar per pressioni di lavoro > 160 bar
Pressure switch at 7 bar for working pressure >160 bar

COD.
501PRS357A1

KIT PER FISSAGGIO AL SERBATOIO / TANK MOUNTING KIT



M10x90

Serrare a coppia max 40 ± 5 Nm
Tightening torque max 40 ± 5 Nm

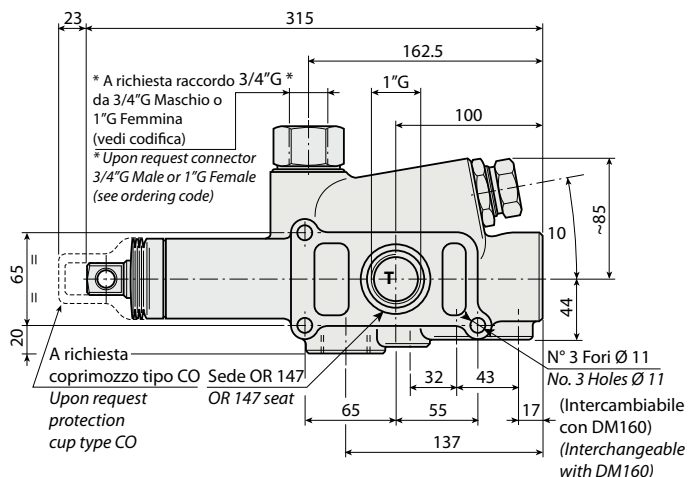
COD. 30KFDFU0000

Kit + piastra a saldare / Kit + plate to weld ≠ 20

COD. 30KDF02U000

Kit + piastra a saldare / Kit + plate to weld ≠ 30

COD. 30KDF03U000

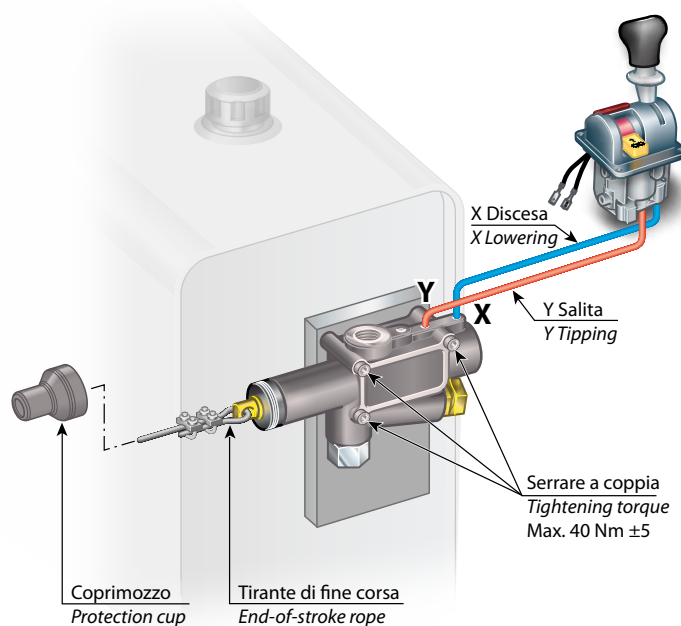


richiesta —
 timozzo t
 n request
 ection
 type CO

Sede OR 14
OR 147 seg

N° 3 Fori Ø 11
No. 3 Holes Ø 11
(Intercambiabile
con DM160)
(Interchangeable
with DM160)

5



Serrare a coppia
Tightening torque
Max. 40 Nm $\pm$ 5

CODICE DI ORDINAZIONE / ORDERING CODE

3 VFCFR 0 200 X

- 0** = COLLEGAMENTO 2 TUBI CON
TAPPO DI CHIUSURA A CORREDO
TWO-PIPES CONNECTION
WITH SUPPLIED CLOSING PLUG
- 2** = COLLEGAMENTO 2 TUBI
TWO-PIPES CONNECTION
- R** = RACCORDATO 1" / WITH 1" FITTINGS
- S** = RACCORDATO 3/4" / WITH 3/4" FITTINGS

l/min (PORTATA/FLOW)

