

M5600/U5600 Distributeurs inclinables



Kipper-Ventil (230081) Distributeur inclinable

DMDLRP 150P

Distributore da 150 l/min a comando pneumatico per veicoli ribaltabili con motrice e rimorco o cilindro a doppio effetto. Consente la salita, la discesa veloce e lenta (modello DL), in posizione di riposo la mandata ricircola a serbatoio e le utenze A e B sono chiuse. Ricentraggio a molla. Sono incorporate le valvole di ingresso e controllo pressione in P per il veicolo e di ingresso e frangidute a rebo. Attacchi per pressostati a richiesta.

Pneumatic operated 150 l/min distributor for tipping vehicles with tractor and trailer or double effect cylinder. It allows tipping, fast and slow lowering (model DL). In neutral position the oil outlet is open to oil tank and the ports A and B are closed. Re-centring through spring. Ports for pressure control and pressure relief are included. Limit switch the rod. Flange connection to chassis. Pressure switch gauge upon request.

CODICE DI ORDINAZIONE | 0 | 1 | 5 | 1 | 2

MODELLO - model

2 = MOTRICE E RIMORCO - Tractor and trailer

0 = SOLO DISCESA VELOCE - fast lowering only

1 = CON DISCESA LENTA - with slow lowering

TARATURA VALVOLA MAX PRESS. - pressure relief valve setting (081 + 35) = MPa (80 - 350 bar) Standard = 16 (160 bar)

ACCORDO DENTRATA - Inlet gauge

4 = F 3/4" GAS STANDARD

6 = F 1" GAS A RICHIESTA - upon request

00 = NESSUN OPZIONALE - no optional

PP = ATT. PRESSOST. N A B - press. switch gauge on A and B

P0 = ATT. PRESSOST. N A - press. switch gauge on A

CP = ATT. PRESSOST. N B - press. switch gauge on B

PERDITE DI CARICO - PRESSURE DROP

AP (bar) vs Q (l/min)

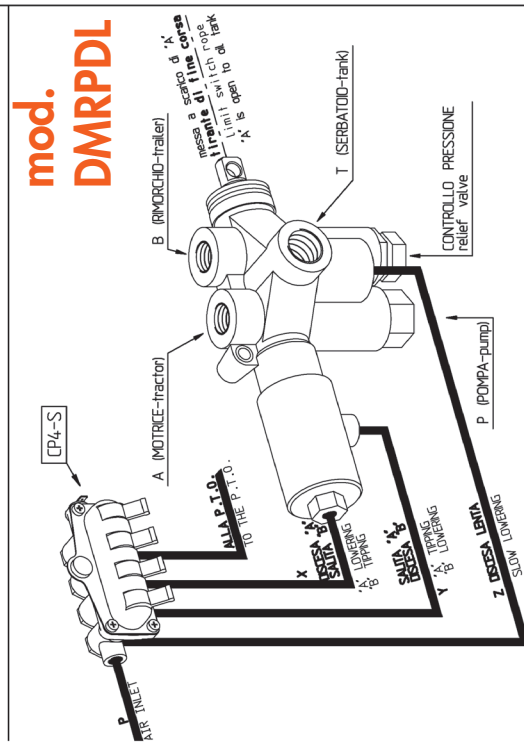
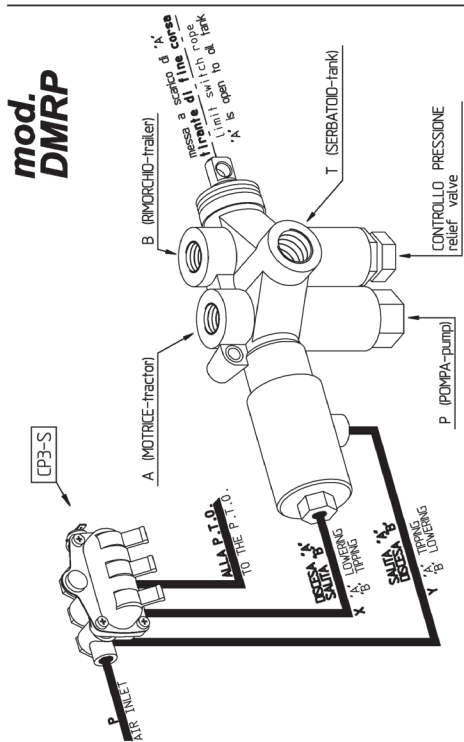
Relievi eseguiti con ISO VG 46 a 50°C (17-20cSt)
The graph refers to oil type ISO VG 46 at 50°C (17-20cSt)

CARATTERISTICHE TECNICHE
TECHNICAL SPECIFICATIONS

Portata nominale Flow rate	50 l/min T/C range	Temperatura T/C range	-25 - +60°C
Press. Max di lavoro Max working Press.	350 bar	Campo viscosità* Viscosity range	12-100 cSt
Press. Max di picco Max peak Pressure (C.O.1 sec)	500 bar	Filtras./Filtering	20/17
Press. Max aut T T port Max Press.	30 bar	Peso Weight	DMP 85 kg DMPDL 91 kg
Press. P/min. Max Max P/min. Press.	12 bar	Fluido olio minerale Mineral oil (DIN 51525)	HLP (DIN 51525)

mod. DMRP

mod. DMRPDL



Kipper-Ventil (230083) Distributeur inclinable

150 bar

DM 160

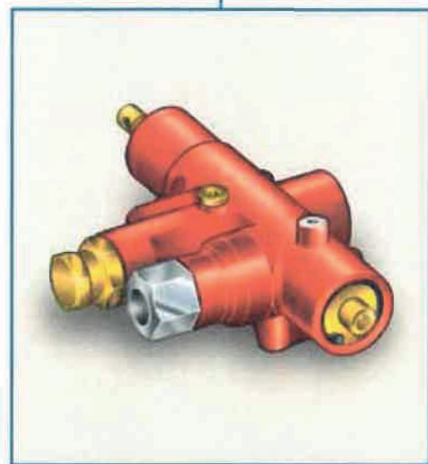
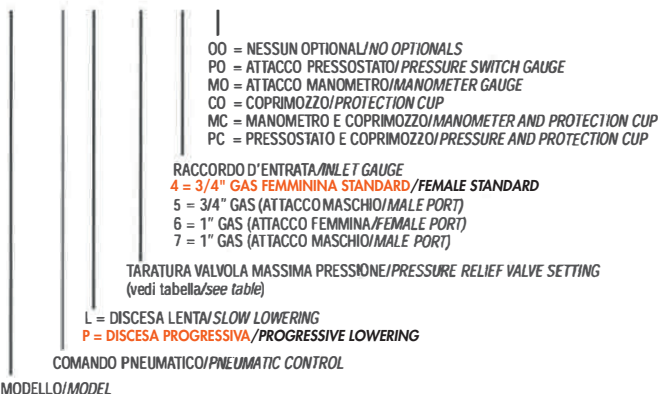
Distributore Idraulico
Hydraulic Distributor

CODICE DI ORDINAZIONE / ORDERING CODE

D160 P P 08 4 00

DM 160 PP

DM 160 PL



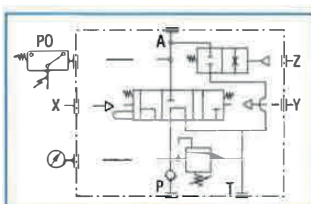
08 + 35 MPa (80-350 bar) con valvola standard (regolabile)/with standard relief valve (adjustable)	DO - D9 con cartuccia regolabile da 10 a 19 MPa/with adjustable cartridge (from 10 to 19 Mpa)
2B con valvola pilotata a 2 livelli (stand. 140, 220 bar)/piloted relief valve with 2 settings	EO - E9 con cartuccia 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	FO - 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)	GO cartuccia regolabile non tarata, non piombata/not setting, not plumbed adjustable cartridge

CARATTERISTICHE TECNICHE / TECHNICAL SPECIFICATIONS

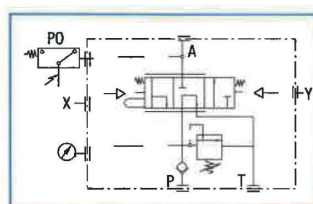
Portata nominale Flow rate	160 l/min	Temperatura fluido °C (t) Fluid temperature °C (t)	-25° + 80°C
Pressione massima di lavoro Max working pressure	350 bar	Campo viscosità Viscosity range	12-100 cSt
Pressione massima di picco Max peak pressure (<0.1 s)	500 bar	Filtrazione/Filtering ISO 4406 βx=75	20/17 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 (modello DL) o la discesa progressiva (modello DP).
- > 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).

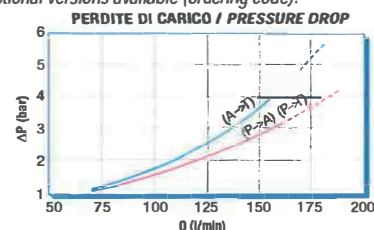
- > Single acting hydraulic tipping valve with oil flow of 160 l/min, pneumatically controlled.
- > Available in two versions: DL with double fixed rising/lowering speed (normal and slow) or proportional DP.
- > Inlet check valve and overpressure valve are built-in. Concerning overpressure safety device 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

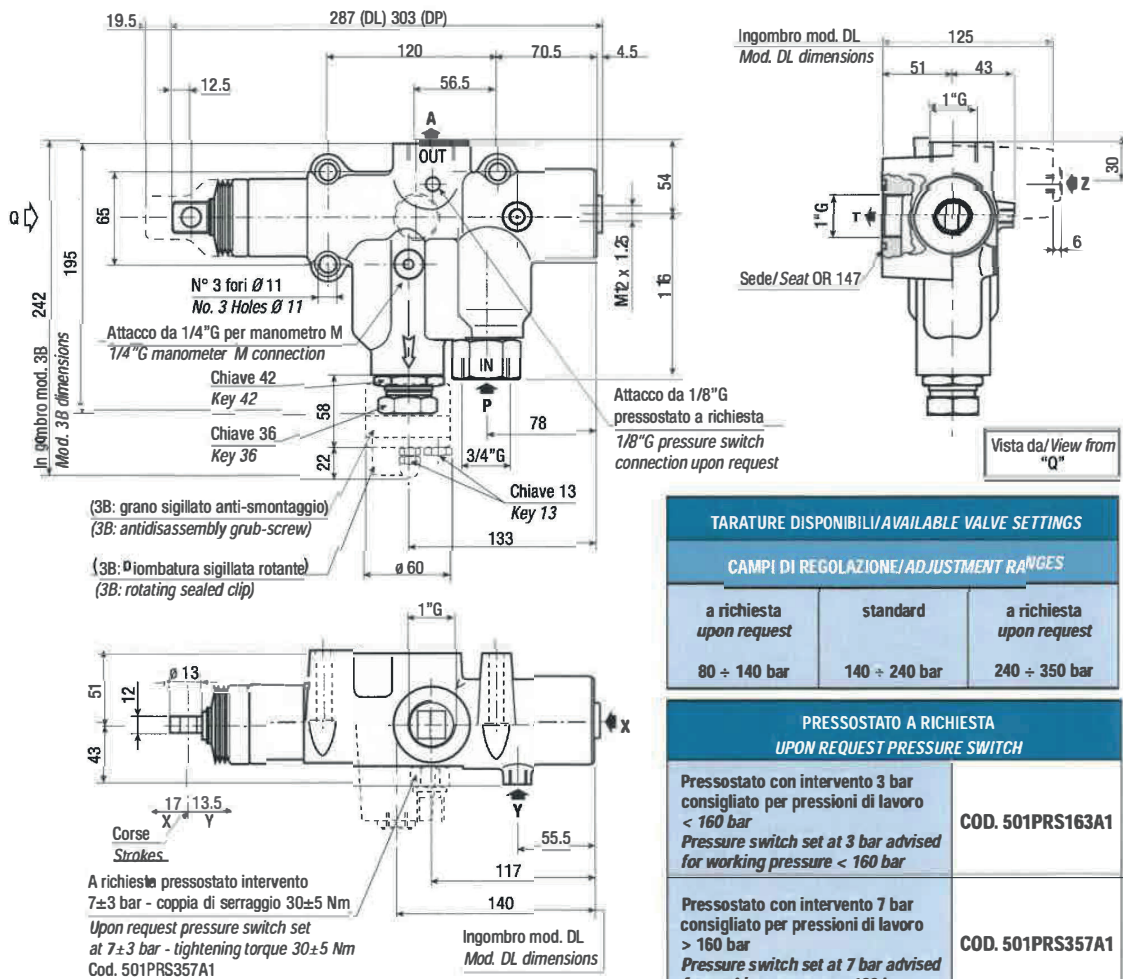


RILIEVI ESEGUITI CON OLIO ISO VG 46 A 50° C (ν = 30 cSt)
 THE ABOVE SPECIFICATIONS REFER TO OIL TYPE ISO VG 46 AT 50° C (ν = 30 cSt)