VALVOLA DI FINE CORSA FRONTALE / FRONTAL END-OF-STROKE VALVE

ACCESSORI / ACCESSORIES



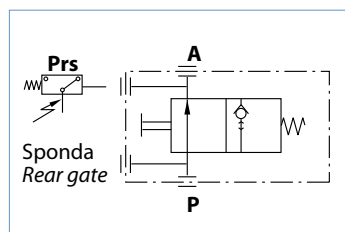
5

CARATTERISTICHE TECNICHE / TECHNICAL SPECIFICATIONS

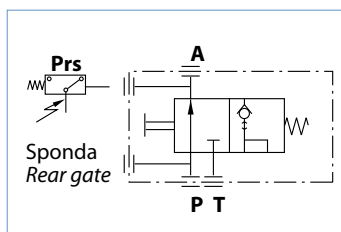
Portata nominale Flow rate	200 l/min	Temperatura fluido °C (t) Fluid temperature °C (t)	-25° + 80°C
Pressione massima di lavoro Max working pressure	350 bar	Campo viscosità Viscosity range	12-100 cSt
Pressione massima di picco Max peak pressure (<0.1 s)	400 bar	Filtrazione / Filtering ISO 4406 $\beta_x=75$	20/17 25 μ m
Fluido olio minerale Mineral oil	ISO VG 46	Peso Weight	4.6 kg

- Valvola di fine corsa a due posizioni a comando meccanico (tramite tirante) per veicoli ribaltabili per impianti a un tubo o a due tubi.
- Flangiabile a telaio.
- Pressostato a richiesta.
- Mechanical two-way end-of-stroke valve (through cable) for tipping vehicles for one-pipe or two-pipe systems.
- Flange connection to chassis.
- Pressure switch upon request.