Kipper-Ventil (230083) Distributeur inclinabile

150 bar

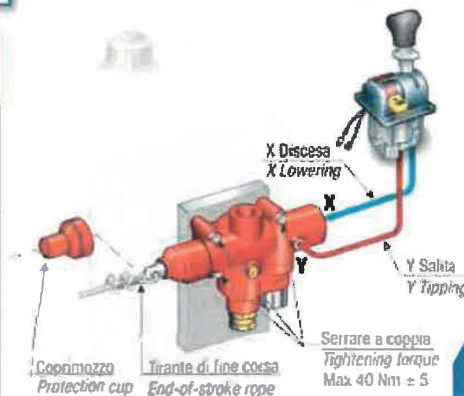
VERSIONE STANDARD STANDARD VERSION



TARATURE DISPONIBILI/AVAILABLE VALVE SETTINGS		
CAMPI DI REGOLAZIONE/ADJUSTMENT RANGES		
a richiesta upon request	standard	a richiesta upon request
80 ÷ 140 bar	140 ÷ 240 bar	240 ÷ 350 bar
PRESSOSTATO A RICHIESTA UPON REQUEST PRESSURE SWITCH		
Pressostato con intervento 3 bar consigliato per pressioni di lavoro < 160 bar Pressure switch set at 3 bar advised for working pressure < 160 bar		COD. 501PRS163A1
Pressostato con intervento 7 bar consigliato per pressioni di lavoro > 160 bar Pressure switch set at 7 bar advised for working pressure > 160 bar		COD. 501PRS357A1

KIT PER FISSAGGIO AL SERBATOIO / TANK MOUNTING KIT

DESCRIZIONE DESCRIPTION	CODICE CODE
Per serbatoio metallico senza piastra For steel tank without flange	30KDF02T000 (piastra ≠ 20 mm) (plate ≠ 20 mm) 30KDF03T000 (piastra ≠ 30 mm) (plate ≠ 30 mm)
Per fissaggio a telaio To fit to chassis	30KFDF0000
Per fissaggio a telaio con piastra di sostegno To fit to chassis with a plate of support	30KDF06T000



4

Kipper-Ventil (230085) Distributeur inclinable

300 bar

DM 160

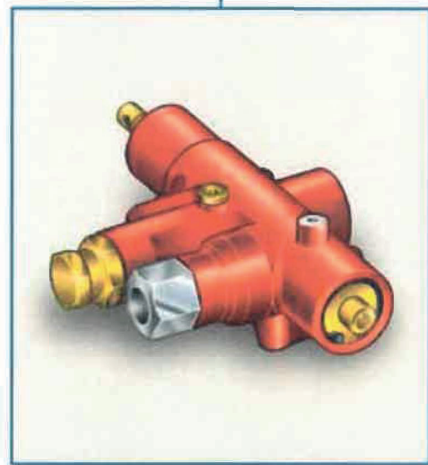
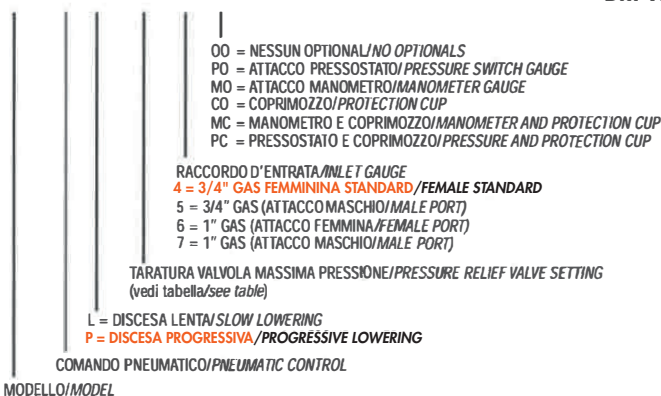
Distributore Idraulico Hydraulic Distributor

CODICE DI ORDINAZIONE / ORDERING CODE

D160 P P 08 4 00

DM 160 PP

DM 160 PL



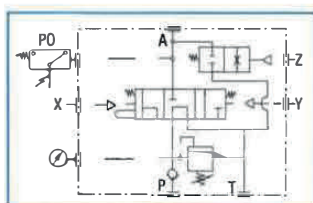
08 + 35 MPa (80-350 bar) con valvola standard (regolabile)/with standard relief valve (adjustable)	DO - D9 con cartuccia regolabile da 10 a 19 MPa/with adjustable cartridge (from 10 to 19 Mpa)
2B con valvola pilotata a 2 livelli (stand. 140, 220 bar)/piloted relief valve with 2 settings	EO + E9 con cartuccia 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	FO - 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)	GO cartuccia regolabile non tarata, non piombata/not setting, not plumbed adjustable cartridge

CARATTERISTICHE TECNICHE / TECHNICAL SPECIFICATIONS

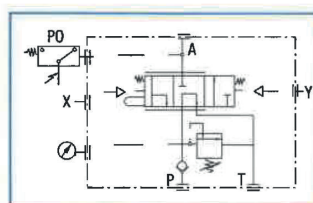
Portata nominale Flow rate	160 l/min	Temperatura fluido °C (t) Fluid temperature °C (t)	-25° + 80°C
Pressione massima di lavoro Max working pressure	350 bar	Campo viscosità Viscosity range	12-100 cSt
Pressione massima di picco Max peak pressure (<0.1 s)	500 bar	Filtrazione/Filtering ISO 4406 βx=75	20/17 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 (modello DL) o la discesa progressiva (modello DP).
- > 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.
- > Available in two versions: DL with double fixed rising/lowering speed (normal and slow) or proportional DP.
- > 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).

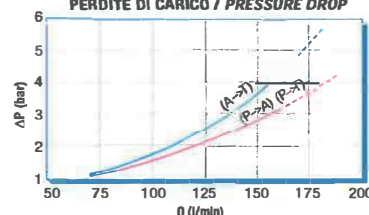


mod. DM 160 PL



mod. DM 160 PP

PERDITE DI CARICO / PRESSURE DROP

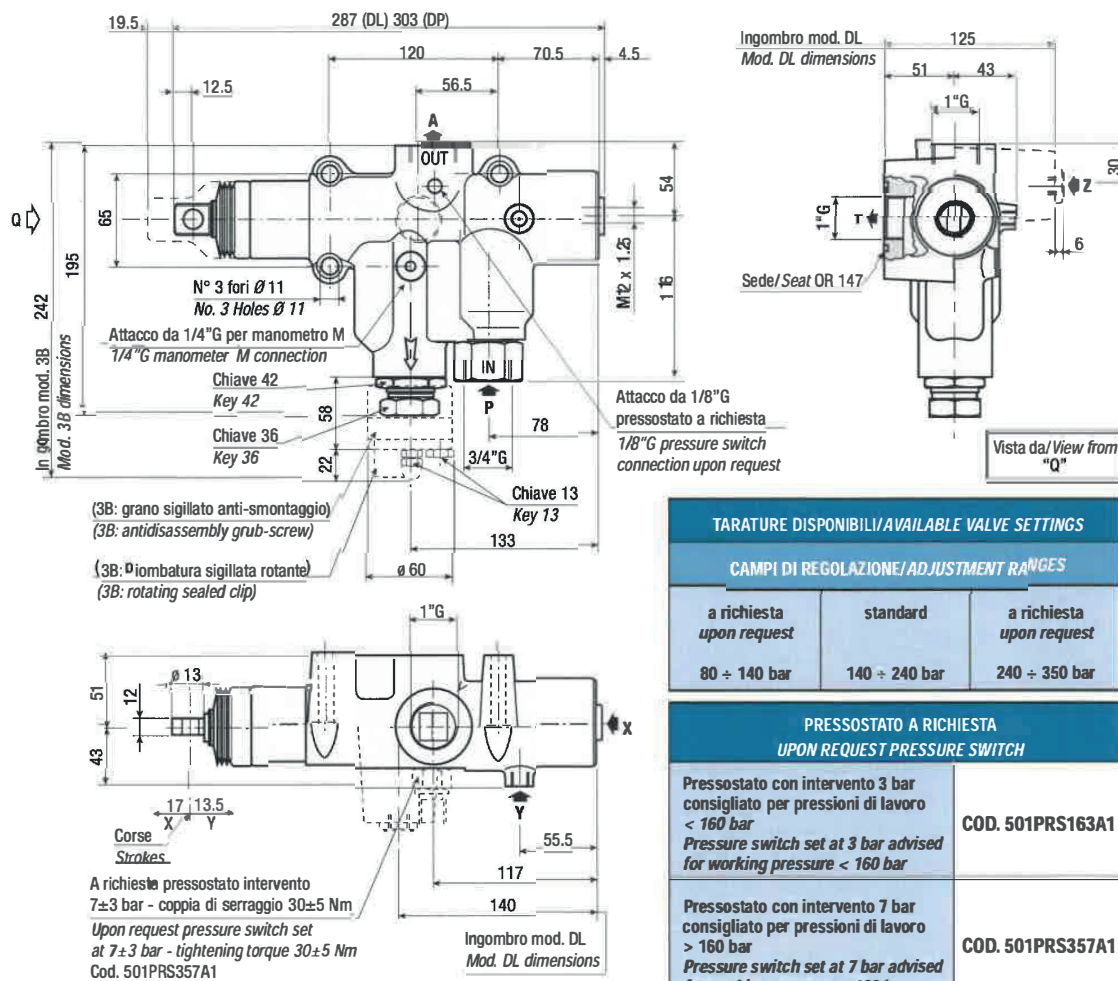


RILIEVI ESEGUITI CON OLIO ISO VG 46 A 50° C (ν = 30 cSt)
 THE ABOVE SPECIFICATIONS REFER TO OIL TYPE ISO VG 46 AT 50° C (ν = 30 cSt)

Kipper-Ventil (230085) Distributeur inclinable

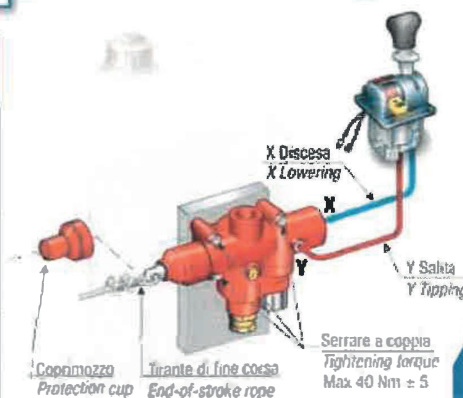
300 bar

VERSIONE STANDARD STANDARD VERSION



KIT PER FISSAGGIO AL SERBATOIO / TANK MOUNTING KIT

DESCRIZIONE DESCRIPTION	CODICE CODE
Per serbatoio metallico senza piastra For steel tank without flange	30KDF02T000 (piastra ≠ 20 mm) (plate ≠ 20 mm) 30KDF03T000 (piastra ≠ 30 mm) (plate ≠ 30 mm)
Per fissaggio a telaio To fit to chassis	30KFDF0000
Per fissaggio a telaio con piastra di sostegno To fit to chassis with a plate of support	30KDF06T000



4

Kipper-Ventil (230086) Distributeur inclinable

DM 180-250

CODICE DI ORDINAZIONE / ORDERING CODE

D180 P P 08 4 00

DM 180-250 P

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

RACCORDO D'ENTRATA/INLET CAULGE
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)

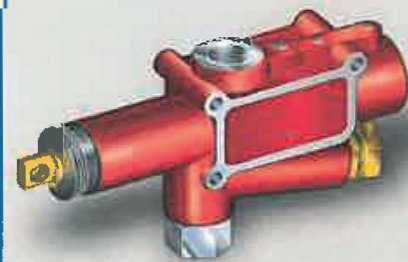
TARATURA VALVOLA MASSIMA PRESSIONE/PRES. RELIEF VALVE SETTING
(vedi tabella/see table)

P = DISCESA PROGRESSIVA/PROGRESSIVE LOWERING

COMANDO PNEUMATICO/PNEUMATIC CONTROL

MODELLO/MODEL

Distributore Idraulico Hydraulic Distributor



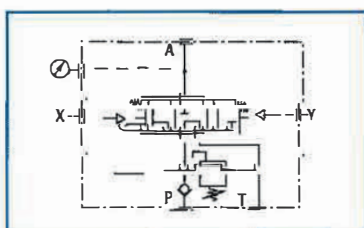
08 ÷ 35 MPa (80-350 bar) con valvola standard (regolabile)/with standard relief valve (adjustable)	D0 ÷ D9 con cartuccia regolabile da 10 a 19 MPa/with adjustable cartridge (from 10 to 19 Mpa)
2B con valvola pilotata a 2 livelli (stand. 140, 220 bar)/piloted relief valve with 2 settings	E0 ÷ E9 con cartuccia 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

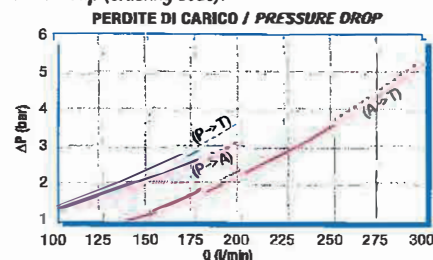
Portata nominale - Massima in ingresso <i>Tipping nom. - Max flow rate</i>	180-200 l/min	Temperatura fluido °C (t) <i>Fluid temperature °C (t)</i>	-25° + 80°C
Portata nominale - Massima in scarico <i>Lowering nom. - Max flow rate</i>	250-300 l/min	Campo viscosità <i>Viscosity range</i>	12-100 cSt
Pressione massima di lavoro <i>Max working pressure</i>	300 bar	Filtrazione/Filtering ISO 4406 βx=75	20/17 25 μm
Pressione massima di picco <i>Max peak pressure</i> (<0.1 s)	450 bar	Peso <i>Weight</i>	8-9 kg
Pressione massima sul T <i>T port max pressure</i>	30 bar	Pressione pneumatica massima <i>Max pneumatic pressure</i>	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 (ν = 30 cSt)
THE ABOVE SPECIFICATIONS REFER TO OIL TYPE ISO VG 46 AT 50° C (ν = 30 cSt)

Kipper-Ventil (230785) Distributeur inclinable

DM 50

ELETTRICO
ELECTRICAL CONTROL

CODICE DI ORDINAZIONE / ORDERING CODE

D50F4 F 1 01 1 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)

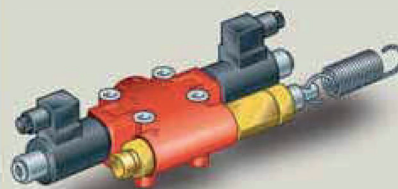
1 = 12 V DC
2 = 24 V DC

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

F = ELETTRICO CON FINE CORSA
ELECTRICAL CONTROL WITH END-OF-STROKE
E = ELETTRICO SENZA FINE CORSA
ELECTRICAL CONTROL WITHOUT END-OF-STROKE

MODELLO/MODEL

Distributore Idraulico Hydraulic Distributor



CARATTERISTICHE TECNICHE / TECHNICAL SPECIFICATIONS

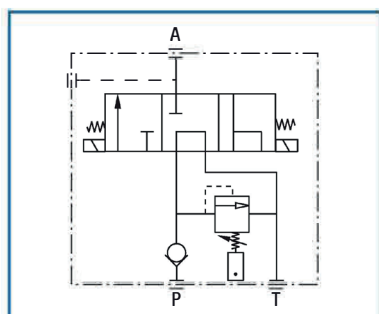
Portata nominale Flow rate	40 l/min	Temperatura fluido °C (t) Fluid temperature °C (t)	-25° + 80°C
Pressione massima di lavoro Max working pressure	250 bar	Campo viscosità Viscosity range	12-100 cSt
Pressione massima di picco Max peak pressure (<0.1 s)	300 bar	Filtrazione/Filtering ISO 4406 βx=75	20/17 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

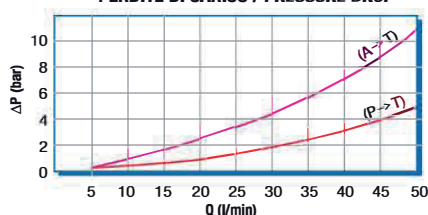
Bassa pressione Low pressure	100-210 bar 120 bar standard	Media pressione Medium pressure	220-250 bar 250 bar standard
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- > Distributore elettrico per il comando di ribaltabili leggeri a centro aperto.
- > Tensione di comando 12 V o 24 V.
- > Valvola 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



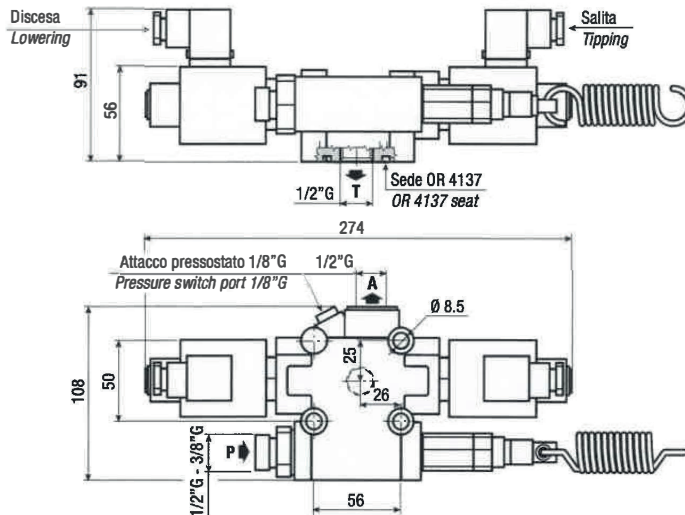
PERDITE DI CARICO / PRESSURE DROP



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)

Kipper-Ventil (230785) Distributeur inclinabile

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



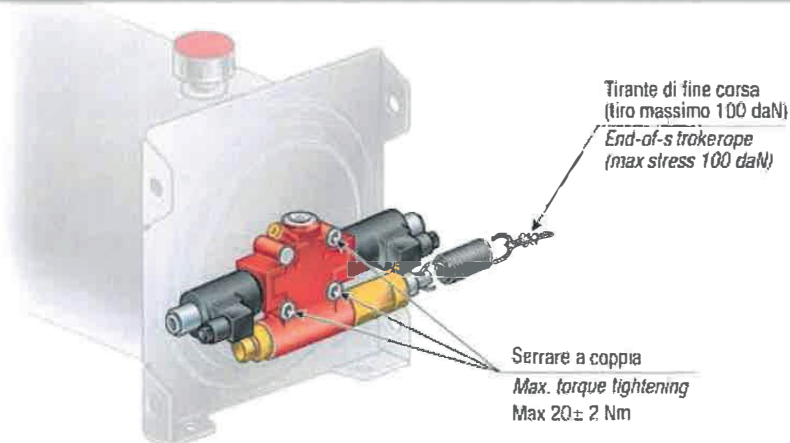
DESCRIZIONE - DESCRIPTION	CODICE - CODE
Pressostato - Pressure switch	511PRS163A1



Pressostato con guarnizione
Coppia di serraggio: 30 ± 5 Nm
Pressure switch with washer
Tightening torque: 30 ± 5 Nm

DESCRIZIONE - DESCRIPTION	CODICE - CODE
Kit raccordo C 1/2" G - C 1/2" fitting	30KDF510000
Kit raccordo C 3/8" G - C 3/8" 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



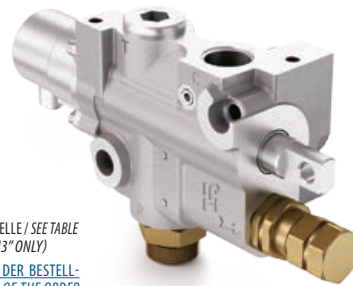
3

Kipper-Ventil (231075) Distributeur inclinable

DM 240

BESTELLNUMMER / ORDERING CODE

D240 XX X X XXX



EINFACH-KALIBRIERUNG / SINGLE SETTING = 10 - 35 MPa (100 - 350 bar)
(NUR FÜR VERSION "P1" / WITH VERSION "P1" ONLY)
DOPPEL- und DREIFACH-KALIBRIERUNG / DOUBLE and TRIPLE SETTING = SIEHE TABELLE / SEE TABLE
(NUR FÜR VERSIONEN "P2" - "M2" - "M3" / WITH VERSIONS "P2" - "M2" - "M3" ONLY)

BEI EINFACH- UND DOPPELKALIBRIERUNG IST DER LETZTE BUCHSTABE DER BESTELLNUMMER IMMER O / FOR SINGLE AND DOUBLE SETTING THE LAST LETTER OF THE ORDER CODE IS ALWAYS O

TABELLE / TABLE					
A = 10 MPa	F = 16 MPa	K = 21 MPa	Q = 26 MPa	V = 31 MPa	
B = 12 MPa	G = 17 MPa	L = 22 MPa	R = 27 MPa	W = 32 MPa	
C = 13 MPa	H = 18 MPa	M = 23 MPa	S = 28 MPa	X = 33 MPa	
D = 14 MPa	I = 19 MPa	N = 24 MPa	T = 29 MPa	Y = 34 MPa	
E = 15 MPa	J = 20 MPa	P = 25 MPa	U = 30 MPa	Z = 35 MPa	

STANDARD-DRUCKERHÖHUNGEN STANDARD PRESSURE INCREASES				
Doppelte Kalibrierung Double settings	+ 50 bar	+ 80 bar	+ 100 bar	+ 130 bar
Dreifache Kalibrierung Triple settings	+ 80 bar + 130 bar	+ 80 bar + 100 bar	+ 50 bar + 130 bar	+ 100 bar + 100 bar