PRESSOSTATO PREDISPOSTO DI SERIE
STANDARD PRESSURE SWITCH

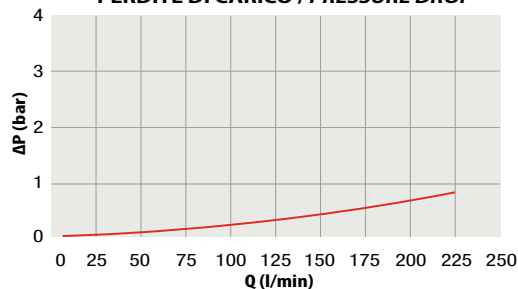


mod. 3 VFCFR 1



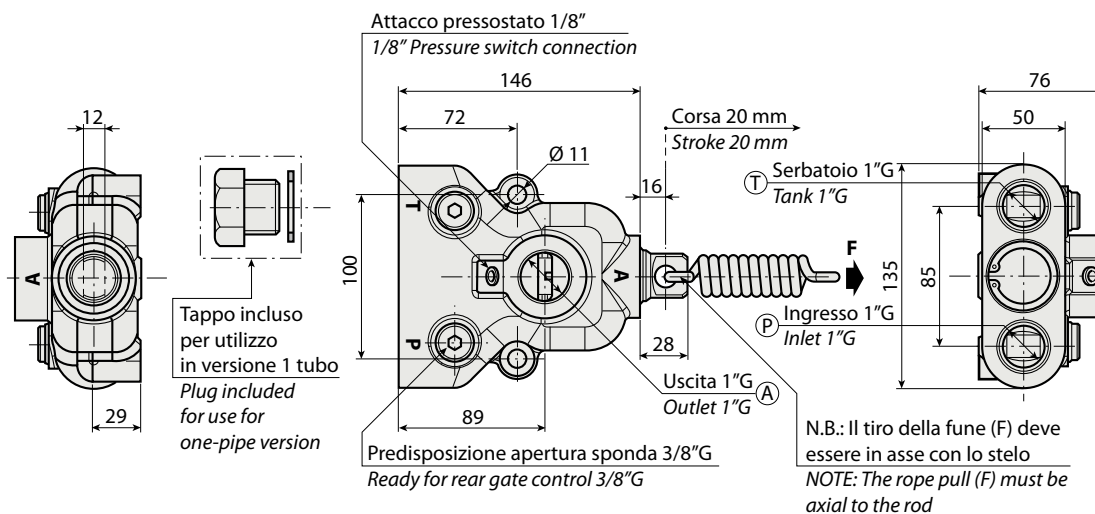
mod. 3 VFFRO 0

PERDITE DI CARICO / PRESSURE DROP



RILIEVI ESEGUITI CON OLIO ISO VG 46 A 50° C ($\nu=30$ cSt)
THE ABOVE SPECIFICATIONS REFER TO OIL TYPE ISO VG 46 AT 50° C ($\nu=30$ cSt)

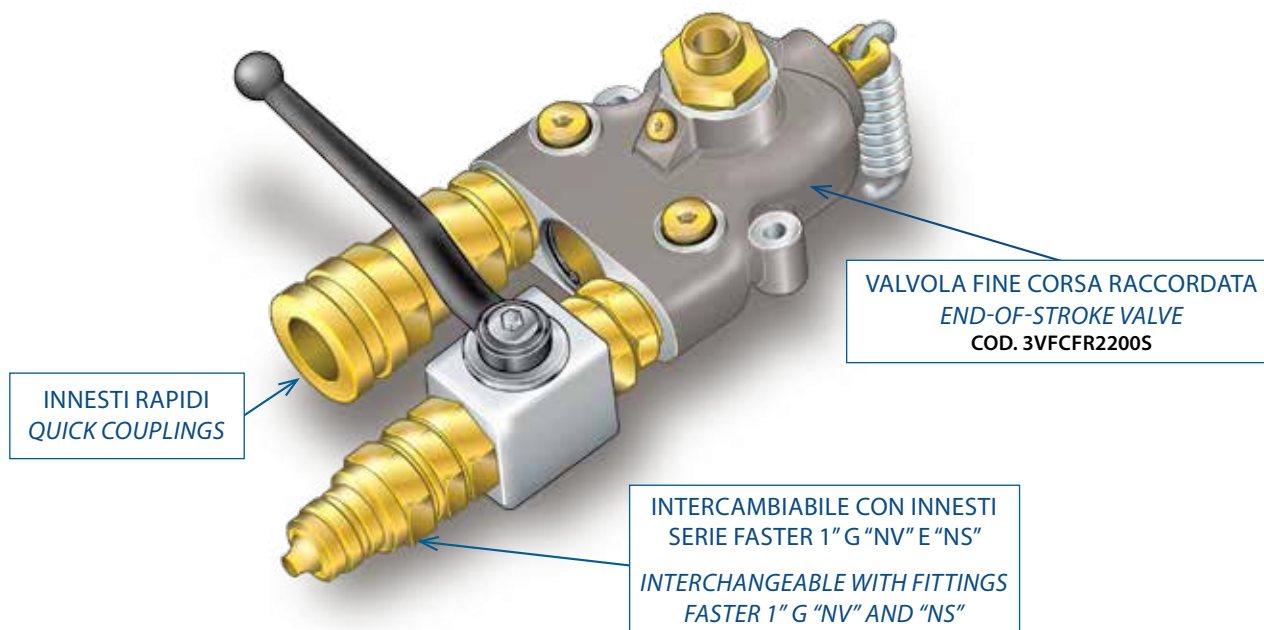
VERSIONE STANDARD / STANDARD VERSION



PRESSOSTATO A RICHIESTA / UPON REQUEST PRESSURE SWITCH

Coppia di serraggio / Tightening torque: 30 ± 5 Nm	
Pressostato 3 bar per pressioni di lavoro < 160 bar Pressure switch at 3 bar for working pressure < 160 bar	COD. 501PRS163A1
Pressostato 7 bar per pressioni di lavoro > 160 bar Pressure switch at 7 bar for working pressure > 160 bar	COD. 501PRS357A1

VERSIONE PREASSEMBLATA / PREASSEMBLY VERSION



KIT GUARNIZIONI / SEALS KIT

CODICE / CODE	39300010000
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CODICE DI ORDINAZIONE / ORDERING CODE

3 VDMR X X ON XX

00 = STANDARD / STANDARD (-25° + 80°C)
0H = GUARNIZIONI HNBR / HNBR GASKETS (-40° + 140°C)

0 = VDMR S STANDARD / STANDARD
1 = VDMR D 2 POSIZIONI CON DRENAGGIO / TWO POSITIONS WITH DRAINAGE
2 = VDMR CA 3 POSIZIONI / THREE POSITIONS
3 = VDMR T 2 POSIZIONI / TWO POSITIONS

ATTACCHI / CONNECTIONS

0 = MANDATE / OUTLETS A - B 3/4" G
1 = MANDATE / OUTLETS A - B 1" G
2 = P-A-B: SAE 16 1" 5/16-12

MODELLO / MODEL

ACCESSORI / ACCESSORIES



VDMR S

VDMR CA

VDMR D

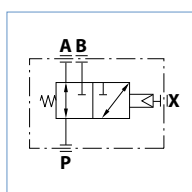
VDMR T

CARATTERISTICHE TECNICHE / TECHNICAL SPECIFICATIONS

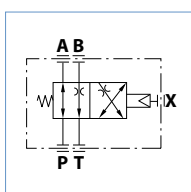
Portata nominale Nominal flow rate	160 - 200 l/min	Temperatura fluido °C (t) per distributore STANDARD Fluid temperature °C (t) for STANDARD control valve	-25° + 80°C
Pressione massima di lavoro Max working pressure	350 bar	Temperatura fluido °C (t) per distributore con GUARNIZIONI HNBR Fluid temperature °C (t) for control valve with HNBR GASKETS	-40° + 140°C
Pressione massima di picco (<0.1 s) Max peak pressure	500 bar	Filtrazione / Filtering ISO 4406 βx=75	20/17 25 μm
Pressione massima sul T T port max pressure	1.5 bar	Campo viscosità Viscosity range	12-100 cSt
Pressione pneumatica massima Max pneumatic pressure	12 bar	Fluido olio minerale Mineral oil	ISO VG 46
Peso Weight	3.3 kg		

- Valvola deviatrice di portata (motrice-rimorchio) a comando pneumatico a 2 o 3 posizioni (vedi modelli).
- Permette di alimentare due cilindri in sequenza su impianti dotati di distributore ad una sola mandata.
- Nel modello con drenaggio si permette di mantenere a scarico l'utenza che non lavora.
- Nel modello VDMR CA (a 3 posizioni) il collegamento simultaneo delle utenze avviene in posizione di riposo.
- Nel modello VDMR T (a 2 posizioni) il collegamento simultaneo delle utenze avviene in posizione pilotata.
- È possibile ordinare il distributore con le nuove guarnizioni HNBR che lo rendono adatto all'utilizzo in zone climatiche estreme (con temperature di esercizio da -40°C).

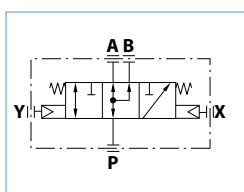
- Two or three position pneumatic flow distributor (tractor-trailer deviator).
- It allows the control of two in-sequence cylinders in circuits equipped with single outlet distributors.
- The valve version equipped with drainage enables the sending of unused oil directly to tank.
- The version VDMR CA (3 position) the simultaneous feeding of both outlets in the hold position.
- The version VDMR T (2 position) the simultaneous feeding of both outlets in the operating position.
- You can order the control valve with the new HNBR gaskets that make it suitable for use in extreme climates (with operating temperatures between -40°C).