PNEUMATISCHE ANSCHLÜSSE / AIR CONNECTIONS

0 = 1/8" G

1 = FITTING T6 / T6 FITTING

2 = SCHLAUCH-FITTING 1/4" / 1/4" FITTING

1 = P G 3/4" M

2 = P G 1" M

3 = P 1.5/16" (SAE 16)

P1 = EINFACHKALIBRIERUNG / SINGLE SETTING

P2 = DOPPELTE PNEUMATISCHE KALIBRIERUNG / DOUBLE PNEUMATIC SETTING

M2 = DOPPELTE MECHANISCHE KALIBRIERUNG / DOUBLE MECHANICAL SETTING

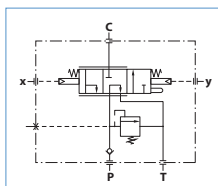
M3 = DREIFACHE MECHANISCHE KALIBRIERUNG / TRIPLE MECHANICAL SETTING

MODELL / MODEL

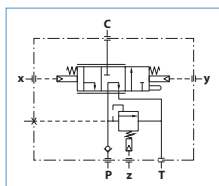
TECHNISCHE EIGENSCHAFTEN / TECHNICAL SPECIFICATIONS

Neendurchfluss Flow rate	160-240 l/min	Fluid-Temperatur °C (t) Fluid temperature °C (t)	-25° + 80 °C
Neendurchfluss - Maximum am Auslass Lowering nom. - Max flow rate	250-300 l/min	Viskositätsbereich Viscosity range	12-100 cSt
Maximaler Arbeitsdruck Max working pressure	350 bar	Filtration / Filtering ISO 4406 βx=75	20/17 25 μm
Maximaler Spitzendruck (<0.1 s) Max peak pressure	400 bar	Gewicht Weight	8 kg
Maximaler Druck auf T T port max pressure	30 bar	Maximaler pneumatischer Druck Max pneumatic pressure	4.5 - 12 bar

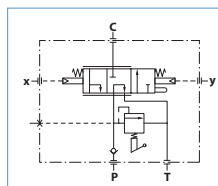
- Pneumatisch betriebenes 3-Wege-Kippventil (Pumpe, Zylinder, Tank).
- Drei Positionen:
 - zentrale Position mit Pumpe im Auslass und blockiertem Zylinder,
 - Kippposition mit Vorlauf an den Zylinder,
 - Absenkposition.
- Proportionale Absenkung unter Verwendung der entsprechenden pneumatischen Steuerung.
- Druckbegrenzungsventil einstellbar bis 350 bar am Anschluss "P".
- Rückschlagventil.
- 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.



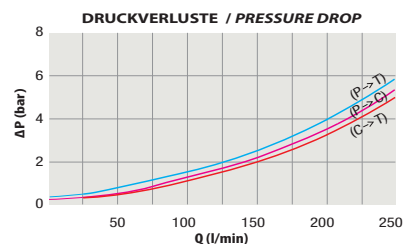
Mod. DM 240 P1



Mod. DM 240 P2



Mod. DM 240 M2 Mod. DM 240 M3



AUF ANFRAGE: Ersatz-Dichtungssatz für DM 240 Einfach-Kalibrierung
ON REQUEST: seals kit spare for DM 240 single pressure set

CODE
195KRDM2401

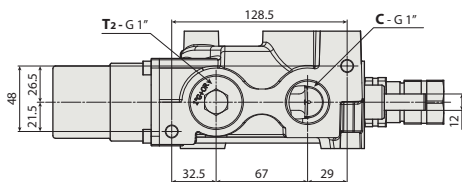
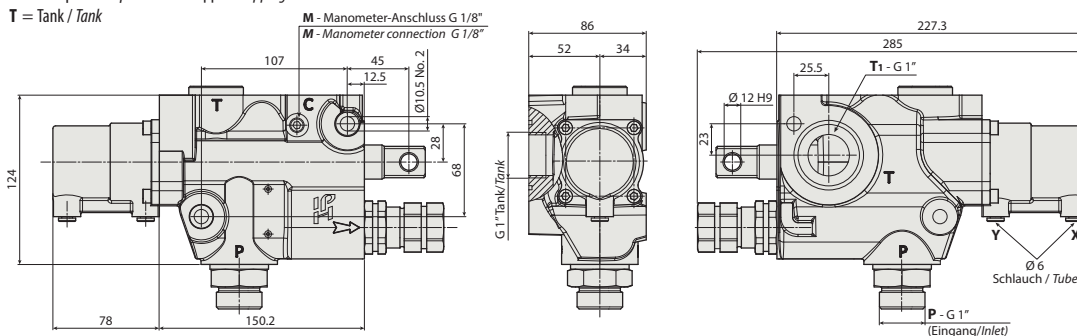
DIE MESSUNGEN WURDEN MIT ÖL ISO VG 46 BEI 50 °C (ν_f=30 cSt) DURCHGEFÜHRT
THE ABOVE SPECIFICATIONS REFER TO OIL TYPE ISO VG 46 AT 50 °C (ν_f=30 cSt)

Kipper-Ventil (231075) Distributeur inclinable

DM 240

VERSION EINFACH-KALIBRIERUNG / SINGLE SETTING VERSION

C = Zylinder / Cylinder X = Absenkung / Lowering
P = Pumpe / Pump Y = Kippen / Tipping
T = Tank / Tank



TANK-MONTAGESATZ / TANK MOUNTING KIT



M10x90

Anzugsdrehmoment max. 25 ± 5 Nm
Tightening torque max 25 ± 5 Nm

CODE 299230000H0

DRUCKSCHALTER AUF ANFRAGE / UPON REQUEST PRESSURE SWITCH



Anzugsdrehmoment 30 ± 5 Nm / Tightening torque: 30 ± 5 Nm

Druckschalter 3 bar für Arbeitsdruck < 160 bar / Pressure switch at 3 bar for working pressure < 160 bar

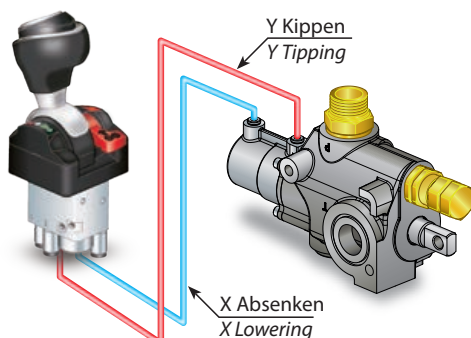
CODE
501PRS163A1

Druckschalter 7 bar für Arbeitsdruck > 160 bar / Pressure switch at 7 bar for working pressure > 160 bar

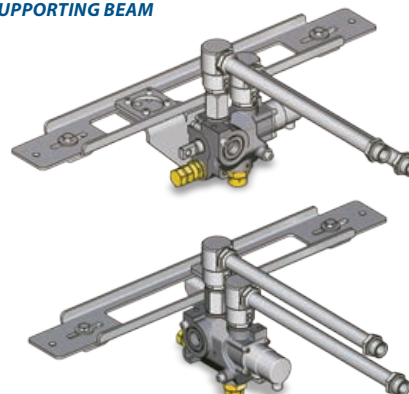
CODE
501PRS357A1

MONTAGEBEISPIELE / EXAMPLES OF MOUNTING

AM FAHRGESTELL TO THE CHASSIS



AM ROHRTRÄGER ON TUBE SUPPORTING BEAM

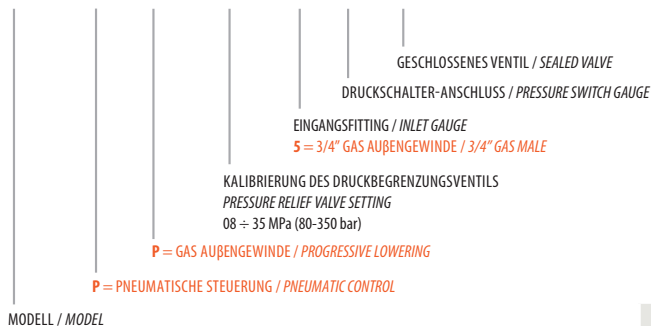


Kipper-Ventil (231076) Distributeur inclinable

DM 140

BESTELLNUMMER / ORDERING CODE

D140 P P XX 5 P P

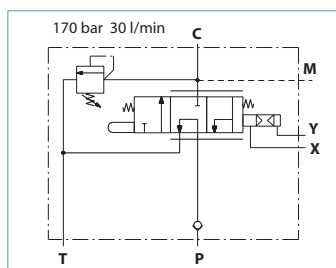


DM 140 P

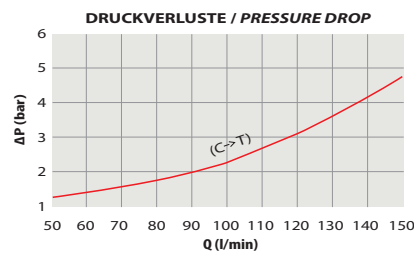
TECHNISCHE EIGENSCHAFTEN / TECHNICAL SPECIFICATIONS

Nenndurchfluss Flow rate	140 l/min	Fluid-Temperatur °C (t) Fluid temperature °C (t)	-25° + 80 °C
Maximaler Arbeitsdruck Max working pressure	350 bar	Viskositätsbereich Viscosity range	12-100 cSt
Maximaler Spitzendruck (<0.1 s) Max peak pressure	400 bar	Filtration / Filtering ISO 4406 βx=75	20/17 25 µm
Maximaler Druck auf T T port max pressure	30 bar	Gewicht Weight	5.1 kg
Maximaler pneumatischer Druck Max pneumatic pressure	10 bar	Mineralöl Mineral oil	ISO VG 46

- Pneumatisch oder mechanisch betätigtes 140-l/min-Kippventil für Kippfahrzeuge.
- Ermöglicht schnelles Kippen, schnelles Absenken und progressives Absenken (mit der proportionalen pneumatischen Steuerung).
- Mit eingebautem Einlassrückschlagventil und Druckbegrenzungsventil, einstellbar zwischen 140 und 350 bar.
- Endschalter-Zugseil.
- An Tank und Fahrgestell anflanschbar.
- Manometer-Anschluss
- 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



DIE MESSUNGEN WURDEN MIT ÖL ISO VG 46 BEI 50 °C (ν₂ = 30 cSt) DURCHFÜHRT
THE ABOVE SPECIFICATIONS REFER TO OIL TYPE ISO VG 46 AT 50 °C (ν₂ = 30 cSt)

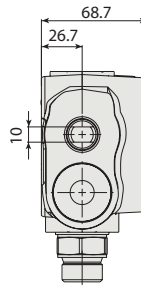
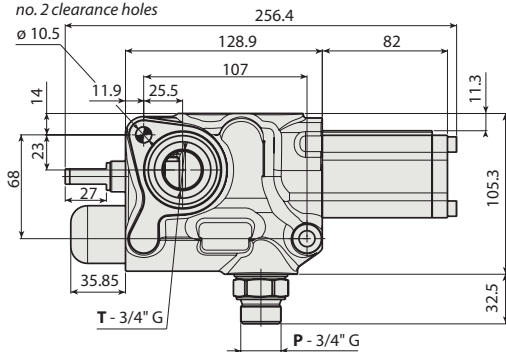
Kipper-Ventil (231076) Distributeur inclinable