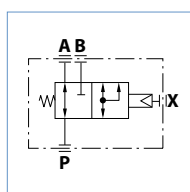
mod. VDMR S



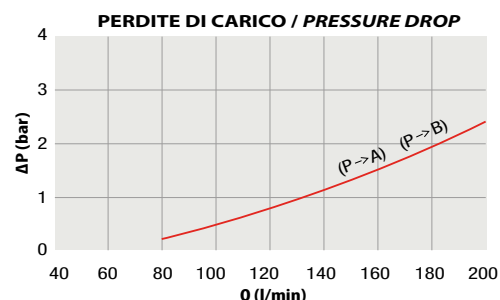
mod. VDMR D



mod. VDMR CA



mod. VDMR T

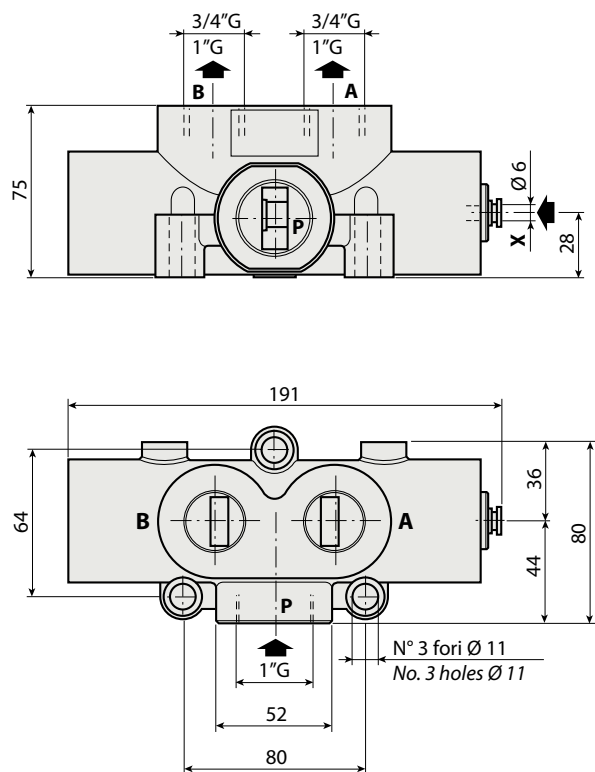


A RICHIESTA: kit guarnizioni di ricambio / ON REQUEST: seal kits spare

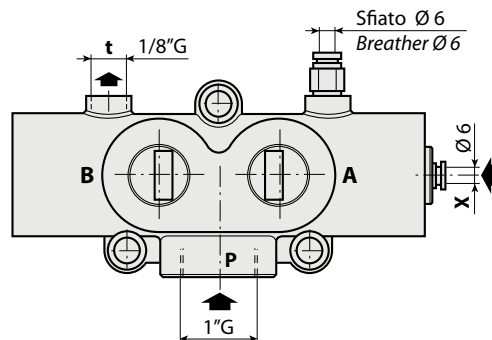
COD.
39200VDMR01

RILIEVI ESEGUITI CON OLIO ISO VG 46 A 50° C (√ = 30 cSt)
THE ABOVE SPECIFICATIONS REFER TO OIL TYPE ISO VG 46 AT 50° C (√ = 30 cSt)