DM 140

STANDARDVERSION / STANDARD VERSION

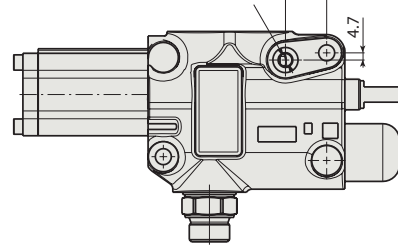
Mod. DM 140

2 durchgängige Bohrungen
no. 2 clearance holes

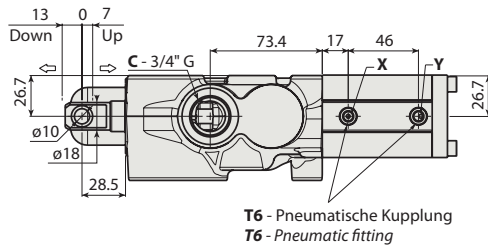


M - Manometer-Anschluss 1/8" G

M - Manometer connection 1/8" G



C = Zylinder / Cylinder X = Kippen / Tipping
P = Pumpe / Pump Y = Absenken / Lowering
T = Tank / Tank



T6 - Pneumatische Kupplung
T6 - Pneumatic fitting

DRUCKSCHALTER AUF ANFRAGE / UPON REQUEST PRESSURE SWITCH



Anzugsdrehmoment 30 ± 5 Nm / Tightening torque: 30 ± 5 Nm

Druckschalter 3 bar für Arbeitsdruck < 160 bar
Pressure switch at 3 bar for working pressure < 160 bar

CODE
501PRS163A1

Druckschalter 7 bar für Arbeitsdruck > 160 bar
Pressure switch at 7 bar for working pressure > 160 bar

CODE
501PRS357A1

TANK-MONTAGESATZ / TANK MOUNTING KIT



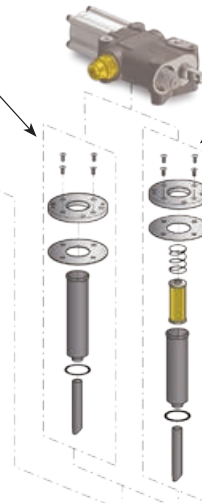
M10x90

Anzugsdrehmoment max. 25 ± 5 Nm
Tightening torque max 25 ± 5 Nm

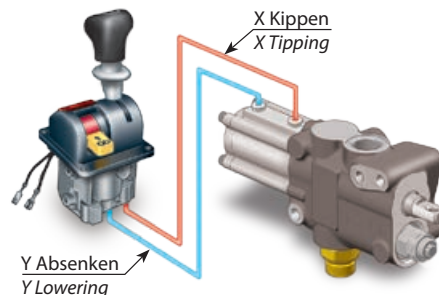
CODE 299290000H0

MONTAGEBEISPIELE / EXAMPLES OF MOUNTING

Kippventil-Befestigungsplatte
Distributor mounting plate
Code 30KFDS00400



Kippventil-Befestigungsplatte mit Filter
Distributor mounting plate with filter
Code 30KFDS00300

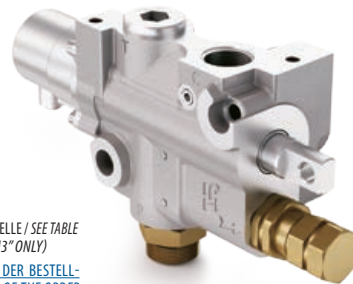


Kipper-Ventil (231077) Distributeur inclinable

DM 240

BESTELLNUMMER / ORDERING CODE

D240 XX X X XXX



EINFACH-KALIBRIERUNG / SINGLE SETTING = 10 - 35 MPa (100 - 350 bar)
(NUR FÜR VERSION "P1" / WITH VERSION "P1" ONLY)
DOPPEL- und DREIFACH-KALIBRIERUNG / DOUBLE and TRIPLE SETTING = SIEHE TABELLE / SEE TABLE
(NUR FÜR VERSIONEN "P2" - "M2" - "M3" / WITH VERSIONS "P2" - "M2" - "M3" ONLY)

BEI EINFACH- UND DOPPELKALIBRIERUNG IST DER LETZTE BUCHSTABE DER BESTELLNUMMER IMMER **O** / FOR SINGLE AND DOUBLE SETTING THE LAST LETTER OF THE ORDER CODE IS ALWAYS **O**

TABELLE / TABLE					
A = 10 MPa	F = 16 MPa	K = 21 MPa	Q = 26 MPa	V = 31 MPa	
B = 12 MPa	G = 17 MPa	L = 22 MPa	R = 27 MPa	W = 32 MPa	
C = 13 MPa	H = 18 MPa	M = 23 MPa	S = 28 MPa	X = 33 MPa	
D = 14 MPa	I = 19 MPa	N = 24 MPa	T = 29 MPa	Y = 34 MPa	
E = 15 MPa	J = 20 MPa	P = 25 MPa	U = 30 MPa	Z = 35 MPa	

STANDARD-DRUCKERHÖHUNGEN STANDARD PRESSURE INCREASES				
Doppelte Kalibrierung Double settings	+ 50 bar	+ 80 bar	+ 100 bar	+ 130 bar
Dreifache Kalibrierung Triple settings	+ 80 bar + 130 bar	+ 80 bar + 100 bar	+ 50 bar + 130 bar	+ 100 bar + 100 bar

PNEUMATISCHE ANSCHLÜSSE / AIR CONNECTIONS

0 = 1/8" G

1 = FITTING T6 / T6 FITTING

2 = SCHLAUCH-FITTING 1/4" / 1/4" FITTING

1 = P G 3/4" M

2 = P G 1" M

3 = P 1.5/16" (SAE 16)

P1 = EINFACHKALIBRIERUNG / SINGLE SETTING

P2 = DOPPELTE PNEUMATISCHE KALIBRIERUNG / DOUBLE PNEUMATIC SETTING

M2 = DOPPELTE MECHANISCHE KALIBRIERUNG / DOUBLE MECHANICAL SETTING

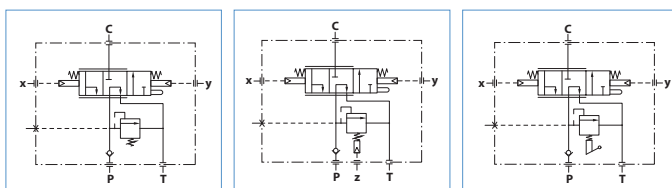
M3 = DREIFACHE MECHANISCHE KALIBRIERUNG / TRIPLE MECHANICAL SETTING

MODELL / MODEL

TECHNISCHE EIGENSCHAFTEN / TECHNICAL SPECIFICATIONS

Neendurchfluss Flow rate	160-240 l/min	Fluid-Temperatur °C (t) Fluid temperature °C (t)	-25° + 80 °C
Neendurchfluss - Maximum am Auslass Lowering nom. - Max flow rate	250-300 l/min	Viskositätsbereich Viscosity range	12-100 cSt
Maximaler Arbeitsdruck Max working pressure	350 bar	Filtration / Filtering ISO 4406 βx=75	20/17 25 μm
Maximaler Spitzendruck (<0.1 s) Max peak pressure	400 bar	Gewicht Weight	8 kg
Maximaler Druck auf T T port max pressure	30 bar	Maximaler pneumatischer Druck Max pneumatic pressure	4.5 - 12 bar

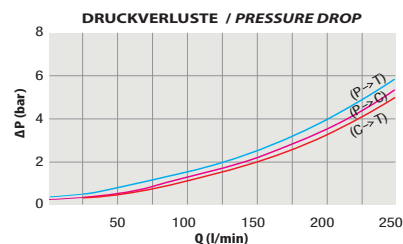
- Pneumatisch betriebenes 3-Wege-Kippventil (Pumpe, Zylinder, Tank).
- Drei Positionen:
 - zentrale Position mit Pumpe im Auslass und blockiertem Zylinder,
 - Kippposition mit Vorlauf an den Zylinder,
 - Absenkposition.
- Proportionale Absenkung unter Verwendung der entsprechenden pneumatischen Steuerung.
- Druckbegrenzungsventil einstellbar bis 350 bar am Anschluss "P".
- Rückschlagventil.
- 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



AUF ANFRAGE: Ersatz-Dichtungssatz für DM 240 Einfach-Kalibrierung
ON REQUEST: seals kit spare for DM 240 single pressure set

CODE
195KRDM2401

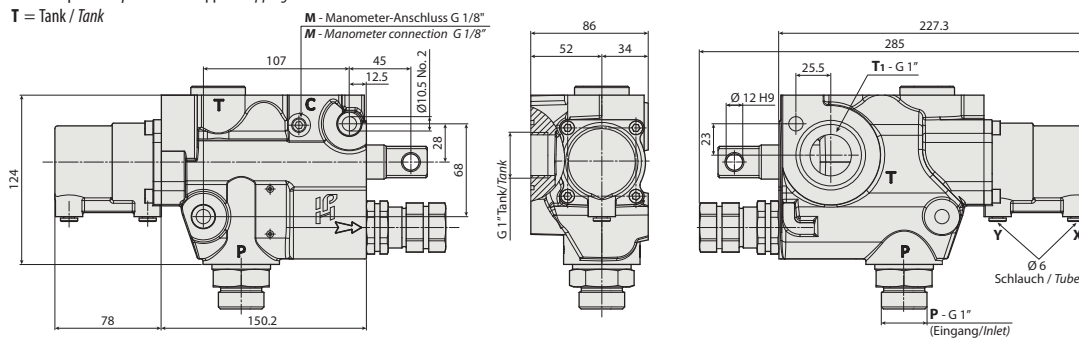
DIE MESSUNGEN WURDEN MIT ÖL ISO VG 46 BEI 50 °C (νf=30 cSt) DURCHGEFÜHRT
THE ABOVE SPECIFICATIONS REFER TO OIL TYPE ISO VG 46 AT 50 °C (νf=30 cSt)

Kipper-Ventil (231077) Distributeur inclinable

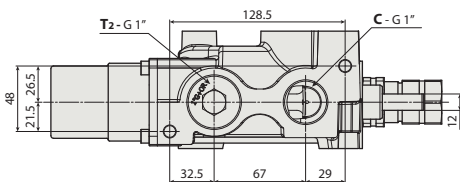
DM 240

VERSION EINFACH-KALIBRIERUNG / SINGLE SETTING VERSION

C = Zylinder / Cylinder X = Absenkung / Lowering
P = Pumpe / Pump Y = Kippen / Tipping
T = Tank / Tank



TANK-MONTAGESATZ / TANK MOUNTING KIT



M10x90

Anzugsdrehmoment max. 25 ± 5 Nm
Tightening torque max 25 ± 5 Nm

CODE 299230000H0

DRUCKSCHALTER AUF ANFRAGE / UPON REQUEST PRESSURE SWITCH



Anzugsdrehmoment 30 ± 5 Nm / Tightening torque: 30 ± 5 Nm

Druckschalter 3 bar für Arbeitsdruck < 160 bar / Pressure switch at 3 bar for working pressure < 160 bar

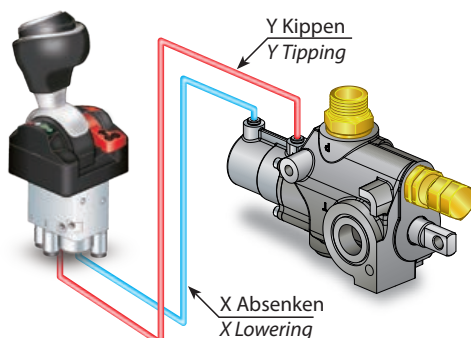
CODE
501PRS163A1

Druckschalter 7 bar für Arbeitsdruck > 160 bar / Pressure switch at 7 bar for working pressure > 160 bar