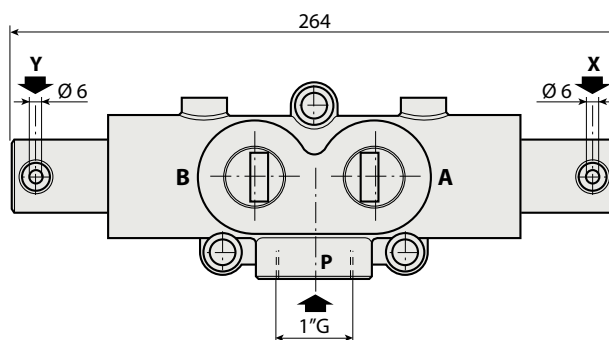
mod. VDMR S - VDMR T



mod. VDMR D

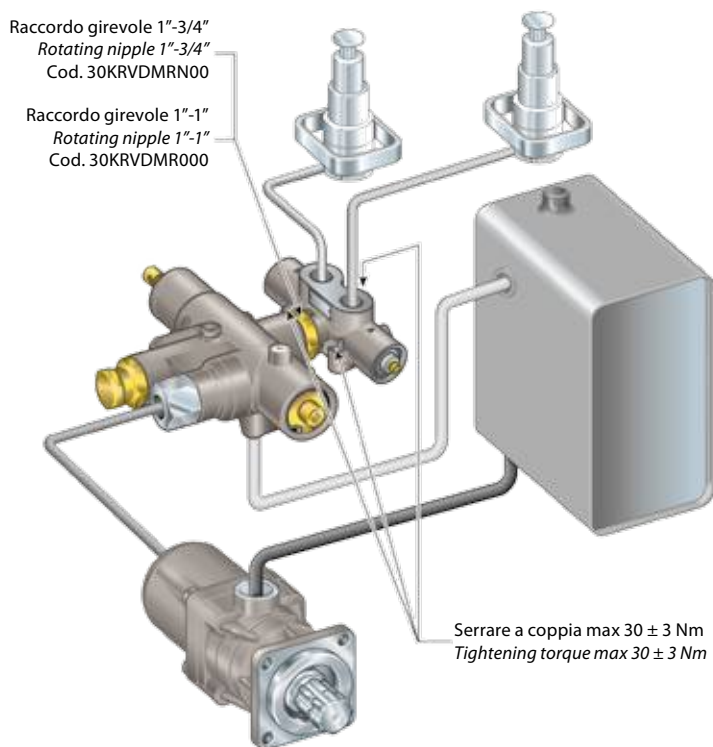


mod. VDMR CA



5

ESEMPIO DI INSTALLAZIONE / INSTALLATION EXAMPLE



AVVERTENZE / WARNINGS

È possibile pilotare la valvola anche durante il funzionamento.

It is possible to pilot the valve during the functioning too.

ATTENZIONE:

nel modello con drenaggio è PROIBITO azionare la valvola quando uno dei due utilizzi è ancora in posizione di sollevamento, poiché nel canale di drenaggio si creerebbe una contropressione superiore a quella dichiarata nelle caratteristiche tecniche (1,5 bar).

CAUTION:

in the model with drainage it is FORBIDDEN to switch when one of the two outlets is in the tipping position, because this would cause in the draining port a pressure value higher than that reported in the technical specifications (1.5 bar).

VALVOLA DI FINE CORSA END-OF-STROKE VALVE

CODICE DI ORDINAZIONE / ORDERING CODE

3 VFCR 2T XXXX

MODELLO / MODEL
ACCESSORI / ACCESSORIES

0600 = 60 l/min ATTACCHI DA 3/8" GAS / GAUGE 3/8" G
0800 = 80 l/min ATTACCHI DA 1/2" GAS / GAUGE 1/2" G
1200 = 120 l/min ATTACCHI DA 3/4" GAS / GAUGE 3/4" G
2000 = 200 l/min ATTACCHI DA 1" GAS / GAUGE 1" G
2500 = 250 l/min ATTACCHI DA 1 1/4" GAS / GAUGE 1 1/4" G



2T 60

2T 120

2T 250

2T 80

2T 200

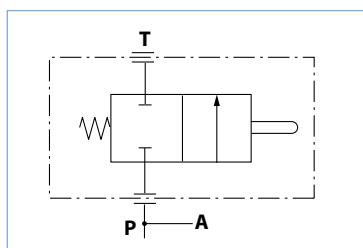
5

CARATTERISTICHE TECNICHE / TECHNICAL SPECIFICATIONS

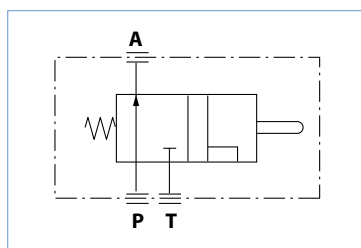
Portata nominale Flow rate	60 - 80 - 120 - 200 - 250 l/min	Campo °C (t) Range °C (t)	-25° + 80°C
Pressione massima di lavoro Max working pressure	350 bar	Campo viscosità Viscosity range	12-100 cSt
Pressione massima di picco (<0.1 s) Max peak pressure	500 bar	Filtrazione / Filtering ISO 4406 $\beta_x=75$	20/17 25 μ m
Fluido olio minerale Mineral oil	HLP (DIN 5152S)	Peso Weight	1.7 - 1.7 - 2.2 - 3.7 - 6.1 kg

- Valvola di fine corsa a due posizioni, a comando meccanico (tramite tirante) per veicoli ribaltabili.
- I mod. 60 - 80 - 120 mettono a scarico il flusso senza bloccare il cilindro. Si installano in derivazione.
- Anche i modelli 200-250 mettono a scarico il flusso senza bloccare il cilindro ma vanno installati sulla linea di mandata.
- Flangiabile a telaio.
- Disponibili varie portate nominali.