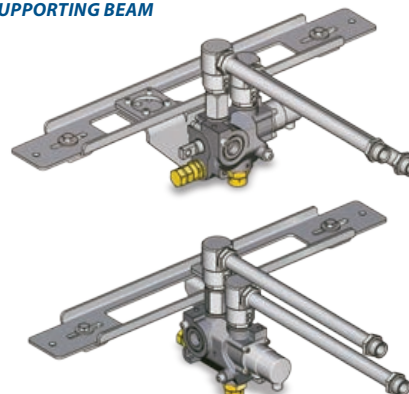
CODE
501PRS357A1

MONTAGEBEISPIELE / EXAMPLES OF MOUNTING

AM FAHRGESTELL TO THE CHASSIS



AM ROHRTRÄGER ON TUBE SUPPORTING BEAM

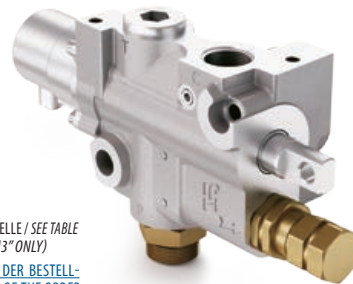


Kipper-Ventil (231078) Distributeur inclinable

DM 240

BESTELLNUMMER / ORDERING CODE

D240 XX X X XXX



EINFACH-KALIBRIERUNG / SINGLE SETTING = 10 - 35 MPa (100 - 350 bar)
(NUR FÜR VERSION "P1" / WITH VERSION "P1" ONLY)
DOPPEL- und DREIFACH-KALIBRIERUNG / DOUBLE and TRIPLE SETTING = SIEHE TABELLE / SEE TABLE
(NUR FÜR VERSIONEN "P2" - "M2" - "M3" / WITH VERSIONS "P2" - "M2" - "M3" ONLY)

BEI EINFACH- UND DOPPELKALIBRIERUNG IST DER LETZTE BUCHSTABE DER BESTELLNUMMER IMMER **O** / FOR SINGLE AND DOUBLE SETTING THE LAST LETTER OF THE ORDER CODE IS ALWAYS **O**

TABELLE / TABLE					
A = 10 MPa	F = 16 MPa	K = 21 MPa	Q = 26 MPa	V = 31 MPa	
B = 12 MPa	G = 17 MPa	L = 22 MPa	R = 27 MPa	W = 32 MPa	
C = 13 MPa	H = 18 MPa	M = 23 MPa	S = 28 MPa	X = 33 MPa	
D = 14 MPa	I = 19 MPa	N = 24 MPa	T = 29 MPa	Y = 34 MPa	
E = 15 MPa	J = 20 MPa	P = 25 MPa	U = 30 MPa	Z = 35 MPa	

STANDARD-DRUCKERHÖHUNGEN STANDARD PRESSURE INCREASES				
Doppelte Kalibrierung Double settings	+ 50 bar	+ 80 bar	+ 100 bar	+ 130 bar
Dreifache Kalibrierung Triple settings	+ 80 bar + 130 bar	+ 80 bar + 100 bar	+ 50 bar + 130 bar	+ 100 bar + 100 bar

PNEUMATISCHE ANSCHLÜSSE / AIR CONNECTIONS

O = 1/8" G

1 = FITTING T6 / T6 FITTING

2 = SCHLAUCH-FITTING 1/4" / 1/4" FITTING

1 = P G 3/4" M

2 = P G 1" M

3 = P 1.5/16" (SAE 16)

P1 = EINFACHKALIBRIERUNG / SINGLE SETTING

P2 = DOPPELTE PNEUMATISCHE KALIBRIERUNG / DOUBLE PNEUMATIC SETTING

M2 = DOPPELTE MECHANISCHE KALIBRIERUNG / DOUBLE MECHANICAL SETTING

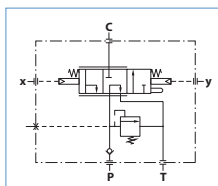
M3 = DREIFACHE MECHANISCHE KALIBRIERUNG / TRIPLE MECHANICAL SETTING

MODELL / MODEL

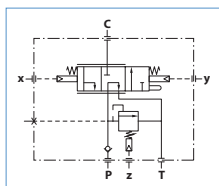
TECHNISCHE EIGENSCHAFTEN / TECHNICAL SPECIFICATIONS

Neendurchfluss Flow rate	160-240 l/min	Fluid-Temperatur °C (t) Fluid temperature °C (t)	-25° + 80 °C
Neendurchfluss - Maximum am Auslass Lowering nom. - Max flow rate	250-300 l/min	Viskositätsbereich Viscosity range	12-100 cSt
Maximaler Arbeitsdruck Max working pressure	350 bar	Filtration / Filtering ISO 4406 βx=75	20/17 25 μm
Maximaler Spitzendruck (<0.1 s) Max peak pressure	400 bar	Gewicht Weight	8 kg
Maximaler Druck auf T T port max pressure	30 bar	Maximaler pneumatischer Druck Max pneumatic pressure	4.5 - 12 bar

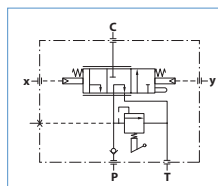
- Pneumatisch betriebenes 3-Wege-Kippventil (Pumpe, Zylinder, Tank).
- Drei Positionen:
 - zentrale Position mit Pumpe im Auslass und blockiertem Zylinder,
 - Kippposition mit Vorlauf an den Zylinder,
 - Absenkposition.
- Proportionale Absenkung unter Verwendung der entsprechenden pneumatischen Steuerung.
- Druckbegrenzungsventil einstellbar bis 350 bar am Anschluss "P".
- Rückschlagventil.
- 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.



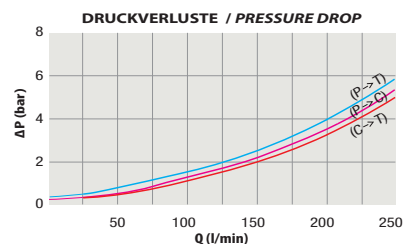
Mod. DM 240 P1



Mod. DM 240 P2



Mod. DM 240 M2 Mod. DM 240 M3



AUF ANFRAGE: Ersatz-Dichtungssatz für DM 240 Einfach-Kalibrierung
ON REQUEST: seals kit spare for DM 240 single pressure set

CODE
195KRDM2401

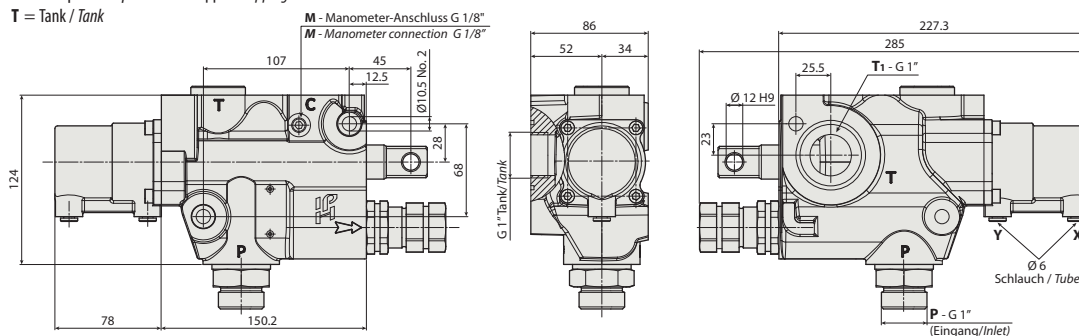
DIE MESSUNGEN WURDEN MIT ÖL ISO VG 46 BEI 50 °C (ν_f=30 cSt) DURCHGEFÜHRT
THE ABOVE SPECIFICATIONS REFER TO OIL TYPE ISO VG 46 AT 50 °C (ν_f=30 cSt)

Kipper-Ventil (231078) Distributeur inclinable

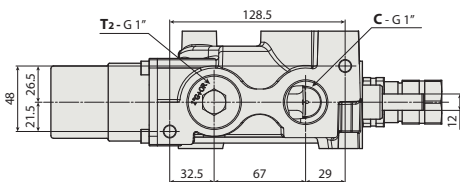
DM 240

VERSION EINFACH-KALIBRIERUNG / SINGLE SETTING VERSION

C = Zylinder / Cylinder X = Absenkung / Lowering
P = Pumpe / Pump Y = Kippen / Tipping
T = Tank / Tank



TANK-MONTAGESATZ / TANK MOUNTING KIT



M10x90

Anzugsdrehmoment max. 25 ± 5 Nm
Tightening torque max 25 ± 5 Nm

CODE 299230000H0

DRUCKSCHALTER AUF ANFRAGE / UPON REQUEST PRESSURE SWITCH



Anzugsdrehmoment 30 ± 5 Nm / Tightening torque: 30 ± 5 Nm

Druckschalter 3 bar für Arbeitsdruck < 160 bar / Pressure switch at 3 bar for working pressure < 160 bar

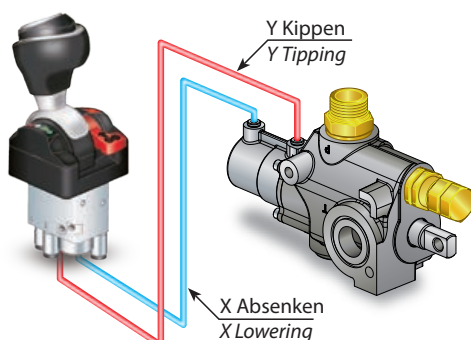
CODE
501PRS163A1

Druckschalter 7 bar für Arbeitsdruck > 160 bar / Pressure switch at 7 bar for working pressure > 160 bar

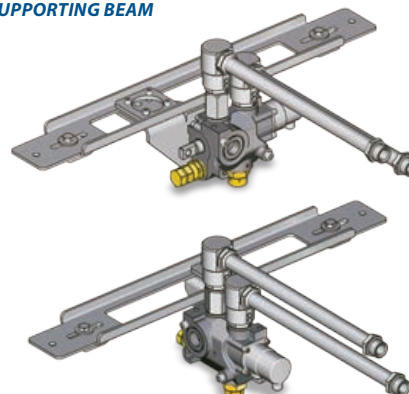
CODE
501PRS357A1

MONTAGEBEISPIELE / EXAMPLES OF MOUNTING

AM FAHRGESTELL TO THE CHASSIS



AM ROHRTRÄGER ON TUBE SUPPORTING BEAM



Kipper-Ventil (231085) Distributeur inclinable

DM 51

CODICE DI ORDINAZIONE / ORDERING CODE

D51F4 X X XX X 0

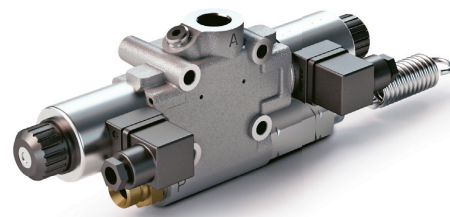
RACCORDO D'ENTRATA / INLET FITTING
1 = 1/2" GAS (ATTACCO MASCHIO) STANDARD
 1/2" GAS (MALE COUPLING) STANDARD **2** =
 3/8" GAS (ATTACCO MASCHIO)
 3/8" GAS (MALE COUPLING)

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

1 = 12 V DC
2 = 24 V DC

F = ELETTRICO CON FINE CORSA / ELECTRICAL CONTROL WITH END-OF-STROKE
E = ELETTRICO SENZA FINE CORSA / ELECTRICAL CONTROL WITHOUT END-OF-STROKE

MODELLO / MODEL



CARATTERISTICHE TECNICHE / TECHNICAL SPECIFICATIONS

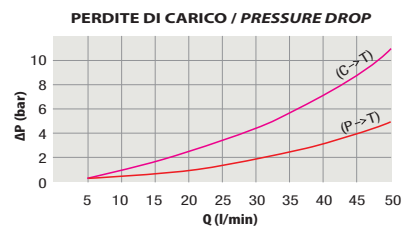
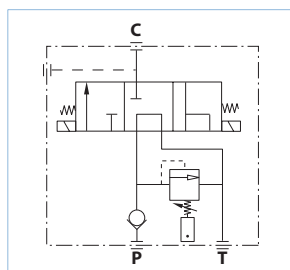
Portata nominale Flow rate	40 l/min	Temperatura fluido °C (t) Fluid temperature °C (t)	-25° + 80°C
Pressione massima di lavoro Max working pressure	250 bar	Campo viscosità Viscosity range	12-100 cSt
Pressione massima di picco Max peak pressure (<0.1 s)	300 bar	Filtrazione / Filtering ISO 4406 βx=75	20/17 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.