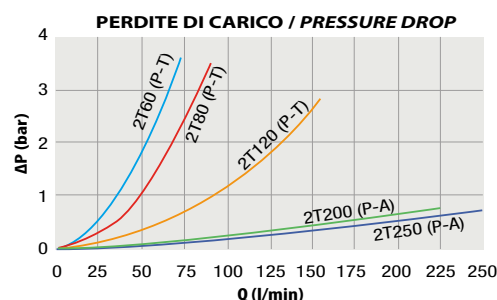
- Two position mechanically operated end-stroke valve for tipper vehicle (trailer).
- Models 60 - 80 - 120 send the oil flow to the tank without holding the cylinder. Offtake mounting.
- Models 200 - 250 send the oil flow to the tank without holding the cylinder too, but they need on-line mounting.
- Flange connection to chassis.
- Several flow rate models are available.



mod. VFCR 2T 60 - 80 - 120



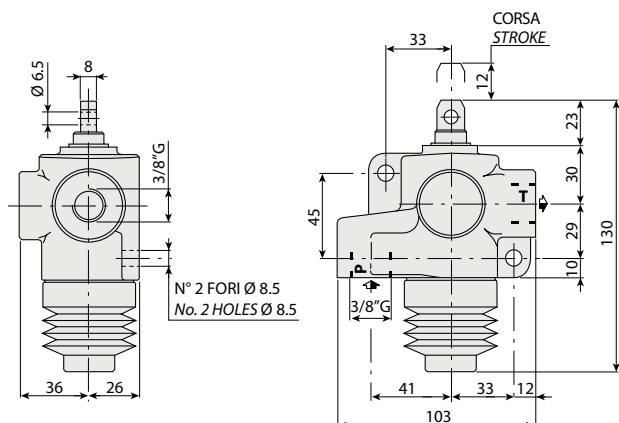
mod. VFCR 2T 200 - 250



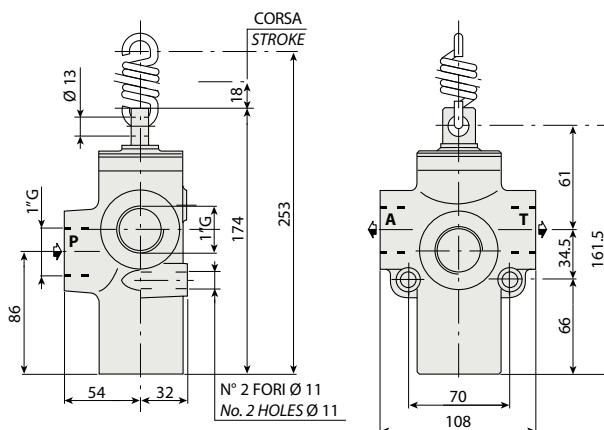
RILIEVI ESEGUITI CON OLIO ISO VG 46 A 50° C ($\nu = 30$ cSt)
THE ABOVE SPECIFICATIONS REFER TO OIL TYPE ISO VG 46 AT 50° C ($\nu = 30$ cSt)

VALVOLA DI FINE CORSA
END-OF-STROKE VALVE

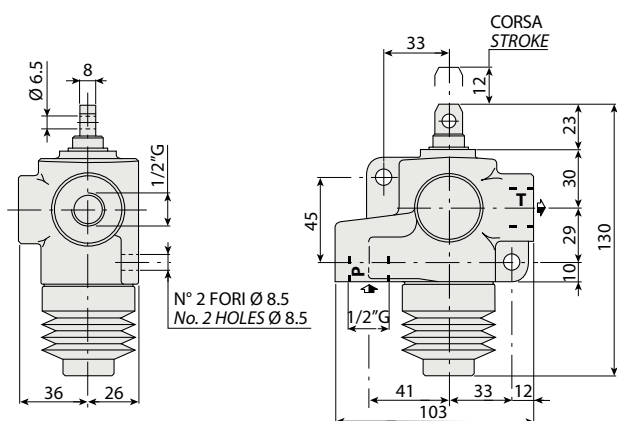
mod. 2T 60



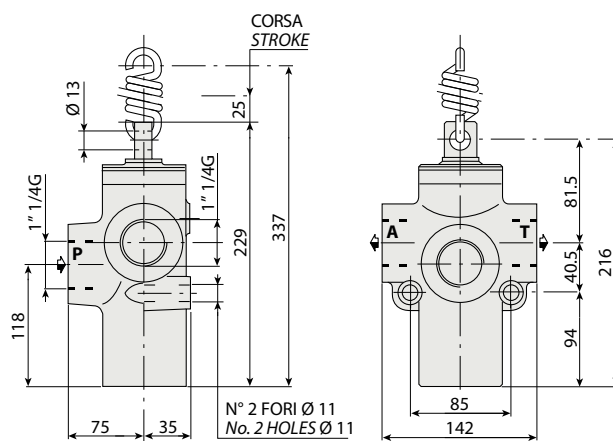
mod. 2T 200



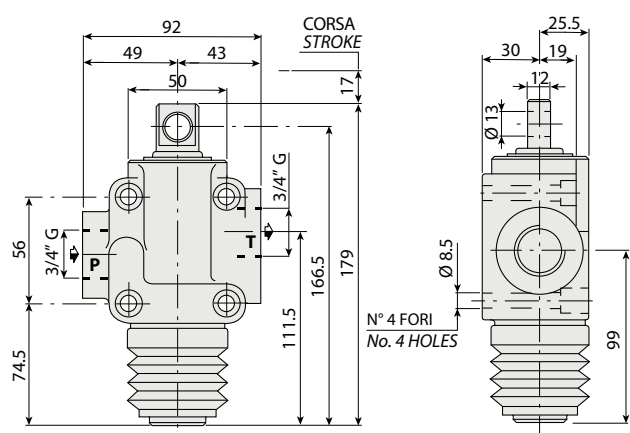
mod. 2T 80



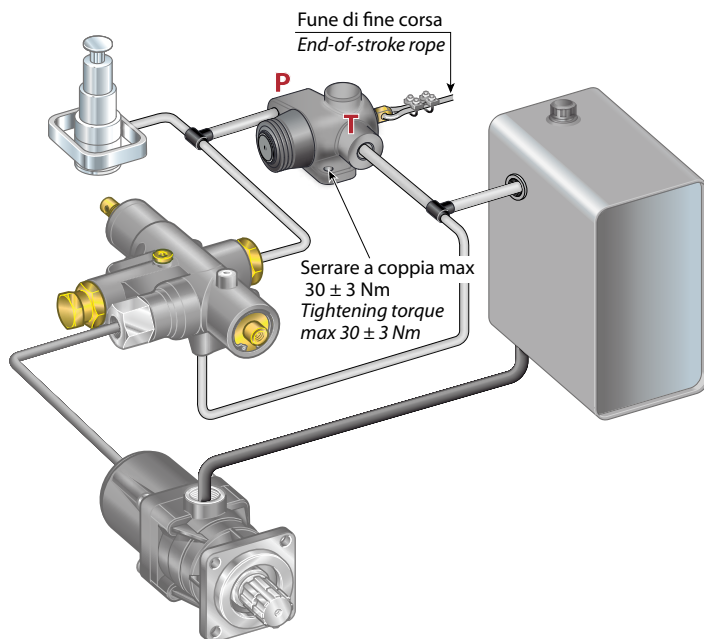
mod. 2T 250



mod. 2T 120



ESEMPIO DI INSTALLAZIONE / INSTALLATION EXAMPLE





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