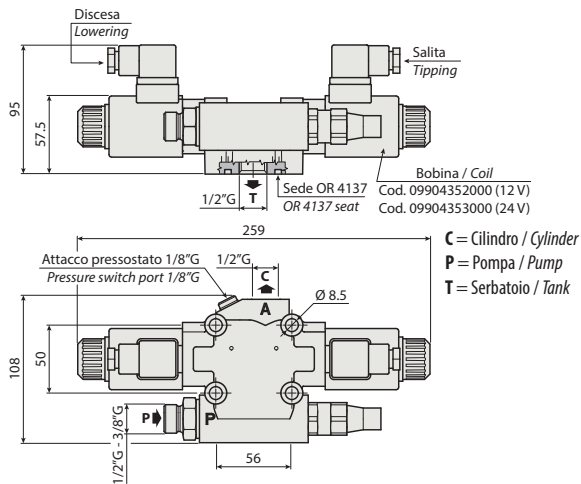


RILIEVI ESEGUITI CON OLIO ISO VG 46 A 50° C (ν₅₀ = 30 cSt)
 THE ABOVE SPECIFICATIONS REFER TO OIL TYPE ISO VG 46 AT 50° C (ν₅₀ = 30 cSt)

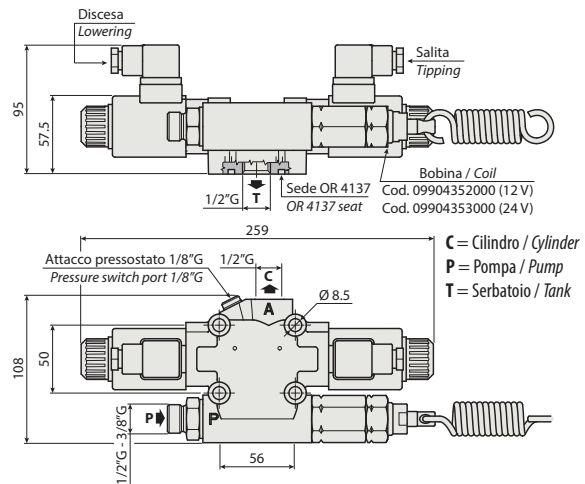
Kipper-Ventil (231085) Distributeur inclinable

DM 51

VERSIONE ELETTRICA ELECTRICAL VERSION



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



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

DESCRIZIONE / DESCRIPTION

CODICE / CODE

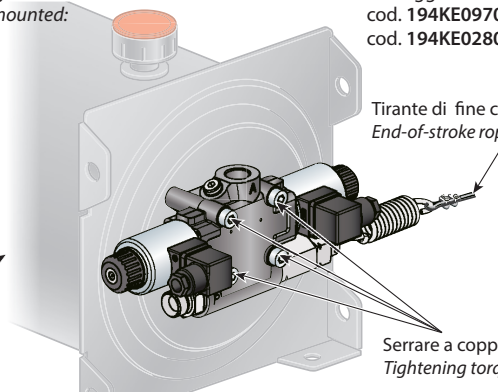
Kit raccordo C 1/2" G - C 1/2" G fitting	30KDF510000
Kit raccordo C 3/8" G - C 3/8" G fitting	30KDF520000
Kit fissaggio per serbatoio in ferro - Stud kit for steel tank	30KDF500000
Kit fissaggio per serbatoio in plastica - Stud kit for plastic tank	30KFSOPDM50
Kit montaggio a telaio - Stud kit for chassis 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 51 elettrico (120 bar) già montato:
Tank with electrical DM 51 (120 bar) already mounted:
10 lt cod. KN0101A0000
15 lt cod. KN0151B0000

Cablaggio standard / Standard wiring:
cod. 194KE097000 12/24 V
cod. 194KE028000 12 V (su veicolo 24 V / on 24 V vehicle)

Serbatoio in ferro / Iron tank
10 lt cod. 910S0010050
15 lt cod. 910S0015050



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

Kipper-Ventil (231086) Distributeur inclinable

DM 51

CODICE DI ORDINAZIONE / ORDERING CODE

D51F4 X X XX X 0

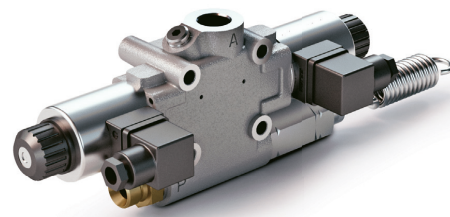
RACCORDO D'ENTRATA / INLET FITTING
1 = 1/2" GAS (ATTACCO MASCHIO) STANDARD
 1/2" GAS (MALE COUPLING) STANDARD **2** =
 3/8" GAS (ATTACCO MASCHIO)
 3/8" GAS (MALE COUPLING)

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

1 = 12 V DC
2 = 24 V DC

F = ELETTRICO CON FINE CORSA / ELECTRICAL CONTROL WITH END-OF-STROKE
E = ELETTRICO SENZA FINE CORSA / ELECTRICAL CONTROL WITHOUT END-OF-STROKE

MODELLO / MODEL



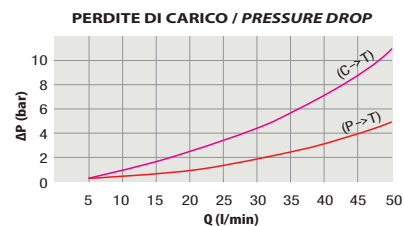
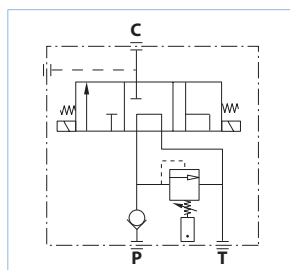
CARATTERISTICHE TECNICHE / TECHNICAL SPECIFICATIONS

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.

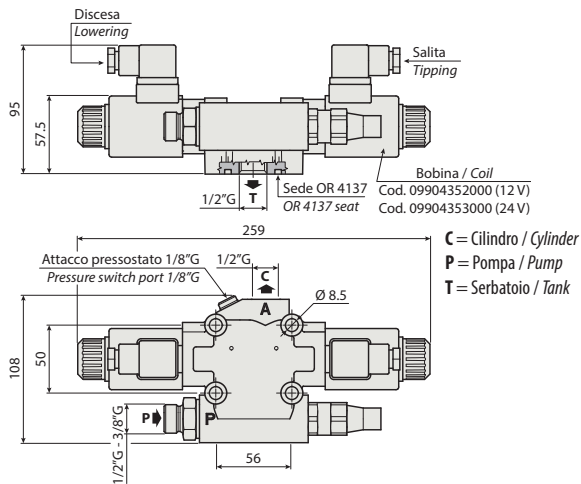


RILIEVI ESEGUITI CON OLIO ISO VG 46 A 50° C (ν₅₀ = 30 cSt)
 THE ABOVE SPECIFICATIONS REFER TO OIL TYPE ISO VG 46 AT 50° C (ν₅₀ = 30 cSt)

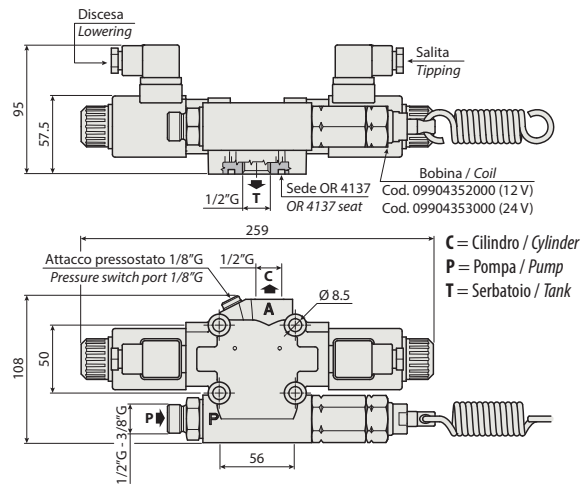
Kipper-Ventil (231086) Distributeur inclinable

DM 51

VERSIONE ELETTRICA ELECTRICAL VERSION



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



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

DESCRIZIONE / DESCRIPTION

CODICE / CODE

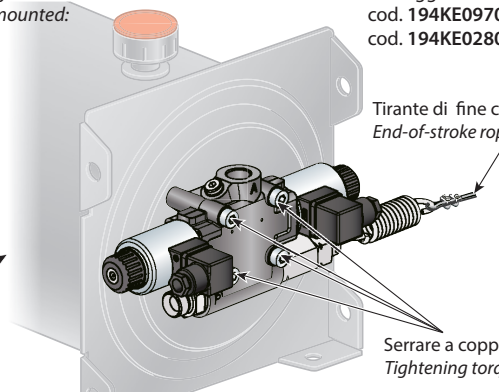
Kit raccordo C 1/2" G - C 1/2" G fitting	30KDF510000
Kit raccordo C 3/8" G - C 3/8" G fitting	30KDF520000
Kit fissaggio per serbatoio in ferro - Stud kit for steel tank	30KDF500000
Kit fissaggio per serbatoio in plastica - Stud kit for plastic tank	30KFSOPDM50
Kit montaggio a telaio - Stud kit for chassis 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 51 elettrico (120 bar) già montato:
Tank with electrical DM 51 (120 bar) already mounted:
10 lt cod. KN0101A0000
15 lt cod. KN0151B0000

Cablaggio standard / Standard wiring:
cod. 194KE097000 12/24 V
cod. 194KE028000 12 V (su veicolo 24 V / on 24 V vehicle)

Serbatoio in ferro / Iron tank
10 lt cod. 910S0010050
15 lt cod. 910S0015050



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

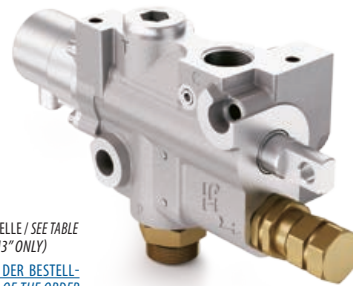
Serrare a coppia max 20 ± 2 Nm
Tightening torque max 20 ± 2 Nm

Kipper-Ventil (231124) Distributeur inclinable

DM 240

BESTELLNUMMER / ORDERING CODE

D240 XX X X XXX



EINFACH-KALIBRIERUNG / SINGLE SETTING = 10 - 35 MPa (100 - 350 bar)
(NUR FÜR VERSION "P1" / WITH VERSION "P1" ONLY)
DOPPEL- und DREIFACH-KALIBRIERUNG / DOUBLE and TRIPLE SETTING = SIEHE TABELLE / SEE TABLE
(NUR FÜR VERSIONEN "P2" - "M2" - "M3" / WITH VERSIONS "P2" - "M2" - "M3" ONLY)

BEI EINFACH- UND DOPPELKALIBRIERUNG IST DER LETZTE BUCHSTABE DER BESTELLNUMMER IMMER O / FOR SINGLE AND DOUBLE SETTING THE LAST LETTER OF THE ORDER CODE IS ALWAYS O

TABELLE / TABLE	
A = 10 MPa	F = 16 MPa
B = 12 MPa	G = 17 MPa
C = 13 MPa	H = 18 MPa
D = 14 MPa	I = 19 MPa
E = 15 MPa	J = 20 MPa
K = 21 MPa	L = 22 MPa
M = 23 MPa	N = 24 MPa
O = 25 MPa	P = 25 MPa
Q = 26 MPa	R = 27 MPa
S = 28 MPa	T = 29 MPa
U = 30 MPa	V = 31 MPa
W = 32 MPa	X = 33 MPa
Y = 34 MPa	Z = 35 MPa

STANDARD-DRUCKERHÖHUNGEN STANDARD PRESSURE INCREASES				
Doppelte Kalibrierung Double settings	+ 50 bar	+ 80 bar	+ 100 bar	+ 130 bar
Dreifache Kalibrierung Triple settings	+ 80 bar	+ 100 bar	+ 130 bar	+ 150 bar

PNEUMATISCHE ANSCHLÜSSE / AIR CONNECTIONS
O = 1/8" G
1 = FRACCORDOT6 / T6 FITTING

1 = G 3/4" M
2 = G 1" M

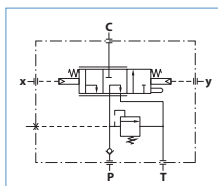
P1 = EINFACHKALIBRIERUNG / SINGLE SETTING
P2 = DOPPELTE PNEUMATISCHE KALIBRIERUNG / DOUBLE PNEUMATIC SETTING
M2 = DOPPELTE MECHANISCHE KALIBRIERUNG / DOUBLE MECHANICAL SETTING
M3 = DREIFACHE MECHANISCHE KALIBRIERUNG / TRIPLE MECHANICAL SETTING

MODELL / MODEL

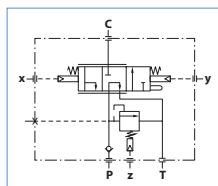
TECHNISCHE EIGENSCHAFTEN / TECHNICAL SPECIFICATIONS

Neendurchfluss Flow rate	160-240 l/min	Fluid-Temperatur °C (t) Fluid temperature °C (t)	-25° + 80 °C
Neendurchfluss - Maximum am Auslass Lowering nom. - Max flow rate	250-300 l/min	Viskositätsbereich Viscosity range	12-100 cSt
Maximaler Arbeitsdruck Max working pressure	350 bar	Filtration / Filtering ISO 4406 βx=75	20/17 25 μm
Maximaler Spitzendruck (<0.1 s) Max peak pressure	400 bar	Gewicht Weight	8 kg
Maximaler Druck auf T T port max pressure	30 bar	Maximaler pneumatischer Druck Max pneumatic pressure	4.5 - 12 bar

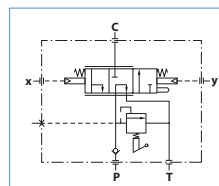
- Pneumatisch betriebenes 3-Wege-Kippventil (Pumpe, Zylinder, Tank).
- Drei Positionen:
 - zentrale Position mit Pumpe im Auslass und blockiertem Zylinder,
 - Kippposition mit Vorlauf an den Zylinder,
 - Absenkposition.
- Proportionale Absenkung unter Verwendung der entsprechenden pneumatischen Steuerung.
- Druckbegrenzungsventil einstellbar bis 350 bar am Anschluss "P".
- Rückschlagventil.
- 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.



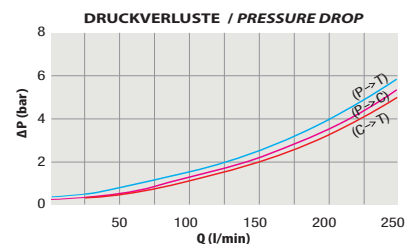
Mod. DM 240 P1



Mod. DM 240 P2



Mod. DM 240 M2 Mod. DM 240 M3



AUF ANFRAGE: Ersatz-Dichtungssatz für DM 240 Einfach-Kalibrierung
ON REQUEST: seals kit spare for DM 240 single pressure set

CODE
195KRDM2401

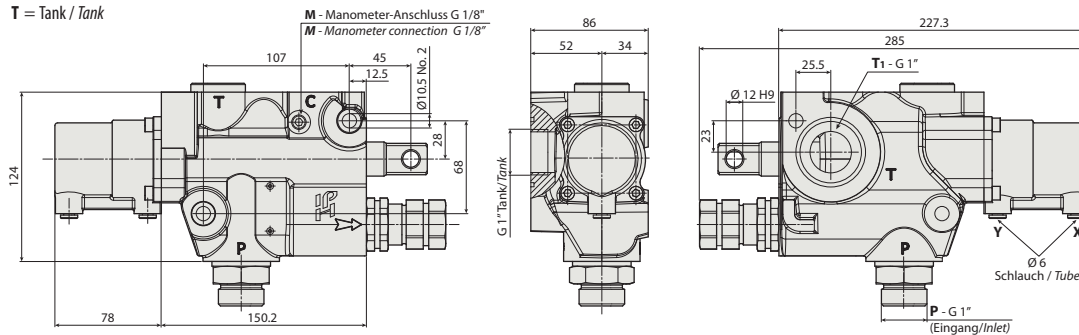
DIE MESSUNGEN WURDEN MIT ÖL ISO VG 46 BEI 50 °C (ν_f = 30 cSt) DURCHGEFÜHRT
THE ABOVE SPECIFICATIONS REFER TO OIL TYPE ISO VG 46 AT 50 °C (ν_f = 30 cSt)

Kipper-Ventil (231124) Distributeur inclinable

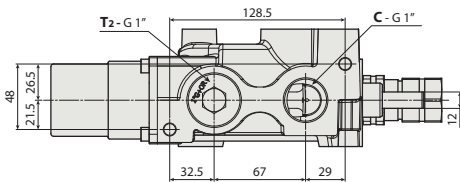
DM 240

VERSION EINFACH-KALIBRIERUNG / SINGLE SETTING VERSION

C = Zylinder / Cylinder X = Absenkung / Lowering
P = Pumpe / Pump Y = Kippen / Tipping
T = Tank / Tank



TANK-MONTAGESATZ / TANK MOUNTING KIT



M10x90

Anzugsdrehmoment max. 25 ± 5 Nm
Tightening torque max 25 ± 5 Nm

CODE 299230000H0

DRUCKSCHALTER AUF ANFRAGE / UPON REQUEST PRESSURE SWITCH



Anzugsdrehmoment 30 ± 5 Nm / Tightening torque: 30 ± 5 Nm

Druckschalter 3 bar für Arbeitsdruck < 160 bar / Pressure switch at 3 bar for working pressure < 160 bar

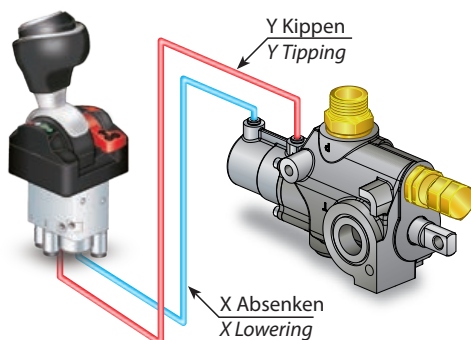
CODE
501PRS163A1

Druckschalter 7 bar für Arbeitsdruck > 160 bar / Pressure switch at 7 bar for working pressure > 160 bar

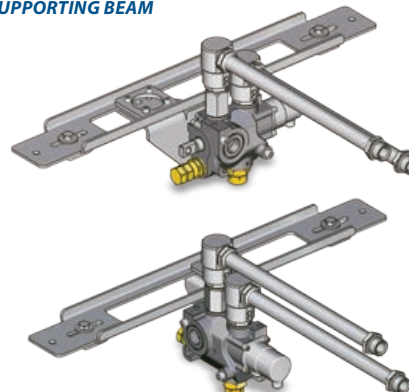
CODE
501PRS357A1

MONTAGEBEISPIELE / EXAMPLES OF MOUNTING

AM FAHRGESTELL TO THE CHASSIS



AM ROHRTRÄGER ON TUBE SUPPORTING BEAM

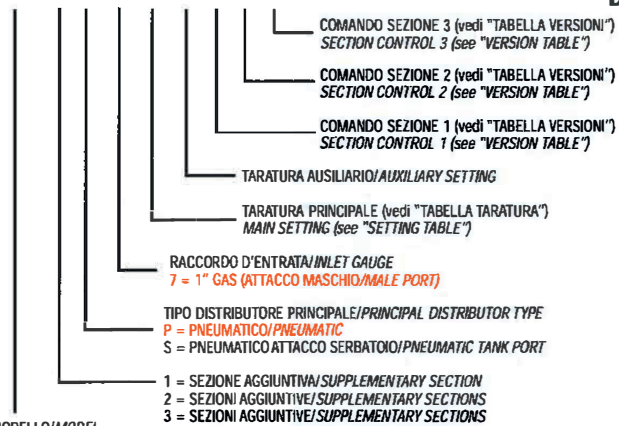


Kipper-Ventil (230847) Distributeur inclinable

DM 151

CODICE DI ORDINAZIONE / ORDERING CODE

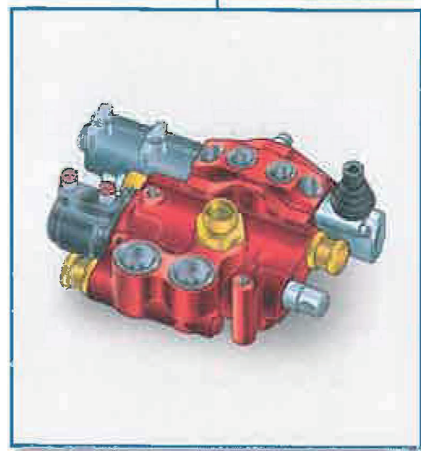
D15 1 P 7 B C F F F



MODELLO/MODEL

DM 151 P
DM 152 P
DM 153 P

Distributore Idraulico Hydraulic Distributor

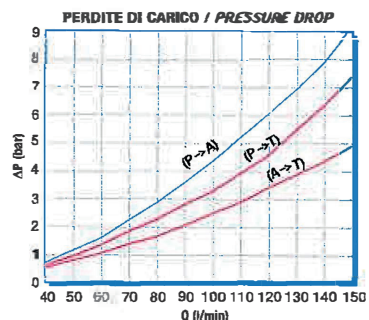
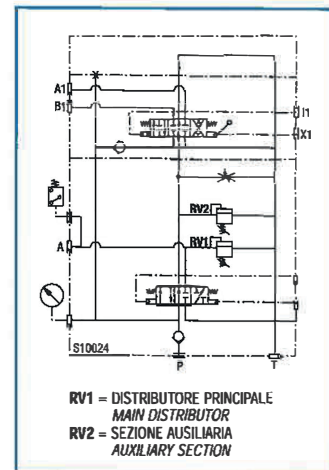


CARATTERISTICHE TECNICHE / TECHNICAL SPECIFICATIONS

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